6e

Auditing

A Business Risk Approach

RITTENBERG/SCHWIEGER/JOHNSTONE

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Larry E. Rittenberg
University of Wisconsin–Madison

Bradley J. Schwieger
St. Cloud State University

Karla M. Johnstone
University of Wisconsin–Madison

Australia • Brazil • Canada • Mexico • Singapore • Spain • United Kingdom • United States

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Larry E. Rittenberg, Bradley J. Schwieger, Karla M. Johnstone

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THE AUDITING ENVIRONMENT has changed dramatically since we introduced the fifth edition two short years ago. Auditors better understand their public responsibilities. The Public Company Accounting Oversight Board (PCAOB) and the U.S. Securities and Exchange Commission (SEC) have emerged as major players in regulating the profession. Audit firms are challenged to find efficient ways to integrate risk and control analysis into the design of audits of financial statements and control systems. In our various professional roles, the authors have been at the center of this change, and have infused the sixth edition with our unique knowledge of internal control evaluation and the integrated audit.

In the first edition, we raised two fundamental questions that ought to be asked of all textbooks:

- Does the textbook cover the fundamental elements that all students should know?
- Does the textbook facilitate learning?

We also emphasize a third question that we have stressed from the very first edition:

- Does the text encourage students to develop a reasoning process that facilitates their growth in an audit and business environment that will continue to change?

We encourage each potential adopter to evaluate this text, as well as others, on these dimensions. We believe that users will find that the sixth edition continues to meet these standards. Since the first edition, we have believed that students must understand frameworks for audit judgments—and then apply judgment within those frameworks. Consequently, we have worked hard to increase the capacity of the chapters to present these important conceptual frameworks, while the end-of-chapter assignment material is designed to challenge students to think and apply these concepts, not just repeat them back to the instructor.

Addition of New Coauthor

We are pleased to announce Dr. Karla Johnstone, associate professor of accounting at the University of Wisconsin, as our first addition of a coauthor. Karla is highly respected in the academic community with leading research on client acceptance, risk analysis, and auditor judgment. She has the unique perspective of a researcher who has been granted access to confidential firm acceptance and discontinuance data at the highest levels of international public accounting firms. In addition, she is a leading educator with a unique talent for facilitating group work as a basis of learning, and for integrating ethics into the accounting and audit curriculum.

Karla has been a welcome addition to the sixth edition. She has used her knowledge as a user of previous editions to suggest ways in which to better explain fundamental concepts. In addition, Karla has worked to:

- Add ethical dilemma cases at the end of selected chapters throughout the text
- Increase the number of group discussion cases especially designed to facilitate learning
- Increase our coverage of fraud

All of these contributions help prepare students to learn to think like auditors in a time of change, to be better attuned to business risks, and to be better prepared to work in groups.

Major Themes in the Sixth Edition

The sixth edition continues the fundamental themes developed earlier, but we've updated and changed the subtitle of the text to better reflect the fundamental focus of the text: *A Business Risk Approach*. These themes are consistent with the changing nature of the business and audit practice environment.

1. **The sixth edition integrates the understanding of business risk and financial reporting risk.** We continue the overriding theme that *a good auditor must first understand business risk*. When we develop the business risk model and talk about internal controls, we show that it is important to answer the fundamental question: "What are we trying to control?" The answer is: *the risk of material misstatements*. Thus, we demonstrate that controls only exist within a risk context. The sixth edition continues the concept of risk as an overarching theme throughout the text.
2. **The sixth edition reflects changes in the regulatory environment.** The current regulatory environment has changed since the publication of the fifth edition. It now includes **new** opinions on internal control over financial reporting, the role of the PCAOB in both setting standards and performing inspections of audit firms, and the reemergence of the Auditing Standards Board in setting standards for nonpublic companies. The sixth edition shows how these changes affect auditor judgment and the audit engagement.
3. **The sixth edition reflects the latest implementation of Sarbanes-Oxley (SOX).** Auditors, companies, and other stakeholders now have experience with the implementation of SOX, and especially Section 404. The text points the way through the implementation challenges of public companies as they meet the internal control objectives contained in Section 404 of SOX.
4. **The sixth edition provides a framework and a demonstration of an Integrated Audit.** The environment of today's audit practice is filled with innovation and reflects the integrated audit of financial statements and internal controls built on a thorough risk assessment by the auditor. In a new Chapter 7, the sixth edition not only outlines the rationale for the integrated audit, but also covers (a) ways in which it should be performed, and (b) decisions that have to be made in performing such an audit. It develops the nature of the integrated audit and talks about what is needed to implement it, including a commitment by management for effective controls. Most importantly, it takes a holistic view regarding improvements in the practice of auditing and develops expectations of the challenges new auditors will face as their careers develop.
5. **The sixth edition reflects pervasive changes in the technology environment in which auditors work.** Students who know how to use data analysis software—ACL or other generalized audit software—and who can evaluate the efficacy and effectiveness of computer controls will have a competitive advantage in their careers. By integrating ACL software into homework and cases, and providing ACL at no additional charge with each new copy of the text, the sixth edition helps students gain that competitive edge. The text further challenges students to put their ACL assignments into a larger context—to evaluate audit evidence on an integrated basis to explore the ways in which audits can be both more effective and more efficient.
6. **The sixth edition fully explores the fundamental role that auditing plays in corporate governance.** Auditing is a critical element in the functioning of the capital market system. The sixth edition explores corporate governance as a foundation to better understand the unique function of the audit.
7. **The sixth edition continues to challenge students to expand their judgment process:**
   - Discussion questions and problems emphasize application of the concepts developed in each chapter.
   - Group exercises have been better identified for advance assignment.
   - Research questions allow students to expand their knowledge beyond the textbook and introduce them to life-long learning.

Major Changes to the Sixth Edition

The nature of auditing has changed. Students entering the profession must find ways to demonstrate their knowledge of controls and auditing to add value to their audit engagements. While retaining the basic structure of the previous editions, there have been major changes to this edition, including the following:

1. ***A new and separate chapter on the integrated audit.*** Public accounting firms have struggled with the need to gain efficiency through an integrated audit of controls and financial statements. This edition devotes a full chapter (chapter 7) to the concept of the integrated audit and demonstrates how an integrated audit can drive efficiency in the audit process. We've added significant end-of-chapter materials that allow students to think through an integrated audit approach and demonstrate their knowledge of integrated audits.
2. ***Additional ethics cases.*** Several ethics cases have been added, particularly in the chapters dealing with audit approaches to address account balances. The cases are derived from real-world experiences and depict the dilemmas that students are likely to face in their first few years in the profession.
3. ***Expansion of internal control coverage, principles, and attributes of control.*** The text draws heavily on the recent COSO guidance for smaller businesses but is also applicable to larger businesses. The guidance emphasizes a "principles-based" approach to designing and implementing internal controls over financial reporting. The new material represents a conceptual improvement in the discussion of internal control that has not existed in any prior textbook.
4. ***Internal control is presented as a process.*** The new guidance on internal control facilitates a process approach to internal control analysis. The process approach better ties into risk factors and assists the auditor and management in more effectively mitigating the risk of misleading financial reports.
5. ***Newest version of ACL.*** We include a CD containing Version 9 of ACL Desktop Education Edition at no additional charge with every new copy of the text, and we've better integrated ACL into our homework and cases. ACL is the most popular generalized audit software on the market. The software enhances the analysis of cases that are couched in significant account balances such as inventory and accounts receivable. A **new** fraud case has been added using Benford's Law. The exercises facilitate knowledge of how ACL or similar query products should be used to enhance both audit effectiveness and audit efficiency.
6. ***Enhanced coverage of corporate governance.*** Corporate governance is emphasized throughout the text as it relates to the audit function as well as to the auditor's evaluation of the effectiveness of internal control over financial reporting. This places audit thinking into its natural context.
7. **Biltrite Computerized Practice Case** is updated from the fifth edition and is integrated into the end-of-chapter materials rather than presented in a separate appendix at the end of the textbook. This better integrates the case into chapters and their assignments.

New Pedagogy

The sixth edition features two new pedagogical elements that help students see the larger picture of the audit process while providing additional detail and guidance on steps in that process.

New Audit Workflow Diagram at the start of each chapter provides an overview of the seven phases in the audit process and shows where the chapter fits within the overall sequence of audit planning, process, and reporting. For

Understanding Auditor Responsibilities

For What:
Financial Statements
Internal Control Reports
Corporate Governance

Attributes Needed:
Ethics
Standards
Legal Responsibilities
High Quality Decision-Making

each chapter, the relevant stage in the audit workflow discussed in that chapter is highlighted for reference.

New Workflow Detail Sidebars provide additional detail as well as specific steps and procedure summaries within the audit performance phase.

Organization of the Sixth Edition

The sixth edition is organized around three important ideas: (a) because auditing is an integral part of corporate governance, the profession must continue to win the respect of the investing public (Chapters 1–3); (b) the business risk approach is fundamental to efficient and effective auditing (Chapter 4); and (c) students need to learn to apply judgment, not repeat definitions (Chapters 5–18).

Chapters 1-3: Understanding Auditor Responsibilities. The first three chapters discuss the importance of audit and assurance services in the context of corporate governance and the economic market place. Chapter 3 introduces ethical principles derived from the SEC instead of just focusing on the rules developed by the AICPA.

Chapter 4: Understanding the Risk Approach to Auditing. Chapter 4 introduces risk concepts and links them to internal control. The auditor's understanding of risk facilitates the evaluation of internal controls.

Chapters 5-10: Understanding Audit Concepts and Tools. Chapter 5 develops the concepts of audit evidence. It draws on the new Auditing Standards Board standards in developing an assertion approach for testing transactions and account balances. Increased attention is paid to determining the reliability of evidence. Chapters 6-8 develop a structure for understanding and evaluating internal controls, including approaches to using the computer as an audit tool. The **new** Chapter 7 provides insight on how an integrated audit should be performed. Chapter 9 provides an understanding of factors that make fraud more likely to occur, going beyond a listing of the 'red flags' literature to present the fraud risk model. Numerous illustrations from corporate frauds are used to illustrate needed audit approaches. Chapter 10 follows the development of these frameworks with a framework for answering the sufficiency of evidence question and understanding how sampling can be used.

Chapters 11-16: Performing Audits. These chapters focus on the application of the concepts developed earlier to assessing risk and testing account balances. Traditional audit areas such as accounts receivable and inventory are covered. We continue the coverage of EDI and e-commerce environments, as well as vendor-managed inventory (VMI). Students are asked to develop audit programs that identify needed controls in these environments. The coverage is expanded to cover high-risk areas that apparently have been overlooked on some audit engagements. These include the need to review material journal entries. We also expand the coverage of subjective estimates including an in-depth discussion of auditing goodwill and fixed asset impairments.

Chapter 17: Auditor Reporting. Chapter 17 discusses audit and assurance reports and provides a broad overview of fundamental precepts that underscore all reporting. Examples are given of various types of audit reports.

Chapter 18: Managing Audit Firm Risk and Minimizing Liabilities. Legal liability remains important. However, Chapter 18 also considers the added importance of the regulatory environment and the need for auditors to operate in an environment in which the principles may not uniformly apply for each jurisdiction in which the auditor performs services.

Chapter 19: Adding Value. Internal auditing is a dynamic and growing profession that is an integral part of public company compliance with the Sarbanes-Oxley Act. The Institute of Internal Auditors has over 100,000 members in countries across the globe. Internal auditing is a growing field for the public

accounting profession. We discuss the nature of internal auditing, which focuses on providing value-added services to clients.

Biltrite Bicycle Case. Modules of this practice case are embedded in the end-of-chapter material of related chapters. Excel worksheets needed to complete the case appear on the Student Resources page of the product support Web site (www.thomsonedu.com/accounting/rittenberg).

ACL Cases Appendix. The ACL Appendix at the end of the text contains an overview of the ACL basic functions followed by a brief, illustrated tutorial to help students learn how to use the basic features of Version 9 of the ACL Desktop Education Edition. These are followed by four ACL cases:

1. **Pell Grants,** a fraud investigation case related to this student grant program
2. **Benford's Law case,** a **new** fraud case dealing with employee expense reimbursements and the application of Benford's Law of numbers
3. **NSG Accounts Receivable,** which includes an audit program of procedures for which the students can use ACL and analyze the results
4. **NSG Inventory,** which requires students to develop an audit program and then perform those procedures and analyze the results

Data files for these cases appear on the Student Resources page of the product support Web site (www.thomsonedu.com/accounting/rittenberg).

Suitability for Alternate Presentation Formats

The sixth edition is designed to fit virtually all one-semester courses in auditing or assurance services. While the text still emphasizes traditional financial statement audits, this edition develops the audit service within the context of a wider array of assurance services. We have retained material in end-of-chapter appendices should the instructor wish to expand coverage of certain areas.

Supplements

The sixth edition contains a full range of supplements to aid instructors and students to get the most from the course.

Instructor's Resource CD (IRCD). This all-in-one tool places all the resources instructors need to plan and teach in one convenient tool: Solutions Manual, PowerPoint® slides, Instructor's Manual, Test Bank in Microsoft® Word, and ExamView® testing software. ISBN 0-324-37559-X

- The **Solutions Manual.** This manual, written by the text authors, offers the highest accuracy as it provides solutions for all end-of-chapter material, plus solutions to ACL cases and the Biltrite Practice Case. The Solutions Manual is available on the IRCD and is downloadable to instructors under password protection on the text web site.
- **PowerPoint® Presentation Slides.** Lectures come alive with these engaging PowerPoint® slides that are interesting, visually stimulating, and paced for student comprehension. These slides are ideal as lecture tools and provide a clear guide for student study and note-taking. PowerPoint® slides are available on the IRCD and are downloadable by chapter on the Instructor's Resources page of the product web site.
- **Instructor's Manual.** This manual contains all the resources instructors need to minimize class preparation time while maximizing teaching effectiveness. Chapter overviews, learning objectives, lecture notes with teaching suggestions, and guides to equip you with the tools for positive outcomes throughout your course. The Instructor's Manual is available on the IRCD and downloadable from the product web site.
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Product Web Site. Instructors and students can teach and understand auditing and business risk topics with the help of this resource-rich text companion Web site (**www.thomsonedu.com/accounting/rittenberg**). Students will find chapter summaries, online quizzes, and other accounting resources for review, as well as links to other valuable accounting Web sites. Instructors can easily download password-protected teaching resources and solutions.

Also featured are valuable links to other accounting web sites.

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Larry E. Rittenburg
Bradley J. Schwieger
Karla M. Johnstone

Larry E. Rittenberg

Larry E. Rittenberg, PhD, CPA, CIA, is the Ernst & Young Professor of Accounting & Information Systems at the University of Wisconsin–Madison, where he teaches courses in auditing and computer and operational auditing. He serves as the Chairman of COSO (The Committee of Sponsoring Organizations of the Treadway Commission) and has been instrumental in developing new guidance on internal control. He has served as vice-chair of Professional Practices for the Institute of Internal Auditors (IIA) and president of the IIA Research Foundation; is a member of the Auditing Standards Committee of the AAA Auditing Section, the AICPA's Computer Audit Subcommittee, the Information Technology Committee, and the Blue Ribbon Commission on Audit Committees. Professor Rittenberg, a certified internal auditor, has served as staff auditor for Ernst & Young and has coauthored five books and monographs and numerous articles. He is married and is the father of two children. In January of 2007, he received the "Outstanding Educator" award from the auditing section of the American Accounting Association.

Bradley J. Schwieger

Bradley J. Schwieger, DBA, CPA, is the G.R. Herberger Distinguished Professor of Business and Accounting at St. Cloud State University. He holds professional memberships in the American Accounting Association (AAA), the Audit Section of the AAA, the Twin Cities Chapter of the Institute of Internal Auditors, the AICPA, and the Minnesota Society of CPAs. He was formerly a senior auditor with Arthur Andersen & Co. He was a member of the International Ethics Committee of the Institute of Internal Auditors. He has written a number of journal articles in auditing. Professor Schwieger is married and is the father of two children.

Karla M. Johnstone

Karla M. Johnstone, PhD, CPA, is an Associate Professor of Accounting & Information Systems at the University of Wisconsin–Madison. She teaches auditing, and her research investigates auditor decision-making, including auditors' client acceptance and continuance decisions, how fraud risk affects audit planning and audit fees, client-auditor negotiation, and audit budget-setting processes. She has also published various articles on accounting curriculum effectiveness. Professor Johnstone serves on the editorial boards of several academic journals and is active in the Auditing Section of the American Accounting Association. She has worked in practice as a corporate accountant and as a staff auditor for a CPA firm, and she was a doctoral fellow in residence at Coopers & Lybrand. Professor Johnstone is married and is the mother of three children.

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Dedication

The book is dedicated to our parents, who encouraged us and provided support for our professional development, and to our wives, Kathleen and Ellen Deane, for their love, patience, and help in encouraging us to continue with this endeavor to assist in the development of the next generation of professionals who pursue this wonderful career.

Larry E. Rittenberg
Bradley J. Schwieger

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Auditing

A BUSINESS RISK APPROACH

6e

CHAPTER 1

Auditing: Integral to the Economy

LEARNING OBJECTIVES

Through studying this chapter, you will be able to:

- Understand the important dimensions of reliable financial information for the efficient functioning of economies.
- Understand the demands for more timely information about both financial information and the processes used to develop that information.
- Understand how the public accounting profession has changed and how those changes affect the nature of the audit process.
- Understand the need for reporting on internal control over financial reporting and the unique reporting requirements for publicly-held companies.
- Describe the unique roles of internal, external, and governmental auditors in improving the reliability of financial information and the processes that lead to the recording and presentation of financial information.
- Define the term "auditing" and describe its unique nature as an assurance service.
- Identify and evaluate the factors that affect the credibility of parties performing audit and assurance services.
- Identify various users of financial data, the diversity of their perspectives, and the need for objectivity in preparing financial data.
- Describe the types of assurance (audit) reports that can be issued.
- Identify the important regulatory bodies that affect the nature and quality of assurance services, as well as the scope of services provided.

CHAPTER OVERVIEW

The capital markets depend on accurate, reliable, and objective (neutral) data that portray the economic nature of an entity's business and in turn provide a base to judge current progress toward long-term objectives. If the market does not receive reliable data, investors lose confidence in the system, make poor decisions, may lose a great deal of money, and ultimately, the system may fail. It is a complex process. The Financial Accounting Standards Board (FASB) and Governmental Accounting Standards Board (GASB) define accounting principles; management applies the accounting principles and develops systems of internal control; and the auditing profession independently tests management's reports to ensure reliable reporting of financial information. But that is not enough. Once a year is not sufficient! Investors and other users rely on information that is developed throughout the year. They want assurances that this interim information, not just the annual financial statements, is also accurate. The capital markets have responded by requiring reports on a company's internal control over financial reporting for all public companies.

The auditor's task is both difficult and crucially important. The auditor must gather independent evidence to gain assurance that management's processes and reporting are reliable. In the United States, the quality of management control processes is judged with reference to the Committee of

Sponsoring Organization's (COSO) Internal Control Integrated Framework. At the same time, the auditor must determine that management has properly applied **generally accepted accounting principles (GAAP),** in other words, that the client has properly interpreted the FASB's and GASB's intent for recording transactions. To perform these tasks, the auditor must be knowledgeable about auditing and internal control processes, and must understand how to apply accounting principles to complex transactions or legal agreements between companies.

Introduction

The external audit profession performs a unique task. It does not create the financial statements; it is precluded from designing the internal control systems for a public audit client. Rather it must function as an independent examiner to determine if the financial statements are fairly stated and internal controls of the organization are effective. It is a profession rife with risks and potential conflicts. But its value is attained when the public has confidence in its objectivity and the accuracy of its reports. When it fails, much of the financial system fails. This chapter defines the broad nature of audit and assurance services, discusses the demand for such services, identifies the providers of such services, and focuses on the audit of an organization's financial statements and its internal controls over financial reporting.

A free market economy can exist only if there is sharing of accurate, reliable information among parties that have a vested interest in financial performance and future prospects of an organization. The market is further enhanced if the data are transparent and neutral; i.e., the data do not favor one party over another. The reported data must reflect the economics of transactions and the current economic condition of assets controlled and obligations owed. Increasingly the market also wants to know that the resources entrusted to the organization have been used appropriately; i.e., management is not indirectly taking money from the stockholders through manipulation of stock options, misuse of corporate assets for personal pleasure, or outright fraud committed through presenting misleading and inaccurate financial results. The markets are tired of the Enron and WorldCom-type failures and want assurance that those kinds of problems are not happening in companies in which they invest.

The audit function must:

- Perform tests on an organization's records to determine that they are accurate
- Interpret FASB and other authoritative pronouncements to ensure that financial statements are fairly presented
- Make judgments about the fairness of complex accounting processes such as inventory valuation or a pension liability estimate
- For public companies, evaluate, and then test, the organization's system of internal control over financial reporting
- Do all this in a totally objective, unbiased, and professionally skeptical manner

Understanding Auditor Responsibilities

For What:
- Financial Statements
- Internal Control Reports
- Corporate Governance

Attributes Needed:
- Ethics
- Standards
- Legal Responsibilities
- High Quality Decision-Making

This textbook addresses the unique challenges that Certified Public Accountants (CPAs) in the United States or Chartered Accountants (CAs) in other parts of the world face every day. Auditing is fundamental to the operation of a free economy; it is like a good referee in a sporting event in that hardly anyone ever notices it when it does its job correctly. However, if the audit process

fails, investors, creditors, and employees are harmed and everyone notices. This textbook is designed to develop the skills that you need to excel in performing this very important societal function.

Auditing: A Special Function

The audit function is "special" in that it exists to serve not just the organization audited, but also third parties. The importance of this special function has been reiterated in the U.S. Supreme Court. Chief Justice Warren Burger described the importance of auditing, and the scope of responsibilities of the audit function in a 1984 Supreme Court decision:

> By certifying the public reports that collectively depict a corporation's financial status, the independent auditor assumes a public responsibility transcending any employment relationship with the client. The independent public accountant performing this special function owes ultimate allegiance to the corporation's creditors and stockholders, as well as to the investing public. This "public watchdog" function demands . . . complete fidelity to the public trust.[1]

Practical Point

Auditing is a unique function that is licensed by the state to promote the effective functioning of the capital markets.

Chief Justice Burger's statement captures the essence of public accounting. Certified public accountants serve a number of diverse parties, but the most important is the public as represented by investors, lenders, workers, and others who make decisions based on financial and operating information about a company or other entity. That function requires the highest level of technical competence, freedom from bias in assessing the fairness of financial presentations, and concern for the integrity of the financial reporting process.

There Were Failures within the Profession There is little disagreement that there were major failures in the accounting profession during the late 1990s and early 2000s. We need not repeat all of them as most individuals are well aware of Enron's, WorldCom's, Lucent's, Adelphia's, and other corporations' significant financial frauds. We mention them here because those failures have had a profound effect on the auditing profession. The failures were also far beyond Arthur Andersen or other public accounting firms that suffered through significant lawsuits.

What happened? There is no single answer, but some of the problems can be identified as follows:

1. The profession lost track of Judge Burger's admonition to be responsible to the public.
2. GAAP became viewed as a set of rules that could be interpreted (with very minor boundaries) to suit the reporting objectives of management.
3. A significant portion of management compensation was in the form of stock or stock options because the IRS limited the deductibility of salary to $1 million. Thus management was motivated to increase stock price—even if operations did not mirror or justify an increase in stock price.
4. Auditors, in essence, were hired and fired by management even though the companies had independent boards of directors.
5. Auditors had strong motivation to please management. Finding a way to accomplish a management reporting objective, e.g., moving losses off balance sheet as in the Enron case, often resulted in lucrative consulting contracts for the firms.
6. The profession was not ready for the judgment required in principles-based accounting, in part, because they felt if they did not apply rules they would either be questioned by regulatory agencies or in the court system.
7. Many trained accountants—most working within industry—felt it was perfectly acceptable to manipulate accounting to achieve objectives. In other words, the mindset was wrong. It was: "If the FASB does not prohibit the activity, it must be acceptable."

[1] *United States v Arthur Young & Co. et al.,* U.S. Supreme Court, No. 82-687 [52 U.S.L.W.4355 (U.S., Mar. 21, 1984)].

8. The auditing profession needed to be more profitable in order to retain partners and managers. In order to be more profitable, many of the firms reduced the amount of audit testing by stating that they were applying the risk-based approach to auditing.

At one time the public accounting profession was one of the most highly regarded professions in the country. But, like the baseball player who has just signed a large contract, you are only as good as your next bat—and that next bat must be played within the rules of the profession. Fortunately, many of the changes of the past few years, including regulatory requirements, have provided an opportunity for the profession to earn back its reputation. It also has provided significant opportunities for new entrants into the profession.

Practical Point

Employing a risk-based approach to auditing is perfectly acceptable and is encouraged throughout this text. However, it must be based on a thorough understanding of risks. It is not accomplished by just saying property is not a high risk account without considering management incentives to manipulate earnings.

Understanding the Unique Challenges of the Profession As you work your way through this text and your course, keep in mind the significant challenges faced by the profession. Remember, the auditor is not recording transactions and is not designing the audit client's control systems. Consider the challenges faced by auditing firms:

- The audit procedures must be designed to detect material fraud and assure users that the statements are free from fraud.
- Accounting is highly complex—often, in part, because companies are entering into increasingly complex transactions and organizational structures.
- Computer systems are complex and when used properly provide opportunities for controls; when not used properly, they create additional risks.
- Many companies are global and the audit firm must operate in multiple countries or have expertise among its auditors in various countries (many coming from diverse educational systems).
- Auditors must now evaluate the quality of internal control over financial reporting on public companies and must report that evaluation to users.
- There is increasing time pressure to get the audit done and to report more quickly.
- Finally, there is a need to bill the clients for the work done at sufficient billing rates to both (a) attract new people like you to the profession, and (b) retain managers and partners who often operate under heavy stress to fulfill this most important obligation.

We proceed slowly in building the core values for you to meet these challenges. We start first with a fairly simple, but quite revealing, definition of auditing.

Auditing Defined

Auditing is often thought of as examinations of a company's financial statements, which is the emphasis of this text. However, as you proceed through the book, it is important to know that auditing is a process that can be applied in many different situations, including processes to evaluate the efficiency of a process, a governmental agency, or the compliance of information technology practices with standards of excellence. Thus, we need to first understand the components of the auditing process and then determine to whom it is applied across various auditable entities or auditable processes.

Financial statement auditing has been defined as a:

> systematic process of *objectively obtaining and evaluating evidence* regarding *assertions* about economic actions and events to ascertain the degree of correspondence between those assertions and *established criteria* and *communicating the results* to interested users (emphasis added).[2]

Practical Point

Auditing is defined as an assurance service that objectively gathers evidence and communicates to third parties.

Financial statement auditing, in its broadest context, is the process of attesting to assertions about economic actions and events. It is therefore frequently referred to as an attestation service. Attestation is a three-part process: gathering

[2] Auditing Concepts Committee, "Report of the Committee on Basic Auditing Concepts," *The Accounting Review*, 47, Supp. (1972), 18.

evidence about assertions, evaluating that evidence against objective criteria, and communicating the conclusion reached. In most cases, the communication goes to third parties and provides independent, objective information that is useful to their decision-making. We adopt this broad approach for describing a **financial audit.** However, please note that auditing, in addition to economic actions and events, could also refer to the following:

- Compliance with company policies and regulations
- Operation of processes, such as control systems, in compliance with particular criteria
- Efficiency of processes

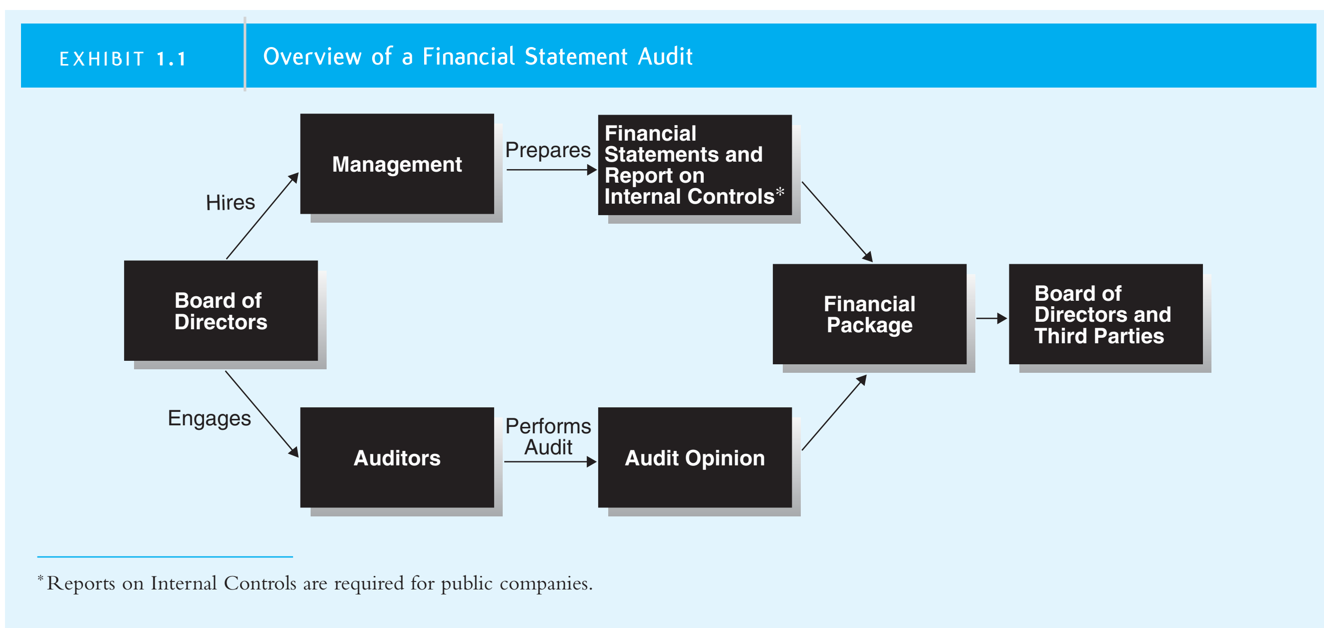
Thus, in a broader sense auditing is a process of gathering evidence to attest to assertions (usually made by management, but could be by other parties), evaluating those assertions against objective criteria (e.g., standards for control or GAAP), and communicating the audit conclusion to interested parties (sometimes outside parties such as users, but sometimes to management, or sometimes to members of Congress or governmental agencies).

An overview of an audit of financial statements and the parties involved is shown in Exhibit 1.1. The board of directors has oversight responsibility over management and engages the auditor to audit the financial statements and prepare an independent opinion on the fairness of the financial statements. Management has responsibilities for (a) managing the organization, (b) safeguarding the assets entrusted to it, and (c) preparing financial statements that portray the economic condition of the company and the results of its activities over a period of time. The financials statements are provided to third parties who have invested or might invest in the company, lend the organization resources, or who otherwise have a vested interest in the organization. Auditors gather evidence to determine whether the financial statements are fairly presented in accordance to GAAP and prepare an independent opinion that is in turn shared with third-party users, management, and the board of directors. The audit adds value only if the auditor:

- Has expertise in both obtaining and evaluating evidence regarding the financial statements and the economic assertions embodied in the financial statements
- Is independent of management and the third parties
- Can thus provide an objective opinion on the fairness of the financial statements

For public companies, the diagram in Exhibit 1.1 shows that management also prepares a report on the quality of its internal control over financial reporting,

EXHIBIT 1.1 Overview of a Financial Statement Audit



*Reports on Internal Controls are required for public companies.

and the board engages the auditor to also attest to management's report on internal control.

Whether attesting to internal control, financial statements, or to efficiency of operations, the basic nature of auditing is based on the same process as will now be described.

Auditors Obtain and Evaluate Evidence Auditors gather evidence that the client's processes are working correctly, the financial data are properly recorded, and the financial statements as a whole are fairly presented. Thus, an auditor is part investigator, evaluator of evidence, and assessor of the meaning of the evidence. Unlike lawyers, the auditor's gathering and evaluation of evidence must be unbiased. Thus, the requirement is that the auditor must be systematic and objective in obtaining and evaluating evidence. Stated simply, at its basic components (1) the process of auditing is to gather and evaluate evidence to test assertions; (2) the audit process is systematic; and (3) when auditors provide reports to third parties, it is important that the auditor be independent of the entity audited and the audit process is unbiased.

Assertions and Established Criteria An **assertion** is a positive statement about an action, event, condition, or performance over a specified period of time. To have unbiased and clear communication, criteria must exist whereby independent observers can assess whether such assertions are appropriate. GAAP provide those criteria for financial statement audits. COSO provides criteria for evaluating the design and operation of internal controls. Internal auditors may refer to management's policies and procedures in determining a department's compliance with company policies. An internal revenue agent will refer to the tax code to determine if taxable income is correctly computed.

When management prepares financial statements, they assert that those statements are fairly presented in accordance with GAAP. Generally accepted accounting principles become the criteria by which "fairness" of a financial statement presentation is judged. However, accounting majors know that interpreting authoritative pronouncements is difficult. The auditor's task is to consider whether the application of a generally accepted accounting principle best portrays economic activity of the company.

The assertions embodied in the financial statements provide directions for the design of the audit. For example, by showing inventory valued on the financial statements at $25 million, management is asserting that the inventory exists, is complete, is owned, and is properly valued at the lower of cost or market. The auditor thus needs to gather objective evidence to test each of the assertions that are implied by showing inventory at $25 million.

Similarly, management may assert that it has implemented an internal control system such that the likelihood of material misstatements occurring in the financial statements is remote. The auditor will examine the quality of internal controls using the COSO framework to determine whether there is a sound basis for management's conclusions.

Communicating Results to Users Communication of audit results to management and interested third parties completes the audit process. To minimize misunderstandings, this communication usually follows a prescribed format by clearly outlining the nature of the work performed and the conclusions reached. A financial statement audit results in an audit report directed to the audit committee, shareholders, and/or the board of directors of the client organization. The report delineates the responsibilities of both management and the auditor, summarizes the audit process, and expresses the auditor's opinion on the financial statements.

Most audits of public companies include an integrated report on the financial statements and internal control. When there are no reservations about management's statements, the report is referred to as an **unqualified audit report.**

EXHIBIT 1.2 Integrated Audit Report

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of NSG Company:

We have audited the accompanying balance sheets of NSG Company (the Company) as of December 31, 2007 and 2006, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2007. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2007 and 2006, and the results of their operations and their cash flows for each of the three years in the period ended December 25, 2007, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), NSG's internal control over financial reporting as of December 31, 2007, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 14, 2008 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Rittenberg & Schwieger LLP
Madison, Wisconsin
March 14, 2008

Such a report is shown in Exhibit 1.2. If the auditor had reservations about the fair presentation of the financial statements, the audit report would be expanded to explain the nature of the auditor's reservations (covered in Chapter 17).

The Need for Unbiased Reporting

The capital markets are built on transparent financial reporting; i.e., the statements reflect, within the limits of the accounting model, a true and fair view of the organization's financial results. The statements do not favor one user over another. All users are considered important. In many cases, the interests of the various users can conflict. Current shareholders might want management to use accounting principles that result in higher levels of reported income, but lending institutions generally prefer a conservative approach to valuation and income recognition. Exhibit 1.3 presents an overview of potential financial statement users. The auditor must also consider whether a misstatement might be material to a user. The need for unbiased reporting can easily be seen by examining a situation in which a bank is considering a company's loan request. In preparing its report, the management of the company wishes to obtain the loan and prefers that its auditors agree with its own assessment of its financial accomplishments. The bank relies on the financial statements of the company, among other information, to assess the riskiness of the loan—i.e., the likelihood that the company will not be able to repay the loan and its interest in a timely fashion. If the loan is made at a good rate, the bank will prosper and may be able to offer higher savings rates to attract more depositors. The company receiving the loan will be able to expand, hire new workers, and increase the community's work force. All parties benefit from accurate, unbiased information that portrays economic results. The more accurate

EXHIBIT 1.3 Users of Audited Financial Statements

User	Primary Use of Report
Management	Review performance, make decisions, report results to capital markets
Stockholders	Assess performance, vote on organizational matters including board of directors, make decision to buy or sell stock, or purchase more stock as part of a stock offering
Financial Institutions	Loan decisions—interest rates, terms, and risk
Taxing Authorities	Determine taxable income and tax due
Potential Investors	Buy stock or bonds
Regulatory Agencies	Compliance with regulations, need for regulatory action
Labor and Labor Unions	Collective bargaining decisions
Bondholders	Buy or sell bonds
Court System	Assess financial position of a company in litigation involving valuation
Vendors	Assess credit risk
Retired Employees	Protect employees from surprises concerning pensions and other post-retirement benefits due to accounting restatements

the financial information provided to the bank, the more positive the overall results of its decision will be, not merely for the company and the bank, but also for society as a whole.

Need for Assurance

Why do you need assurance? More importantly, can we generalize from the reasons you might need assurance to the broader market for assurance services? The need for assurance services arises because of several factors:

- Potential bias in providing information, i.e., the providing party may want to convey a better impression than real circumstances merit
- Remoteness between a user and the organization or trading partner
- Complexity of the transactions, information, or processing systems such that it is difficult to determine their proper presentation without a review by an independent expert
- Need to minimize financial surprises

Potential Bias in Providing Information Management has a vested interest in providing information that will make management look good. Management has inside information that they may or may not want to share with users. For example, management's compensation may be tied to company profitability or stock price and they may want to "bend" GAAP to make their performance look better. There must be an unbiased arbiter to ensure fairness to users. That is the audit function.

Practical Point

Diverse users require objective, unbiased, accurate information.

Remoteness of Users The Internet has enabled us to become a global society. The advantages are tremendous, but a significant disadvantage is that we no longer either know or interact directly with many parties, including those in which we might own stock. Most users cannot interview management, tour a company's plant, or review its financial records firsthand; instead, they must rely on the financial statements to communicate the results of management's performance.

Complexity Many business transactions are more complex than they were a decade ago. Third-party users depend on managers and auditors to deal with complexities such as financial instruments, derivatives, long-term contracts, and other complex transactions to ensure that they are fairly presented and fully disclosed in financial statements.

Avoid Surprises During the past decade, many financial statement users such as pension funds, private investors, venture capitalists, and banks lost billions of dollars because financial information and, in some instances, the audit function had become unreliable. Financial statements were restated because misstatements were found subsequent to the original issuance of the statements. The reasons for the restatements varied, but ranged from (a) misapplication of GAAP, (b) outright fraud, (c) aggressive accounting—for example in developing estimates, and (d) recording sales transactions in the wrong period. The surprises most often were negative restatements that showed decreases in earnings and equity. Usually, the restatements were followed by precipitous drops in stock prices—and in a number of cases—bankruptcy.

Increased Demand for Accountability

Practical Point

Increased reliability in financial reporting should lead to decreased variability in the capital markets because there will be fewer surprises. The capital markets will be more efficient.

The accounting profession has undergone a decade of turmoil that is unprecedented and on a scale that has occurred only once before.[3] The factors leading up to the change include: (a) the failure of one of the largest public accounting firms in the world (Arthur Andersen & Co.), (b) four of the largest bankruptcies in history—and each of the bankruptcies occurred in companies where financial statement misrepresentation had taken place, (c) billions of dollars in investment and retirement fund losses, (d) a sense that auditors could not remain independent when they were hired and fired by the managers of a company, and (e) a general question as to whether the public accounting profession could govern itself to ensure society that they would always act in the public interest. The culmination of these failures led to the Sarbanes-Oxley Act of 2002,[4] which may be the single most important legislation affecting the public accounting profession in our lifetime. The Act focused on five critical improvements related to auditing and the financial statements:

1. Improved corporate governance
2. Required reporting on internal controls
3. Improved independence of the external audit function
4. Acknowledgment of greater audit responsibility
5. Audit standard setting moved to a new quasi-public organization

Demand for Improved Corporate Governance

Practical Point

There was a confluence of complementary factors that influenced the changes that are taking place in the auditing profession. It was not one failure; rather, it was viewed as a systemic problem by society.

Corporate governance is a complex subject; however, the bottom line is that an organization needs to have in place an oversight structure that is designed to ensure that there are constraints on management and that the organization acts in the best interests of the shareholders. That structure usually starts with the board of directors. There were two major criticisms of many boards during the past decade:

- The board often was not independent of management; the board members either included a majority of management members or the board members were chosen by management, and thus were beholden to management.
- The independent members of the board did not assume ownership of the audit function; it did not take an active role in oversight of the audit or in the decisions to retain or change the audit firm.

Management, rather than the board, was seen as the audit client. The Sarbanes-Oxley Act, as well as most stock exchanges, required companies to establish independent audit committees as a subcommittee of the board of directors to provide

[3] The other change of the magnitude described here occurred in 1933 when the Securities and Exchange Commission was developed in response to abuses in financial reporting that took place in the 1920s and fired speculation on Wall Street.

[4] Sarbanes-Oxley Act of 2002, H.R. Bill 3762.

oversight over all audit functions—internal and external. The audit committee becomes "the client," and helps assure that the auditor's opinion on management reports is unbiased.

The demand for increased governance does not stop with the board. Management—at all levels of the organization—has a responsibility for improved governance. The Sarbanes-Oxley Act requires that a whistleblowing function be established that provides an avenue to report perceived wrongdoing to an appropriate, independent body within the organization. Further, the board or audit committee has a responsibility to review substantive allegations made by employees or outside stakeholders.

The internal and external audit professions both play expanded roles in improving corporate governance. The external auditors have a responsibility to discuss with the audit committee the appropriateness of accounting choices made by management. The external auditors also have an increased responsibility to search for the existence of fraud, including the identification of fraud risk factors. An internal audit function is required by all major stock exchanges. Most internal audit charters require that there is a direct relationship to the chair of the audit committee and a responsibility to bring questionable items to the chair of the audit committee. Thus, when looking at the auditing professions, it is clear that the responsibilities have expanded well beyond that of just auditing a company's financial statements. Auditing is an extremely important component of better corporate governance.

Required Reporting on Internal Controls

Congress and financial statement users were shocked with billion-dollar frauds at companies such as WorldCom, Adelphia, and Enron. In many of the major frauds, senior management had overridden the accounting system and in virtually all cases the companies had poor internal controls over financial reporting. Section 404 of the Sarbanes-Oxley Act of 2002 requires management to independently assess and publicly report on the quality of its internal controls over financial reporting. The external auditor is required to independently test internal controls of public companies and report their assessment of internal controls, as well as their opinion on management's assessment of internal control over financial reporting.

Section 404 has reiterated that management has accountability to its users beyond that contained in the financial statements. Management has a responsibility to establish and maintain a system of effective internal controls that produces reliable information throughout the year. If there are significant deficiencies in the internal control system, management and the auditors must report those deficiencies in public reports so that users can assess the impact of those deficiencies on the performance of management and the potential impact on the future of the organization. For example, a company with poor controls often does not have reliable information to make good management decisions.

There is a growing body of evidence to support the concept that good internal control is good business. The need for public reporting on internal control was advanced by the Treadway Commission's report on Fraudulent Financial Reporting in 1987 when they identified a high correlation between fraudulent reporting and poor internal controls. Don Nicolaisen, former Chief Accountant of the SEC, reinforced this concept in a speech in 2004:

> I believe that, of all of the recent reforms, the internal control requirements have the greatest potential to improve the reliability of financial reporting. Our capital markets run on faith and trust that the vast majority of companies present reliable and complete financial data for investment and policy decision-making. . . . It is absolutely critical that we get the internal control requirements right.[5]

[5] Don Nicolaisen, Securities & Exchange Commission, October 7, 2004, Keynote Speech to the 11th Annual Midwestern Financial Reporting Symposium, http://www.sec.gov.

Recall that Sarbanes-Oxley applies only to the audits of public companies. Thus, the guidelines presented here do not necessarily apply to audits of non-public companies, but may be considered best practices for all companies. Some smaller audit firms and companies may have difficulty in meeting each of the requirements. For example, a privately-held company might not have an audit committee; an audit firm may be too small to rotate partners across smaller engagements. Further, many smaller-sized public accounting firms believe that performing some kinds of consulting for smaller businesses is an integral part of their services and helps their clients succeed.

Public/Non-Public Clients

The Sarbanes-Oxley Act specified that the PCAOB develop audit standards for public companies. The American Institute of Certified Public Accountants (AICPA) still sets standards for the audits of non-public companies. There is a mood of cooperation between the AICPA and the PCAOB that should lead to greater convergence between the two sets of standards.

Audit Standard Setting and Auditor Independence

In the midst of recent cases of corporate fraud, Congress created the **Public Company Accounting Oversight Board (PCAOB)** and gave the Board the authority to set audit standards for the audits of public companies.

Further, to ensure the independence of the audit firm, the Sarbanes-Oxley Act strengthened the independence of auditors by requiring:

- The audit committee of the board of directors to have the authority to hire and fire the external auditors
- Mandatory rotation every five years of the partner in charge of the audit engagement
- That consulting work cannot be performed for audit clients
- Increased oversight of potential independence conflicts, including potential conflicts that may affect performance by the independent auditing firm

Although many non-public companies and smaller audit firms may want to follow these same guidelines, they are not required to do so.

Public Expectation of Auditors

The public, particularly as expressed by Congress, expects auditors to (a) find fraud, (b) enforce accounting principles that best portray the spirit of the concepts adopted by the FASB, and (c) be neutral to users, but it also expects auditors to be advocates of economic reality. The public wants auditors to be more active in detecting fraud.

Audit Standard Setting Moved to a Quasi-Public Board

Practical Point

Students who want to be "business advisors" as well as perform attestation services for clients may want to work for a smaller-sized CPA firm that has a significant amount of non SEC work.

The Sarbanes-Oxley Act created the Public Company Accounting Oversight Board (PCAOB) and gave the Board the full authority to develop audit standards for the audits of public companies that have stock listed on U.S. stock exchanges and that must register with the SEC (including some foreign entities). The PCAOB is comprised of five public members appointed by the SEC, no more than two of whom can be CPAs. The board is funded from a levy on all public companies. The Board also reviews the quality of the practice of independent accounting firms that are registered with it.

Scope of Services: Other Assurance Services

Although the recent focus on the auditing profession has been on the audit of financial statements, the concept of **assurance services** is much broader. In this section, we discuss the broader nature of assurance services that might be performed by auditors.

What Is Assurance?

The AICPA's Special Committee on Assurance Services defines assurance as:

> independent professional services that improve the quality of information, or its context, for decision makers.

EXHIBIT 1.4 Nature of Assurance Services

Broad Area of Assurance Service	Nature of Assurances Provided
Risk Assessment	The quality of processes implemented by an organization to identify, assess, and manage risks.
Business Performance Measurement	The processes to identify, measure, and communicate alternative measures of performance; assurances on the accuracy of the performance measurements utilized by an organization.
Information System Reliability	The quality of controls built into information system processes to ensure system security, reliability, timeliness, and accuracy. Assurances on the accuracy of financial and other information provided electronically to users on a continuous basis.
Health Care Performance	Assurance on performance measures in health care would provide assurance to patients, employers, unions, and other customers of health care services that the quality of those services met specified criteria.
Electronic Commerce	Provide assurance to various participants (e.g., consumers, retailers, credit card issuers, EDI users, network service providers, software vendors) in electronic commerce that the systems and tools in use are designed and functioning in accordance with accepted criteria for integrity and security.
ElderCare Plus	Provide assurance to elders and their families that specified goals regarding care for the elderly are being met by various caregivers. This service focuses on elder persons who want to live independently in their own homes and those individuals who care for the elderly (e.g., sons and daughters), but might live at a distance apart from the elderly.

Assurance is a broad concept. It includes information contained in financial statements. It also includes information about the context of a process such as shipping goods for a web-based firm or how the company handles returned goods. Assurance services are designed to improve the quality of decision-making by improving confidence in the information on which decisions are made, the process by which that information is developed, and the context in which the information is presented to users.

The AICPA's Special Committee on Assurance Services depicts the scope of potential services as shown in Exhibit 1.4. The field of assurance services is much broader than traditional audits of financial statements. Assurance services depict:

- A wider spectrum of services
- A more diverse group of users
- Potential users with needs broader than audited financial statements

Because of the recent emphasis on implementing the Sarbanes-Oxley Act, the development of these extended services has been slow.

Assurance vs. Attestation vs. Audit Sometimes the terms assurance, attestation, and audit are used interchangeably. However, in the context of assurance services, they are related but differ on two fundamental dimensions:

- Existence of an outside third party that relies on the auditor's opinion
- Nature of services provided

The broadest concept is that of assurance. Assurance services can be provided to management or to external users. Assurance services include both attestation and audit services. Assurance services can be provided on financial information or on other information such as the quality of business processes, the reliability of computer information systems, or the accuracy of performance data. **Attestation services** are a subset of assurance services and *always* involve a report that goes to a third party. For example, the auditor might provide a report to third parties on the quality of a company's internal control processes. The narrowest service is an

EXHIBIT 1.5 Interrelationship of Assurance, Attestation, and Audit Services

Type of Service	Report to Third Party	Scope of Items Reported On
Assurance Service	Optional, but not required Can include report only to party requesting the assurance	Broad, can include: • business processes • control processes • risk analysis • non-financial performance data • financial information
Attestation Service	Independent Auditor's Report is used by third party as part of their decision-making process	Same as assurance services Can be broad as long as objective criteria exist on which to evaluate fairness of management's report or information reported on
Audit Service	Third parties are primary users of the audit report	Audit of financial statements and related financial information

audit of a company's financial statements. An audit is a crucial function that must be performed reliably in order to have the financial statements work properly. However, it should be noted that the audit is simply a subset of the other services that an auditor can provide. An overview of the three different levels of services is shown in Exhibit 1.5.

The processes used in performing audits of financial statements apply equally well to other types of assurances. The difference is in the subject area knowledge and the specific evidence that will need to be gathered to provide the assurance.

Not all assurance services are provided by the external auditor. For example, internal auditors often provide a wide variety of assurance services for their organization. The Institute of Internal Auditors (IIA) has identified a number of assurance services that internal auditors perform for an organization, including:

- The effectiveness of a company's process to identify and manage risk
- The quality of an organization's governance processes
- The effectiveness and efficiency of an organization's control processes

Characteristics of Assurance Services Assurance services involve three critical components:

- *Information* or a *process* on which the assurance service is provided
- A *user* or a *group of users* who derive value from the assurance services provided
- An *assurance service provider*

Item on Which Assurance is Given The items on which assurance is provided can range from financial statements to computer systems integrity to quality of products and services sold via the Internet to compliance with regulatory requirements. The assurance can be on information or processes. The adequacy of a process is just as important to most users as the information that goes into the process. Thus, assurance can also be provided on the process.

Attributes Needed to Perform Assurance Assurance creates confidence by reducing information risk—the risk that the information is not reliable. Investors can make decisions because they have reliable financial information. The attributes needed for all assurance services are the same—whether for financial statements or for information systems security:

- Subject matter knowledge
- Independence

- Agreed-upon criteria to evaluate quality of presentation
- Expertise in the process of gathering and evaluating evidence

Requirements to Enter the Public Accounting Profession

Meeting the expectations of diverse groups requires considerable expertise. Because of the increasing complexity of the business environment, the demands made on the professional auditor have certainly increased. Most states now require 150 semester hours for CPA licensure. Beyond required auditing and accounting skills, today's auditor must understand the client's business and industry; identify problems and propose solutions; understand economic and political conditions; utilize computer technology; communicate effectively with management, users, and colleagues; and identify elements of business risk.

Accounting and Auditing Expertise The complexity of today's environment demands that the auditor be fully versed in the technical accounting and auditing pronouncements. In addition to that technical understanding, the auditor must have a sound conceptual understanding of the basic elements underlying financial reporting. This conceptual understanding is necessary to address the ever-increasing infusion of new types of transactions and contracts for which accounting pronouncements do not exist. As an example of these new transactions, many financial instruments, such as derivatives, did not exist a few years ago. The auditor is expected to discern the economic substance of these new transactions and use the financial conceptual model to "reason" to the appropriate accounting treatment for these newer transactions which the Financial Accounting Standards Board (FASB) may not have specifically addressed.

Likewise, the auditor must fully understand the fundamental concepts of auditing. Understanding the concepts, as opposed to just the rules, will allow the auditor to adapt to changing economic situations or to plan different kinds of audit or assurance engagements.

Internal Control Expertise An auditor of a public company must perform an "integrated audit" that results in an audit of both the company's internal controls and its financial statements. The auditor must understand how deficiencies in internal control will most likely affect the recording and disclosure of transactions and adjust audit procedures to search for errors in account balances. The auditor must be able to analyze the organization's internal controls to determine if there are weaknesses that should be reported to the general public, to the audit committee, and to management.

Knowledge of Business and Its Risks Most audit firms utilize a "business risk" approach to performing audits. The fundamental premise behind the business risk approach is that the auditor must understand the basic structure of the business in order to identify significant risks affecting the client. For example, an auditor of a bank should have substantial knowledge about the business economy in the area served by the bank. It is only with this knowledge that the auditor can adequately assess the allowance for loan loss reserves. In a similar fashion, an understanding of the strategies used by management will assist the auditor in evaluating preliminary financial results and pinpoint areas needing more attention.

Understanding Accounting System Complexity Simple, manual accounting systems are things of the past. Today's companies are actively involved in e-commerce and electronic data interchange (EDI). Traditional paper documents will not be present in many systems. Further, systems will be integrated across companies. Today's auditors must understand the audit challenges posed in a system in which traditional source documents do not exist.

The Providers of Assurance Services

There are three primary providers of assurance services:

- The public accounting profession
- The internal audit profession
- The governmental audit profession

Within each there are a wide variety of providers. For example, internal audit services are performed by both internal audit departments housed in an organization as well as external auditors performing internal audit work for a client.

The Public Accounting Profession

Public/Non-Public Clients

Smaller CPA firms are not subject to the same regulation as are firms that audit SEC clients. The provision of services to clients is limited only by (1) the willingness of the client to purchase the services and (2) the AICPA's Code of Ethics that the firm must maintain independence in attitude and appearance when performing an audit of the company.

The public accounting profession varies from sole-practitioner firms to large multinational professional services firms such as the Big 4. Many of the regional and local CPA firms provide a variety of services to both audit and non-audit clients. The large public accounting firms may provide many of the same services—but not for audit clients. For example, all of the Big 4 firms provide significant internal audit services to companies that obtain their financial statement audits from other public accounting firms. Smaller accounting firms that do not have public clients are still constrained by AICPA rules on services that they may perform for an audit client, but for the most part, the smaller firms do provide information systems consulting, financial planning, tax planning, and internal audit services to both audit clients and non-audit clients.

Organization and Size of Public Accounting Firms The organizational structure of the accounting firms varies dramatically. For example, most of the Big 4 firms operate under one firm name across all countries, and often they operate with global accounting and auditing practices. In some cases, however, each firm is organized as a partnership in its own country, or in its own part of the world. The individual partnerships then belong to a global partnership under the firm's broad name, e.g., KPMG.

Some other firms practice internationally through an affiliation with a network of firms. In some cases, it is not clear to the user what the relationship is to a parent firm. For example, when the Parmalat scandal hit in Italy in 2003, there was a lawsuit against Grant Thornton Italia, a member firm of Grant Thornton International. The Italian firm was immediately "kicked out" of the international firm because the international firm did not want to assume any liability for the work performed by its Italian member.

The organization hierarchy of CPA firms has most often functioned in a pyramidal structure. Partners (or owners) form the top of the pyramid and are responsible for the overall conduct of each audit and other services. Next in the hierarchy are the managers, who review the detailed audit work performed by staff personnel (the base of the pyramid). Seniors are responsible for overseeing the day-to-day activities on a specific audit. Staff personnel typically spend two to four years at a staff level, after which they increasingly assume supervisory responsibilities as seniors, managers, and ultimately partners. Partners and managers are responsible for many audit engagements being conducted simultaneously, while seniors and staff are usually assigned to only one audit at a time.

Practical Point

Public accounting firms can provide consulting, tax planning, and internal audit services to non-audit clients. Most CPA firms still provide such services and have targeted non-audit clients as their potential market for such services. The amounts are still substantial and have the potential to exceed audit revenues for the firms.

Although the hierarchical structure will remain for some time in the future, the expectations of those entering the profession have changed significantly. The more prevalent changes are as follows:

- Audits are performed in teams where each member is expected to contribute to analyzing and understanding the business.
- All auditors are engaged from the very beginning in analyzing potential fraud risks associated with the clients.

- Auditors, at all levels, are expected to understand computer processing and be able to access and audit electronic data.

Many public accounting firms have also organized their practices along industry lines to better serve clients in those industries. The industry lines often include categories such as financial services, retailing, not-for-profit, manufacturing, and distribution. The rationale is that an auditor needs to understand the industry as well as management does in order to identify (1) risks that the organization faces and the controls the company uses to mitigate those risks, (2) risks of financial statement misstatements, and (3) opportunities to improve business operations.

The Internal Audit Profession

Internal auditing is defined as:

> an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.[6]

Practical Point

Internal auditing is much more diverse than external auditing and provides opportunities to learn more about all aspects of the business.

Internal auditing has emerged as an exciting discipline and an excellent training ground for future management positions. The emphasis on adding value and improving operations squarely aligns internal auditing with stockholders, the board of directors, and management. The scope of internal auditing is broad and includes the evaluation of processes to identify and manage risk, to develop and implement effective controls including those designed to ensure efficient operations, and to ensure that the governance process is working effectively.

Internal auditing, whether it is performed in a company or in the practice of a public accounting firm, is increasingly becoming a strong alternative entry point into the auditing profession. The role of internal auditing is enhanced by requirements of both the NYSE and NASDAQ for listed companies to retain an internal audit function. The existence of an effective internal audit function is considered an important part of an organization's internal controls.

Internal auditing provides both assurance and consulting services. Assurance comes in the form of assuring management and the board of directors on the company's compliance with policies or regulatory requirements, or the effectiveness of processes and operations. Internal audit activities often identify significant problem areas and the question has been: "Can the auditor assist the company in identifying potential solutions?" The profession has answered that question with an unequivocal "yes." Internal auditing has unique data analysis skills and an independence from operations that can add value to task forces or other approaches taken by management to deal with problems. The internal audit function can analyze and identify potential solutions. However, management is responsible for making the choice of which solution to implement and must take responsibility for implementing the solution.

More Information

http://www.theiia.org provides information on internal audit standards, recent activities affecting the profession, and recent research studies.

Internal auditing has been very active in assisting organizations in documenting and evaluating the quality of internal control as part of the organization's Section 404 compliance with the Sarbanes-Oxley Act. An interesting task of internal auditing is the analysis of company operations, often referred to as an **operational audit.** Operational audits are designed to evaluate the effectiveness, economy, and efficiency with which resources are employed. An operational audit can be applied to virtually every facet of an organization's operations. Operational audits are both challenging and interesting because the auditor must develop objective criteria to evaluate the effectiveness of an operation. The auditor must become familiar with best practices across companies as well as within the organization to develop such criteria. The auditor then must develop methodology, including the analysis of market data as well as internal information,

[6] Institute of Internal Auditors, *Standards for the Practice of Internal Auditing.*

to evaluate the effectiveness of operations. The auditor will have to thoroughly understand business processes and how various processes fit together across the organization. The emphasis is on improving operations and the profitability of the organization.

Governmental Auditing Profession

Governmental auditors are employed by various federal, state, and local agencies. The work performed by these auditors ranges from internal audits of a specific agency to audits of other governmental units to audits of reports furnished to the government by outside organizations. The requirement of accountability has created a demand for more information about government programs and services. Public officials, legislators, and private citizens want and need to know not only whether government funds are being handled properly and in compliance with laws and regulations, but also whether government organizations, programs, and services are achieving the purposes for which they were authorized and funded and whether they are doing so economically and efficiently.

Governmental auditors perform all the types of audits that internal auditors perform; the major difference is the governmental orientation. The U.S. Government Accountability Office (GAO), headed by the Comptroller General, places a great deal of emphasis on performance audits. These audits determine (1) whether the entity is acquiring, protecting, and using its resources economically and efficiently, (2) the causes of inefficiencies or uneconomical practices, (3) whether the entity has complied with laws and regulations, (4) the extent to which the desired results or benefits established by the legislature or other authorizing body are being achieved, and (5) the effectiveness of organizations, programs, activities, or functions.

More Information

A complete list of GAO audits can be obtained at http://www.gao.gov. The GAO recently performed studies of "principles vs. rules-based accounting" and mandatory rotation of audit firms.

Professional and Regulatory Organizations

Auditing is a unique profession. It is a private enterprise that operates in the public interest. However, it also operates to improve company operations. Further, it is a diverse profession ranging from large multinational CPA firms to small one-person accounting firms specializing in tax. It includes both public accounting and internal auditing. Thus, it is not surprising that there are a number of regulatory and professional organizations that help shape and regulate the nature of services provided by the auditing profession. Because the major focus of this book is on public accounting and financial statement audits, we start with the regulatory bodies that most influence the practice of auditing financial statements of public companies.

The Public Company Accounting Oversight Board

The Public Company Accounting Oversight Board was established by Congress as part of the Sarbanes-Oxley Act of 2002. The PCAOB has full authority to:

- Set auditing standards for audits of public companies
- Require all firms that audit public companies to register with it
- Perform quality reviews of all firms that are registered with it

The Board has a staff that helps it set audit standards for audits of public companies, including audits of both financial statements and internal controls. The PCAOB has been granted wide authority. Although its members are appointed by the SEC, its budget comes from required payments by all SEC registered companies.

Besides setting auditing standards, the PCAOB has responsibility for registering all CPA firms to practice before it, and has broad regulatory authority over those firms. For example, it could choose, should it so decide, to require mandatory rotation of

More Information

http://www.pcaobus.org has up-to-date information about the Board, new standards, and recent activities.

Practical Point

Congress was concerned that the AICPA's approach to performing quality control reviews—consisting of one firm reviewing the practices of another for adherence to AICPA standards—was too inbred. Congress wanted an outside group to assess whether the firms were meeting the public's expectations.

audit firms every seven years. The PCAOB has a responsibility to perform quality reviews of all registered CPA firms and can take either remedial action if they have questions about the firm's quality practices or, in an extreme case, can prohibit a firm from performing audits on public companies, or prohibit a firm from accepting a new public company for some period of time.

The Securities and Exchange Commission

The **Securities and Exchange Commission (SEC)** was established by Congress in 1934 to regulate the capital market system. The SEC has oversight responsibilities for the PCAOB, and oversight responsibilities for all public companies that are required to register with it to gain access to the U.S. capital markets. The SEC has the authority to establish GAAP for companies whose stock is publicly traded, although it has generally delegated this authority to the FASB. However, the SEC has not shown a reluctance to act when it believed existing accounting standards were being abused by registrants.

The SEC developed independence rules in 2001 that essentially prohibited public accounting firms from performing consulting work for SEC companies. The SEC has issued accounting bulletins clarifying concepts of revenue recognition and materiality. The SEC is an active player in maintaining a "level playing field" for companies and investors participating in the U.S. capital market system.

More Information

See http://www.sec.gov for more information about the SEC, including current staff accounting bulletins and legal actions brought against companies for accounting fraud or securities violations.

The SEC also has a responsibility to prosecute companies and managers who have violated SEC laws, including the application of inappropriate accounting that might be considered fraudulent. In recent years, the SEC has brought action against companies such as HealthSouth for accounting fraud, Xerox for inappropriate accounting for leases, and Lucent for inappropriate revenue recognition; and more recently, the SEC has investigated companies for unacceptable backdating of stock options.

The American Institute of Certified Public Accountants

The **American Institute of Certified Public Accountants (AICPA)** has long served as the primary governing organization of the public accounting profession. That role has diminished with the identification of the PCAOB to set auditing standards for the audits of public companies.

More Information

See http://www.aicpa.org for a host of information about the public accounting profession, professional standards, assurance services, and a special section on fraud.

The AICPA, however, continues to develop standards for audits of non-public companies, as well as to perform other significant services. It provides continuing education programs and, through its Board of Examiners, prepares and administers the Uniform CPA Examination. It is developing an active program to make its members aware of frauds that have taken place in companies and how members can do a better job of detecting fraud.

Committee of Sponsoring Organizations

COSO is the Committee of Sponsoring Organizations of the Treadway Commission. COSO performed the seminal study on fraudulent financial reporting and made a number of recommendations similar to those enacted in the Sarbanes-Oxley Act of 2002. In 1992, COSO issued the *Internal Control, Integrated Framework* that serves as a primary criterion for evaluating the quality of a company's internal control system. COSO has provided additional guidance on implementing internal controls in 2006 that articulates the basic principles of internal control.

More Information

See http://www.coso.org for more information about COSO guidelines, fraud studies, and recommendations for improving internal control in organizations.

Accounting Standard Setters

Auditors increasingly must be aware of global accounting standards, as well as standards that may apply to the audits of particular organizations, e.g., governmental accounting standards set by the Governmental Accounting Standards Board.

Auditors must be aware of accounting standards set by the Financial Accounting Standards Board (FASB), which is the primary accounting standard setter in the United States. Auditors must increasingly understand the pronouncements of the International Accounting Standards Board (IASB), which sets standards for the global practice of accounting.

State Boards of Accountancy

CPAs are licensed by state boards of accountancy, which are charged with regulating the profession at the state level. All state boards require the passage of the Uniform CPA Examination as one of the criteria for licensure. However, education and experience requirements vary by state. Some states require candidates to have public accounting audit experience before issuing them a license to practice; other states allow audit experience related to public or governmental accounting. The work experience requirement can also vary with the level of education. A candidate with a graduate degree or 150 semester hours of college credits, for example, may need only one year of auditing experience, but a candidate with a baccalaureate degree may be required to have two years of auditing experience. Most states have reciprocal agreements for recognizing public accountants from other states; in some instances, however, a state may require either additional experience or course work before issuing a license.

The Institute of Internal Auditors

The Institute of Internal Auditors is a voluntary organization dedicated to enhancing the professionalism and status of internal auditing. With more than 85,000 members located in 102 countries, the IIA is responsible for issuing standards and interpretations of those standards. The IIA administers the Certified Internal Auditor program and has established a peer review process to ensure that the practice of internal auditing around the globe is consistent with the professional standards.

More Information

The GAO is a major player in setting auditing standards for all audits of governmental entities—even those entities audited by CPA firms. See http://www.gao.gov.

The U.S. Government Accountability Office

The U.S. **Governmental Accountability Office (GAO)** is the nonpartisan audit agency for Congress. Congress has delegated to the GAO the responsibility for developing auditing standards for governmental audits. The GAO periodically updates Governmental Auditing Standards, setting forth standards for the conduct of audits of governmental organizations, programs, activities, and functions, and of government funds received by contractors, nonprofit organizations, and other nongovernmental entities. The standards cover the auditor's professional qualifications, the quality of the audit effort, and the appropriate audit reports. The standards are similar to those established by the AICPA and the IIA, but relate to the nature of the work performed by governmental auditors.

The Court System

The court system acts as an effective quality control mechanism for the practice of auditing. Third parties may sue CPAs under federal securities laws, various state statutes, and common law for substandard audit work. Although the profession often becomes alarmed when large damages are awarded to plaintiffs in suits against CPA firms, the courts help ensure that the profession does not fail to meet its responsibilities to third parties. During the past several decades, court cases have led to the codification of additional auditing standards for such areas as related-party transactions, "subsequent events" affecting the financial statements, and clarification of the auditor's report.

Summary

Efficient operation of the capital markets requires reliable financial information. The crucial importance of the fundamental product of the auditing profession—the financial statement audit—has been reiterated in the past decade. Financial statement users need an independent, objective, and competent review of financial statement data. The public accounting profession is truly a unique profession in that it operates in the private sector but performs a public service. Recent failures in the auditing profession led Congress to enact the Sarbanes-Oxley Act of 2002 that has changed the regulatory oversight of the auditing profession. However, with all these changes, the profession still operates in the private sector: It can compete for audit engagements, it competes with others in hiring qualified personnel, and it can distinguish its service by the quality of its audits. More than anything, the failures of the past decade have reiterated the importance of a sound audit function.

Oversight of the public accounting profession has shifted from the AICPA to the PCAOB for audits of public companies. Public accounting firms will continue to be under public scrutiny. The AICPA has positioned itself as a standard setter for audit firms that do not audit public companies, as well as to promote the development of a broader array of assurance services beyond financial statement audits.

Auditing is more diverse than public accounting. Internal and governmental auditing provides valuable services for their organizations, are broader than public accounting, and expose auditors to more aspects of a business, including risk management and operational efficiencies.

The CPA has been given a position of public trust. The profession has earned a reputation for quality through its actions, including setting standards against which you will be measured as a CPA and on which you will build a professional career. If the profession should ever fail to meet user needs, the court system and Congress will intervene to protect the public interest.

Significant Terms

American Institute of Certified Public Accountants (AICPA) The primary professional organization for CPAs, it has a number of committees to develop professional standards for the conduct of non-public company audits and other services performed by its members and to self-regulate the profession.

assertion A positive statement about an action, event, condition, or the performance of an entity or product over a specified period of time; the subject of attestation services.

assurance services Independent professional services that improve the context or quality of information for decision-making purposes.

attestation services An expression of opinion by an auditor to third parties concerning the correctness of assertions contained in financial statements or other reports against which objective criteria can be identified and measured.

auditing A systematic process of objectively obtaining evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users.

corporate governance The process of providing accountability back to stakeholders for the resources entrusted to the organization. Corporate governance describes the broad procedures related to proper oversight of the organization.

financial audit A systematic process to determine whether an entity's financial statements or other financial results are fairly presented in accordance with GAAP, if applicable, or another comprehensive basis of accounting.

generally accepted accounting principles (GAAP) Accounting principles formulated by the FASB and its designers, which have general acceptance and provide criteria by which to assess the fairness of a financial statement presentation.

Government Accountability Office (GAO) Governmental organization directly accountable to the Congress of the United States that performs special investigations for the Congress and establishes

broad standards for the conduct of governmental audits.

internal audit An independent and objective assurance and consulting activity designed to add value and improve an organization's governance, risk management, and control processes.

operational audit A systematic appraisal of an entity's operations to determine whether an organization's operations are being carried out in an efficient manner and whether constructive recommendations for operational improvements can be made.

Public Company Accounting Oversight Board (PCAOB) A quasi-public board, appointed by the SEC, to provide oversight of the firms that audit public companies that are registered with the SEC. It has the authority to set auditing standards for the audits of public companies.

Securities and Exchange Commission (SEC) The governmental body with the oversight responsibility to ensure the proper and efficient operation of capital markets in the United States.

unqualified audit report The standard three-paragraph audit report that describes the auditor's work and communicates the auditor's opinion that the financial statements are fairly presented in accordance with GAAP.

Review Questions

1-1 What is the "special function" that auditors perform? Whom does the public accounting profession serve in performing this special function?

1-2 What types of reports does management of public companies prepare that are subject to audit?

1-3 Does an audit always require a report to a third-party user? Explain how an audit differs from an assurance function in providing reports to third parties.

1-4 What are the primary factors that create a need for assurance services? Explain how these factors are important to the public accounting profession.

1-5 What kind of surprises should an audit be designed to avoid? Why is it important that the audit function operate to avoid surprises?

1-6 The fairness of financial statements and the adequacy of internal controls are judged only by reference to pre-established criteria. What serves as the criteria to judge the fairness of financial statements and the adequacy of internal controls? Explain why "reference to criteria" is important to the audit function and the results communicated by the audit function.

1-7 How does complexity affect (1) the demand for auditing services and (2) the performance of auditing services?

1-8 What are user's interests in reports on internal control over financial reporting? Identify the factors that influenced congress in developing Section 404 of the Sarbanes-Oxley Act that requires reports on internal control that supplement the annual financial statements.

1-9 Who is the most important user of an auditor's report on a company's financial statements: company management, the company's shareholders, or the company's creditors? Briefly explain your rationale and indicate how auditors should resolve potential conflicts in the needs of the three parties.

1-10 How does an audit enhance the quality of financial statements and its reports on internal control? Does an audit ensure a fair presentation of a company's financial statements or that internal control systems are free of material deficiencies? Explain.

1-11 Who is primarily responsible for choosing the accounting principles that are used to portray the company's financial position and results? Explain.

1-12 What is corporate governance and why is it important? Explain how an independent and competent audit committee improves corporate governance.

1-13 In what other areas, besides the audit committee, did the Sarbanes-Oxley Act improve corporate governance?

1-14 Why is independence important to the auditing profession? Who decides whether an auditor is independent?

1-15 How do assurance services differ from audit services? What are the primary drivers of the need for assurance services? Does a market for assurance services already exist or do auditors need to develop the market?

1-16 Who generally pays for assurance services—those receiving the assurance or the party on which the assurance is given? Why is it important who pays?

1-17 What is an attestation function? What are major factors that create a demand for the performance of attestation services by the public accounting profession?

1-18 In what ways is the auditing profession uniquely qualified to expand into the broader arena of assurance services?

1-19 What are the six areas identified by the Special Committee on Assurance Services that represent the largest market potential for providing new assurance services for the next decade? Which service, in your view, has the greatest appeal as you enter the profession?

1-20 What is the major difference between auditing services and assurance services?

1-21 What are the four attributes needed to perform assurance services? Briefly describe each attribute and its importance. Are these attributes also required for audits of a non-public company?

1-22 It is noted that an auditor can provide (1) positive assurance, (2) negative assurance, or (3) no assurance. Briefly describe these three levels of service and when they might be used.

1-23 In what ways does the practice of internal auditing differ from the practice of public accounting? To whom is the internal auditing function responsible?

1-24 In what ways might a public accounting practice of a firm that has no public audit clients differ from audit firms that audit public companies? In formulating your answer, focus on the nature of services that can be provided for the audited organization as opposed to focusing on the size of the firm.

1-25 What is the GAO? What types of audits does it perform? What is its role in setting standards for municipal audits?

1-26 What is the role of the SEC in setting accounting and auditing standards?

1-27 What is the role of the PCAOB and the AICPA in (a) setting audit standards, (b) performing quality control reviews of member firms, and (c) setting accounting standards?

1-28 What is COSO? Why is COSO, as a non-regulatory body, important to the auditing profession?

1-29 Are small, local CPA firms that serve only small businesses and other local clients subject to the same auditing and accounting standards as the large international CPA firms? If there are differences, what is the rationale for the differences?

1-30 Many public accounting firms are legally formed as networks of accounting firms. Explain what the term "network of accounting firms" means.

1-31 In what ways does the court system serve as a major regulatory body for the public accounting profession? Does the court system have a role in setting either accounting or auditing standards? Explain.

Multiple-Choice Questions

1-32 In determining the primary responsibility of the external auditor for the audit of a company's financial statements, the auditor owes primary allegiance to

a. The management of the company being audited because the auditor is hired and paid by management.
b. The audit committee of the company being audited because that committee is responsible for coordinating and reviewing all audit activities within the company.
c. Stockholders, creditors, and the investing public.
d. The SEC because it determines accounting principles and auditor responsibility.

1-33 Which of the following would *not* represent one of the primary problems that creates the demand for independent audits of a company's financial statements?

a. Management bias in preparing financial statements.
b. The downsizing of business and financial markets.
c. The complexity of transactions affecting financial statements.
d. The remoteness of the user from the organization and thus the inability of the user to directly obtain financial information from the company.

1-34 Which of the following is not one of the rationales used by Congress in developing the requirement for companies to report on the quality of their internal control processes over financial reporting?

a. Better internal control puts management in a position to make better financial decisions.
b. Many of the corporate failures took place in companies with inadequate internal controls.
c. In some of the largest frauds, e.g., WorldCom, management had the ability to override the internal control system.
d. Investors rely on a flow of financial information throughout the year. That information will be more reliable if internal control is more reliable.

1-35 Which of the following statements is true regarding the provision of assurance services?

I. The third party who receives the assurance generally pays for the assurance received.
II. Assurance services always involve a report by one person to a third party on which an independent organization provides assurance.
III. Assurance services can be provided either on information or on processes.

a. I and III
b. II only
c. III only
d. I, II, and III

1-36 Which is not a properly worded assertion that would be tested by the auditor in an integrated audit of internal controls and financial statements?

a. The financial statements are fairly presented.
b. Internal control operates effectively as judged by the COSO internal control criteria.

c. Inventory is fairly presented at the lower of cost or market as determined by GAAP.
d. The financial statements are presented fairly in accordance with the principles established by the International Accounting Standards Board.

1-37 Internal auditing is viewed as an integral part of all of the following organizational functions except:
a. Risk management
b. Governance
c. Control
d. Operations

1-38 Which of the following statements are correct regarding the setting of auditing standards in the United States?
a. The AICPA is responsible for the setting of audit standards for audits of non-public entities.
b. The GAO is responsible for setting audit standards for audits of governmental entities.
c. The PCAOB is responsible for setting audit standards for audits of public companies.
d. All of the above.

1-39 Which of the following statements are correct? As a result of the Sarbanes-Oxley Act of 2002,
a. Public companies must report on the quality of their internal controls over financial reporting.
b. CPA firms cannot provide consulting services to any public company.
c. CPA firms can provide tax services only to non-public companies.
d. Accounting standards are set by the PCAOB.
e. All of the above.

1-40 The GAO is responsible for all of the following except:
a. Developing standards for audits of federal agencies.
b. Developing standards for audits of state agencies.
c. Performing special investigations at the request of Congress.
d. Developing standards for external audits of public companies.

1-41 The AICPA is a private governing organization of the public accounting profession that does all of the following except
a. Perform quality peer reviews of companies performing audits.
b. Issue auditing standards dictating acceptable auditing practice for financial audits of public companies in the United States.
c. Establish standards for attestation services other than audits.
d. Prepare and grade the Uniform CPA Examination.

1-42 All of the following are true of the PCAOB except:
a. No more than two of its members can be a CPA.
b. It sets auditing standards for all CPAs engaged in the practice of auditing throughout the United States.
c. It sets standards for the audits of internal control of public companies.
d. It is responsible for quality reviews of all CPA firms that audit public companies.

Discussion and Research Questions

1-43 **(Users of Financial Statements)** It has been stated that auditing must be neutral because audited financial statements must serve the needs of a wide variety of users. If the auditor were to favor one group, such as existing shareholders, there might be a bias against another group, such as prospective investors.

Required

a. What steps has the public accounting profession taken to minimize potential bias toward important users and thereby encourage neutrality in financial reporting and auditing?

b. Who are the primary users of audited financial statements? Identify four user groups you believe are the most important. For each one identified, (1) briefly indicate their primary use of the financial statements and (2) indicate how an accounting treatment might benefit one party and potentially act to the detriment of another user.

1-44 **(Purposes of an External Audit)** The Rasmus Company manufactures small gas engines for use on lawnmowers and other power equipment. Most of its manufacturing has historically been in the Midwest, but it has recently opened plants in Asia that account for about 30% of its production. It is listed on the New York Stock Exchange.

Required

a. Briefly explain the rationale and value of an audit of a publicly-held company to investors, creditors, and to the broader community as a whole.

b. Explain why an audit of internal controls provides value to the investing public.

c. Explain the importance of an audit committee to the reliability of the financial statements and the audit function.

1-45 Quello Golf Distributors is a relatively small, privately-held golf distributing company handling several product lines including Ping, Callaway, and Taylor-Made in the Midwest. It sells directly to golf shops, pro shops, etc., but does not sell to the big retailers. It has approximately $8 million in sales and wants to grow at about 20% per year for the next five years. It is also thinking of a takeover or a merger with another golf distributorship that operates in many of the same areas.

Required

a. Explain why management might want an independent audit of its financial statements. Identify the specific benefits to Quello Golf Distributors.

b. What are the factors that Quello might consider in deciding whether to seek an audit from a large national public accounting firm, a regional public accounting firm, or a local firm?

c. Is Quello required to have an audit committee? Explain.

Group Activity

1-46 **(Nature of Auditing and the Public Accounting Profession).** Do you agree or disagree with the following statements? Explain your rationale.

a. A primary purpose of an audit is to ensure that all fraud that might be significant to a user is detected and reported.

b. There is a not an independence problem in a privately-held firm when the auditor is to be engaged by the manager because the manager is also the owner.

c. Sarbanes-Oxley requires mandatory reporting on internal control for public companies. That requirement should be extended to major charities like the Red Cross.

d. The expectations of the auditors of public companies are too high; the expectations simply cannot be met; the public should be better educated on what the auditor does and is capable of doing.

e. Consulting by public accounting firms for privately-held companies is a value-added proposition and does not impair the independence of the audit; rather, it enhances the effectiveness of the audit because of greater knowledge of the company.

f. The PCAOB greatly enhances the reputation of the public accounting profession because it not only sets standards, it determines whether firms audit according to those standard's.

g. Fairly presented in accordance to GAAP is not as precise of a criterion as one thinks because GAAP allows a wide variety of choices, e.g., FIFO vs. LIFO, accelerated vs. straight-line depreciation.
h. The auditor should be forced to state both (a) whether the financial statements are prepared in accordance with GAAP and (b) whether he or she feels that the choices made by the client best portray the economic substance of transactions within the GAAP framework.
i. Tax consulting, including preparing the tax return for top management, does not create a conflict of interest with the conduct of the audit.

1-47 **(Understanding the Business)** It is stated in the chapter that understanding a client's business is important to the conduct of an audit.

Required

a. Explain how an understanding of a business and the business environment would be important to the auditor in evaluating accounts such as:
   1. Inventory
   2. Allowance for uncollectible accounts
   3. Warranty liability and warranty expenses
b. Explain how the understanding of the business may provide value-added services that the auditor might be able to utilize to assist a privately-held client.

1-48 **(Implementing an Assurance Service)** Assume an e-commerce company that sells to electronic consumers, e.g., Amazon.com, E-Toys, or eBay, wants to obtain assurance services from a CPA firm that:

a. All goods are shipped in a timely fashion.
b. The goods are exactly as advertised.
c. The company stands behind any goods that are damaged in-transit.
d. The company fulfills promises made in its credit policies.
e. Credit card and billing information is kept safe and is not sold to other e-tailers or retailers.

Required

a. For each of the assurances (a–e), indicate the evidence the auditor would gather in order to provide the assurance desired.
b. How often would the assurances have to be provided in order to meet the objectives sought by both the merchant and consumers?
c. What would be the best way to present the assurance; i.e., how would a potential user become aware of the assurances provided?
d. Why would a CPA be a good provider of such assurances?
e. What are the major attributes of companies that might not need such assurances?
f. Who are alternative providers of the above assurances?

1-49 **(Internal Audit Profession)** The internal audit profession has grown rapidly in the past decade and has developed its own certification program. Many companies are developing policies to recruit new personnel into internal audit departments directly from college campuses.

Required

a. Briefly describe the nature of internal auditing. What does it mean when it is described as an assurance and consulting activity? How does consulting differ from assurance?
b. Briefly explain what the internal auditor's role is regarding risk management and controls.
c. What might be the primary arguments for hiring individuals into internal auditing who are not CPAs or who might not even be trained in accounting?

1-50 **(Auditing Professions)** Briefly describe the roles and responsibilities of the following professional organizations in developing and maintaining auditing standards and monitoring the quality of the various auditing professions:

a. AICPA
b. IIA
c. GAO
d. SEC
e. PCAOB

1-51 **(Internal Auditing)** You are aware that most of the first courses in auditing focus on public accounting rather than internal auditing. Yet your professor states that most of the concepts related to audit approach and evidence gathering are applicable to both internal and external auditing.

Required

a. If you decide to start your career in internal auditing, how will your first two years of work differ from your first two years in public accounting?
b. Assume that you are interested in eventually developing your skills as a manager in a large organization. Explain why beginning a career in internal auditing would be compatible with those objectives.

1-52 **(Nature of Auditing and the Public Accounting Profession)** You and a colleague are carrying on a heated discussion. The colleague makes a number of statements about the public accounting profession that you believe are in error. Welcoming an opportunity for rebuttal, you are ready to reply.

Required

a. For each of the following colleague statements, develop a brief response indicating erroneous assumptions made by the colleague or your agreement with the statements.
b. Cite relevant evidence in support of your response.

Colleague's Statements

1. "Auditing neither creates goods nor adds utility to existing goods and therefore does not add value to business. Auditing exists only because it has been legally mandated."
2. "The failure of the public accounting profession to warn us of the problems that existed in the economy is an example of a profession not adding utility to society."
3. "The only reason I would hire an auditor is with the expectation that the auditor search for and find any fraud that might exist within my company. Searching for fraud should be the primary focus of an audit."
4. "Auditors cannot legitimately serve the 'user' public because they are hired and fired by the management of the company being audited. If management does not like the opinion given by an auditor, it can simply hire another auditing firm that would be more amenable to the arguments made by management."
5. "The switch to the PCAOB in setting audit standards will enhance the reputation of the profession because they must act in the public's interest."
6. "Auditors cannot add significant value to financial statements as long as GAAP allow such diversity in accounting principles. How, for example, can the same auditor issue unqualified opinions on identical companies—one that uses FIFO and the other LIFO to account for the same set of transactions—recognizing that the reported income and balance sheets will be materially different? How can both be fairly presented?"

7. "Auditing is narrow—just nitpicking and challenging the organization in an attempt to find mistakes. I would rather pursue a career where I really understand a company's business and would be in a position to make recommendations that would improve it."
8. "Auditing would add greater value if it analyzed company performance and presented a report on company performance along with the audited financial statements."
9. "If auditors make recommendations to clients based on weaknesses in the company operations, the auditors ought to make those recommendations public. This would help increase the public trust by providing more accountability by both management and auditors."
10. "Adding reports on the quality of internal control will enhance the value of the audit function to society."
11. "The auditor's report admits that transactions are evaluated only on a 'test' basis; thus, the results embodied within an auditor's report must be treated with a great deal of skepticism."

1-53 **(Types of Audits)** Internal audits can generally be classified as (1) operational audits, (2) compliance audits, or (3) financial audits.

Required

a. For each of the following audit procedures, briefly indicate which of these three classifications best describes the nature of the audit being conducted.
b. Briefly indicate the type of auditor (public accounting firm, internal auditor, or governmental auditor) who would most likely perform each of the audits.

Audit Procedures Conducted

1. Evaluate the policies of the Department of Housing and Urban Development to determine their adequacy and whether they are effectively implemented.
2. Determine the presentation in conformity with GAAP of a municipality's statement of operations for the year just ended.
3. Evaluate the procedures used by the service department of a telephone utility to respond to customer maintenance. Determine whether responses are timely and are correctly and completely billed.
4. Determine the costs of a municipality's garbage pickup and disposal and compare these costs to those for similar services that might be obtained by contracting with a private contractor.
5. Determine whether all temporary investments by a company have been made in accordance with company policies and procedures and whether cash is handled economically and efficiently to maximize the benefits to the organization.
6. Conduct a tour of a manufacturing plant as a basis for determining the extent of waste and inefficiency. Study alternatives that might be utilized to cut down waste and inefficiency.
7. Review and test the security of the company's computer system used for Internet processing.
8. Review the operations of an organization that has received a government grant to assist in training the jobless. The grant specifies criteria that must be utilized in using the grant money for job retraining, and so on. The audit is designed to determine whether such criteria are being utilized by the grantee organization.
9. Analyze the financial statements of a company that has been targeted for a takeover. Present your analysis to management and the board of directors.

1-54 **(Internal Auditing)** Ramsay Mfg. Co. has an active internal audit department that has a major objective to ensure compliance with

company policies and to identify ways in which an organization can improve its operational effectiveness.

Required

Describe how an operational audit might be conducted in the following areas:

a. The treasury function
b. Inventory management and control
c. Customer service
d. Order entry and shipment

1-55 **(Public Accounting Profession)** In their review of the public accounting profession, Lou Harris and Associates warn that an audit report too often is viewed as a "certificate of health" for a company. The report states:

> The most serious consequences stemming from such a misunderstanding are that the independent auditor can quickly be portrayed as the force that represents all good in financial accounting and the guarantor of anything positive anyone wants to feel about a given company.

Required

a. Why is public accounting often viewed as a guarantor of results or even as a provider of assurance that one's investment is of high quality?
b. To what extent is it reasonable to view the auditor as a guarantor? Explain.
c. How does the auditing profession work to create or communicate a reasonable set of expectations that users should hold?
d. To what extent do you believe that user expectations of the public accounting profession appear to you to be unwarranted? Explain.

Internet Activity

1-56 **(PCAOB)** Access the PCAOB home page at http://www.pcaobus.org:

a. Identify the five members of the Board and their background. What is their background in accounting or using financial statements?
b. Identify the most recent auditing standard issued, or in exposure draft. Identify the nature of the standard and discuss the reason that the Board is issuing the standard.

Internet Activity

1-57 **(SEC)** Access the SEC home page at http://www.sec.gov:

a. Identify the most recent litigation brought by the SEC against a public firm or against an accounting firm. Read the abstract of the complaint and download the document filed with the court.
b. Comment on the nature of the litigation.

Internet Activity

1-58 **(SEC)** Access the SEC home page at http://www.sec.gov:

a. Identify the most recent Staff Accounting Bulletin that provides guidance to the profession.
b. Identify the guidance given.

Research Activity

1-59 User expectations of auditors may differ markedly from goals that the profession is capable of meeting. For example, a committee recommended that "the auditor evaluate the measurements and disclosures made by management to determine whether the financial statements are misleading, even if they technically conform with authoritative accounting pronouncements." Similarly, surveys by Lou Harris and Associates indicate that many users expect the auditors to detect fraud.

Required

a. Review recent studies or news articles that comment on auditor responsibilities. Evaluate the recommendations made regarding audit responsibilities and indicate whether or not you believe the recommendations are reasonable. Briefly support your opinion.

b. What are the current requirements for auditors to communicate to any parties their overall assessment of accounting used by the organization being audited; i.e., are auditors required to communicate to anyone if they believe that the financial statements technically conform to GAAP, but another treatment would result in a "fairer" presentation?

1-60 The large public accounting firms no longer provide consulting services for audit clients. However, many public accounting firms that do not audit public companies continue to provide such services to their clients.

Research Activity

Required

a. Log on to the web site of one of the Big 4 firms and identify the breadth of services that the firm provides to non-audit clients.
b. Log on to the web site of two firms in your area that provide services primarily to non-public companies. Identify their "business motto" and identify the nature of non-audit services provided to clients.
c. Contrast the breadth and nature of services provided by the Big 4 firms vs. the local firms that you have examined.

Cases

1-61 In a report to Congress entitled: "Superfund: A More Vigorous and Better Managed Enforcement Program Is Needed," the GAO made the following observations:

> Because cost recovery has been considered a low priority within EPA [the Environmental Protection Agency] and received limited staff resources, it has faltered. To provide a systematic approach for implementing its Superfund enforcement initiatives, EPA should establish long-term, measurable goals for implementing the Administrator's Superfund strategy and identify the resource requirements that will be needed to meet these long-term goals. GAO also makes other recommendations to improve EPA's enforcement activities.

Discussion Issues

a. How would the GAO go about developing evidence to reach the conclusion that cost recovery has been a low priority within the EPA?
b. Why is it important to the EPA, Congress, and the GAO that the EPA establish long-term, measurable goals? How would the establishment of such goals facilitate future audits of the EPA?
c. Based on the conclusions identified earlier, would you consider the work performed on the EPA by the GAO to be an audit? Explain why or why not.
d. In what substantive ways does it appear that the audit work of the GAO differs from that of the public accounting profession?

CHAPTER 2

Corporate Governance, Audit Standards

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Define the term "corporate governance," describe recent failures in corporate governance, and identify actions that the public perceived necessary to improve the quality of corporate governance.
- Identify the expectations of the audit profession by major user groups and the actions these groups have taken to increase audit responsibilities.
- Identify and analyze the public implications of the Sarbanes-Oxley Act of 2002 on corporate management and the auditing profession.
- Identify and analyze the key components of the Sarbanes-Oxley Act of 2002.
- Identify management's role as the key communicator of financial and control information to stakeholders.
- Identify the key responsibilities of the audit committee as the primary audit client of public companies.
- Identify the generally accepted auditing standards and describe how the standards affect the nature of audits.
- Describe the differences in audit standards, scope of allowable work, and standard setting processes for large CPA firms that audit public companies and smaller CPA firms that audit private companies.
- Describe the overall audit process as a foundation for fulfilling audit responsibilities to the public.

CHAPTER OVERVIEW

The public accounting profession has been widely criticized during the past decade for failing to protect investor interests. While much of the audit profession performed admirably during this time period, the failures were spectacular: Enron, WorldCom, Global Crossing, and HealthSouth. Congress reacted to these failures by enacting the most extensive legislation affecting the audit profession since the enactment of the Securities Exchange Act of 1933. The Sarbanes-Oxley Act of 2002 fundamentally changed the auditor-client relationship and moved the process of setting audit standards for public companies from the private sector to the public sector.

However, the failures that occurred during the past decade were not solely attributable to failures in the audit profession. They also represented fundamental failures at the very heart of organization—failures of the corporate governance structure. The failures in ethical standards and corporate governance continue with new issues every year. In the past few years, there have been questions about management greed associated with backdating of stock options, and whether a board has enough power, time, and resources to provide proper oversight of management.

The landscape for the auditing profession has changed with increased responsibilities, changed expectations, and greater regulatory oversight. This chapter describes the changes in audit responsibilities, describes generally accepted auditing standards, and presents a brief overview of the audit process.

Corporate Governance and Auditing

Understanding Auditor Responsibilities

For What:
- Financial Statements
- Internal Control Reports
- Corporate Governance

Attributes Needed:
- Ethics
- Standards
- Legal Responsibilities
- High Quality Decision-Making

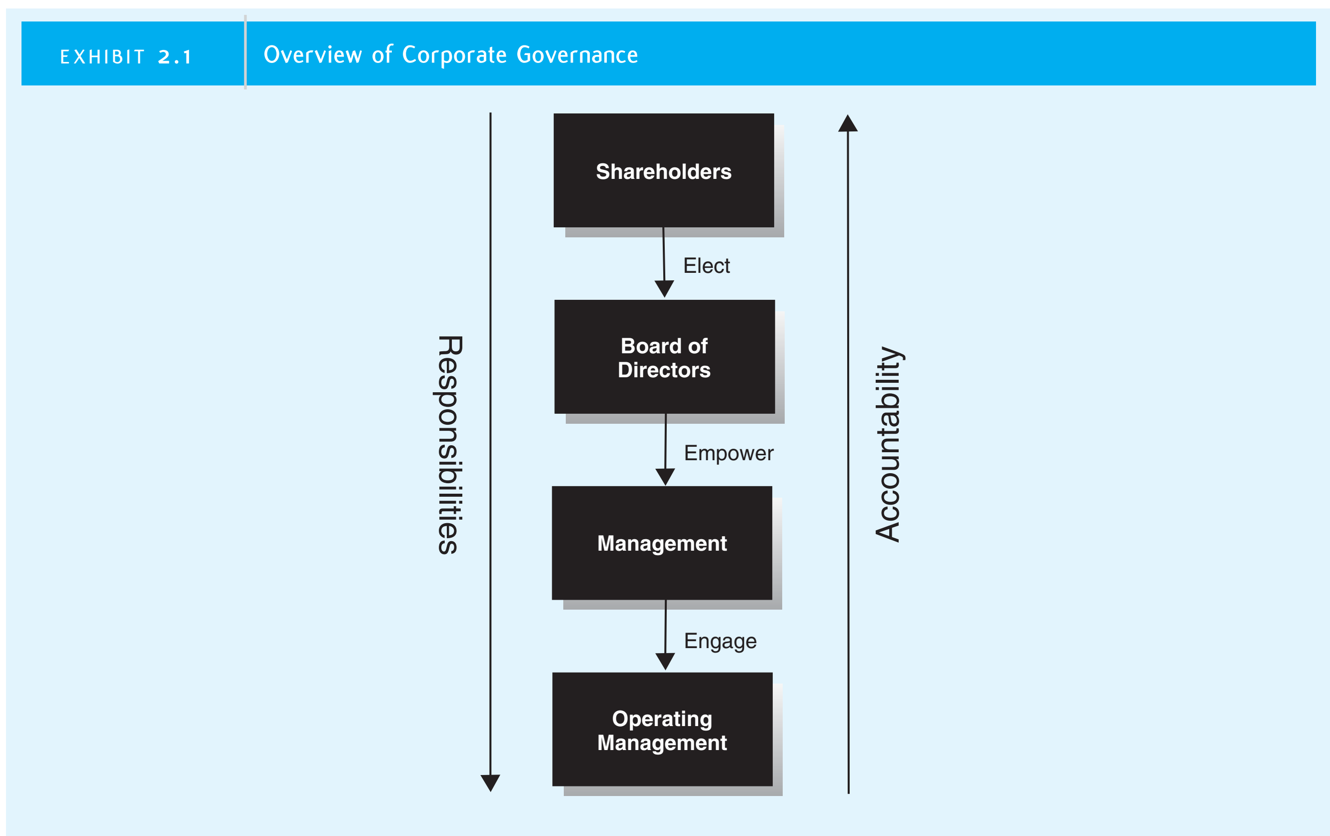
The financial failures of the past decade were not exclusively the fault of the public accounting profession. Rather, the failures represented fundamental breakdowns in the structure of corporate governance. Nor were the failures limited to the United States. Similar failures occurred in major companies located in Italy, France, the U.K., as well as other parts of the world. Greed simply overwhelmed all parts of the system. Thus, much of the regulation that took place in response to the financial failures addressed fundamental problems in corporate governance. The auditing profession is an integral part of corporate governance. To fully understand audit responsibilities, we need to first understand the auditor's role in corporate governance.

Corporate governance is defined as:

> a process by which the owners and creditors of an organization exert control and require accountability for the resources entrusted to the organization. The owners (stockholders) elect a board of directors to provide oversight of the organization's activities.

There are many parties involved in corporate governance. Exhibit 2.1 provides a broad schematic of the overall governance process. Governance starts

EXHIBIT 2.1 Overview of Corporate Governance



with the owners (shareholders) delegating responsibilities through an elected board of directors to management and, in turn, to operating units. In return for those responsibilities (and power), governance demands accountability back through the system to the shareholders. The owners need accountability as to how well the resources that have been entrusted to management and the board have been used. For example, the owners want accountability on such things as:

- Financial performance
- Financial transparency, i.e., the financial statements are clear with full disclosure and reflect the underlying economics of the company
- Stewardship, including how well the company protects and manages the resources entrusted to it
- Quality of internal controls
- Composition of the board of directors and the nature of their activities, including information on how well management incentive systems are aligned with the shareholders' best interests

Further, the owners want assurances that the representations made by management and the board are accurate and objectively verifiable. It is the audit function's responsibility to meet this broad requirement. Formerly, the auditor's assurances were limited to the financial statements. It is now expanded to include financial transparency and internal controls. The board has a responsibility to report on its activities, including management incentive systems, but its reports are not independently attested to by auditors.

The following are the primary parties involved in corporate governance:

- Stockholders
- Boards of Directors
- Audit committees of the Board
- Management
- Self-regulatory accounting organizations, e.g., AICPA
- Other self-regulatory organizations, e.g., New York Stock Exchange
- Regulatory agencies, e.g., SEC
- External auditors
- Internal auditors

Corporate Governance Responsibilities

To understand the nature of the changes in corporate governance dictated by the Sarbanes-Oxley Act of 2002, it is necessary to understand the interrelationships of the primary parties and how they each failed. A brief summary is presented in Exhibit 2.2. All of the failures occurred in companies such as WorldCom, Enron, and HealthSouth. But it would be a mistake to think that these were the only companies involved. The failures were pervasive across all corporate structures and in various parts of the world.

Investment analysts focused on "earnings expectations" and further contributed to the problem by relying on management guidance rather than performing their own fundamental analysis. The problems were further exacerbated with the prevalence of stock options as a major part of management compensation. Finally, there was a loss in confidence in accounting numbers since analysts recognized that company management had the ability to make accounting judgments to manipulate reported earnings through estimates or other accounting choices.

EXHIBIT 2.2 Corporate Governance Responsibilities and Failures

Party	Overview of Responsibilities	Overview of Corporate Governance Failures
Stockholders	**Broad Role:** Provide effective oversight through election of board members, approval of major initiatives such as buying or selling stock, annual reports on management compensation from the board	Focused on short-term prices; failed to perform long-term growth analysis; abdicated most responsibilities to management as long as stock price increased
Board of Directors	**Broad Role:** The major representative of stockholders to ensure that the organization is run according to the organization's charter and that there is proper accountability **Specific activities** include: • Selecting management • Reviewing management performance and determining compensation • Declaring dividends • Approving major changes, e.g., mergers • Approving corporate strategy • Overseeing accountability activities	• Inadequate oversight of management • Approval of management compensation plans, particularly stock options that provided perverse incentives, including incentives to manage earnings • Directors often dominated by management • Did not spend sufficient time or have sufficient expertise to perform duties • Continually re-priced stock options when market price declined
Management	**Broad Role:** Operations and accountability. Manage the organization effectively; provide accurate and timely accountability to shareholders and other stakeholders **Specific activities** include: • Formulating strategy and risk management • Implementing effective internal controls • Developing financial and other reports to meet public, stakeholder, and regulatory requirements • Managing and reviewing operations • Implementing an effective ethical environment	• Earnings management to meet analyst expectations • Fraudulent financial reporting • Utilizing accounting concepts to achieve reporting objectives • Created an environment of greed, rather than one of high ethical conduct
Audit Committees of the Board of Directors	**Broad Role:** Provide oversight of the internal and external audit function and the process of preparing the annual financial statements and public reports on internal control **Specific activities** include: • Selecting the external audit firm • Approving any non-audit work performed by audit firm • Selecting and/or approving the appointment of the Chief Audit Executive (Internal Auditor) • Reviewing and approving the scope and budget of the internal audit function • Discussing audit findings with internal auditor and external auditor and advising the board (and management) on specific actions that should be taken	• Similar to board members—did not have expertise or time to provide effective oversight of audit functions. • Were not viewed by auditors as the "audit client"; Rather, the power to hire and fire the auditors often rested with management
Self-Regulatory Organizations: AICPA, FASB	**Broad Role:** Set accounting and auditing standards dictating underlying financial reporting and auditing concepts, set the expectations of audit quality and accounting quality	• AICPA: Peer reviews did not take a public perspective; rather, the reviews looked at standards that were developed and reinforced internally • Inadequate enforcement of existing audit standards

(continued)

EXHIBIT 2.2 Corporate Governance Responsibilities and Failures (continued)

Party	Overview of Responsibilities	Overview of Corporate Governance Failures
	Specific roles include: • Establishing accounting principles • Establishing auditing standards • Interpreting previously issued standards • Implementing quality control processes to ensure audit quality • Educating members on audit and accounting requirements	• AICPA: Did not actively involve third parties in standard setting • FASB: Became more rule-oriented in response to (a) complex economic transactions, and (b) an auditing profession that was more oriented to pushing the rules rather than enforcing concepts • FASB: Pressure from Congress to develop rules that enhanced economic growth, e.g., allowing organizations to not expense stock options
Other Self-Regulatory Organizations: NYSE, NASDAQ	**Broad Role:** Ensure the efficiency of the financial markets including oversight of trading and oversight of companies that are allowed to trade on the exchange **Specific activities** include: • Establishing listing requirements—including accounting requirements and governance requirements • Overseeing trading activities	• Pushed for improvements for better corporate governance procedures by its members, but failed to implement those same procedures for its governing board, management, and trading specialists
Regulatory Agencies: the SEC	**Broad Role:** Ensure the accuracy, timeliness, and fairness of public reporting of financial and other information for public companies **Specific activities** include: • Reviewing filings with the SEC • Interacting with the FASB in setting accounting standards • Specifying independence standards required of auditors that report on public financial statements • Identify corporate frauds, investigate causes, and suggest remedial actions	• Identified problems but was not granted sufficient resources by Congress or the Administration to deal with the issues
External Auditors	**Broad Role:** Perform audits of company financial statements to ensure that the statements are free of material misstatements including misstatements that may be due to fraud **Specific activities** include: • Audits of public company financial statements • Audits of non-public company financial statements • Other services such as tax or consulting	• Helped companies utilize accounting concepts to achieve earnings objectives • Promoted personnel based on ability to sell "non-audit products" • Replaced direct tests of accounting balances with inquiries, risk analysis, and analytics • Failed to uncover basic frauds in cases such as WorldCom and HealthSouth because fundamental audit procedures were not performed
Internal Auditors	**Broad Role:** Perform audits of companies for compliance with company policies and laws, audits to evaluate the efficiency of operations, and periodic evaluation and tests of controls **Specific activities** include: • Reporting results and analyses to management (including operational management) and audit committees • Evaluating internal controls	• Focused efforts on "operational audits" and assumed that financial auditing was addressed by the external audit function • Reported primarily to management with little reporting to the audit committee • In some instances (HealthSouth, WorldCom) did not have access to the corporate financial accounting records

The SEC, led by Arthur Levitt, had been pushing for reform of the auditing profession. He summed up the problem as follows:

> Auditors are the public's watchdogs in the financial reporting process. We rely on auditors to put something like the good housekeeping seal of approval on the information investors receive. The integrity of that information must take priority.[1]

Levitt's concerns led the NYSE and NASDAQ to appoint a Blue Ribbon Committee to improve the effectiveness of audit committees. He also pushed the SEC to further develop concepts of audit independence because the consulting fees (mostly from audit clients) of public accounting firms became higher than audit fees. The problem had been seen for over a decade. As early as 1988, Arthur Wyatt, a long-time accounting standard setter at Arthur Andersen and then at the FASB, said:

> Practicing professionals should place the public interest above the interests of clients, particularly when participating in a process designed to develop standards expected to achieve fair presentation . . . . Unfortunately, the auditor today is often a participant in aggressively seeking loopholes.[2]

Not a Perfect Storm

The SEC was increasingly concerned with what they viewed as a decline in professionalism and cited numerous instances in which the accounting that had been certified by public accounting firms did not reflect economic reality, although they might be in accordance with GAAP. Chairman Levitt cited numerous problems with the profession, including the use of the following:

- "Cookie jar reserves" to manage earnings
- Improper revenue recognition
- Creative accounting for mergers and acquisitions that did not reflect economic reality
- Increased use of stock-based compensation that put increased pressure on meeting earnings targets

Chairman Levitt was concerned that public accounting firms did not have either the aptitude nor the desire to say no to client accounting that pushed all the bounds of financial reporting reasonableness. He proposed a change that would require auditors to make independent judgments on the economic substance of transactions and certify reports that were fully transparent of company activities.

In a separate study of the auditing profession, the Public Oversight Board (POB) issued a report citing concerns with the audit process and methods of audit partner compensation. Specifically, the POB had concerns that:

- Analytical procedures were being used inappropriately to replace direct tests of account balances.
- Audit firms were not thoroughly evaluating internal control and applying substantive procedures to address weaknesses in control.
- Audit documentation, especially related to the planning of the audit, was not up to professional standards.
- Auditors were ignoring warning signals of fraud and other problems.
- Auditors were not providing sufficient warning to investors about companies that might not continue as "going concerns."

The warning signs were present, but company management ignored them, and the auditing profession did not recognize them.

It is against this backdrop that Congress acted in developing the Sarbanes-Oxley legislation and empowered the SEC to take more effective action in policing governance, financial reporting, and auditing.

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[1] Arthur Levitt, "The Numbers Game," Remarks at the NYU Center for Law and Business Reporting, September 28, 1998.

[2] Arthur Wyatt, "Professionalism in Standard Setting," *CPA Journal* (July 1988), 20-26.

The Sarbanes-Oxley Act of 2002

After the debacles of the Enron and WorldCom frauds, Congress felt it necessary to act to protect the investing public. In these companies, and unfortunately in many others, significant operational failures were covered up with clever accounting frauds that were not detected by the public accounting firms. The press, Congress, and the general public continued to ask why such failures could have occurred when the public accounting profession was given the sole license to protect the public from financial fraud and misleading financial statements.

The **Sarbanes-Oxley Act of 2002** is comprehensive and will be subject to regulatory adjustment by the SEC or PCAOB for many years to come. Some of the more significant provisions of the Act include:

- Establishing the **Public Company Accounting Oversight Board (PCAOB)** with broad powers, including the power to set auditing standards for audits of public companies
- Requiring that the CEO and CFO *certify* the financial statements and the disclosures in those statements
- Requiring management of public companies to provide a comprehensive report on internal controls over financial reporting with independent auditor attestation to management's report
- Requiring management to certify the correctness of the financial statements, its disclosures and processes to achieve adequate disclosure, and the quality of its internal controls
- Empowering audit committees to be the formal "audit client," with responsibilities to hire and fire its external auditors and pre-approve any non-audit services provided by its external auditors; audit committees must also publicly report their charter, and issue an annual report on its activities
- Requiring that audit committees have at least one person who is a financial expert and must disclose the name and characteristics of that individual; other members must be knowledgeable in financial accounting as well as internal control
- Requiring that partners in charge of audit engagements, as well as all other partners or managers with a significant role in the audit, are rotated off public company engagements every five years
- Increasing the disclosure of all "off-balance sheet" transactions or agreements that may have a material current or future effect on the financial condition of the company
- Requiring the establishment of an effective "whistleblowing program" whereby important violations of the company's ethical code (including those related to accounting transparency) are reported to the appropriate levels of the organization and the audit committee
- There must be a "cooling off" period before a partner or manager can take a high-level position in an audit client; without the cooling off period, it is presumed that the independence of the public accounting firm is jeopardized

In addition to these provisions, the Act mandated studies of the accounting profession—most of which were performed by the GAO. These studies included:

- The effect of consolidation of the accounting profession on the competitiveness of the profession
- An analysis of "principles-based accounting" vs. "rules-based accounting" and what it would take to implement a principles-based accounting approach for U.S public company reporting
- An analysis of public company failures in the last decade and the implications for the public accounting profession and for corporations
- An analysis of mandatory audit firm rotation and whether there are serious impediments to implementing mandatory rotation requirements

These studies have been completed. The GAO has concerns about the continuing competitiveness of the public accounting profession. They view the potential failure of one of the remaining Big 4 firms as a serious impediment to competition in the profession. They have urged non-Big 4 firms to seek new clients and the national firms such as Grant Thornton, BDO, and McGladrey have all increased market share. The GAO's analysis of the rotation of audit firms led them to conclude that there are significant costs to changing audit firms on a frequent basis and that it is best for the audit committees to exercise their judgment in selecting audit firms.

The SEC performed a comprehensive study on principles-based accounting and suggested that the profession needed to move toward a more "objectives-based" accounting approach. However, to date, there has not been much movement in this area. The analysis of audit failures yielded insight regarding the basic skepticism of auditors, the inappropriate use of risk-based auditing, failure to perform basic audit procedures, and a failure to fully understand the business and its industry—all as contributing factors to audit failures. The SEC and PCAOB were quite critical of the nature in which partners were compensated, citing too much emphasis on revenue generation and not enough on audit quality.

The PCAOB

With the establishment of the PCAOB, Congress, in essence, has said that the profession was not capable of setting its own standards for the audits of public companies. The PCAOB has been given the authority to set standards for audits of public companies and will define the profession's responsibilities for detecting fraud and other financial misdeeds. The PCAOB has five members, only two of whom can be CPAs.[1] The PCAOB has the ability to make choices including:

- Setting auditing standards; the Board sets new audit standards, although it has chosen to incorporate some of the existing AICPA auditing standards
- Setting standards for reports on internal control over financial reporting
- Performing inspections of public accounting firm performance and recommending penalties, including censure, if the firms fail to perform at required levels
- Requiring all public accounting firms that audit public companies to register with the PCAOB and become licensed to perform such audits

The PCAOB is firmly established with a strong staff that is serious about setting audit standards that serve the public interest. They have also established an inspection process where they are not only looking at the effectiveness of the audits of public companies, but whether the audits have been carried out efficiently.

Auditor Independence Provisions

Rule 201 of the Act prohibits any registered public accounting firm from providing certain non-audit services contemporaneously with audit services. Essentially the audit firms are prohibited from performing consulting work for their audit clients. The specific practices that are prohibited are covered in more detail in Chapter 3.

The Act does not stop with the broad prohibition of consulting services. It goes further by:

- Making the audit committee the auditor's client
- Requiring the audit committee to pre-approve all non-audit services by the audit firm
- Requiring partner rotation on all public companies every five years

The Act recognized that other services, besides those normally designated as consulting, may impair the objectivity, or the appearance of objectivity, of the audit firm. For example, many users have been concerned that tax planning

[1] Interestingly, the first two CPAs appointed to the board were both lawyers who had significant previous roles at the SEC.

for the audit client, or more especially for the top management of audit clients, might impair the auditor's objectivity because tax planning usually necessitates an advocacy position in favor of the client. The PCAOB prohibits providing any tax services for an audit client except for preparing the client's tax returns.

Corporate Responsibility for Financial Reports

Management has always had the primary responsibility for the accuracy and completeness of an organization's financial statements. It is management's responsibility to:

- Make choices on which accounting principles best portray the economic substance of company transactions
- Implement a system of internal control that assures completeness and accuracy in financial reporting
- Ensure that the financial statements contain full and complete disclosure

The Sarbanes-Oxley Act goes a step further: It requires management (both the CEO and the CFO) to *certify* the accuracy of the financial statements and provides for criminal penalties for materially misstated financial statements. Further, management has to describe whether they have implemented a Corporate Code of Conduct, including provisions for whistleblowing, and processes to ensure that corporate actions are consistent with the Code of Conduct.

Many of the corporate failures took place in an environment in which internal controls over financial reporting were not operative. The Sarbanes-Oxley Act creates a new responsibility for management to develop a public report on the effectiveness of internal control over financial reporting and requires auditors to attest to management's report. The key elements of the internal control attestation process are discussed in more detail in Chapter 6.

Two other provisions will affect management's approach to financial reporting. The first deals with restatements. Section 302 requires executives of an issuer to forfeit any bonus or incentive-based pay or profits from the sale of stock received in the 12 months prior to an earnings restatement. The second provision makes it a criminal act to provide false or misleading information about the financial condition of the company to the accounting firm that is conducting an audit.

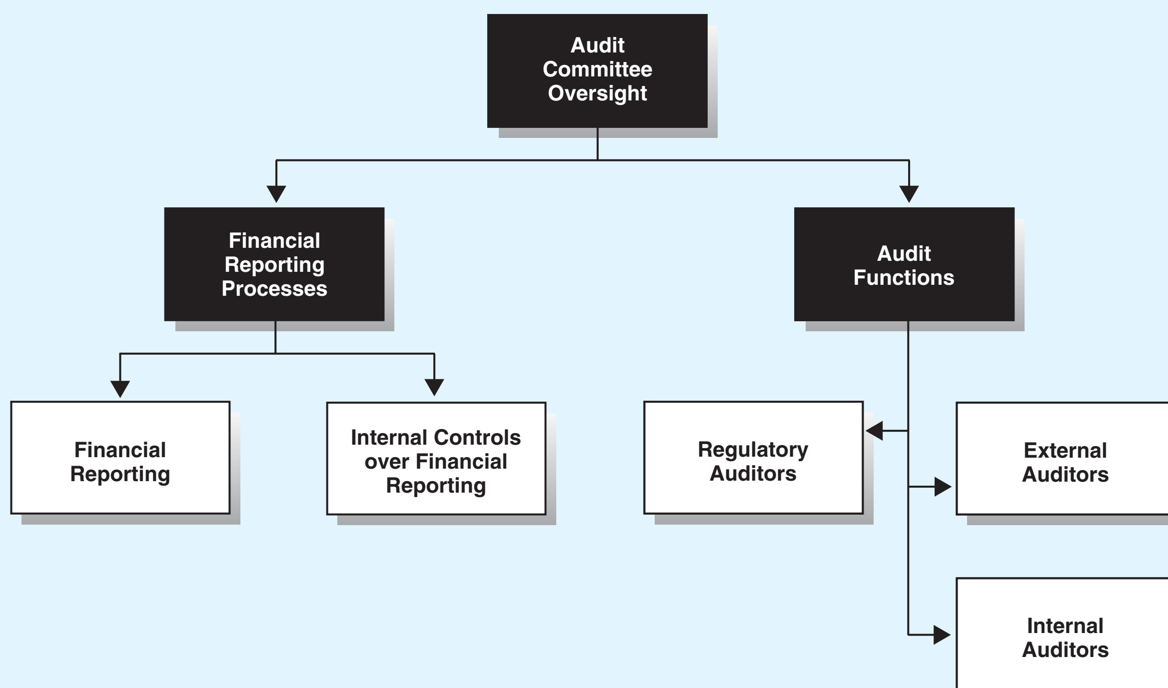
Enhanced Role of Audit Committees

Audit committees for public companies take on added importance under Sarbanes-Oxley—they are clearly designated as the audit client. Further, the audit committee has broad oversight responsibilities over the internal audit and financial reporting processes. See Exhibit 2.3 for an overview of audit committee responsibilities.

The audit committee must be composed of "outside directors," i.e., directors who are not members of management and do not have other relationships with the firm (e.g., a vendor, consultant, or general counsel). The audit committee has important oversight roles. It is important that we remember these are oversight roles; i.e., the audit committee does not replace the CFO or divisional controllers—the responsibility for all of these functions lies with management. The **audit committee** should:

- Be apprised of all significant accounting choices made by management
- Be apprised of all significant changes in accounting systems and controls built into those systems
- Have the authority to hire and fire the external auditor and should review the audit plan and audit results with the auditors

EXHIBIT 2.3 Audit Committee Oversight Responsibilities



- Have the authority to hire and fire the head of the internal audit function, and set the budget for the internal audit activity and should review the audit plan and discuss all significant audit results
- Receive all the regulatory audit reports and periodically meet with the regulatory auditors to discuss their findings and their concerns

Audit committees are increasingly expanding their functions to include oversight over the risk management processes utilized by the organization. In most organizations, the audit committee also reviews the annual report filed with the SEC, including an analysis of the Management Discussion and Analysis section of the report to determine that management's discussion is consistent with their understanding of operational performance.

The audit committee is not intended to replace the important processes performed by the auditors. But the audit committee must make informed choices about the quality of work it receives from the auditors. For example, the audit committee must monitor and assess the independence and competence of all audit functions; it should review quality control reports on both the external audit firm and the internal audit function; and it should evaluate the quality of reports it receives from the auditors and the quality of financial reporting and control discussions.

Practical Point

Many public accounting firms discuss their annual inspection report from the PCAOB with audit committees. Most firms also discuss litigation that may adversely affect the auditing firm.

The independence of the audit committee is further enhanced by requirements of the NYSE to limit the number of non-independent members of the board of directors and to suggest that positions of the Chairman of the Board and the CEO be separated. The external auditor should discuss any controversial accounting choices with the audit committee and must communicate all significant adjustments made to the financial statements during the course of the audit. The audit committee will receive feedback from both the internal auditors and external auditors on the quality of internal controls over financial reporting. Finally, the audit committee must be aware of all regulatory audit findings that

may provide feedback on the quality of controls, or may have operational or financial implications.

Prior to the introduction of Sarbanes-Oxley, audit committees typically met three to four times a year—usually an hour before the annual board meeting. Clearly that has all changed: The audit committee is a key component of effective corporate governance; their members must have both sufficient time and expertise to fulfill their function; and the chair of the audit committee must be a strong individual who is willing to have frequent contacts with auditors and management.

Required Audit Communication to the Audit Committee

It is important that auditors and audit committee members have clear expectations of the audit profession. The AICPA developed SAS 61 over a decade ago to promote better communication between auditors and audit committees by specifying certain things that must be communicated on every engagement. The required communication is shown in Exhibit 2.4 and forms the foundation on which all communication takes place with the audit committee. The auditor must discuss all significant accounting and audit issues with the audit committee. This includes any restrictions by management on the conduct of the audit, or any

EXHIBIT 2.4 Required Communication to Audit Committees

REQUIRED COMMUNICATION TO AUDIT COMMITTEE AICPA AUDITING STANDARDS

Auditor's Responsibility under Generally Accepted Auditing Standards
The auditor must clearly communicate the audit firm's responsibility to perform the audit according to GAAS and independently assess the fairness of the financial statements; to assess the quality of the entity's internal controls over financial reporting; to attest to the fairness of management's report on internal accounting over financial reporting; and to design the audit to detect material misstatements.

Significant Accounting Policies
The auditor should ensure that the audit committee is informed about the initial selection of, and changes in, significant accounting policies or their application, and discuss the quality of accounting principles used.

Management Judgments and Accounting Estimates
Many corporate failures have involved manupulated accounting estimates such as loan loss reserves. The auditor should ensure that the audit committee is aware of the processes' used by management in making sensitive accounting estimates, and the auditor's assessment of those processes and accompanying estimates.

Significant Audit Adjustments
Significant audit adjustments may reflect on the stewardship and accountability of management. The audit committee should be made aware of such adjustments, even if management readily agrees to make them. Significant adjustments, by definition, suggest that there have been internal control failures that must be communicated to management and the audit committee.

Other Information in Annual Reports
The auditor should briefly describe the auditor's responsibility to review other information contained in an annual report and whether such information is consistent with the audited financial statements.

Disagreements with Management
All major accounting disagreements with management, even if eventually resolved, should be discussed with the audit committee. This requirement is intended to insulate the auditors from management pressure to change or bend accounting treatments to suit management and should remove any subtle hints that the auditing firm may be replaced because it disagrees with management's proposed accounting treatments.

disagreements with management on how to account for something. In addition, the auditor is required to communicate all significant deficiencies in internal control to the audit committee.

The audit committee must be assured that the auditor is free of any restrictions and has not been influenced by management during the course of the audit. Thus, the auditor must also communicate whether there were major issues discussed with management before the auditor was engaged, or whether management has consulted with other audit firms. These last two issues are far less frequent than they had been in the past since the audit committee has taken responsibility for the engagement of the auditors. Finally, it is important to remember that this required communication is not limited to public companies, but is required for all companies that have an audit committee, and if a company does not have an audit committee, the issues must be communicated to the board as a whole or its equivalent.

Auditors have a responsibility to exercise informed judgment beyond simply determining whether the statements reflect generally accepted accounting principles (GAAP). The auditor must have a discussion with the audit committee about not only the acceptance of an accounting principle chosen, but whether or not the auditor believes the accounting treatment best portrays the economic substance of the transaction.

The required communication provides the audit committee with a pivotal role in corporate governance. The auditing role is enhanced with the Sarbanes-Oxley Act as CPA firms cannot provide non-audit services without the explicit approval of the audit committee. Further, audit committees are motivated to make sure the auditors do their job because poor performance or non-objective performance on the part of the auditors will directly reflect on the performance of the audit committee members.

Importance of Good Governance to the Audit Good governance is important to the conduct of an audit for one very simple reason: Companies with good corporate governance are less risky. These companies are less likely to engage in "financial engineering"; will usually have a code of conduct that is reinforced by actions of top management; will have independent board members who take their jobs seriously and have sufficient time and resources to perform their work; and will take the requirements of good internal control over financial reporting seriously and make a commitment to needed financial competencies. Recent empirical studies have shown that companies with good corporate governance also have (a) lower costs of capital and (b) superior stock returns as compared to companies with lower levels of corporate governance.

More and more, many audit firms are not willing to accept potential audit clients unless the clients demonstrate a strong commitment to good corporate governance. Stated simply, a public company that does not commit to good corporate governance is too much of a risk for an audit firm. Such a company is more likely to have violations of its corporate code of conduct, is more susceptible to financial fraud, have a less robust internal control system, and will be more difficult to audit. Most audit firms look at the governance issues when making decisions to become associated with, or to remain associated with, an audit client.

As public accounting firms continue to expand their services to non-audit clients, the governance issues remain important. Even though not rendering an audit opinion, a public accounting firm cannot afford the risk of being associated with a company that has a reputation for poor governance. For example, assume that a Big 4 public accounting firm performed only internal audit work for a company with a less than reputable corporate governance structure and management was found to have illegally backdated the exercise dates for stock options. Outside users would ask why the internal audit function had not looked at the risk associated with management compensation and brought it to the attention of the board, and further, seen to it that the board had taken proper action.

Audit Standard Setting

Public/Non-Public Issue

The AICPA continues as the audit standard setter for audits of non-public clients. The AICPA has gained back a good portion of its credibility and is working to improve audit performance.

The PCAOB has the authority to issue auditing standards for the audits of public companies in the United States. It has shown that it will recognize other auditing standards either retroactively or as they arise. To date, they have adopted the existing AICPA standards as a starting point, but have indicated an interest in greater harmonization with international auditing standards.

Generally Accepted Auditing Standards

The Auditing Standards Board of the AICPA developed ten generally accepted auditing standards for the audit of financial statements that serve as a foundation for all other standards, including those that have been adopted by the PCAOB. Because the standards are conceptual in nature, an understanding of them provides a foundation to better understand other standards. The standards are developed in three categories:

- General Standards—those applying to the auditor and audit firm
- Fieldwork Standards—those applying to the conduct of the audit
- Reporting Standards—those applying to communicating the auditor's opinion

The standards are shown in Exhibit 2.5

General Standards The **general standards** guide the profession in selecting and training its professionals to meet that public trust. These standards are represented by the broad concepts underlying technical training and proficiency, independence from the client, and the exercise of due professional care.

EXHIBIT 2.5 Generally Accepted Auditing Standards for Audits of Financial Statements

GENERAL STANDARDS

1. The audit must be performed by a person or persons having *adequate technical training and proficiency* as an auditor.
2. The auditor must maintain *independence* in mental attitude in all matters relating to the assignment.
3. The auditor must exercise *due professional care* in the performance of the examination and the preparation of the report.

STANDARDS OF FIELDWORK

1. The auditor must *adequately plan* the work and must *properly supervise* any assistants.
2. The auditor must *obtain a sufficient understanding of the entity and its environment, including its internal control,* to assess the risk of material misstatement of the financial statements whether due to error or fraud, and to design the nature, timing, and extent of further audit procedures.
3. The auditor must obtain *sufficient appropriate audit evidence* by performing audit procedures to afford a reasonable basis for an opinion regarding the financial statements under audit.

STANDARDS OF REPORTING

1. The auditor must state in the auditor's report *whether* the financial statements are *presented in accordance with generally accepted accounting principles* (GAAP).
2. The auditor must identify in the auditor's report those circumstances in which such principles *have not been consistently observed* in the current period in relation to the preceding period.
3. When the auditor determines that *informative disclosures* are not reasonably adequate, the auditor must so state in the auditor's report.
4. The auditor must either *express an opinion* regarding the financial statements, taken as a whole, or state that an opinion cannot be expressed in the auditor's report. When the auditor cannot express an overall opinion, the auditor should state the reasons therefore in the auditor's report. In all cases in which an auditor's name is associated with financial statements, the auditor should clearly indicate the character of the auditor's work, if any, and the degree of responsibility the auditor is taking in the auditor's report.

(*Emphasis* added)

Technical Training and Proficiency The audit is to be performed by individuals having adequate technical training and proficiency as an auditor. The standard does not precisely define what constitutes adequate technical training and proficiency because required elements of audit proficiency evolve as the environment changes.

Auditors must understand the client's business and industry and be proficient in using current technologies to perform an effective and efficient audit. They must have technical knowledge in both auditing and accounting. The auditor must be able to dissect complex accounting problems and make judgments on the appropriateness of accounting treatments. Similarly, auditors must be able to select and apply auditing procedures that will be efficient and have a high likelihood of detecting material misstatements. More than a detailed knowledge of rules is needed: Auditors are increasingly called upon to exercise expert judgment in accounting, auditing, and internal controls.

Independence Independence is often referred to as the *cornerstone* of auditing—without independence the value of the auditor's attestation function would be nil. Auditors must not only be independent in their mental attitude in conducting the audit (independence *in fact*), but also must be perceived by users as independent of the client (independent in *appearance*). Independence requires objectivity and freedom from bias: The auditor must favor neither the client nor third parties in gathering evidence and evaluating the fairness of the financial statements.

Practical Point

An auditor can add value to the client through advice, but in doing so must remain objective or risk becoming irrelevant to stockholders.

Due Professional Care The public expects that an audit will be conducted with the skill and care of a professional. Following GAAS is one benchmark for **due professional care.** However, following GAAS is not always sufficient. If a "reasonably prudent person" would have done more, such as investigating for a potential fraud, it is often asserted that the professional should have done at least as much. Due professional care is also determined by evaluating whether someone with similar skills in a similar situation would have performed the same way as the auditor. For example, would a competent auditor have performed the same or additional audit procedures? Public accounting firms use supervision and review of audit work to ensure that audits are conducted with due professional care.

Fieldwork Standards

Planning and Supervision Planning an audit involves more than developing a schedule and determining when to conduct the audit. The most visible product of the planning process is the **audit program,** which lists the audit objectives and the procedures to be followed in gathering evidence to test the accuracy of account balances. Exhibit 2.6 is an example of a partial audit program for trade receivables. It contains columns for indicating the estimated time to complete the procedure, a reference to the documentation of the work done, and the initials of the auditor carrying out each audit procedure. The program helps those in charge of the audit to monitor the progress and supervise the work.

Understanding the Entity and its Internal Controls Organizations are expected to have effective internal control over financial reporting. When a company has weaknesses in internal control, it is more likely that misstatements will occur and will not be detected by the organization. Thus, an auditor is required to obtain an understanding of the client's internal controls over financial reporting to determine if there are weaknesses in the controls, and if so, what account balances would most likely be affected by the weaknesses.

Practical Point

A good auditor develops an understanding of the client's business and its risks as part of developing an audit program.

The quality of internal controls varies greatly across different entities. In some organizations, few control procedures exist; in others, strong control procedures are in place. Even within a particular company, there may be very good control for some transactions and weaknesses in other areas. An analysis of the accounting system is necessary to determine (a) risks that are not addressed by controls, (b) the potential impact of those risks on the company's financial position, (c) the

EXHIBIT 2.6 Partial Audit Program—Accounts Receivable

Trade Receivables Client ______________________ Closing Date ______________________

The objectives of this program are to determine that: (a) receivables exist, are authentic obligations owed to the entity, contain no significant amounts that should be written off, and the allowance for doubtful accounts is adequate and not excessive; (b) proper disclosure is made of any pledged, discounted, or assigned receivables; and (c) the presentation and disclosure of receivables is in conformity with generally accepted accounting principles.

Procedure	Time Est.	Done By	Ref.
1. Foot subsidiary receivable records and select balances for confirmation.	________	________	________
2. Send confirmation requests to all major customers.	________	________	________
3. Reconcile and evaluate all confirmation replies and clear any exceptions.	________	________	________
Nonreplies must be verified by use of alternative procedures.	________	________	________
4. Summarize results of confirmation procedures.	________	________	________
Alternate Procedures Performed:	________	________	________

Practical Point

Deficiencies in internal controls increase the likelihood of misstatements or other forms of financial manipulation.

type(s) of misstatements that could occur, and (d) the likelihood that financial misstatements could take place. The auditor's analysis of how a misstatement could occur is important in developing audit procedures to determine its existence.

Obtaining Audit Evidence *Sufficient* (enough) *appropriate* (reliable and relevant) evidence must be obtained to evaluate the assertions embodied in the financial statements, including the related footnotes. The types and extent of procedures used to gather evidence will depend on the auditor's assessment of the likelihood of material misstatements and the persuasiveness of potential evidence that may be gathered. Tests of account balances that are not likely to contain material misstatements may be limited. More persuasive and extensive testing is required for accounts that are likely to contain material misstatements.

Reporting Standards Have you ever communicated something explicitly to people only to find out that they did not seem to understand what you said or meant? Providing clear and concise communication is a difficult task. It is even more difficult when the communication involves information on a complex subject such as financial statements and audits. The **reporting standards** provide guidelines to:

- Standardize the nature of reporting
- Facilitate communication with users by clearly specifying the auditor's responsibility regarding the report
- Identify and communicate all material situations in which accounting principles have not been consistently applied
- Require the auditor to express an opinion on the financial statements examined or indicate all substantive reasons why an opinion could not be rendered

Presentation in Accordance with GAAP The auditor is required to state explicitly whether the financial statements are fairly presented in accordance with GAAP. If the auditor determines that the statements materially depart from GAAP, the auditor describes the departures from GAAP, including the dollar effects (whenever determinable). In most cases, GAAP is the intended basis for financial reporting. However, there are some non-public companies that prepare financial statements on another comprehensive basis of accounting such as the cash or income tax basis.

Consistency The *consistency* standard requires that the same accounting principles be consistently used from year to year. Consistency enhances comparability and understandability of results over a period of time. If there is a change in accounting principles that has a material effect on the financial statements, the auditor is required to note the change and the effect of the change in the audit report.

Disclosures Readers of the financial statements are usually not in a position to know whether the disclosures in the financial statements and related footnotes are adequate and meet the disclosure standards required by the FASB and other authoritative bodies issuing accounting pronouncements. If nothing is mentioned in the auditor's report, the reader can assume that the disclosures meet the requirements of authoritative pronouncements.

Opinion The fourth standard of reporting requires the auditor to issue an audit opinion or, if there are reasons why an opinion cannot be issued, to inform the reader of all of the substantive reasons why an opinion cannot be issued. The type of opinion rendered depends on the results of the auditor's examination. The auditor's report should indicate the type of examination performed and the degree of responsibility taken for it. Therefore, the report should clearly state whether the financial statements were audited, reviewed, or compiled.

Standards for Other Audit Engagements Financial statement audits represent only a part of the demand for assurance services. As the demand for other assurance services has emerged, new attestation standards have been developed to ensure quality for a broader array of services beyond financial statement audits. Other standards have been developed for the practice of internal auditing, governmental auditing, information systems audits, and audits of international clients, among others.

Attestation Standards

Auditing is a specific and important part of a broader set of services referred to as *attestation services.* All attestation services, including the financial statement audit, involve gathering evidence regarding specific assertions and communicating the attester's (auditor's) opinion on the fairness of the presentation to a third party. Financial statement audits are unique in that they are broadly disseminated and have very specific standards developed solely for that service. The AICPA has anticipated the expansion of the audit profession's work into other areas and has developed broader attestation standards to apply to that work. Thus far, the AICPA has established specific standards for attesting to financial forecasts and projections, pro forma financial information, internal controls, compliance with contracts or regulatory requirements, and agreed-upon procedures. Because it is difficult to anticipate all the areas in which the demand for attestation services might evolve, the attestation standards framework includes a set of general attestation standards to cover newly evolving services. The standards developed for attestation services are shown in Exhibit 2.7.

Future of Audit Standard Setting

Standard setting will be divided among a number of parties in the future; however, as with auditing standards, there is a movement across domestic and international standard setting to harmonize existing standards. The most important standard setter in the United States is the PCAOB because of their role in setting standards for audits of public companies in the United States. A summary of audit standard setting bodies and their base of authority is presented in Exhibit 2.8.

Audit standard setting will continue to be diverse because the practice of auditing is diverse. The PCAOB has emerged as the primary audit standard setter

EXHIBIT 2.7 Attestation Standards

GENERAL STANDARDS

1. The engagement shall be performed by a practitioner or practitioners having adequate technical training and proficiency in the attest function.
2. The engagement shall be performed by a practitioner or practitioners having adequate knowledge in the subject matter of the assertion.
3. The practitioner shall perform an engagement only if he or she has reason to believe that the following two conditions exist:
   - The assertion is capable of evaluation against reasonable criteria that either have been established by a recognized body or are stated in the presentation of the assertion in a sufficiently clear and comprehensive manner for a knowledgeable reader to be able to understand them.
   - The assertion is capable of reasonably consistent estimation or measurement using such criteria.
4. In all matters relating to the engagement, an independence in mental attitude shall be maintained by the practitioner or practitioners.
5. Due professional care shall be exercised in the performance of the engagement.

STANDARDS OF FIELDWORK

1. The work shall be adequately planned and assistants, if any, shall be properly supervised.
2. Sufficient evidence shall be obtained to provide a reasonable basis for the conclusion that is expressed in the report.

STANDARDS OF REPORTING

1. The report shall identify the assertion being reported on and state the character of the engagement.
2. The report shall state the practitioner's conclusion about whether the assertion is presented in conformity with the established or stated criteria against which it was measured.
3. The report shall state all of the practitioner's significant reservations about the engagement and the presentation of the assertion.
4. The report on an engagement to evaluate an assertion that has been prepared in conformity with agreed-upon criteria or on an engagement to apply agreed-upon procedures should contain a statement limiting its use to the parties who have agreed on such criteria or procedures.

EXHIBIT 2.8 Summary of Audit Standard Setting and Authority

Audit Standard Setter	Scope and Basis of Authority
Public Company Accounting Standards Board (PCAOB)	**Authority Base:** U.S. Congress: Expressed in the Sarbanes-Oxley Act of 2002. **Scope:** Sets audit standards for the audits of financial statements and internal controls over financial reporting for public companies that are registered with the SEC.
American Institute of CPAs (AICPA)	**Authority Base:** Historical, as self-regulatory organization that had earned the public's trust. **Scope:** • Auditing standards for audits of non-public companies. • Attestation standards for areas other than public company reports on internal control. • Assurance services that are less in scope than an audit such as reviews and compilations.
Governmental Accountability Office (GAO)	**Authority Base:** Congressional laws establishing the GAO as the audit arm of Congress and delegating to them the authority to set standards for audits of governmental entities. **Scope:** Sets auditing standards for audits of all governmental entities in the U.S and any organization that expends at least $500,000 of federal financial assistance during the year. Standards are published in a document often referred to as the "yellow book" and have broad applicability.
International Audit Standards Committee (IASC)	**Authority Base:** As agreed upon by countries who agree to abide by their standards. Leadership historically has come from members of the European Economic Commission. **Scope:** Standards for financial statement audits across most of Europe and many developing countries. Harmonization across countries, including the United States, will continue to be an objective.
Internal Audit Standards Board (IASB)	**Authority Base:** Developed by the Institute of Internal Auditors as a self-regulating organization. **Scope:** Standards for the professional practice of internal auditing around the world. Internal auditing standards help protect internal audit departments from managers who want to restrict the scope of the internal audit activity. Such restrictions need to be reported to the audit committee and the board.

because of its importance in clarifying directives contained in Sarbanes-Oxley and because the companies that are audited under its jurisdiction are the companies traded on the largest stock exchanges in the world. The AICPA has reestablished itself as a conscientious standard setter. The GAO sets the standards for audits of governmental units within the United States. While the GAO does not have the formal due process considerations of some of the other standard setters, it does seek input on its standards. The GAO has been at the forefront in addressing auditor independence issues and in encouraging auditors to examine both the efficiency and effectiveness of operations. The International Auditing Standards Committee is taking on added importance as the economy becomes increasingly global and companies wish to register on multiple stock exchanges.

Finally, the Internal Auditing Standards Board has attained recognition as the premier standard setter for the professional practice of internal auditing on a world-wide basis. However, it is important to note that use of the internal audit standards is voluntary. For example, the internal audit departments at Enron, HealthSouth, and WorldCom did not follow the professional standards for the conduct of internal audit. Had they done so, they would have reported the restrictions on the scope of their activities to the audit committee and the board.

Overview of Audit Process: A Standards-Based Approach

Audits of financial statements and public reports on internal control are an important part of the governance process of organizations and help fulfill the accountability function. Audits involve numerous parties, but the primary parties are the auditors (CPA firm), audit committees, management (owners of financial reporting process), and internal auditors. The **fieldwork standards** provide the framework for the audit process.

Planning the Audit

Understanding with Audit Client Audit planning starts with a meeting with the audit client—the audit committee and the management of the company being audited.[2] These are the key people involved in the governance process. The purpose of the planning meeting is to develop an understanding of:

- The scope of audit services to be performed
- Management's preparedness
- Materiality
- Audit committee and management's assessment of risks associated with internal control and reliable financial reporting
- Potential coordination of work with the internal auditor
- Audit fees and expectations of each party

The meeting ensures that the key governance parties, particularly the audit committee, are aware of the audit approach and the responsibilities of each party. While the overall audit approach is shared with management, the details of the plan, including the determination of materiality, is not shared with management.

Develop an Understanding of Materiality The audit must be planned to provide reasonable assurance that material misstatements will be detected. The concept

[2] Throughout the text, we refer to the company being audited as the "client," while the audit client (party for whom the audit is intended) is the audit committee.

of materiality is pervasive and guides the nature and extent of auditing both financial statements and a company's internal control over financial reporting.

The FASB defines **materiality** as the

> magnitude of an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

Materiality is not simply a function of specific dollar amounts in the organization's financial statements. One advantage of clearly identifying the audit committee as the audit client is that the auditor can have meaningful discussions with the audit committee about quantitative, as well as qualitative, dimensions of materiality as a basis to design the audit process to address material misstatements.

Small Business Focus

Many smaller businesses will not have audit committees. The auditor's materiality decision will focus on important debt covenants, firm guidelines, and interaction with the owner-manager.

Although many audit firms have provided guidelines to audit staff for materiality decisions, it is important to note that any guideline is just a starting point that is adjusted for other relevant information. For example, if the client has a loan with a restrictive covenant that requires a current ratio of 2:1, any dollar amount that would bring that ratio under 2:1 would be material.

Materiality guidelines usually involve applying percentages to some base, such as total assets, total revenue, or pretax income. A simple guideline for small business audits could be, for example, to set overall materiality at 1% of total assets or revenue, whichever is higher. The percentage may be smaller for large clients. Other CPA firms have more complicated guidance that may be based on the nature of the industry or a composite of materiality decisions made by experts in the firm.

The SEC has been very critical of the accounting profession in the past few years for not sufficiently examining qualitative factors in making materiality decisions. In particular, the SEC has criticized the profession for:

- *Netting (offsetting) material misstatements* and not making adjustments because the net effect may not be material to net income.
- *Not applying the materiality concept to "swings" in accounting estimates;* for example, an accounting estimate could be misstated by just under a material amount in one direction one year and just under a material amount in the opposite direction the next year.
- *Consistently "passing" on individual adjustments that may not be considered material.*

Develop a Preliminary Audit Program Detailed planning leads to the development of a detailed audit program designed to discover material misstatements, if they exist, in the financial statements. Planning is the foundation for the audit program and includes the following:

- Developing an understanding of the client's business and the industry within which it operates
- Developing an understanding of risks the company faces and determining how those risks might affect the presentation of a company's financial results
- Developing an understanding of management compensation plans and how those plans may motivate management actions
- Developing a preliminary understanding of the quality of the client's internal controls over financial reporting
- Building a detailed audit program on audit risk, internal control quality, accounting assertions, and materiality
- Determining management's approach to assessing internal control over financial reporting and whether management has sufficient documentation of the design and operation of internal controls over financial reporting
- Developing an understanding the client's accounting policies and procedures

- Anticipating financial statement items likely to require adjustment, as well as those that are subjective in nature
- Identifying factors that may require extension or modification of audit tests, such as potential related-party transactions or the possibility of material misstatements
- Determining the type of reports to be issued, such as consolidated statements or single-company statements, special reports, internal control reports, or other reports to be filed with the SEC or other regulatory agencies

Subsequent chapters deal with each of these topics in detail.

Gathering Audit Evidence: Testing Assertions The third standard of fieldwork requires the auditor to gather "sufficient, appropriate audit evidence" in order to reach a conclusion on the fairness of the organization's financial presentations. As noted in Chapter 1, the audit process is designed around assertions that are inherent in the accounting communication. For example, if a company represents that it has property, plant, and equipment net of depreciation of $42 million, the company is representing that:

- It owns the equipment and has title to the equipment.
- The equipment is actively used in the conduct of the organization's business.
- The equipment is properly valued at cost and the cost amounts add up to the balance shown in the financial statements.
- Depreciation accurately reflects the economic usage of the equipment.
- All disposals of assets are fully recorded.
- All non-productive assets, or assets that are intended to be sold, are separated and accounted for at its net realizable value.
- The amounts reflected on the financial statements accurately portray amounts that are in the general ledger.

Similarly, for companies that must report publicly on internal control over financial reporting, management is making an assertion that their internal controls are designed effectively and are operating effectively to provide reasonable assurance of reliable financial reporting.

Example: Testing Additions to Property, Plant, and Equipment Throughout this text, we will develop audit programs for many areas in the audit. The following demonstrates the overall structure of an audit program based on financial statement assertions. The audit procedures, constituting the individual elements of an audit program, address fundamental assertions in each account balance. Consider an audit of property, plant, and equipment (PPE) and the valuation assertion implied in a company's financial statement:

> The equipment shown on the financial statements is properly valued at cost (not to exceed its assessed value) with applicable allowances for depreciation.

This assertion can be broken down into three major components:

- The valuation of assets that were acquired in previous years
- The valuation of new assets added this year
- The proper recording of depreciation

For illustration purposes, we assume that the previous year's financial statements had been audited and that the auditor had verified cost and accumulated depreciation for the previous years. Thus, the auditor is concerned that the current year's additions to equipment are properly valued. An audit procedure that would address the assertion is:

Auditing Additions to PPE: Take a *statistical sample* of all additions to property plant and equipment and verify the cost through reference to vendor

FOCUS ON FRAUD

Testing Procedures at WorldCom

The procedures described herein, while simple, would, if performed correctly, have discovered the significant fraud that took place at WorldCom. The fraud took place when the company inflated income by capitalizing line rental expenditures as if they were new capital items (property, plant, and equipment). Tests of asset additions, as described in the text, would have found the fraud.

invoices to determine that cost is accurately recorded and that title has passed to the company.

Additional Audit Procedure for Company Considered to be "High Risk": For the items selected, verify that the asset has been put in production by physically verifying its existence and operation.

Note the major elements in the audit procedures:

- *Statistically select a sample* of items to test. The auditor needs to take a representative sample because it is often too costly to examine all additions to PPE.
- *Review documentary evidence* of cost and title. The auditor examines outside, objective evidence of the amount paid, the nature of the equipment purchased, and the conveyance of title to the company.
- *Verify existence of the asset.* In situations where the auditor has doubts about management's integrity or there are other factors that point to the potential existence of fraud, the auditor should visually inspect the asset to determine its presence and operation.

Other audit procedures, e.g., estimating the life of the asset and the proper application of depreciation, would also be performed in the audit of PPE. The important point to understand here is that audit programs are built on the following three important points:

- Audit procedures are all based on a thorough understanding of the underlying assertions.
- Audit procedures are adjusted for the risk of potential misstatement in the account balance.
- There are many factors that influence the risk of misstatement. The auditor must understand these risks.

Summarize Audit Evidence and Reach Audit Conclusion The last step in an audit process is to summarize the audit evidence related to the assertions tested and reach a conclusion about the fairness of the client's financial presentation. If the evidence supports that an account balance is fairly represented, the auditor will continue with the audit of other account balances. If the evidence does not support a fair presentation, the auditor will gather additional evidence through detailed testing. The additional information gathered will lead the auditor to one of three conclusions:

- The account balance is misstated and the client agrees to adjust the financial statements to eliminate the misstatement.
- The account balance is misstated, but the client disagrees. The auditor will issue an audit report indicating that the financial statements, in his or her opinion, are not fairly presented.
- Sufficient evidence has not been gathered to reach a conclusion on whether there is a misstatement in the accounts. For example, the client's controls may be so poor that documentary evidence does not exist. The auditor would issue a report that he or she cannot render an opinion on the fairness of the financial statements.

Reach an Audit Conclusion and Issue a Report For most audit engagements, the auditor will reach a conclusion that the financial statements are fairly stated, and for public companies, that their reports on internal control are also fairly presented. In these situations, the auditor will issue an "unqualified audit report" similar to the unqualified report shown in Chapter 1.

Summary

The business failures of the past decade have been closely associated with corporate governance failures. The governance failures involved a number of parties: management, boards of directors, auditors, audit committees, and some investor groups. The Sarbanes-Oxley Act of 2002 is more than a new work requirement: It addresses many of the causes of corporate governance failures. The bill also established a new, independent quasi-governmental board to set audit standards. The bill also severely restricts the types of non-audit services that can be provided to an audit client.

Audit standard setting will continue to be a mixture of public standard setting (PCAOB, GAO) and self-regulatory setting (AICPA, IIA). Standards provide conceptual foundations and minimum performance levels for a profession and should guide the conduct of every audit engagement.

The generally accepted auditing standards (GAAS) provide the foundation for all audit engagements. This chapter introduces those standards and illustrates them through the design of an audit program.

Significant Terms

audit committee A subcommittee of the board of directors responsible for monitoring audit activities and serving as a surrogate for the interests of shareholders; should be composed of outside members of the board; that is, members who do not hold company management positions.

audit program An auditor-prepared document that lists the specific procedures and audit tests to be performed in gathering evidence to test assertions.

corporate governance A process by which the owners and creditors of an organization exert control and require accountability for the resources entrusted to the organization. The owners (stockholders) elect a board of directors to provide oversight of the organization's activities.

due professional care A standard of care expected to be demonstrated by a competent professional in his or her field of expertise, set by the generally accepted auditing standards but supplemented in specific implementation instances by the standard of care expected by a reasonably prudent auditor.

fieldwork standards The three generally accepted auditing standards that deal with the actual conduct of an audit.

general standards The three generally accepted auditing standards that deal with the qualification of individuals conducting an audit and the standard of care expected of those conducting an audit.

independence Being objective and unbiased while performing professional services. It requires being independent in fact and in appearance.

materiality Magnitude of an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

Public Company Accounting Oversight Board (PCAOB) A public board established under the jurisdiction of the SEC to set auditing standards for the conduct of audits of public companies, conduct peer reviews of public accounting firms, and provide oversight of the audit process for public companies.

reporting standards The four generally accepted auditing standards that deal with the nature of the auditor's report and required communication.

Sarbanes-Oxley Act of 2002 Encompassing legislation mandating new standard setting for audits of public companies and new standards for corporate governance.

Review Questions

2-1 Define the term "corporate governance" and identify the key parties involved in effective corporate governance.

2-2 Identify the parties that, at least in some part, failed to meet their corporate governance objectives in the past decade.

2-3 In what ways was the board of directors responsible for corporate governance failures?

2-4 In what ways was the auditing profession partially responsible for corporate governance failures?

2-5 What role did the use of stock options play in the failures of corporate governance?

2-6 Arthur Levitt criticizes companies for using "cookie jar reserves" to help manage earnings. What are "cookie jar reserves" and how might they be used to manage corporate earnings?

2-7 What was the Public Oversight Board's (POB) primary criticism of the audit profession?

2-8 What was the Sarbanes-Oxley Act designed to accomplish? What were the major factors that led Congress to develop the Sarbanes-Oxley Act?

2-9 What is the PCAOB and what is its authority?

2-10 What studies were conducted by the GAO and SEC as part of the Sarbanes-Oxley Act? What were the general conclusions of their studies? What are the implications of their studies for the auditing profession?

2-11 The Sarbanes-Oxley Act contains certification requirements of management. What are the certification requirements and what are the penalties for false certifications?

2-12 What requirements of the Sarbanes-Oxley Act are intended to strengthen the independence of the external auditor?

2-13 In which ways did Sarbanes-Oxley change oversight of the auditing profession? Distinguish between the audit firms that audit public companies and the audit firms that audit private companies.

2-14 What is whistleblowing? What are the whistleblowing provisions of the Sarbanes-Oxley Act?

2-15 A company issues financial statements. Whose statements are they: management's, the audit committee's, or the auditor's? Explain and discuss why the ownership issue is important.

2-16 What is an audit committee? What critical role does the audit committee play in corporate governance?

2-17 An audit committee should be composed of outside directors. Define "outside directors" within the context of an audit committee. How does the existence of an audit committee affect the auditor's independence? Explain.

2-18 What oversight responsibilities does an audit committee have? Explain the difference between an "oversight responsibility" and a "primary responsibility." Illustrate using an example regarding the choice of accounting principles.

2-19 Explain the difference between the audit committee's responsibilities regarding the external auditor and the audit committee's relationship to the internal audit and regulatory audit functions.

2-20 Are non-public companies, such as a small business, required to have audit committees that represent outside stakeholders such as banks or other lending institutions? Distinguish between small privately-held businesses and larger privately-held businesses that operate in a broader public domain.

2-21 What are the audit committee's responsibilities regarding financial reporting and internal control reporting?

2-22 Identify the specific items that must be communicated by the external auditor to the audit committee on every engagement.

2-23 What responsibility does the audit committee have regarding the provision of non-audit services to a company, its management, or members of its audit committee? Explain.

2-24 Why is the governance structure of an organization important to the external auditor? What are the implications to the auditor if a company has not made a commitment to good governance practices?

2-25 How would an auditor go about assessing the quality of an organization's corporate governance? In formulating your answer, consider the possibility that a company may have a good governance structure on paper, but its actual implementation may be significantly less than what is on paper.

2-26 What are the three major categories of audit standards? What are the purposes served by each category of the standards?

2-27 Explain the concept of "due professional care" and how it might be used in a court case regarding the conduct of an audit. How does an independent third party evaluate whether or not an auditor met the standard of due professional care?

2-28 What are the major procedures an audit firm can implement to help ensure that audits are conducted in accordance with due professional care?

2-29 What is the independence standard? Why is it important that users perceive auditors to be independent? Can an auditor be independent in fact, but not in appearance? Explain.

2-30 What four objectives are the reporting standards designed to accomplish?

2-31 Identify the roles of each of the following parties in audit standard setting:
- PCAOB
- AICPA
- GAO
- International Auditing Standards Committee
- Internal Auditing Standards Board

2-32 How does the development of an audit program for a client follow audit standards and the principles of good corporate governance?

2-33 What are the major planning steps that should be performed in developing an audit program?

2-34 Define the term "materiality" and describe how an auditor would go about determining materiality to be used in the planning of an audit of an organization's financial statements.

2-35 What is the relationship of audit procedures to assertions that are embodied in financial statement representations?

2-36 What procedures should an auditor use to determine that all items that are debited to a fixed asset account in the current year represent

purchases of property that is now owned by the company and is properly valued?

Multiple-Choice Questions

2-37 All of the following are parts of corporate governance except:
a. Oversight of management by the board of directors.
b. Established processes to provide accountability to stockholders.
c. Whistleblowing processes.
d. Independent review of financial statements by the SEC.

2-38 Which of the following would *not* be correct regarding corporate governance failures that took place in the past two decades?
a. Boards of directors approved stock option plans that did not align management and shareholder objectives.
b. Audit committees met infrequently, often only for an hour at a time.
c. Boards of directors were often dominated by management.
d. Accounting rules became more specific to address the complexities that existed in new transactions.

2-39 Which of the following is not a Sarbanes-Oxley requirement of audit committees of public companies?
a. The audit committee must be chaired by the chair of the board of directors.
b. Audit committee members must be financially literate.
c. Audit committee members must be outside directors.
d. The audit committee should view itself as the "client" of the external auditor.

2-40 In which way did the public accounting profession bring about the problems that resulted in Congress passing the Sarbanes-Oxley Act of 2002?
a. Failed to detect egregious frauds.
b. Emphasized generating revenues over audit quality.
c. Viewed helping the clients find an accounting solution to show increased earnings as value-added auditing.
d. All of the above.

2-41 Which of the following is an *inappropriate* description of management's role in preparing financial statements and reports on internal control over financial reporting? Management has the primary responsibility for
a. Determining the scope of internal and external audit activities.
b. Preparing financial statements that are fairly presented in accordance with GAAP.
c. Selecting accounting principles that best portray the economic reality of the organization's transactions and current state.
d. Developing, implementing, and assessing the internal control processes over financial reporting.

2-42 An audit committee should do all of the following except:
a. Decide whether to retain or dismiss the outside auditors.
b. Determine whether material fraud ought to be reported in the company's financial statements.
c. Determine the budget for the internal audit department.
d. Appoint, or concur with the appointment of, the Chief Audit Executive (internal audit).

2-43 Which of the following would *not* be required to be communicated to the audit committee by the outside auditor?
a. Significant audit adjustments made during the course of the audit.
b. Significant disagreements with management regarding accounting principles.

c. The auditor's knowledge of management's consultation with other public accounting firms regarding the proposed treatment of a controversial accounting item.
d. The extent to which the internal auditors assisted in the conduct of the audit.

2-44 The application of due professional care means that the auditor's work conforms with all of the following except:
a. Current auditing standards as defined by Statements on Auditing Standards.
b. The work that a reasonably prudent auditor would have performed in the same situation.
c. The work that would have been performed by a reasonable person who was not necessarily trained in auditing.
d. The work was at least equal to that which had been performed on the audit engagement during the preceding year.

2-45 The second standard of field work requires the auditor to do all of the following except:
a. Understand the business and the risks the business faces in pursuing its strategic objectives.
b. Gather sufficient, appropriate audit evidence to provide the basis for an opinion on the financial statements.
c. Perform analytical procedures to identify potential misstatements in the financial statements.
d. Obtain an understanding of internal control and potential weaknesses in controls.

2-46 The auditor uses the following audit procedure as part of the audit of fixed assets: "take a *statistical sample* of all additions to property plant and equipment and trace to invoices received from the vendor."

Which of the following outcomes would most likely alert the auditor to the possibility of a misstatement of the account balance?
a. Most of the items chosen are small in dollar amount even though the invoices are typical of items that last 3–5 years.
b. About one-third of the items chosen are large dollar items that are traced to journal entries, but there are no underlying purchase documents.
c. About one-fourth of the items are from the same vendor and relate to the equipment purchased for a new factory.
d. Vendor invoices cannot be located for a number of the purchases. However, all the items for which the invoices cannot be found relate to purchases from a related company.
e. All of the above.
f. b and d only.

Discussion and Research Questions

2-47 **(Corporate Governance)** One component of good corporate governance is a code of ethics that has been developed for a company. For example, Enron had one of the most complete codes of ethics in corporate America.

Required
a. How would an auditor go about determining whether a corporate code of ethics is actually being adhered to? What evidence would the auditor gather to support an assessment of the corporate code of ethics?
b. Can an auditor make meaningful decisions about areas such as corporate governance where considerable judgment must be applied in making the decision? Are auditors equipped to make subjective judgements?

c. How would an auditor go about assessing the financial competence of an audit committee? What are the implications for accepting an audit engagement if the auditor does not believe the audit committee has sufficient expertise?
d. In what ways is an effective internal audit department part of good corporate governance? Explain.

2-48 **(Corporate Governance)** One of the criticisms of corporate America in the last decade has been that there was a failure in corporate governance.

Required

a. Define the term "corporate governance" and identify the major parties that are involved in corporate governance, as well as their roles.
b. Identify the failures in corporate governance that took place in the past decade. Include the failures of each major party in the process.

2-49 **(Public Accounting and Corporate Governance)** Public accounting serves an important role in corporate governance.

Required

a. Describe the role that external auditing fills in promoting good corporate governance.
b. In what ways might the public accounting profession have failed its important role prior to the issuance of the Sarbanes-Oxley Act of 2002?
c. A former chairman of the SEC described auditors as "public watchdogs." What does the term "public watchdog" convey regarding the responsibility of the external auditor to the public?

2-50 **(Auditor Expectations)** In a major speech, Arthur Levitt, former chairman of the SEC, chided auditors for failures in four areas:

- Allowing companies to use "cookie jar reserves" used by firms to manage earnings.
- Allowing improper revenue recognition.
- Assisting companies in using creative accounting for mergers and acquisitions that did not reflect economic reality.
- Assisting management in meeting earnings targets that helped managers achieve stock option price targets.

Required

a. Describe each of the four activities identified by Levitt and give an example of each. For example, give an example of how a firm would use "cookie jar reserves" to manage earnings.
b. If we assume that there were some instances in which auditors acted the way Levitt described, identify the potential motivation for the auditors to provide such assistance to management.
c. For each item identified in part (b), describe how the Sarbanes-Oxley Act addressed the issue.

2-51 **(Sarbanes-Oxley Act of 2002)** The Sarbanes-Oxley Act of 2002 has been described as the most far-reaching legislation affecting business since the passage of the 1933 Securities Act.

Required

a. Identify the portions of the legislation that specifically affect the external audit profession and discuss how it affects the profession.
b. How does the legislation affect the internal audit profession? Identify activities that are implied in the legislation as well as activities that will likely emerge as companies implement various provisions of the Act.
c. Do you believe the legislation enhances the power and prestige of the audit profession or, alternatively, does it decrease both the power and prestige of the profession?

2-52 **(Sarbanes-Oxley—Management Implications)** The Sarbanes-Oxley Act dramatically changes the responsibilities of top management.

Required

a. Briefly indicate how Sarbanes-Oxley changes the responsibilities of top management.
b. How has the relationship between management and the external auditor changed with Sarbanes-Oxley?
c. Who is primarily responsible for the fairness and completeness of financial statement presentations? Discuss the relative roles of the following parties:
   - Chief Executive Officer (CEO)
   - Chief Financial Officer (CEO)
   - Director of Internal Audit (CAE)
   - Chair of Audit Committee
   - External Auditor (CPA)

2-53 **(Audit Committees)** Audit committees are taking on added responsibilities after Sarbanes-Oxley.

Required

a. Describe the changes in audit committee membership and duties that were mandated by the Sarbanes-Oxley Act of 2002.
b. The audit committee now has the "ownership of the relationship with the public accounting firm." What are the implications (a) to the audit committee, and (b) to the public accounting firm of the new auditor-client relationship with the audit committee?
c. Assume that management and the auditor disagree on the appropriate accounting for a complex transaction. The auditor has conveyed the disagreement to the audit committee along with an assessment that the disagreement is on the economics of the transaction and has nothing to do with earnings management. What is the responsibility of the audit committee? What skills must exist on the audit committee to meet their responsibility?
d. Assume the auditor and audit committee disagree with management's proposed accounting treatment and management acquiesces to the auditor treatment. Is it appropriate to refer to the financial statements as management's financial statements? Explain.

2-54 **(Audit Committees)** Audit committees are mandatory for all public companies. The AICPA and IIA have endorsed the formation of audit committees (or their equivalent) for most organizations, including governmental entities and larger privately-held companies.

Required

a. Define the term *audit committee*. Indicate its composition.
b. What are the responsibilities of the external auditor to communicate information to the audit committee? Identify all required information that must be communicated to the audit committee and briefly indicate the likely rationale for requiring the communication.
c. Explain why non-public entities might want to have audit committees. Consider the following entities in formulating your answer:
   - Governmental unit, e.g. a school that must be audited
   - A charity, e.g., United Way
   - A larger, privately-held company

2-55 **(Audit Committees and Auditor Independence)** The audit committee is required to evaluate the independence of both the internal and external audit function.

Required

a. What factors would you suggest that an audit committee look at in evaluating the external auditor's independence?

Internet Activity

b. How can the audit committee influence the independence of the internal audit function?
c. The audit committee must pre-approve all non-audit services provided by the external auditor. Assume the audit committee must make a decision to allow or not allow the external audit firm to perform the following activities. Indicate whether you would approve or not approve each activity and state the rationale for your decision. Use the following format for your answer:

Proposed Non-Audit Service	Rationale for Approving or Not Approving the Proposed Service
1. Prepare the company's income tax return after the completion of the audit.	
2. Prepare the tax returns for all directors and managers as part of the fees paid for the overall audit.	
3. Prepare tax returns for managers and directors as requested and paid for by the individuals.	
4. Assist the internal audit department in their control reviews of an overseas operation (audit firm has personnel based in the country that speak the language while the internal audit department does not).	
5. Perform an independent security audit of information systems and report the results to management and the audit committee.	
6. Train operating personnel on internal control concepts and a framework to implement to improve the quality of internal controls.	
7. Take over the internal audit function to provide a full "integrated" audit of the company's operations and controls to achieve audit efficiency.	

2-56 **(PCAOB)** The development of the Public Company Accounting Oversight Board (PCAOB) was one of the most significant portions of the Sarbanes-Oxley Act of 2002.

Required

a. What is the main rationale that led Congress to develop the PCAOB as the public company audit standard setter? For example, why do you think Congress didn't suggest ways to overhaul the Auditing Standards Board of the AICPA?
b. Identify the responsibilities of the PCAOB. How does the inspection process performed by the PCAOB affect the practice of public accounting?
c. The PCAOB can have no more than two CPAs among its five members. What might be the rationale for such a requirement? What are the advantages and disadvantages of the limitation of CPA members on the Board?
d. Do the audit standards set by the PCAOB apply to audits of non-public companies? Explain.

2-57 **(Audit Standards for Non-Public Companies)** The PCAOB has the authority to set audit standards for all audits of public companies. The AICPA continues to set audit standards for non-public companies through its auditing standards board.

Required

a. In what ways might you expect auditing standards for audits of non-public companies to differ from that of the standards for public companies? Identify three (there are not necessarily three right or wrong answers—this is an opinion and discussion question only). Identify the rationale for your answers.
b. A CPA is performing an audit of a local municipality. Where should the auditor look to determine audit standards that must be followed?
c. What role should an audit committee play in determining which standards an audit firm will use in auditing their company? Explain.

2-58 **(GAAS)** Ray, the owner of a small company, asked Holmes, CPA, to conduct an audit of the company's records. Ray told Holmes that the audit must be completed in time to submit audited financial statements to a bank as part of a loan application.

Holmes immediately accepted the engagement and agreed to provide an auditor's report within three weeks. Ray agreed to pay Holmes a fixed fee plus a bonus if the loan was granted.

Holmes hired two accounting students to conduct the audit and spent several hours telling them exactly what to do. Holmes told the students not to spend time reviewing the controls, but instead to concentrate on proving the mathematical accuracy of the ledger accounts and to summarize the data in the accounting records that support Ray's financial statements. The students followed Holmes' instructions and after two weeks gave Holmes the financial statements, which did not include footnotes because the company did not have any unusual transactions. Holmes reviewed the statements and prepared an unqualified auditor's report. The report, however, did not refer to GAAP or to the year-to-year application of such principles.

Required

Briefly describe each of the GAAS and indicate how the action(s) of Holmes resulted in a failure to comply with each standard.

2-59 **(Auditing Standards)** The ten generally accepted auditing standards (GAAS) provide the foundation for the conduct of audits.

Required

a. Define the standard of "due professional care" and indicate how a court might decide whether an audit firm met the standard.
b. Explain why independence is often considered the cornerstone of the auditing profession. Explain why independence issues were a primary concern of Congress when they developed the Sarbanes-Oxley Act.
c. Assume you work on an audit engagement for a client for some period of time. Further, assume there have never been any audit issues with the client, management is very honest and forthcoming, and the company is well run. Explain how you would retain your professional skepticism.
d. If an auditor is engaged to conduct an audit and finds numerous mistakes, is it possible for the auditor to resign and not issue an audit opinion? Explain.

2-60 **(Materiality)** Materiality is an important audit concept because audits must be designed to detect "material" misstatements.

Required

a. Define materiality and describe how it is used in both accounting and auditing.
b. Should the determination of the materiality be discussed with (i) the audit committee and (ii) management before the beginning of the audit engagement? Explain your rationale.
c. What factors might an auditor look at in determining materiality for an audit client prior to the start of the audit?

Research **Activity**

2-61 **(Sarbanes-Oxley Studies)** The Sarbanes-Oxley Act required numerous studies of the accounting profession to be made by the GAO and reported to the SEC within one year of the enactment of the Act.

Required

In consultation with your instructor, select one of the following GAO studies of the accounting profession:

- Consolidation of Public Accounting Firms and the Effect on Competition
- Principles-Based Accounting
- Mandatory Rotation of Audit Firms

Present a report of the study in class.

2-62 **(Audit Framework—Audit Procedures)** Audits of financial statements are designed to test the correctness of account balances.

Required

a. A construction company shows the following assets on its balance sheet

• Construction equipment	$1,278,000
• Accumulated depreciation	$ 386,000
• Leased equipment—construction	$ 550,000

Explain the difference in the three accounts and the underlying accounting.

b. Is the equipment held by the company fairly old or new? Explain.

c. Develop an audit procedure to determine that all leased equipment that should have been capitalized during the year was actually capitalized (as opposed to being treated as a lease expense).

d. The construction equipment account shows that the company purchased approximately $400,000 of new equipment this year. Identify an audit procedure that will determine whether the equipment account was properly accounted for during the year.

e. Assuming the auditor determines the debits to construction equipment were proper during the year, what other information does the auditor need to know in order to ensure that the construction equipment—net of depreciation—is properly reflected on the balance sheet?

f. How can an auditor determine that the client has assigned an appropriate useful life to the equipment and has depreciated it accurately?

2-63 **(Accounting and Audit Procedures)** It was stated that each account balance contains assertions about the nature of the item reflected on the financial statements.

Required

Identify the accounting assertions that are contained in the following accounts reflected on a company's financial statements:

- Sales
- Inventory
- Accounts receivable

2-64 **(Attestation Standards)** The AICPA has issued attestation standards in recognition that attestation services can be much broader than audits of an entity's financial statements. One type of an attestation is a "fairness letter" on a proposed merger or acquisitions. Investment bankers have usually issued these letters as a source of comfort to boards of directors and others involved in making decisions on mergers. Essentially, the board of directors asks the investment banker to develop a report to the board assessing the fairness of a proposed acquisition (or an offer to be acquired by another company).

Required

a. Could the public accounting profession have performed such an attestation service? Why or why not? Specifically identify factors

that might have allowed or prohibited the performance of such services by the public accounting profession.

b. In what ways would the public accounting profession have a competitive advantage/disadvantage vis-à-vis the investment banking profession in performing such a service?

2-65 **(Evaluating Corporate Governance)** With permission of your instructor, identify either a public company or a company that is near your university and perform a preliminary review of their corporate governance. Identify all the sources of evidence for your conclusion regarding corporate governance. Identify the strengths and weaknesses of their governance and describe the implications of their governance structure for the auditor.

Group Activity

2-66 **(Audit Committees)** Audit committees have taken on much more responsibility in the past few years. However, it must also be remembered that an audit committee appointment is not a full-time appointment.

Group Activity

Required

a. *(Research).* Search annual reports via Edgar, or via looking up the home page of selected companies. Look up five companies (preferably in different industries) and prepare a report that describes the following:
   - An analysis of the audit committee charters that identify the commonalities in all the charters, as well as any differences.
   - The characteristics of audit committee members, e.g., whether a CPA, other experience, etc.
   - The individual identified as the "financial expert."
   - The number of times and amount of time the audit committee met during the year.

b. (*Group Discussion*). To what extent should the audit committee act as a referee between management and the external auditor on accounting issues? Discuss and present a conclusion to the class. Consider a specific example, e.g., a determination of whether inventory is appropriately written down to net realizable value.

Cases

2-67 **(Audit Committees)** A $6 billion privately-held consumer products company has approached you to help them implement an audit committee charter and to identify the elements needed to develop an effective audit committee.

Required

a. Identify the major stakeholders, in addition to the stockholders (usually a family), who would be likely candidates to serve on the company's audit committee.

b. Identify the key attributes that should be used in choosing audit committee members.

c. Outline the elements that should be included in a charter for the audit committee. Hint: You may want to log on to the annual reports of selected public companies and use their audit committee charter as a guide.

d. An audit committee ought to have an effective information system. Prepare an outline of an effective information system for an audit committee. Use the following format:

Information Required	Frequency Needed	Source of the Information

CHAPTER 3

Understanding and Meeting Ethical Expectations

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Describe the importance of ethics to the success of an organization.
- Describe why ethical behavior is required to justify the public's trust.
- Discuss the importance of independence to the public accounting profession.
- Discuss the major threats to independence.
- Explain the principles used by the SEC in judging independence.
- Explain the principles used by the AICPA in judging independence.
- Describe and apply the AICPA's Rules of Conduct.
- Apply an ethical framework to resolve ethical dilemmas.

CHAPTER OVERVIEW

A profession that exists to serve the public must ensure that its services are performed at the highest level of independence, integrity, and objectivity. This chapter explores the importance of ethical behavior to organizations and auditors, the principles used by the SEC and AICPA in developing their rules concerning auditor independence, and the AICPA's Code of Professional Conduct. A framework is also provided to help professionals rationally resolve ethical dilemmas in situations not covered by a code of ethics.

Introduction

Corporate Culture, Ethics, and Organizational Performance

Research shows that companies with strong corporate governance and high ethical standards generally perform better than those with weak corporate governance and a low level of ethical expectations. Investigations into the world's largest bankruptcies to date (WorldCom and Enron) show that the corporate cultures and weak governance caused their collapse. Top management was overly concerned about meeting Wall Street's earnings expectations and generating personal fortunes and took extreme measures to create the illusion of companies that looked good on paper but were actually free-falling toward collapse. The corporate culture was one where employees knew about, or were concerned about, fraud but were afraid to report it; the boards of directors were passive and ineffective; the outside auditors were preoccupied with keeping the clients' consulting businesses; and bankers were so permissive they failed to uncover routine warning signs. Management's philosophy was "Do whatever it takes to increase the market value of our stock."

Some of the partners of Arthur Andersen, at one time the largest CPA firm in the world, got drawn into the delusion of sharing these fortunes and turned a blind eye to the financial reporting frauds management was perpetrating. Barbara Ley Toffler was partner-in-charge of Andersen's Ethics & Responsible Business Practices consulting services. In her book, *Final Accounting—Ambition, Greed, and the Fall of Arthur Andersen,* she chronicles how a culture of arrogance and greed infected her company and led to enormous lapses in judgment among her peers.[1] The firm, once regarded by many as the best CPA firm in the world, changed its philosophy from "we do it right" to "keep the client happy." Andersen was forced into bankruptcy after being in business for 88 years.

The key is the tone set by top management. A well-managed organization, whether it is a business, government agency, not-for-profit organization, or professional organization, will have and enforce a code of ethics and/or a conflict of interest policy to guide its members. Recent frauds have highlighted the need for such guidance. For example, the top management of Tyco International was found guilty in a 2005 court case for utilizing corporate assets as if they were their own. To improve its image and, hopefully, its performance, the new management is putting its entire work force of approximately 260,000 workers through a training program on legal and ethical issues. Some companies now have a new kind of CEO, Chief Ethics Officer, to oversee the development, training, and enforcement of a code of ethics. CPAs are now required to earn continuing education credits in ethics to keep their CPA licenses active.

Understanding Auditor Responsibilities

For What:
- Financial Statements
- Internal Control Reports
- Corporate Governance

Attributes Needed:
- Ethics
- Standards
- Legal Responsibilities
- High Quality Decision-Making

Accepting a Public Trust

The public accounting profession has worked hard to gain the public trust. For that trust to be maintained, it is essential that professional integrity be based on personal moral standards and reinforced by codes of conduct. Whenever a "scandal" surfaces, the profession is diminished and auditors are personally ruined. It is not difficult to find oneself in ethically compromising situations without realizing it. During the course of an audit, for example, an auditor may become aware of a client's plans that will likely double the market value of its stock. Suppose the auditor has a roommate from college who would like to know about the investment opportunity. The roommate does not have a large investment portfolio, so sharing this knowledge would not affect the market. Should the auditor be allowed to share the information with the roommate? Common sense should answer the question, but sometimes people do not use common sense. Thus the profession has developed ethical standards to help address such issues.

Many ethical problems can be resolved by following the code of conduct established by professional associations. The AICPA, Institute of Internal Auditors, and the Institute of Management Accountants all have codes of professional conduct. The individual state boards of accountancy and state societies of CPAs have generally adopted the AICPA's **Rules of Conduct.** When ethical problems are not specifically covered by these codes, the auditor must use common sense, moral values, and the general ethical framework of the codes to resolve these ethical problems. Enforced codes of conduct serve as guides to behavior and instill public confidence in the profession.

[1] Barbara Ley Toffler, *Final Accounting-Ambition, Greed, and the Fall of Arthur Andersen,* Broadway Books, 2003.

Unique Licensure for CPAs

Audit and other attestation reports on financial statements can be signed only by those who are licensed as CPAs by their state board of accountancy. Anyone can provide consulting, bookkeeping, and tax services. To become a licensed CPA, a person must pass the CPA exam, meet specific education and experience requirements, and agree to uphold the profession and its code of professional conduct. The auditor is a judge of the fairness of the financial statements and the reliability of internal control over financial reporting. The credibility of that judgment (the audit opinion) depends on the independence, objectivity, and competence of the auditors.

Independence: A Foundation Requirement

Independence is the cornerstone of the auditing profession. Without it, the profession would not have the necessary credibility to add value to corporate governance. Auditors must be independent *in fact and in appearance.* To be independent *in fact,* auditors must be objective and unbiased in their actions and evaluations and not be influenced by management. Auditors must be *professionally skeptical* as they gather evidence: they should not accept management's explanations without corroborating evidence.

To meet the objective of independence *in appearance,* the auditors must be perceived by knowledgeable users of financial statements as independent. An auditor could be independent in fact but not appear to be independent. For example, an auditor may have an immaterial investment in an audit client and remain independent in fact. However, a financial statement user who knows of that investment may believe the auditor's judgment is impaired by a desire to increase the market value of that stock.

Major Threats to Independence

Independence is a state of mind that can be impaired by several potential threats. It starts with basic objectivity. The auditor and the audit firm must manage these threats to objectivity. We describe those threats and approaches to mitigate those threats.

Compensation Schemes Partners' compensation in many CPA firms has historically been based in large part on attracting and keeping clients. This creates a temptation to accede to client wishes in order to keep them. The wish to retain profitable clients can impair independence. The profession has responded in two ways: (a) the audit committee is increasingly seen as the audit client, and (b) partner compensation schemes have been changed to focus more on quality of services rendered and training of staff personnel. Keeping a bad client is not good business. And a client who wants the auditor to potentially sacrifice independence is not a good client.

Who Is the Client? The SEC makes it clear that the audit committee of public companies should have the authority to hire and fire the auditor and, therefore, the audit committee is the client. There is a threat to an auditor's independence when getting paid by the client. Although the fee is paid by the company, all the important decisions are made by the audit committee that is charged to act in the best interests of the shareholders.

For non-public companies, the client is whoever has the authority to hire and fire the auditor. That may be the owners, management, the board of directors, or, if it has one, the audit committee. The key point is that no matter who the client is, the auditor must make an objective, unbiased judgment about the fairness of the financial statements and should not favor the interests of one party over another.

An audit firm, therefore, must find ways to reinforce to its auditors that maintaining the public trust is more important than retaining a client where it might appear that its objectivity could be compromised.

Familiarity with the Client Auditors serving a client for several years may develop relationships and friendships that cause the auditor to become less skeptical than they would have been otherwise. The Sarbanes-Oxley Act requires that the partner-in-charge of the audit of a public company rotate off the audit at least every five years. No such requirements exist for auditor rotation on non-public companies. Some argue that public companies should periodically change CPA firms to help assure an objective and fresh approach to the audit. The GAO recently issued a study on the costs of mandatory audit firm rotation and concluded that the costs of firm rotation were high and that other safeguards could be built into the process.

Practical Point

The auditor must always view the real client as a third-party user even when the primary contact is with the management of a non-public company. It is only with such an attitude that the auditor can maintain complete independence and serve the public interest.

Time Pressures CPA firms often compete for clients through bids. The low bidder is likely to get the job. But, in order to make a sufficient return on the audit, there will be time pressures to get the audit done as quickly as possible. Those in charge of audits are evaluated not only on the quality of their work but also on the efficiency with which the audit is conducted. This may create an environment in which the auditors do not look as deeply into potential problem areas as they should.

Ability to Rationalize When potential misstatements are detected, it takes time to investigate and determine if they could be material. To save time, the auditor may rationalize that the misstatement is not likely to be material, when in fact it could be. Research has shown that auditors also rationalize potential misstatements away by assuming that a misstatement that occurred in a small sample of transactions was a "unique" occurrence and therefore they do not investigate to determine if other misstatements existed.

Auditing Your Own Work CPAs may help non-public companies or other organizations improve their information systems, suggest and help the client implement "best practices," do the client's bookkeeping, identify potential candidates for management positions, and other non-audit tasks. Independence is likely to be compromised if auditors are put into the position of auditing their own work, or if auditors identify too closely with the company.

Managing Threats to Independence

Recognizing that there are threats to auditor independence is the first step in managing independence. Fortunately, firms have developed effective approaches to manage the threats to independence, including the following:

- Establishing and monitoring codes of conduct
- Balancing compensation schemes
- Implementing independent reviews of decisions to accept or retain clients
- Separating consulting activities from audit activities
- Conducting independent reviews of audit work and audit documentation
- Establishing peer reviews within the profession
- Improving hiring practices

Codes of Conduct Establishing a strong code of conduct is a first step. However, the code must be accompanied by an understanding that the firm "lives" the code and that any deviation from the code will not be tolerated. The tone is established at the top and is reflected in compensation schemes that reiterate the importance of the code. It is reinforced through training and constant evaluation.

Balanced Compensation Schemes There is no doubt that the compensation schemes utilized by many firms had become unbalanced in the 1990s as indicated in the opening quote about Arthur Andersen. Most firms have changed their compensation schemes to recognize that walking away from a "bad" client is in the firm's best interest, taking hard stances on the acceptability of accounting is good business, and reemphasizing the quality of the audit documentation is also good business.

Reviews of Client Acceptance or Retention Decisions Many audit firms have a high-level committee that evaluates decisions on accepting and retaining audit clients. Most of these decisions are based on risk models; i.e., does the nature of the operations or the quality of management present a risk to the audit firm? The review of these decisions recognizes that simply increasing fees is not the sole objective of the firm. The firm must minimize the risk caused by being associated with an unscrupulous client.

Separation of Consulting Activities There are two kinds of consulting strategies used by public accounting firms that have taken place in the past. They are:

- Audit functions are separated from consulting functions.
- Consulting-type functions are performed only for non-audit clients.

Many CPA firms continue to perform audits. Audit firms with a non-public client focus have generally opted to retain consulting services that they provide for both audit clients and non-audit clients. Often, the consulting function is performed by groups that are distinct from the audit function. For example, information system consultants are generally not part of the audit staff.

Most of the Big 4 firms have sold off their consulting services (KPMG's consulting went public, Andersen Consulting became Accenture, PwC sold their consulting to IBM, and Ernst & Young sold their consulting arm to Cap Gemini). However, these firms retained some non-financial statement consulting activities such as internal audit outsourcing, tax planning, and related services. These firms serve public companies that are not their audit clients.

Practical Point

CPA firms that perform audits of public companies still retain substantial services that are not marketed to audit clients. Small firms continue to provide full-service audit and consulting services to audit clients, subject to restrictions in the AICPA's Code of Conduct.

Independent Reviews of Audit Work and Audit Documentation Knowing that your work will be reviewed during and at the end of every engagement tends to keep people honest. All public accounting firms have audit partners and managers that review the work of staff auditors. In addition, most large firms have independent groups or managers that perform an independent review of the audit work and documentation of the audit to determine that (a) the work meets professional standards and (b) the work was carried out objectively.

Practical Point

Most smaller-sized CPA firms do not have sufficient numbers of partners to provide independent internal reviews of all audit engagements.

Peer Reviews within the Profession The Public Company Accounting Oversight Board (PCAOB) now performs independent quality reviews (inspections) of all firms that are registered with it. The AICPA had mandated similar peer reviews for all audit firms that audited SEC clients and optional peer reviews for audit firms that did not audit SEC clients. Most firms undergo peer reviews because they often lead to practice improvements. The peer review process from within the AICPA was criticized for (a) being too inbred, i.e., it was one firm looking at another firm, both from within the profession, and (b) not having a public perspective. The peer reviewers examined quality control practices, including processes to maintain independence, and also took samples of audit engagements to determine whether the engagements were performed in accordance with GAAS.

Practical Point

One of the major criticisms of the AICPA's peer review program was that no qualified reports (meaning audited firm had quality problems) were ever issued for a large multinational CPA firm. Deloitte & Touche issued an unqualified opinion (acceptable practices) on the practices of Arthur Andersen only weeks before the firm failed.

Improved Hiring Practices Most firms have refocused their hiring practices on ensuring that they are hiring and retaining people that have both outstanding technical skills and objectivity. There is less emphasis on hiring people who have outstanding sales skills, but not good technical skills. Many of the firms look

at the 150 credit-hour education requirement to ascertain whether the graduates have developed additional analytical skills beyond basic accounting.

Sources of Independence Guidance

The SEC has established independence guidance and rules that apply to auditors of publicly-held companies. The Government Accountability Office has established independence requirements for those who perform audits of state and local governments under the government auditing standards. The AICPA has established independence rules and interpretations that apply to all CPAs when performing attestation services.

SEC's Principles for Judging Independence and Prohibited Non-Audit Services

The SEC has been active in pushing for rules that ensure that public accounting firms act independently. The SEC's commitment to independence is summarized in the following two paragraphs:

> The independence requirement serves two related, but distinct, public policy goals. One goal is to foster high quality audits by minimizing the possibility that any external factors will influence an auditor's judgments. The auditor must approach each audit with professional skepticism and must have the capacity and the willingness to decide issues in an unbiased and objective manner, even when the auditor's decisions may be against the interests of management of the audit client or against the interests of the auditor's own accounting firm.
>
> The other related goal is to promote investor confidence in the financial statements of public companies. Investor confidence in the integrity of publicly available financial information is the cornerstone of our securities market. . . . Investors are more likely to invest, and pricing is more likely to be efficient, where there is greater assurance that the financial information disclosed by issuers is reliable . . . [that] assurance will flow from knowledge that the financial information has been subjected to rigorous examination by competent and objective auditors.[2]

The free flow of capital and the efficient pricing of capital are dependent on reliable, timely, and fully disclosed financial information. Second, the public accounting profession must be structured such that the engagement team is able and willing to make fully informed and unbiased judgments about the fairness of the client's financial presentations.

The SEC has been concerned that the non-audit services provided to audit clients are a threat to the auditor's independence because (a) the magnitude of the fees may provide incentives to keep the client by allowing the client to "bend the rules" a little bit, or (b) the magnitude of the work may create a mutuality of interest with the client. The "Auditing in Practice—Audit and Non-Audit Fees" box illustrates that the amount of fees is far greater than most had expected and, in some cases, the non-audit fees paid to the audit firm reached as high as 40 times the size of audit fees.

The SEC has taken a principles-based approach in dealing with independence issues. All of the SEC statements on independence follow from four basic principles that define when an auditor is in a position that impairs independence. Those principles dictate that auditor independence is impaired when the auditor has a relationship that:

- Creates a mutual or conflicting interest between the accountant and the audit client
- Places the accountant in the position of auditing his or her own work
- Results in the accountant acting as management or an employee of the audit client
- Places the accountant in a position of being an advocate for the audit client[3]

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[2] U.S. Securities and Exchange Commission, *Final Rule: Revision of the Commission's Auditor Independence Requirements,* February 5, 2001.

[3] Op.cit.

AUDITING IN PRACTICE

Audit and Non-Audit Fees

On April 11, 2000, the *European Wall Street Journal* reported that in a study of 307 U.S. listed companies, on average, the fees for those other services were nearly three times as large as the audit fees.

Some of the audit-to-nonaudit fees relationships were:

- Sprint Corp. paid Ernst & Young, LLP $2.5 million for audit services and $63.8 million for other services.
- General Electric Co. paid KPMG $23.9 million for auditing work and $79.7 million for other services.
- J.P. Morgan Chase & Co. paid PricewaterhouseCoopers $21.3 million in audit fees and $84.2 million for additional work.
- Motorola Inc. paid KPMG $3.9 million for audit services and $62.3 million for other services.
- Delphi Automotive Systems Corp. paid Deloitte & Touche $6.6 million in audit fees and an additional $50.8 million for other services.

At what point do the additional amounts create a mutuality of interest or an economic dependence on the client that may impair independence? The SEC is concerned that the numbers were much higher than had been expected.

***Public/Non-Public* Clients**

The SEC's jurisdiction applies only to public companies that must register with the SEC. The principles would seem to apply to all audit firms. However, many CPA firms that do not have public clients provide some of these services; most notably bookkeeping, information systems design, appraisals, and in some cases internal audit work. The client as well as important third-party stakeholders should make an assessment of the potential impairment of the auditor's independence on the work.

The SEC believes that these four factors provide an appropriate framework for analyzing auditor independence issues. Subsequently, the Sarbanes-Oxley Act of 2002 amended the Securities and Exchange Act of 1934 by prohibiting a public accounting firm that audits a public company from providing the following non-audit services to the company:

- Bookkeeping or other services related to the accounting records or financial statements of the audit client
- Financial information systems design and implementation
- Appraisal or valuation services, fairness opinions, or contribution-in-kind reports
- Actuarial services
- Internal audit outsourcing services
- Management functions or human resources
- Broker or dealer, investment adviser, or investment banking services
- Legal services and expert services unrelated to the audit
- Any other service that the Board determines, by regulation, is impermissible

The PCAOB adopted rules in 2005 that prohibit registered public accounting firms from performing the following tax-related services for audit clients:

- Providing tax services to certain members of management serving in financial reporting oversight roles or to their immediate family members
- Providing services related to marketing, planning, or opining in favor of the tax treatment of certain confidential transactions or based on an aggressive interpretation of applicable tax laws and regulations

The SEC has shifted the burden of assessing the auditor's independence to the audit committees by requiring them to assess the auditor's independence and make a written statement on that assessment to the stockholders. The Act also requires that the client's audit committee preapprove any non-audit services, including tax services, not specifically prohibited. Audit committees should consider all factors that might affect the independence of the auditor and should not approve non-audit services that they believe might impair independence.

AICPA Code of Professional Conduct

The AICPA's Code of Professional Conduct is made up of a set of principles that provide the framework for the rules of conduct. In addition, there are

EXHIBIT 3.1 AICPA Principles of Professional Conduct

Responsibilities In carrying out their responsibilities as professionals, members should exercise sensitive professional and moral judgments in all their activities.

Public interest Members should accept the obligation to act in a way that will serve the public interest, honor the public trust, and demonstrate commitment to professionalism.

Integrity To maintain and broaden public confidence, members should perform all professional responsibilities with the highest sense of integrity.

Objectivity and independence A member should maintain objectivity and be free of conflicts in discharging professional responsibilities. A member in public practice should be independent in fact and appearance when providing auditing and other attestation services.

Due care A member should observe the profession's technical and ethical standards, strive continually to improve competence and the quality of services, and discharge professional responsibility to the best of the member's ability.

Scope and nature of services A member in public practice should observe the principles of the Code of Professional Conduct in determining the scope and nature of services to be provided.

interpretations of the rules as well as ethics rulings. The *Principles* are shown in Exhibit 3.1. They provide a broad framework for professional conduct and represent the highest guide for professional action. Auditors should always look first to the principles for professional guidance.

The *Rules of Conduct* are guides to help accomplish the broad principles of the profession. They provide more detailed guidance to help CPAs in carrying out their public responsibilities. The rules are specifically enforceable under the bylaws of the AICPA. Most rules apply to all CPAs, even if not in public practice. The Rules of Conduct are intended to be specific enough to guide auditors in most situations they are likely to encounter.

The profession augments the rules with specific interpretations to provide additional guidance. The rules cover the broad areas of independence, integrity, adherence to professional pronouncements, and responsibilities to the public and colleagues. The Rules of Conduct are presented in Exhibit 3.2. The rules begin

EXHIBIT 3.2 AICPA Rules of Conduct

Rule 101
Independence

A member in public practice shall be independent in the performance of professional services as required by standards promulgated by bodies designated by Council.

Rule 102
Integrity and Objectivity

In the performance of any professional service, a member shall maintain objectivity and integrity, shall be free of conflicts of interest, and shall not knowingly misrepresent facts or subordinate his or her judgment to others.

Rule 201
General Standards

A member shall comply with the following standards and with any interpretations thereof by bodies designated by Council.

A. *Professional Competence.* Undertake only those professional services that the member or the member's firm can reasonably expect to be completed with professional competence.
B. *Due Professional Care.* Exercise due professional care in the performance of professional services.
C. *Planning and Supervision.* Adequately plan and supervise the performance of professional services.
D. *Sufficient Relevant Data.* Obtain sufficient relevant data to afford a reasonable basis for conclusions or recommendations in relation to any professional services performed.

(continued)

EXHIBIT 3.2 AICPA Principles of Conduct *(continued)*

Rule 202 Compliance with Standards	A member who performs auditing, review, compilation, consulting, tax, or other professional services shall comply with standards promulgated by bodies designated by Council.
Rule 203 Accounting Principles	A member shall not (1) express an opinion that the financial statements or other financial data of any entity are presented in conformity with generally accepted accounting principles or (2) state that he or she is not aware of any material modifications that should be made to such statements or data in order for them to be in conformity with generally accepted accounting principles, if such statements or data contain any departure from an accounting principle promulgated by bodies designated by council to establish such principles that has a material effect on the statements or data taken as a whole. If, however, the statements or data contain such a departure and the member can demonstrate that due to unusual circumstances the financial statements or data would otherwise have been misleading, the member can comply with the rule by describing the departure, its approximate effects, if practicable, and the reasons why compliance with the principle would result in a misleading statement.
Rule 301 Confidential Client Information	A member in public practice shall not disclose any confidential client information without the specific consent of the client.
Rule 302 Contingent Fees	A member in public practice shall not: (1) perform for a contingent fee any professional services for, or receive such a fee from a client for whom the member or the member's firm also performs: (a) an audit or review of a financial statement, or (b) a compilation of a financial statement when the member expects, or reasonably might expect, that a third party will use the financial statement and the member's compilation report does not describe a lack of independence, or (c) an examination of prospective financial information, or (2) prepare an original or amended tax return or claim for a tax refund for a contingent fee for any client. This prohibition applies during the period in which the member or the member's firm is engaged to perform any of the services listed above and the period covered by any historical financial statements involved in any such listed services.
Rule 501 Acts Discreditable	A member shall not commit an act discreditable to the profession.
Rule 502 Advertising and Other Forms of Solicitation	A member in public practice shall not seek to obtain clients by advertising or other forms of solicitation in a manner that is false, misleading, or deceptive. Solicitation by the use of coercion, overreaching, or harassing conduct is prohibited.
Rule 503 Commissions and Referral Fees	A. *Prohibited Commissions.* A member in public practice shall not for a commission recommend or refer to a client any product or service, or for a commission recommend or refer any product or service to be supplied by a client, or receive a commission, when the member or the member's firm also performs (attestation services referred to in Rule 302) for the client. This prohibition applies to the period covered by the attestation service and the related historical financial statements. B. *Disclosure of Permitted Commissions.* A member in public practice who is not prohibited by this rule from performing services for or receiving a commission and who is paid or expects to be paid a commission shall disclose that fact to any person or entity to whom the member recommends or refers a product or service to which the commission relates. C. *Referral Fees.* Any member who accepts a referral fee for recommending or referring any service of a CPA to any person or entity or who pays a referral fee to obtain a client shall disclose such acceptance or payment to the client.
Rule 505 Form of Organization and Name	A member may practice public accounting only in a form of organization permitted by state law or regulation whose characteristics conform to resolutions of Council. A member shall not practice public accounting under a firm name that is misleading. Names of one or more past owners may be included in the firm name or a successor organization. A firm may not designate itself as "Members of the American Institute of Certified Public Accountants" unless all of its CPA owners are members of the Institute.

with a clear definition of professionalism and auditor independence. Next is a discussion of the AICPA's approach to independence.

AICPA's Approach to Independence

The AICPA's Rule of Conduct 101 on independence states:

> A member in public practice shall be independent in the performance of professional services as required by standards promulgated by bodies designated by Council.

The auditor is required to be independent when providing attestation services. However, the standards for providing only consulting, tax, or bookkeeping services do not require independence.

There are several interpretations of Rule 101 and over 100 rulings that provide more detailed guidance concerning such matters as financial interests in the client, family relationships, performance of non-audit services, and business relationships with the client. One of the more significant interpretations is shown in Exhibit 3.3.

Financial Interest Note that part A of Interpretation 101-1 refers to a **covered member.** A covered member is, among other things, defined as:

- An individual on the attest engagement team
- An individual in a position to influence the attest engagement
- A partner in the office in which the lead attest engagement partner primarily practices in connection with the attest engagement

A covered member's *immediate family* is also subject to Rule 101 and its interpretations, with some exceptions. Thus, if you are a new staff person, manager, or partner working on an audit, you and your immediate family should not have any direct or material indirect financial interest in that client. A *direct financial interest* is a financial interest owned directly by, or under the control of, an individual or entity, or beneficially owned through an investment vehicle, estate, or trust when the beneficiary controls the intermediary or has the authority to supervise or participate in the intermediary's investment decisions. An *indirect financial interest* is a

EXHIBIT 3.3 101-1 Interpretation of Rule 101

Independence shall be considered to be impaired if:

A. During the period of the professional engagement a covered member
   1. Had or was committed to acquire any direct or material indirect financial interest in the client.
   2. Was a trustee of any trust or executor or administrator of any estate if such trust or estate had or was committed to acquire any direct or material indirect financial interest in the client and
      i. the covered member (individually or with others) had the authority to make investment decisions for the trust or estate; or
      ii. the trust or estate owned or was committed to acquire more than 10 percent of the client's outstanding equity securities or other ownership interests; or
      iii. the value of the trust's or estate's holdings in the client exceeded 10 percent of the total assets of the trust or estate.
   3. Had a joint closely held investment that was material to the covered member.
   4. Except as specifically permitted in interpretation 101-5, had any loan to or from the client, any officer or director of the client, or any individual owning 10 percent or more of the client's outstanding equity securities or other ownership interests.

B. During the period of the professional engagement, a partner or professional employee of the firm, his or her immediate family, or any group of such persons acting together owned more than 5 percent of a client's outstanding equity securities or other ownership interests.

C. During the period covered by the financial statements or during the period of the professional engagement, a firm, or partner or professional employee of the firm, was simultaneously associated with the client as a
   1. director, officer, or employee, or in any capacity equivalent to that of a member of management;
   2. promoter, underwriter, or voting trustee; or
   3. trustee for any pension or profit-sharing trust of the client.

financial interest in which the beneficiary neither controls the intermediary nor has the authority to supervise or participate in the intermediary's investment decisions. For example, an auditor has an investment in a mutual fund that has an investment in an audit client but the member does not make the decisions to buy or sell the security. The ownership of mutual fund shares is a direct financial interest. The underlying investments of a mutual fund are considered to be indirect financial interests. If the mutual fund is diversified, a covered member's ownership of five percent or less of the outstanding shares of the mutual fund would not be considered to constitute a material indirect financial interest in the underlying investments. For purposes of determining materiality, the financial interests of the covered member and immediate family should be aggregated.

No partner or professional employee of the CPA firm whether a covered member or not may be employed by an attest client or own more than 5% of an attest client's outstanding equity securities or other ownership interests.

Family Relationships A covered member's independence would be considered impaired if an immediate family member were employed by an audit client in a *key position* in which they can exercise influence over the contents of the financial statements such as the CEO, CFO, chief accountant, member of the board of directors, chief internal audit executive, or treasurer. Independence is impaired if a covered member has a *close relative* who has a key position with the client or has a material financial interest in the client of which the CPA has knowledge.

Loans There are limits on the types and amounts of loans covered members may obtain from a financial institution that is also an audit client. Essentially, auditors cannot obtain large loans, or loans for investment purposes, from a client. However, auditors are permitted to obtain normal loans—if they are at standard terms, such as automobile loans or leases.

Practical Point

The AICPA has issued numerous rules and interpretations on auditor independence. Fundamentally, the individual auditor and audit firm need to accept responsibility for maintaining the public trust and safeguarding independence.

Performing Non-Audit Services Even though the code does not prohibit the auditor from *performing other services such as bookkeeping* for their client, the auditor must take care to ensure that working too closely with the client does not compromise the appearance of independence. If, for example, the auditor does bookkeeping, prepares tax returns, performs several management consulting services, regularly plays golf with members of the client's management, and goes on vacations with client personnel, the appearance, if not the fact, of independence has disappeared. Therefore, the members of a CPA firm need to assess all of their relationships with every client to ensure that independence has not been compromised. Interpretation 101-3 "Performance of Nonattest Services" provides guidance as to the nature of services that would and would not impair independence. For example, it is acceptable for the auditor of a *non-public company* to design, install, or integrate a client's information system, provided the client makes all management decisions. It is not acceptable to supervise client personnel in the daily operation of a client's information system.

Independence Safeguard: A Proactive Approach The auditing profession has dealt with independence rules on a rule-basis for a number of years. While specific rules help, there is always a tendency to focus on specific rules and often miss the overall concept. **Independence** is a simple concept. The difficulty is in understanding the threats to independence, or even the subtle changes that cause us to be less skeptical than we should be on any audit engagement. For example, does our experience in finding that most companies do not engage in fraud make us less skeptical in examining another company? Does the fact that over the last ten years, no instances of material fraud have been uncovered on a particular client make us less skeptical when performing the current audit? The profession, individual audit firms, and audit professionals must develop a proactive approach to maintain the necessary objectivity and professional skepticism. Exhibit 3.4 contains a number of safeguards that should be considered by every firm.

EXHIBIT 3.4 Safeguard Independence: A Proactive Approach

Actions that public accounting firms can take to safeguard independence:

- The firm's leadership sets the proper "tone at the top" by (a) leading by example and (b) stressing the importance of independence for all professional staff.
- Communicate with the client's audit committee or with the board of directors on matters that may affect the audit firm's independence, or the perception of independence by key constituencies.
- Participate in peer review programs that include a review of audit documentation, including an analysis of the audit reasoning process and the processes set up within the firm to assure audit independence.
- Implement quality control standards, including regular training.
- Set up internal monitoring and compliance procedures to ensure that the firm and its personnel are complying with not only the independence policies, but also the spirit of those policies.
- Require professional staff to communicate to firm senior management any independence and objectivity issues that concern them.
- Encourage peer partner review by someone not involved in the audit engagement.
- Where appropriate, periodically rotate the partner in charge of the audit engagement.
- Constantly monitor threats to independence—whether they be from litigation, economic events, changed business strategies, and so forth.

Note that the items in Exhibit 3.4 focus on establishing leadership within the firm that emphasizes the importance of independence. The proactive approach complements the leadership with quality control processes and independent reviews of audits.

Other Important Elements of a Professional Code of Ethics

The following is a description of some of the other Rules of Conduct shown in Exhibit 3.2.

Integrity and Objectivity—Rule 102

Rule 102 requires the AICPA member to act with integrity and objectivity in all services that may be provided to a client. Note that this applies also to CPAs who are no longer in public practice. For example, if the CFO of a company knowingly makes or permits others to make materially false and misleading entries in the financial statements or records, fails to correct an entity's financial statements or records, or signs—or directs another to sign—a document containing materially false and misleading information, that person has violated the AICPA Code of Ethics. A CPA is a special certificate that holds its owner to a high standard of ethical conduct, no matter where the individual is in his or her career.

A *conflict of interest* may occur, for example, if a member serves a client both as the auditor and legal counsel. Auditors must be objective. Legal counsel is an advocate for the client. One person cannot be both by turning objectivity on and off as needed.

Confidentiality—Rule 301

During the course of an audit, the auditor develops a complete understanding of the client and obtains **confidential information** such as its operating strengths, weaknesses, and plans for financing or expanding into new markets. To ensure a free flow and sharing of information between the client and the auditor, the client must be assured that the auditor will not communicate confidential information

to outside parties. The only exceptions to this general rule are that auditors are not precluded from communicating information for any of the following purposes:

- To ensure the adequacy of accounting disclosures required by GAAP or GAAS
- To comply with a validly issued and enforceable subpoena or summons or to comply with applicable laws and government regulations
- To provide relevant information for an outside quality review of the firm's practice under PCAOB, AICPA, or State Board of Accountancy authorization
- To initiate a complaint with, or respond to an inquiry made by, the AICPA's professional ethics division or trial board or investigative or disciplinary body of a state CPA society or Board of Accountancy

Privileged communication means that confidential information obtained about a client cannot be subpoenaed by a court of law to be used against that client. Most states allow privileged communication for lawyers but not for auditors.

A potentially troublesome area for accountants is confidential information obtained in one engagement that may be applicable to another. In the case of *Fund of Funds, Ltd. v. Arthur Andersen & Co.* (AA&Co.), a federal court jury found against the auditors because the jury expected the auditor to use information from one audit client to protect the interests of another audit client. *The Wall Street Journal* reported:

> According to court papers in the suit, John M. King, a Denver oil and gas fund promoter, convinced Fund of Funds to purchase natural resource assets from two concerns he controlled. Fund of Funds eventually paid about $120 million for over 400 natural resource assets.
>
> Fund of Funds alleged that many of the assets were sold at "unrealistically high and fraudulent prices" and that AA&Co. had "knowledge of or recklessly disregarded" the fraudulent activities because AA&Co. was also the auditor for the King concern.[4]

AA&Co. audited both Fund of Funds and King Resources, the entity that sold the assets to Fund of Funds. According to the court proceedings, the plaintiffs alleged that the same key audit personnel were involved in both audits and knew, or should have known, that the assets in question were sold at a price that generated profits much higher than comparable sales to other customers of King Resources. AA&Co. admitted knowledge of these overcharges but stated that it had a responsibility under the Code of Professional Conduct to keep the information confidential. The jury was convinced that information obtained while auditing King Resources should have been used during the audit of Fund of Funds.[5]

However, courts do not always give the auditing profession clear signals. In another case, *Consolidata Services v. Alexander Grant,* the court found the CPA firm guilty of providing confidential information to other clients. Alexander Grant (now Grant Thornton) did tax work for Consolidata Services, a company that provided computerized payroll services to other companies. On learning that Consolidata was in financial trouble, Grant warned some of their other clients, who were also Consolidata customers. Consolidata sued Grant charging that the accounting firm's disclosures effectively put it out of business. The jury found for Consolidata. Grant was also found guilty of providing the information only to selected parties: that is, they provided the information only to their clients—not all customers of Consolidata.

These types of situations create true ethical dilemmas for auditors. Should they use knowledge obtained during the audit of one client when reporting on the statements of another client, as the Fund of Funds decision seems to indicate, or should they follow the Code of Professional Conduct and keep the information confidential? Unfortunately, the rules do not directly answer this question. Two principles, however, seem to evolve from the cases. First, the audit firm was

[4] *The Wall Street Journal,* November 6, 1981, p. 24.

[5] *Fund of Funds, Ltd. v. Arthur Andersen & Co.,* 545 F Supp. 1314 (S.D.N.Y. 1982).

common for the two audit engagements with Fund of Funds and therefore could obtain and apply the information. Second, in the Consolidata case, the jury believed that the auditor had selectively used confidential information, thus violating the public trust. Moreover, although the courts generally uphold the confidentiality standard, they have not been reluctant to appeal to a higher standard of public trust when they perceive a conflict between confidentiality and the public trust. It is the author's expectation that this area will continue to evolve. Auditors facing a potential conflict are advised to consult legal counsel.

Contingent Fees—Rule 302

A **contingent fee** is defined as a fee established for the performance of any service in which a fee will not be collected unless a specified finding or result is attained, or in which the amount of the fee depends on the finding or results of such services. An example of a contingent fee is a consulting firm that agrees to perform an information systems project for a fee of 50% of the defined cost savings attributable to the system for a period of three years. Contingent fees are attractive to clients because they do not pay unless the consultant delivers real value. Consulting firms often use contingent fees to compete with each other.

Contingent fees are prohibited for any client for whom the auditor performs attestation services. However, an auditor's fees may vary, depending on the complexity of services rendered or the time taken to perform the services. Contingent fees have not been prohibited for services provided to non-audit clients. Thus, during the past decade, many firms collected large contingent fees by marketing tax shelter plans to non-audit clients. Some of these tax shelters may have been illegal and a few large CPA firms have been sued by the Internal Revenue Service.

Advertising and Other Forms of Solicitation—Rule 502

Members are prohibited from attracting clients in a manner that involves coercion, overreaching, or harassing conduct because it is not in the public interest. Interpretation 502-2 states that such activities include those that:

- Create false or unjustified expectations of favorable results
- Imply the ability to influence any court, tribunal, regulatory agency, or similar body or official
- Contain a representation that specific professional services in current or future periods will be performed for a stated fee, estimated fee, or fee range when it was likely at the time of the representation that such fees would be substantially increased and the prospective client was not advised of that likelihood
- Contain any other representations that would be likely to cause a reasonable person to misunderstand or be deceived

Commissions and Referral Fees—Rule 503

Rule 503A and B prohibit a CPA from receiving a **commission** from a person or organization for recommending its products or services to an attestation client. However, the CPA can receive a commission on recommending services or products to a non-attestation client. However, even in situations in which commissions are permitted, the Code requires disclosure of the nature of the commissions so that the client can assess the potential influence of the commission. Many auditors choose not to accept commissions—even when allowed—to ensure their integrity in recommending the best products to their clients.

Rule 503C allows a CPA to pay or receive a **referral fee** for professional services (audits, consulting, tax, and so on) as long as the client is notified of the fee.

Practical Point

Many vendors, such as software services on information system networks, pay commissions to all consultants who recommend their product. Some CPA firms accept these commissions. However, they should (a) accept the commission only if they have formed an objective opinion that these are the best products for the client, and (b) disclose the fact they are accepting the commission to the client.

Form of Organization and Name—Rule 505

Most public accounting firms are organized as partnerships or limited liability partnerships. Rule 505 requires that CPAs own a majority of the financial interests in a firm engaged in attestation services. The overriding focus is that CPAs remain responsible, financially and otherwise, for the attestation work performed to protect the public interest.

Enforcement of the Code

Compliance with the Code depends primarily on the voluntary cooperation of AICPA members and secondarily on public opinion, reinforcement by peers, and, ultimately, on disciplinary proceedings by the Joint Ethics Enforcement Program, sponsored by the AICPA and state CPA societies. Disciplinary proceedings are initiated by complaints received by the AICPA's Professional Ethics Division.

The member's CPA certificate may be suspended or revoked by the state board of accountancy. Without that certificate or license, a person is legally prohibited from issuing an audit opinion or a review report on financial statements. The state board may also require additional continuing education to retain or reinstate the CPA certificate.

Ethical Theories: Resolving Issues That Are Not Black or White

Accounting professionals are often faced with ethical situations not explicitly covered by the Code of Professional Conduct. In such situations, a defined methodology is needed to help resolve the situation in a thoughtful manner. An **ethical problem** occurs when an individual is morally or ethically required to take an action that conflicts with his or her immediate self-interest. An **ethical dilemma** occurs when there are conflicting moral duties or obligations, such as paying a debt to one person when there is equal indebtedness to another person and sufficient funds do not exist to repay both. Complex ethical dilemmas do not lend themselves to simple "right" or "wrong" decisions or reference to the code of ethics.

Ethical theories present frameworks to assist individuals in dealing with both ethical problems and ethical dilemmas. Two such frameworks—the utilitarian theory and the rights theory—provide references that have influenced the development of codes of conduct and can be used by professionals in dealing with situations.

Utilitarian Theory

Utilitarian theory holds that what is ethical is the action that achieves the greatest good for the greatest number of people. Actions that result in outcomes that fall short of the greatest good for the greatest number and those that represent inefficient means to accomplish such ends are less desirable. Utilitarianism requires the following:

- An identification of the potential problem and courses of action
- An identification of the potential direct or indirect impact of actions on each affected party (often referred to as **stakeholders**) who may have a vested interest in the outcome of actions taken
- An assessment of the desirability (goodness) of each action
- An overall assessment of the greatest good for the greatest number

Utilitarianism requires that individuals not advocate or choose alternatives that favor narrow interests or that serve the greatest good in an inefficient manner. There can be honest disagreements about the likely impact of actions or the relative efficiency of different actions in attaining desired ends. There are also potential problems in measuring what constitutes "the greatest good" in a particular

circumstance. One problem with the utilitarian theory is the implicit assumption that the "ends achieved" justify the means. Unfortunately, such an approach can lead to disastrous courses of actions when those making the decisions fail to adequately measure or assess the potential costs and benefits. Thus, ethicists generally argue that utilitarian arguments should be mitigated by some "value-based" approach. The rights approach presents such a framework.

Rights Theory

Rights theory focuses on evaluating actions based on the fundamental rights of the parties involved. But not all rights are equal. In the hierarchy of rights, higher-order rights take precedence over lower-order rights. The highest-order rights include the right to life, to autonomy, and to human dignity. Second-order rights include rights granted by the government, such as civil rights, legal rights, rights to own property, and license privileges. Third-order rights are social rights, such as the right to higher education, to good health care, and to earn a living. The lowest level, fourth-order rights, are related to one's nonessential interests or one's tastes, such as the right to get rich, to play golf, or to be attractively dressed.

Rights theory requires that the "rights" of affected parties should be examined as a constraint on ethical decision-making. The rights approach is most effective in identifying outcomes that ought to be automatically eliminated, such as the "Robin Hood approach" of robbing from the rich to give to the poor, or in identifying situations in which the utilitarian answer would be at odds with most societal values.

An Ethical Framework

The following framework is derived from the utilitarianism and rights theories and defines an approach to address complex issues not addressed by the profession's code or when elements of the code seem to be in conflict.

- Identify the ethical issue(s).
- Determine who are the affected parties and identify their rights.
- Determine the most important rights.
- Develop alternative courses of action.
- Determine the likely consequences of each proposed course of action.
- Assess the possible consequences, including an estimation of the greatest good for the greatest number. Determine whether the rights framework would cause any course of action to be eliminated.
- Decide on the appropriate course of action.

The following case, based on an actual situation, is presented to show how to apply this framework to auditing situations.

Applying the Ethical Framework to the Consolidata Situation

Identify the Ethical Issue(s) The CPAs providing tax services for Consolidata believe Consolidata is likely to go bankrupt. Several clients of the CPA firm use the payroll processing services of Consolidata. Should the other clients be provided with this confidential information?

Determine Who Are the Affected Parties and Identify Their Rights The relevant parties to the issue include the following:

- Consolidata and its management
- Consolidata's current and prospective customers, creditors, and investors
- The CPA firm and its clients
- The public accounting profession

Listing those potentially affected by the decision is easier than identifying their rights. The following, however, are some of the rights involved:

- Company management has the right to assume that confidential information obtained by auditors will remain confidential unless disclosure is permitted by the company or is required by accounting or auditing standards.
- Consolidata's current and prospective customers, creditors, and investors have a right to receive reliable information and not be denied information that others receive.
- The CPA firm has the right to expect its professionals to follow the professional standards. However, some may feel pressure to protect their existing clients' welfare.
- The public accounting profession has the right to expect all its members to uphold the Code of Professional Conduct and to take actions that enhance the general reputation and perception of the integrity of the profession. The ethics ruling on confidentiality was designed to ensure a free flow of information between the client and the auditor. Such a flow is considered necessary to the efficient and effective conduct of an audit engagement.

Determine the Most Important Rights The most important rights are those of (1) Consolidata to not have confidential information improperly disclosed, (2) the users to receive reliable information, and (3) the profession to ensure that actions are taken to ensure effective audits.

Develop Alternative Courses of Action The possible courses of action are (1) share the confidential information with the other clients of the public accounting firm, or (2) do not share that information. Recall that Alexander Grant was performing only tax work for Consolidata. If they were performing audit work, professional standards would have required that they disclose their reservations about Consolidata remaining a going concern in their audit report and that going concern reservation would serve as a flag to anyone who read the annual report. However, no such report was issued because it was not an audit.

Determine the Likely Consequences *Share the Information*—Sharing this information with the other clients may cause them to take their business away from Consolidata, thus increasing the likelihood of bankruptcy for Consolidata. It might also increase the possibility of the CPA firm being found in violation of the rules of conduct and being sued by Consolidata or others for inappropriately providing confidential information. The CPA may also have his or her license suspended or revoked. Other Consolidata clients who do not receive the information because they are not the CPA firm's clients will be put at a competitive disadvantage, and they may sue the auditor because of discriminatory disclosure.

Do Not Share the Information—If the information is not shared with the other clients, those clients might take their audit business elsewhere if they find out the auditors knew of this problem and did not share it with them.

Assess the Possible Consequences and Evaluate Rights Sharing the information may help other clients move their payroll processing business to other service providers in a more orderly manner and more quickly than would otherwise happen. However, other Consolidata customers may be placed at a disadvantage if Consolidata does go bankrupt and their payroll processing is disrupted. Consolidata's employees will lose their jobs more quickly, and its investors are likely to lose more money more quickly. Its right to have confidential information remain confidential will be violated. There may be less confidence in the profession because of discriminatory or unauthorized disclosure of information. Management of other firms may be reluctant to share other non-financial information with auditing firms.

Decide on the Appropriate Course of Action After assessing the relative benefits of disclosing vs. not disclosing the information, it appears that the greatest good

is served by not sharing the information selectively with current audit clients. Conclusion: The CPA should not share the information. The CPA may encourage Consolidata to share its state of affairs with its clients, but cannot dictate that it do so.

Summary

Certified Public Accountants can serve the public only if they safeguard their reputation for independence and objectivity. For most of the past century, the AICPA had the primary responsibility to provide guidance to the profession on pervasive ethics concepts. All CPAs are expected to follow the basic principles of the AICPA's Code of Professional Conduct. However, as with accounting, the profession became more rule-focused. In turn, the AICPA issued over 100 interpretations and rulings dealing with independence.

As the accounting profession followed a hyper-growth pattern of expanding the nature of services during the 1980s and 1990s, the SEC and others, including Congress, became critical that the profession was losing one of its core values. The SEC issued a comprehensive bulletin that called for the profession to return to fundamental concepts. The SEC started with four basic principles and then provided guidance on specific questions that had impacted the profession by simply implementing these four principles. The SEC went a step further by prohibiting some specific non-audit activities for audit clients and, most importantly, set up procedures to ensure that an outside group—the audit committee—evaluated all potential impairments to the auditor's independence before engaging them to audit a company's financial statements or to report on the quality of the entity's controls. Congress codified these concepts in the Sarbanes-Oxley Act of 2002.

There will be situations for which specific ethics rules have not been developed. An ethical framework, such as developed in this chapter, can help you resolve an ethical dilemma in a thoughtful manner.

Significant Terms

commission The payment of a fee for selling an item or as a percentage of the fees generated for performing a service, which is generally prohibited by the AICPA but may be allowed in some instances for non-attestation clients; when a commission is accepted, the CPA must disclose its nature to the user affected by the auditor's service.

confidential information Information obtained during the conduct of an audit related to the client's business or business plans; the auditor is prohibited from communicating confidential information except in very specific instances defined by the Code or with the client's specific authorization.

contingent fee A fee established for the performance of any service pursuant to an arrangement in which no fee will be charged unless a specified finding or result is attained, or in which the amount of the fee otherwise depends on the finding or results of such services.

covered member An individual on the attestation engagement team, an individual in a position to influence the attestation engagement, or a partner in the office in which the lead attestation engagement partner primarily practices in connection with the attestation engagement.

ethical dilemma A situation in which moral duties or obligations conflict; one action is not necessarily the correct action.

ethical problem A situation in which an individual is morally or ethically required to do something that conflicts with his or her immediate self-interest.

independence Being objective and unbiased while performing professional services. It requires being independent in fact and in appearance.

privileged communication Information about a client that cannot be subpoenaed by a court of law to be used against a client; it allows no exceptions to confidentiality.

referral fees Fees received or paid for referring business to another person or organization.

rights theory An approach (framework) for addressing ethical problems by identifying a hierarchy of rights that should be considered in solving ethical problems or dilemmas.

rules of conduct Detailed guidance to assist the CPA in applying the broad principles contained in the AICPA's Code of Professional Conduct; the rules have evolved over time as members of the profession have encountered specific ethical dilemmas in complying with the principles of the Code.

stakeholders Those parties who have a vested interest in, or are affected by, the decision resulting from an ethical problem or dilemma.

utilitarian theory An ethical theory (framework) that systematically considers all the potential stakeholders who may be affected by an ethical decision and seeks to measure the effects of the decision on each party; it seeks to assist individuals in making decisions resulting in the greatest amount of good for the greatest number of people.

Review Questions

3-1 How is ethical behavior related to organizational success?

3-2 Why is it necessary to be a licensed CPA to perform an audit?

3-3 Why is independence considered the most important characteristic of an auditor?

3-4 What are the major threats to auditor independence? Explain why each item represents a threat to auditor independence.

3-5 What can a CPA firm do to manage the threats to auditor independence? Explain why each management approach should be effective and how it would be implemented.

3-6 What are the major principles that have guided the SEC's actions on auditor independence?

3-7 What are the prohibited services that a CPA or CPA firm cannot provide for a public company audit client?

3-8 Describe the principles that form the basis of the AICPA's Rules of Conduct.

3-9 Are there services that can be performed for non-public companies that cannot be performed for public companies? Explain.

3-10 Why might the profession allow some services to be performed for non-public clients that cannot be performed for public company clients?

3-11 How do the AICPA's and the SEC's independence rules on providing data processing and consulting services for an audit client differ?

3-12 What is meant by independence (a) in fact and (b) in appearance? Give an example of an auditor being independent in fact but not in appearance.

3-13 Describe the difference between a direct financial interest and an indirect financial interest in an audit client.

3-14 Explain why the audit client might differ for a non-public company as compared to a public company?

3-15 Would independence be impaired, according to the AICPA, if a CPA:

a. Obtained a home mortgage with a bank that later became an audit client while the mortgage was still in effect?
b. Had been the audit client's controller during the first six months of the period covered by the audited financial statements?
c. Obtained a home mortgage while the lending institution was an audit client?

3-16 What role does the audit committee have in making judgments about auditor independence?

3-17 Under what circumstances is it appropriate for a CPA to disclose confidential information about a client?

3-18 Would a CPA violate the AICPA's code if he or she served a client both as its auditor and legal counsel? Explain your answer.

3-19 Under what circumstances is it appropriate for a CPA to:
a. Provide services on a contingent fee basis?
b. Accept a commission for referring a product or service to the client?
c. Pay a referral fee to another CPA?

3-20 How is the AICPA's code enforced?

3-21 Briefly describe the concepts and approaches underlying the utilitarian theory and the rights theory.

Multiple-Choice Questions

***3-22** Which of the following statements best explains why the CPA profession has found it essential to promulgate ethical standards and to establish means for ensuring their observance?
a. Vigorous enforcement of an established code of ethics is the best way to prevent unscrupulous acts.
b. Ethical standards that emphasize excellence in performance over material rewards establish a reputation for competence and character.
c. A distinguishing mark of a profession is its acceptance of responsibility to the public.
d. A requirement for a profession is to establish ethical standards that stress primarily a responsibility to clients and colleagues.

3-23 Which of the following is not a major threat to an auditor's independence?
a. Audit partner's compensation based on obtaining and retaining clients.
b. Becoming too friendly with the client's management.
c. Significant time pressures to get the audit done quickly.
d. Auditing records maintained by the public accounting firm.
e. All of the above are threats.

3-24 The PCAOB has prohibited public accounting firms from providing tax services to higher members of management of audit clients. The primary rationale for such a prohibition is likely to be:
a. CPAs are not experts in taking tax positions.
b. The fees paid by management were significant in comparison with audit fees.
c. The close personal relationship with management created a perceived loss of independence by the investing public.
d. Tax services always involve taking a proactive position for the client.

3-25 According to the AICPA's ethical standards, an auditor would be considered independent in which of the following instances?
a. The auditor has an automobile loan from a client bank.
b. The auditor is also an attorney who advises the client as its general counsel.
c. An employee of the auditor donates service as treasurer of a charitable organization that is a client.
d. The client owes the auditor fees for two consecutive annual audits.

***3-26** A violation of the profession's ethical standards would most likely have occurred when a CPA:
a. Purchased a bookkeeping firm's practice of monthly write-ups for a percentage of fees received over a three-year period.

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* All problems marked with an asterisk are adapted from the Uniform CPA Examination.

b. Made arrangements with a bank to collect notes issued by a client in payment of fees due.
c. Whose name is Smith formed a partnership with two other CPAs and uses Smith & Co. as the firm name.
d. Issued an unqualified opinion on the 2006 financial statements when fees for the 2005 audit were unpaid.

***3-27** A CPA is permitted to disclose confidential client information without the consent of the client to:

I. Another CPA who has purchased the CPA's tax practice.
II. Another CPA firm if the information concerns suspected tax return irregularities.
III. A state CPA society's voluntary quality control review board.

a. I and III
b. II and III
c. II
d. III

***3-28** Manny Tallents is a CPA and a lawyer. In which of the following situations is Tallents violating the AICPA's Rules of Conduct?

a. He uses his legal training to help determine the legality of an audit client's actions.
b. He researches a tax question to help the client make a management decision.
c. He defends his audit client in a patent infringement suit.
d. He uses his legal training to help determine the accounting implications of a complicated contract of an audit client.

3-29 CPA firms performing management consulting services can accept contingent fee contracts when:

a. The amounts are not material in relationship to the audit billings.
b. The consulting services are for clients for whom the auditor does not provide any form of attestation services related to a company's financial statements.
c. The consulting services are non-attestation services for an audit client.
d. The consulting services are derived from a joint contract with an audit client to perform consulting services for an independent third party.
e. All of the above.

3-30 Applying utilitarianism as a concept in addressing ethical situations requires the auditor to perform all of the following except:

a. Identify the potential stakeholders that will be affected by the alternative outcomes.
b. Determine the effect of the potential alternative courses of action on the affected parties.
c. Choose the alternative that provides either the greatest good for the greatest number or the lowest cost (from a societal view) for the greatest number.
d. Examine the potential outcomes to see whether the results are inconsistent with the rights or justice theories.

Discussion and Research Questions

3-31 **(Purpose of Codes of Conduct)** Many professions have developed codes of conduct. The public accounting profession has developed detailed guidance in its Code.

Required

a. What is the major purpose of the Codes of Conduct enacted by the AICPA, state boards of accountancy, state societies of CPAs, and the IIA?

b. What are the potential sanctions if a CPA is found to have violated the Professional Code of Conduct?

3-32 **(Threats to Independence)**
Scene 1—You are the senior in charge of the audit of NOB Company. The CFO is pressuring you to complete the audit in two weeks. Some of the audit team members are new staff and have required a significant amount of training to bring them up to speed for the audit. As a result, your audit is behind schedule. However, you know that even with extended overtime, your audit team cannot complete all of the planned audit work in two weeks.

Required
a. What should you do in this situation?
b. What could have been done to prevent this situation?

Scene 2—Partners in the public accounting firm of Noble, Wishman, & Kant, LLP earn compensation points for (1) obtaining new clients, (2) retaining clients, and (3) selling additional services to existing clients. Depending on the number of points, each partner's compensation can be increased by up to 150% of their base salary.

Required
a. Explain why this arrangement can be a threat to independence.
b. What could be done to eliminate this threat?

3-33 **(Corporate Governance Issues)** The Sarbanes-Oxley Act mandates that the audit committee of the board of directors of public companies be directly responsible for the appointment, compensations, and oversight of the external auditors. In addition, the audit committee must preapprove all non-audit services that might be performed by the auditing firm.

Required
a. Discuss the rationale for this mandate as opposed to letting the shareholders, CFO, or CEO have these responsibilities.
b. What factors should the audit committee consider in evaluating the independence of the external auditor?

3-34 **(SEC Independence Principles)** The following are situations in which auditors may find themselves.

Required
a. What are the four guiding principles that have been developed by the SEC for auditor independence?
b. Are the principles applicable only to SEC companies, or do they apply to auditors of smaller, privately-held companies as well?
c. For each of the situations, indicate whether it appears to violate the SEC's independence principles. Explain your answer.

Situation
1. Spencer is the partner in charge of the audit of Flip Company. He has half interest in a joint venture with Flip's CFO.
2, Victoria is the senior in charge of the audit of Holder Company. During the past year, she filled in for the chief accountant who had emergency surgery and was out for six weeks.
3. Brandon has been asked by an audit client to represent the client in negotiations with the management of another company that the client wants to acquire.
4. Sanders is the partner in charge of the audit of the Marshall Co. The CEO and CFO have asked Sanders to prepare their personal federal and state income tax returns as well as the tax returns for the company.

3-35 **(Independence)** For each of the following independent situations, indicate whether it is a violation of the AICPA's Rule of Conduct 101 on independence and explain your answer.

a. Barnes is a partner in a CPA firm and the firm performs an audit of Ovats Co.
   i. Barnes practices in the same office as the lead engagement partner for the Ovats Co. audit but does not work on the audit. Barnes owns a few shares of Ovats Co. stock.
   ii. Barnes practices in the same office as the lead engagement partner for the Ovats Co. audit but does not work on the audit. Barnes' wife owns stock in Ovats Co.

b. Putts is a new staff person and works on the audit of the Tate Corp. Putts owns a few shares of Tate Corp.'s stock.

c. Nels is an audit senior and participates in the audit of Varsity, Co. His non-dependent mother owns shares of stock in Varsity that are material to her net worth and of which Nels has knowledge.

d. Kard is an audit senior but does not participate in the audit of the Looney Corp. Kard owns 6% of Looney's stock.

Group Activity

3-36 **(Ethical Standards)** Discuss the following situations in a group and report to the class:

a. What rules would you expect the codes of other professions to have in common with the AICPA? Explain.

b. Examine the SEC's basic principles regarding independence. Using only those principles, discuss and reach a conclusion as to whether the following services performed by a CPA for an audit client violates audit independence. If you believe that the services can be performed if safeguards are in place, state the safeguards:
   1. A CPA firm prepares the client's tax return.
   2. A CPA performs business risk analysis with a focus on economic and business risk rather than accounting risks.
   3. A CPA performs marketing research, but only for non-audit clients. However, it does have a significant number of clients who are in the same industry for which it performs marketing research.
   4. A client board member performs consulting work for the consulting division of the firm; the audit partner was not aware of the relationship of the board member to the firm.
   5. A professor in a major university is doing a research project for a public accounting firm and also serves on the board of directors of one of the company's audit clients.

3-37 **(Independence)** Public accounting firms have taken many positive steps to ensure the independence of their firms in conducting audits.

Required

a. Identify five ways in which a public accounting firm can take positive actions to improve the firm's independence in conducting an audit.

b. Identify a small public accounting firm that is in the region of your school. For that firm, visit the web site and determine the scope of services of the firm. Are independence issues different for small firms that audit only privately-held companies than for firms that audit mostly public companies?

c. Identify three unique challenges that smaller public accounting firms face in maintaining audit independence.

d. What are the requirements for independence and objectivity if an audit firm performs consulting services for a non-audit client? Explain the rationale for the requirements.

3-38 **(Auditor Independence)** Independence is often hailed as the "cornerstone of auditing" and recognized as the most important characteristic of an auditor.

Required

a. What is meant by independence as it is applied to the CPA?
b. Compare independence of an auditor with that of a
   1. Judge
   2. Lawyer
c. Describe the difference between the independence of an external and an internal auditor.
d. For each of the following situations, indicate whether the auditor is in violation of the AICPA's Code. Explain your answers.
   1. The auditor's father works for an audit client as
      (a) A custodial engineer
      (b) The treasurer
   2. The auditor's third cousin twice removed is treasurer of an audit client.
   3. The auditor of a charitable organization is also its treasurer.

3-39 **(Ethical Scenarios and Standards)** The following are a number of scenarios that might constitute a violation of the Code of Professional Conduct.

Required

For each of the following situations, identify whether it involves a violation of the ethical standards of the profession, and indicate which principle or rule would be violated.

a. Tom Hart, CPA, does the bookkeeping, prepares the tax returns, and performs various management services for Sanders, Inc. One management service involved the assessment of the microcomputer needs and identification of equipment to meet those needs. Hart recommended a product sold by Compter Co., which has agreed to pay Hart a 10% commission if Sanders buys its product.
b. Irma Stone, CPA, was scheduled to be extremely busy for the next few months. When a prospective client asked if Stone would do its next year's audit, she declined but referred them to Joe Rock, CPA. Rock paid Stone $200 for the referral.
c. Nancy Heck, CPA, has agreed to perform an inventory control study and recommend a new inventory control system for Ettes, Inc., a new client. Currently, Ettes engages another CPA firm to audit its financial statements. The financial arrangement is that Ettes, Inc. will pay Heck 50% of the savings in inventory costs over the two-year period following implementation of the new system.
d. Brad Gage, CPA, has served Hi-Dee Co. as auditor for several years. In addition, Gage has performed other services for the company. This year, the financial vice president has asked Gage to perform a major computer system evaluation.
e. Due to the death of its controller, an audit client had its external auditor, Gail Klate, CPA, perform the controller's job for a month until a replacement was found.
f. Chris Holt, CPA, conducted an audit and issued a report on the 19X1 financial statements of Tree, Inc. Tree has not yet paid the audit fees for that audit prior to issuing the audit report on 19X2 statements.

3-40 **(Confidentiality)** Rule 301 on confidentiality recognizes a fundamental public trust between the client and the auditor and reflects the manner in which all professionals conduct themselves. However, in certain instances the auditor may be required to communicate confidential information.

Required

a. Briefly explain the purpose of the confidentiality rule. Why is it important to ensure the client of confidentiality of information?

b. Under what circumstances is the CPA allowed to communicate confidential information, and who are the parties to which the information can be communicated?
c. Assume that an auditor is the partner in charge of two separate engagements, but during the conduct of the audit of Client A, the auditor learns of information that will materially affect the audit of Client B. Client B is not aware of the information (the inability of Client A to pay its debts). What alternative courses of action are available to the auditor? Would communication of the information to Client B be considered a violation of confidentiality? What guidance might the auditor seek other than Rule 301 in developing an answer to this ethical dilemma?
d. Is the auditor's report considered a confidential communication? Explain.

Group Activity

3-41 Robert, CPA, has a large one-office firm in a growing city, but his practice is shrinking.[6] Several other firms recently opened offices in the city, and Robert lost several key clients to his new competitors.

Because of the changed competitive climate, Robert decided his firm needed to offer a wider array of services and seek clients in industries in which the firm hadn't previously ventured. For example, Robert bid on a nearby community college's annual audit, even though his firm never before had audited a college. The college receives a significant amount of federal financial assistance. The bid was successful, and Robert's firm conducted and completed what he thought was an appropriate audit. Shortly after its conclusion, however, Robert was informed by the ethics committee that an investigation was being considered to determine if he had violated any of the AICPA's Rules of Conduct or related interpretations.

Required
a. What rules of conduct and interpretations would the ethics committee most likely refer to for this investigation?
b. How might Robert have avoided violation of those rules and interpretations?

3-42 **(Application of Ethical Framework)** As the auditor for XYZ Company, you discover that a material sale ($500,000 sale, cost of goods of $300,000) was made to a customer this year. Due to poor internal accounting controls, the sale was never recorded. Your client makes a management decision not to bill the customer because such a long time has passed since the shipment was made. You determine, to the best of your ability, that the sale was not fraudulent.

Required
a. Does GAAP require disclosure of this non-transaction? Cite specific applicable standards.
b. Regardless of your answer to part (a), utilize the ethical framework developed in the chapter to determine whether the auditor should require either a recording or disclosure of the transaction. If you conclude that the transaction should be disclosed or recorded, indicate the nature of disclosure and your rationale for it.

3-43 **(Application of Ethical Framework)** Your audit client, Germane Industries, has developed a new financial instrument, the major purpose of which is to boost earnings and to keep a significant amount of debt off the balance sheet. Its investment banker tells the firm that the instrument is structured explicitly to keep it off the balance sheet,

[6] This case was written by Michael A. Pearson, professor of accounting at Kent State University, and printed in the June 1995 *Journal of Accountancy* on pp. 82–83.

and that she has discussed the treatment with three other Big Five firms that have indicated some support for the client's position. The transaction is not covered by any current authoritative pronouncement.

Your initial reaction is that the item, when viewed in its substance as opposed to its form, is debt. The client reacts that GAAP does not prohibit the treatment of the item it advocates, and that the financial statements are those of management. The client notes further, and you corroborate, that some other firms would account for the item in the manner suggested by management, although it is not clear that a majority of other firms would accept such accounting.

Required

a. What is the ethical dilemma?
b. Does competition lead to a lower ethical standard in the profession?
c. What safeguards are built into the profession's standards and Code of Professional Conduct that would mitigate the potential effect of competition on the quality of the profession's work?

Cases

3-44 **(Fairness and Professionalism)** In a 1988 article, Arthur Wyatt, a former member of the FASB, stated: "Practicing professionals should place the public interest above the interests of clients, particularly when participating in a process designed to develop standards expected to achieve fair presentation. . . . Granted that the increasingly detailed nature of FASB standards encourages efforts to find loopholes, a professional ought to strive to apply standards in a manner that will best achieve the objectives sought by the standards. *Unfortunately, the auditor today is often a participant in aggressively seeking loopholes.* The public, on the other hand, views auditors as their protection against aggressive standard application." [Emphasis added].

Required

a. What does it mean to find "loopholes" in FASB pronouncements? How would finding loopholes be potentially valued by the management of a client?
b. Explain how auditors could be participants in "aggressively seeking loopholes" when the independence standard requires the pursuit of fairness in financial presentation.
c. How is professionalism related to the concept of fairness in financial reporting? Explain.

3-45 **(Conflict of Interest)** In *The Fund of Funds, Ltd. v. Arthur Andersen & Co.*, Arthur Andersen auditors completed the audit of Fund of Funds with no problems encountered and issued an unqualified opinion. Shortly thereafter, essentially the same audit team began the audit of King Resources. While conducting that audit, the auditors realized that there was a significant contract between King Resources and Fund of Funds. The auditors continued with the audit and were surprised to find that King Resources had not dealt fairly with Fund of Funds by selling them property that was significantly overpriced. Now the auditors were caught in a dilemma: they could tell Fund of Funds. Alternatively, they could refrain from telling Fund of Funds and hope that Fund of Funds would never find out.

Group Activity

Required

a. Discuss what course of action you would recommend the auditors should take and potential results of that action.
b. How could this situation have been avoided?

c. Discuss how this case differs from the *Consolidata* case described in the chapter in terms of disclosing confidential information. Why do you think the courts came to different conclusions for these two cases?

3-46 **(Ethical Problem)** You have been engaged to examine the balance sheet of Hi-Sail Company, which provides services to financial institutions. Its revenue source comes from fees for performing these services. Its primary expenses are related to selling and general and administrative costs. The company has assets and liabilities of approximately $1 million. Operating losses in recent years have resulted in a retained earnings deficit and stockholder's equity close to zero. The assets consist primarily of restricted cash and accounts receivable. Its liabilities consist of accounts payable, accrued expenses, and reserves for potential losses on services previously provided.

Your preliminary audit work indicated that the company generates a high volume of transactions. The internal control system surrounding these transactions is weak. It is also apparent that management is involved only moderately in day-to-day activities and spends most of its time dealing with non-routine transactions and events.

You expended a significant amount of time and cost to complete your examination of the balance sheet. The client understood the extended efforts and stated a willingness to pay whatever cost to complete this engagement. However, monthly progress billings have not been paid.

On completion of the audit fieldwork, you reviewed a draft of the balance sheet and related notes with the company's president and chief financial officer/controller.

With minor wording modification, they agreed with the draft. They requested that you issue this report as soon as possible. You committed to the issuance of your opinion, subject to a review of the draft with the company's chairperson of the board.

After the chairperson reviewed the draft, she requested a special meeting outside the company's office. At the subsequent meeting, she stated that the drafted balance sheet and notes are severely in error. Included in her comments are the following:

1. The previous year's tax returns have not been filed, and the company has extensive potential tax liabilities.
2. The company has guaranteed significant amounts of debt related to joint ventures. These ventures have failed, and the company's partners are insolvent.
3. Significant notes payable to the chairperson have not been recorded.
4. Amounts payable to the chairperson and other officers related to reimbursement of monies expended by these individuals personally for travel, entertainment, and related expenses on the company's behalf have also not been recorded.

The chairperson surmised that the president and the chief financial officer/controller did not disclose these items because of their detrimental impact on the company. She believed that those officers were trying to stage a shareholder dispute to unseat her.

You continued to have separate meetings with these individuals. It became clear that the parties were in dispute, and you found it increasingly difficult to understand what was factual and what was not. The two officers, in particular, requested urgent conclusion of the audit and delivery of your opinion. They claimed the chairperson's position was self-serving and not representative of the company's financial position.

You discovered that the reason the two officers were anxious for the opinion and balance sheet was that they were attempting to sell the company. You also learned from the company and from another of

your clients that the second client was interested in purchasing the company. This second client has asked you why you have not yet issued your report on Hi-Sail.

Discussion Issues

a. Refer to the ethical framework in the chapter, and write a report describing what course of action you would take concerning the audit and how you decided on that course of action.
b. Indicate what you would do in response to the second client's inquiry and why.

3-47 **(Ethical Dilemmas)** The following case requires you to read published academic papers that discuss ethics in auditing and accounting, and that will provide you with insight on opinions regarding how ethics training can be accomplished.

Research Activity

Part 1. Read the following two published research papers:

(1) "Hollow men and women at the helm . . . Hollow accounting ethics?" by Sandra Waddock. *Issues in Accounting Education* 2005 (Volume 20, 2) pp. 145–150.

(2) "Danish evidence of auditors' level of moral reasoning and predisposition to provide fair judgments," by Bent Warming-Rasmussen and Carolyn A. Windsor. *Journal of Business Ethics* 2003, Volume 47, pp. 77–87.

Part 2.

a. Do you agree with the arguments in the first paper? What are the strengths of Professor Waddock's analysis? What are the weaknesses? What does the fact that there were frauds and unethical behavior long before the advent of formal business school education imply regarding Professor Waddock's views?
b. What was the average level of moral reasoning for the auditors surveyed in the second paper? What does this imply for potential audit judgments made by those auditors, and the extent to which they may be influenced by client preferences?
c. Discuss whether you believe that ethics interventions during your college education will be helpful in ensuring that your ethical framework will be appropriate for the duties you will be expected to perform as a professional accountant.
d. Nearly all of the students in your class will be entering the professional workplace during the next year or so. It is important that you consciously consider how you might react if you encounter an ethical dilemma. Most importantly, it will be important for you to recognize that you are encountering an ethical dilemma, and to think very carefully about the nature of that dilemma, how you might handle the situation itself, and how you might anticipate the outcomes of that situation. Toward that end, you are to "imagine" an ethical dilemma that you may encounter in your new professional life.
   - Describe the nature of the dilemma.
   - Describe how you plan to handle the situation.
   - Describe potential outcomes of the situation related to your reaction to it.

CHAPTER 4

Audit Risk and a Client's Business Risk

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to perform efficient and effective audits of a company's financial statements and its control systems. By thoroughly studying and analyzing this chapter, you will be able to:

- Identify and analyze the types of risks that an organization faces and to use that risk knowledge to perform better audits.
- Differentiate between audit risk and business risk; and understand the two concepts of risk to better design an audit.
- Identify and utilize the components of the COSO Enterprise Risk Management framework and apply that framework to better understand organizational operations.
- Describe the linkage between risk and control.
- Identify the procedures CPA firms use to identify the risk of potential audit clients and describe how risk will affect decisions about accepting, retaining, or not retaining clients.
- Identify the factors an audit firm should implement to minimize the risk associated with taking on a new audit client.
- Define audit risk and describe the linkages among the major components of audit risk.
- Utilize audit risk to plan the nature of procedures to be performed on an audit engagement.
- Identify the information the auditor needs to gather to perform a risk analysis of a client.
- Link the client risk analysis to the design of audit procedures.

CHAPTER OVERVIEW

Risk is a natural part of business activity. There is always a risk that a new product will fail, unanticipated economic events will occur, or an unlikely, but expected, outcome may occur. Risk always exists. The manner in which the company manages those risks affects both the financial viability of an organization and the auditor's approach to audit the organization. Some organizations have management control mechanisms to identify, manage, mitigate, or otherwise control risks. The COSO Enterprise Risk Management Framework is utilized to manage risks.

The auditor needs to understand (a) the risks that affect the operations of the client and (b) how well management identifies and deals with those risks. The auditor's analysis of risks will affect the proper accounting for transactions and accounting estimates. In this chapter, we describe the nature of risks, the procedures the auditor utilizes to identify risks, and the methodologies the company uses to manage, mitigate, or control the risks. The analysis of risks directly affects the nature and amount of audit work performed.

The concept of audit risk is introduced to describe the auditor's risk that an audit may fail to detect material misstatements. Audit risk is a concept that is used to plan the audit and control the auditor's risk in making an error in issuing an audit opinion.

Nature of Risk

Understanding the Risk Approach to Auditing

- Business Risks
- Audit Risks
- Risk and Linkages to Financial Statements and Internal Control

> You can observe a lot by watching.[1]

Risk is a pervasive concept. We are at risk every time we cross the road. Organizations are at risk every day they operate. There are many definitions of risk and approaches taken to manage risk. In this chapter, we identify four critical components of risk that will affect the audit approach and audit outcome. Those four critical components are:

- *Enterprise Risk*—those risks that affect the operations and potential outcomes of organizational activities.
- *Engagement Risk*—the risk auditors encounter by being associated with a particular client: loss of reputation, inability of the client to pay the auditor, or financial loss because management is not honest and inhibits the audit process.
- *Financial Reporting Risk*—those risks that relate directly to the recording of transactions and the presentation of financial data in an organization's financial statements.
- *Audit Risk*—the risk that the auditor may provide an unqualified opinion on financial statements that are materially misstated.

Each of the components is interrelated. More importantly, each component can be managed. The effectiveness of risk management processes will determine whether a company continues to exist and, indeed, whether the audit firm will continue to exist. This chapter identifies a framework for identifying and managing risks to minimize the auditor's risk associated with issuing an audit opinion on a company's financial statements or on the quality of its internal accounting controls.

An overview of the risks is presented in Exhibit 4.1.

Exhibit 4.1 illustrates some of the basic risk relationships that an auditor must understand in planning and conducting the audit.

The first box in Exhibit 4.1 demonstrates enterprise risk. A number of factors affect the risk that an organization faces. For example, technological changes represent a high risk for a company in the computer software business. Competitor actions also represent enterprise risk. It is up to management to properly manage enterprise risk. In other words, all organizations are subject to risk; management reactions to the risk may exacerbate the risk (make it more likely) or, conversely, good management can act to better manage the risks.

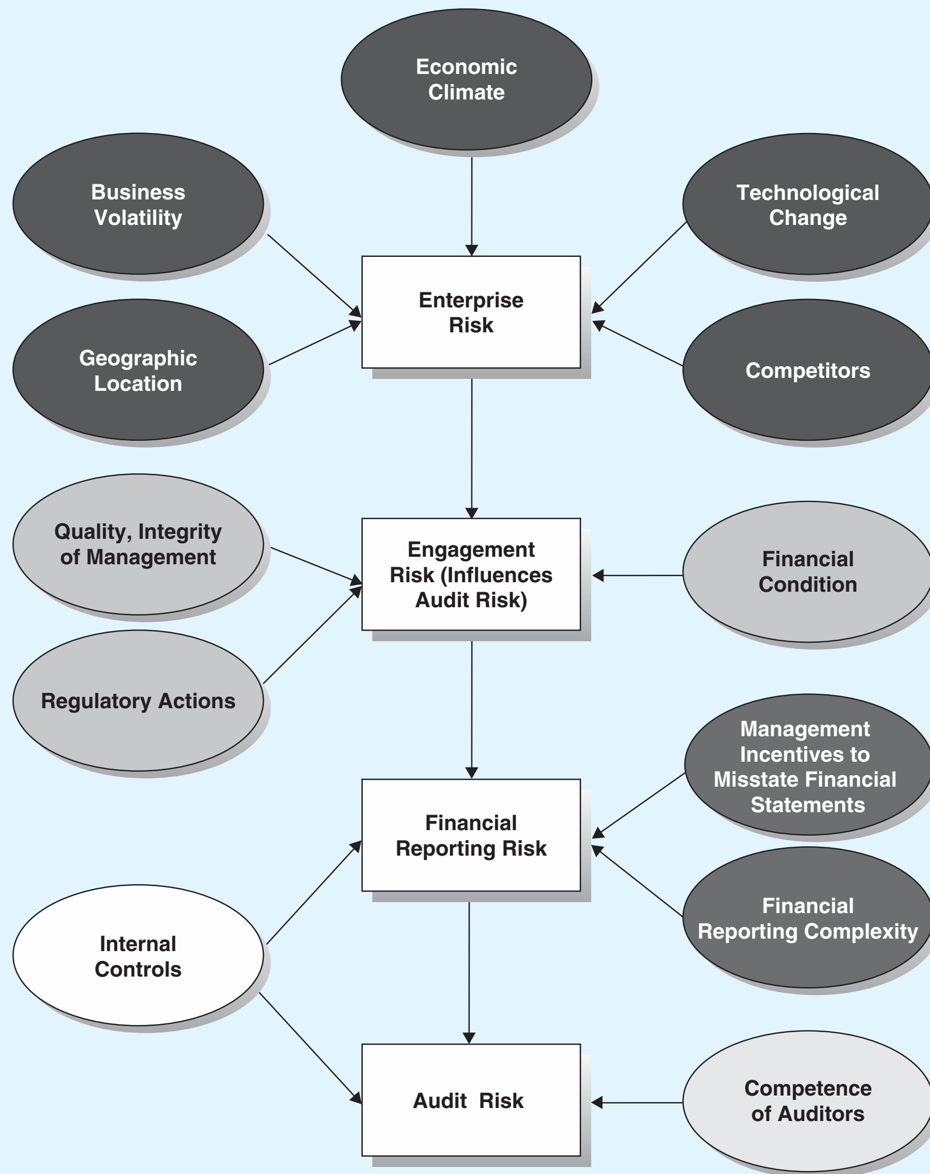
Practical Point

Risk is cumulative. If enterprise risk is too large, the auditor should make a decision to not be associated with a client because engagement risk will be too high.

Enterprise risk, in turn, affects the auditor's assessment of engagement risk, i.e., whether it is too risky for an auditor to be associated with a client because such association will likely have an adverse effect on the auditor. Engagement risk is also influenced by the integrity and quality of management, as well as the current financial condition of the organization. For example, if a company is on the verge of declaring bankruptcy, it is more likely that the auditor's opinion will be questioned because investors and lenders will likely suffer economic losses. Further, if the auditor questions management integrity, then the auditor cannot trust responses to

[1] Yogi Berra, *The Yogi Book* (New York: Workman Publishing Co.), 1998, 95.

EXHIBIT 4.1 Overview of Risk Elements Affecting an Audit



audit questions and there is a greater likelihood that management will try to cover up financial misstatements. Further, as shown in the exhibit, the financial reporting risk also affect the auditor's engagement risk. Finally, engagement risk influences the auditor's determination of audit risk.

The integrity of management and the quality of the company's financial condition affects whether an auditor wants to be associated with a client. This is engagement risk. Audit firms have discovered that being associated with companies with poor integrity, e.g., a WorldCom, Parmalat, or Enron, creates risks that can destroy the audit firm or significantly increase costs. Most audit firms have client acceptance and client retention procedures in place whereby each client is assessed each year and a decision is made whether to retain the client.

Financial reporting risk, in turn, is affected by all the factors identified in the exhibit, plus additional issues related to potential management incentives to misstate

the financial statements and financial complexity. Auditors need to understand management compensation plans and how those plans may motivate individual actions that might include stretching the limits on acceptable financial accounting.

Finally, the auditor develops a plan to perform an audit that manages the auditor's risk of being associated with the client, as well as the risk of issuing an unqualified opinion on financial statements that are materially misstated. As we will discuss later in this chapter, the auditor needs to both specify and control audit risk.

The auditor must understand the complexity of the business and its risks as a basis for determining (a) whether the auditor has sufficient knowledge to audit the client, (b) whether the auditor understands the approaches taken by management to manage risks, and (c) how to assess the measurement of the risks that affect the financial statements, e.g., inventory obsolescence and collectibility of loans.

Risk Factors Affecting the Audit

Does every company have a "right" to a financial statement audit? Failures of public accounting firms in the last decade have led to a re-thinking of that proposition. Most audit firms have implemented specific procedures to avoid being associated with audit clients that they think are too risky. To better understand the audit firm's approaches, we next explore the concept of engagement risk.

Engagement Risk

Engagement risk has been defined as the risk (resulting in a potential loss) that an auditor might incur by being associated with a particular client. Engagement risk increases when an audit firm is associated with any of the following:

- Management with questionable integrity
- A failed company, e.g., the company files for bankruptcy
- A materially misstated financial statement

The auditor reacts to high engagement risk in one of two ways. The first is to effectively manage engagement risk by not associating with "high risk" audit clients. That is referred to as the "client acceptance or retention decision." The second approach is to set audit risk low, i.e., to manage the risk of materially misstated financial statements by doing an increased amount of audit work to render an audit opinion. Audit firms use a combination of both approaches to effectively manage their overall engagement risk.

Client Acceptance or Retention Decision

Perhaps the most important audit decision made on every audit engagement is determining whether a client will be accepted or retained. Most audit firms have developed detailed checklists that are reviewed annually for the continuation of audit clients. There are a number of factors that affect the auditor's decision to accept or retain an audit client, but most factors revolve around management integrity, management competence, the company's risk management processes, corporate governance, and the financial health of the organization.

Corporate Governance and Client Acceptance The quality of corporate governance is often considered a major factor in determining whether to accept or retain an audit client. The key factors that a CPA will analyze regarding corporate governance include:

- Management integrity
- Independence and competence of the audit committee

Public/Non-Public Companies

The nature of corporate governance will likely differ in non-public companies. Owner-managers usually dominate non-public entities while public companies depend on an effective outside board.

- Quality of management's risk management process and internal controls
- Reporting requirements, including regulatory requirements
- Participation of key stakeholders
- Existence of related-party transactions

Management Integrity Probably the most important factor for the auditor to assess and understand in every audit engagement is **management integrity.** The auditor must understand and assess (a) management integrity and (b) economic incentives that affect management. The latter was clearly an influence in fraudulent financial reporting that occurred in the past decade. There are a number of potential sources that the auditor should consult in gathering information about management integrity. These include:

Auditors—A client acceptance or retention decision should include interviews with previous partners and audit staff to learn of their experiences with the client. If there is a change in auditors, the auditor should meet with the previous auditor to find out his or her view of reasons for the change, any disputes with management, and quality of the firm's controls. Client permission is required before the auditor can meet with the previous auditor due to the confidentiality of the information. Refusal to provide such access should represent a clear warning signal for the auditor.

Prior-Year Audit Experience—The auditor has a wealth of information if he or she audited the client in the prior year(s). The auditor should evaluate management's:

- Cooperation in dealing with financial reporting problems
- Attitude in identifying and reporting on complex accounting issues
- Disputes regarding accounting treatments
- Attitudes toward private meetings with the audit committee
- Cooperation in preparing schedules for audit analysis

Independent Sources of Information—The auditor should examine the following:

- Independent, private investigations, e.g., those done by a private investigation firm—used when considering accepting an unknown client with unknown managers
- References from key business leaders such as bankers and lawyers
- Past filings with regulatory agencies such as the SEC

A summary of sources of information about management integrity is shown in Exhibit 4.2.

Public/Non-Public Clients

Many small businesses will not have audit committees but may have a board that acts as an audit committee. The board may include outside stakeholders.

Independence and Competence of the Audit Committee and Board In public companies, the audit committee is the auditor's client. The auditor should gather enough information to assess whether the audit committee is both competent and acts in an independent fashion. The auditor should also understand the audit committee's commitment to transparent financial reporting and its approach in supporting internal auditing as an independent review function. The auditor should also evaluate whether the board, as a whole, is sufficiently knowledgeable and engaged to perform its required oversight role.

Practical Point

Inadequate controls and risk management processes constitute a sufficient reason to not accept a potential audit client.

Quality of Management's Risk Management Process and Controls The auditor should assess management's commitment to implementing an effective risk management system. The commitment to risk management and control signals much about the direction of management and its focus on long-term operations. A company without such a commitment should be viewed as a higher engagement risk. Such risk can often be compensated for by additional audit procedures. However, research has shown that auditors cannot always perform enough audit procedures to adequately compensate for deficiencies in internal controls.

EXHIBIT 4.2 Sources of Information Regarding Management Integrity

1. *Predecessor auditor.* Information obtained directly through inquiries is required by Professional Standards. The predecessor is required to respond to the auditor unless such data are under a court order, or if the client will not approve communicating confidential information.
2. *Other professionals in the business community.* Examples include lawyers and bankers with whom the auditor will normally have good working relationships and of whom the auditor will make inquiries as part of the process of getting to know the client.
3. *Other auditors within the audit firm.* Other auditors within the firm may have dealt with current management in connection with other engagements or with other clients.
4. *News media and Web searches.* Information about the company and its management may be available in financial journals, magazines, industry trade magazines, or more importantly on the Web.
5. *Public databases.* Computerized databases can be searched for public documents dealing with management or any articles on the company. Similarly, public databases such as LEXIS can be searched for the existence of legal proceedings against the company or key members of management.
6. *Preliminary interviews with management.* Such interviews can be helpful in understanding the amount, extent, and reasons for turnover in key positions. Personal interviews can also be helpful in analyzing the "frankness" or "evasiveness" of management in dealing with important company issues affecting the audit.
7. *Audit committee members.* Members of the audit committee may have been involved in disputes between the previous auditors and management and may be able to provide additional insight.
8. *Inquiries of federal regulatory agencies.* Although this is not a primary source of information, the auditor may have reason to make inquiries of specific regulatory agencies regarding pending actions against the company or the history of regulatory actions taken with respect to the company and its management.
9. *Private investigation firms.* Use of such firms is rare but would be taken if the auditor becomes aware of issues that merit further inquiry about management integrity or management's involvement in potential illegal activities.

Regulatory and Reporting Requirements The auditor should review previous reports to regulatory agencies such as those filed with the SEC. In addition, some industries such as banking, insurance, proprietary drugs, and transportation are all subject to regulatory oversight. Those agencies often conduct independent audits of some aspects of the organization. The auditor should always review the regulatory reports to determine if the regulatory auditors have identified problems with the company or its management.

Practical Point

The auditor should always review regulatory and internal audit reports to determine how management has reacted to problems that were identified.

All SEC-registered companies are required to report on Form 8-K a change in the auditing firm, and the reasons for that change, within five business days of the change. The registrant must specifically comment on whether the company had any significant disagreements with its auditors over accounting principles, auditing procedures, or other financial reporting matters and must indicate the name of the new CPA firm. The dismissed CPA must communicate with the SEC stating whether the auditor agrees with the information reported by the client.

There is no formal filing of a report describing changes in auditors of a nonpublic company. The new auditor of a public company is required to communicate with the previous auditor and management to determine the reason for the change.

Participation of Key Stakeholders Outside stakeholders often have an important stake in the audit. When possible, the auditor should make inquiries of such stakeholders to (a) understand their concerns and (b) understand key compliance issues, e.g., lending agreements that will affect the conduct of the audit.

Practical Point

A side benefit of meeting with key stakeholders is that it may help the auditor in assessing materiality levels for the conduct of the audit.

Practical Point

Related-party transactions should not be looked at as a part of normal business. They are always high risk to the auditor.

Existence of Related-Party Transactions The auditor should gather information, on a preliminary basis, to determine if a potential client is a heavy user of related-party transactions. While such transactions may have economic motivation, especially for tax purposes, they often represent a potential breakdown in corporate governance and often are used to the special advantage of existing management. Small businesses have historically been heavy users of related-party transactions. But, such transactions are not limited to smaller businesses. For example, Tyco made numerous loans to top executives, which were then forgiven by company management. WorldCom made loans to its top officers with no apparent schedule for repayment. WorldCom engaged in financial transactions with companies owned by senior management. All of these transactions represent (a) conflicts of interest and (b) opportunities to influence the reported financial statement of the entity.

Financial Health of the Organization The auditor is more likely to be sued if an organization declares bankruptcy than if the organization is financially healthy. Whenever bankruptcy occurs, there will be a number of investors and creditors who have lost a great deal of money. While they would like to recover from the company or management, it is unlikely that they will be able to do so because neither of these groups has sufficient resources to cover the losses. Thus, plaintiff attorneys often turn to the auditor and allege that the financial statements were misstated, and the auditor should have known they were misstated. Further, they assert that had the financial statements not been misstated, their clients would have lost less money.

The auditor also needs to understand the financial health of the organization to:

- Assess management's motivation to misstate the financial statements
- Identify areas that are more likely to be misstated
- Identify account balances that appear to be out of the norm
- Assess the likelihood of financial failure

In addition to performing traditional financial analysis, the auditor should seek to understand all important financial-based contracts such as bank loan covenants, employee compensation, regulatory requirements, existing litigation against the firm, and stock exchange listing requirements. Those contracts may provide motivation for management to misstate financial results.

Other Factors Affecting Engagement Risk The auditor should also evaluate the economic prospects of the company to help ensure that (a) important areas will be investigated and (b) the company will likely stay in business. High-risk companies are generally characterized by the following:

- Inadequate capital
- Lack of long-run strategic and operational plans
- Low cost of entry into the market
- Dependence on a limited product range
- Dependence on technology that may quickly become obsolete
- Instability of future cash flows
- History of questionable accounting practices
- Previous inquiries by the SEC or other regulatory agencies

Financial Reporting Risk

Four key factors affect **financial reporting risk:**

- The quality of the company's internal controls
- The complexity of the company's transactions and financial reporting
- Management's motivation to misstate the financial statements
- The company's financial health

These four elements are interrelated. For example, if management is motivated to misstate the financial statements because of economic problems, it is easier to do so if the company has poor internal controls and complex financial reporting issues. The auditor will gather information on these issues through reviews of previous audits, or by talking with a predecessor auditor.

Accepting New Clients: Minimizing Risk

Auditing Standards on Accounting Firm Changes A successor auditor is required to initiate discussions with the predecessor auditor to gain an understanding of the reason for the change in CPA firm. Because of the confidentiality rule, the successor auditor must obtain the client's permission to talk with the predecessor auditor. The auditor is particularly interested in determining whether there were any disagreements with the client on auditing or accounting procedures that would have led to the auditor's dismissal or resignation. Audit standards suggest inquiries that focus on the following:

- Integrity of management
- Disagreements with management as to accounting principles, auditing procedures, or other similarly significant matters
- The predecessor's understanding of the reasons for the change of auditors
- Any communications by the predecessor to the client's management or audit committee concerning fraud, illegal acts by the client, and matters related to internal control

The Engagement Letter The auditor and client should have a mutual understanding of the nature of the audit services to be performed, the timing of these services, the expected fees and the basis on which they will be billed, the responsibilities of the auditor in searching for fraud, the client's responsibilities for preparing information for the audit, and the need for other services to be performed by the CPA firm. The CPA firm should prepare an engagement letter summarizing and documenting this understanding between the auditor and the client. The **engagement letter** clarifies the responsibilities and expectations of each party. The client also acknowledges those expectations (see Exhibit 4.3).

EXHIBIT 4.3 Audit Engagement Letter

Rittenberg & Schwieger
5823 Monticello Court
Madison, WI 53711

June 1, 2007

Mr. Dan Finneran,
President Rhinelander Equipment Co., Inc.
700 East Main Street
Rhinelander, WI 56002

Dear Mr. Finneran:

Thank you for meeting with us to discuss the requirements of our forthcoming engagement. We will audit the consolidated balance sheet of Rhinelander Equipment Co., and its subsidiaries, Black Warehouse Co., Inc., and Green Machinery Corporation, as of December 31, 2007, and the related consolidated statements of income, retained earnings, and cash flows for the year then ended.

(continued)

EXHIBIT 4.3 Audit Engagement Letter (*continued*)

We will also perform an audit of your internal accounting controls. Our audit work will be performed in accordance with auditing standards in the United States established by the Public Company Accounting Oversight Board, and will include examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, testing the operation of significant controls, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

The objective of our engagement is the completion of the foregoing audit and, upon its completion and subject to its findings, the rendering of our report. As you know, the financial statements are the responsibility of the management and board of directors of your company, who are primarily responsible for the data and information set forth therein as well as for the maintenance of an appropriate internal control structure (which includes adequate accounting records and procedures to safeguard the company's assets). Accordingly, as required by the standards of the Public Company Accounting Oversight Board, our procedures will include obtaining written confirmation from management concerning important representations on which we will rely.

Also as required by auditing standards, we will plan and perform our audit to obtain reasonable, but not absolute, assurance about whether the financial statements are free of material misstatement. Accordingly, any such audit is not a guarantee of the accuracy of the financial statements and is subject to the inherent risk that errors and fraud (or illegal acts), if they exist, might not be detected. If we become aware of any unusual matters during the course of our audit, we will bring them to your attention. Should you then wish us to expand our normal auditing procedures, we would be pleased to work with you to develop a separate engagement for that purpose.

Our engagement will also include preparation of federal income tax returns for the three corporations for the year ended December 31, 2007, and a review of federal and state income tax returns for the same period prepared by your accounting staff. However, in order to maintain a detachment from management, our firm will not be preparing the tax returns of management.

Our billings for the services set forth in this letter will be based upon our per diem rates for this type of work plus out-of-pocket expenses; billings will be rendered at the beginning of each month on an estimated basis and are payable upon receipt. This engagement includes only those services specifically described in this letter; appearances before judicial proceedings or government organizations, such as the Internal Revenue Service, the Securities and Exchange Commission, or other regulatory bodies, arising out of this engagement will be billed to you separately.

We are enclosing an explanation of certain of our Firm's Client Service Concepts. We have found that such explanation helps communicate our commitment to the highest level of customer service.

We look forward to providing the services described in this letter, as well as other services agreeable to us both. In the unlikely event that any differences concerning our services or fees should arise that are not resolved by mutual agreement, we both recognize that the matter will probably involve complex business or accounting issues that would be decided most equitably to both parties by a judge hearing the evidence without a jury. Accordingly, you and we agree to waive any right to a trial by jury in any action, proceeding, or counterclaim arising out of or relating to our services and fees. If you are in agreement with the terms of this letter, please sign one copy and return it for our files. We appreciate the opportunity to work with you.

Very truly yours,

Larry E. Rittenberg

RITTENBERG & SCHWIEGER

Larry E. Rittenberg
Engagement Partner

LER:lk
Enc.

The foregoing letter fully describes our understanding and is accepted by us.
RHINELANDER EQUIPMENT CO., INC.

June 1, 2007

Mr. Dan Finneran, President

Materiality and Audit Risk

Materiality

The auditor is expected to design and conduct an audit that provides reasonable assurance that material misstatements will be detected. Audit risk and materiality are interrelated in that audit risk is defined in terms of materiality; i.e., audit risk is the risk that unknown, but material, misstatement(s) exist in the financial statements after the audit has been performed.

Materiality is a concept that conveys a sense of significance or importance of an item. But, we must ask: significant to whom? And how important? The auditor and management can often disagree on whether a transaction or misstatement is material. Further, a dollar amount that may be significant to one person may not be significant to the shareholders of General Electric. Or an accounting error in recording a complex transaction may be significant to one group of users but not to others. The concept of materiality is pervasive and guides the nature and extent of auditing.

The FASB defines **materiality** as the

> magnitude of an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

Thus, materiality includes both the nature of the misstatement, as well as the dollar amount of misstatement, and must be judged in importance by financial statement users. Thus, auditors need to understand the use of financial statements to assist in making materiality judgments.

Materiality Guidance Most public accounting firms provide guidance to their staff auditors to promote consistent materiality judgments. The guidelines usually involve applying percentages to some base, such as total assets, total revenue, or pretax income. In choosing a base, the auditor considers the stability of the base from year to year, so that overall materiality does not fluctuate significantly between annual audits. Income is often more volatile than total assets or revenue.

A simple guideline for small business audits could be, for example, to set overall materiality at 1% of total assets or revenue, whichever is higher. A traditional starting point for many companies is 5% of net income. The percentage may be smaller for large clients. Some CPA firms have more complicated guidance that may be based on the nature of the industry or a composite of materiality decisions made by experts in the firm. But any guidance is just that. The auditor may use the guidance as a starting point that should be adjusted for the qualitative conditions of the particular audit. For example, a company may have restrictive covenants on their bond indenture to maintain a current ratio of at least 2 to 1. If that ratio per book figures is near the requirement, a smaller overall materiality may be required for auditing current assets and liabilities.

SEC Guidance on Materiality The SEC has been critical of the accounting profession for not sufficiently examining qualitative factors in making materiality decisions. In particular, the SEC has criticized the profession for:

- *Netting (offsetting) material misstatements* and not making adjustments because the net effect may not be material to net income. However, each account item may have been affected by a material amount.
- *Not applying the materiality concept to "swings" in accounting estimates.* For example, an accounting estimate could be misstated by just under a material amount in one direction one year and just under a material amount in the opposite direction the next year. The SEC says the materiality amount should be figured by looking at the total "swing" in estimates over the two-year period rather than by using the "best estimate" each year.

- *Consistently "passing" on individual adjustments that may not be considered material.* The SEC believes that the auditor should look at the qualitative nature of each misstatement and the potential aggregate effect of the misstatement. The SEC cannot understand any situation in which a client would not be willing to adjust for a known error. They often ask, if it is not material, why would management object to a change in the account balance?

Practical Point

Engagement risk deals with whether the auditor wants to be associated with a client. Audit risk comes into play when the auditor accepts an association with a client.

Audit Risk Defined The risk that the auditor may give an unqualified opinion on materially misstated financial statements is called **audit risk**. Audit risk is determined by the auditor and managed by the auditor. It is intertwined with materiality and is influenced by engagement risk. The interrelationship of audit risk and engagement risk is shown in Exhibit 4.4, which shows that the auditor *assesses* engagement risk and then *sets* audit risk.

Inseparability of Audit Risk and Materiality Audit risk and engagement risk relate to factors that would likely encourage someone to challenge the auditor's work. If a company is on the brink of bankruptcy, transactions that might not be material to a "healthy" company of similar size may be material to the users of the potentially bankrupt company's financial statements. The following factors are important in integrating concepts of risk and materiality in the conduct of an audit:

1. *All audits involve testing* and thus cannot provide 100% assurance that the company's financial statements are correct without inordinately driving up the cost of audits.
2. Auditing firms must *compete in an active marketplace* for clients who choose auditors based on such factors as fees, service, personal rapport, industry knowledge, and the ability to assist the client.
3. Auditors need to *understand society's expectations* of financial reporting to minimize audit risk and formulate reasonable materiality judgments.
4. Auditors must *identify the risky areas of a business* to determine which account balances are more susceptible to material misstatement, how the misstatements might occur, and how a client might be able to cover them up.
5. Auditors need to develop methodologies to *allocate overall assessments of materiality* to individual account balances because some account balances may be more important to *users.*

Practical Point

Audit risk deals with the process of effectively managing an audit engagement. It is *not* the risks the client faces in running its business, previously defined as enterprise risk.

The Audit Risk Model The auditor sets the desired audit risk based on the assessment of engagement risk. Although audit risk is a concept, it is often illustrated using numeric examples and many audit firms utilize the measures associated with statistical sampling to set audit risk, e.g., setting audit risk at a 0.01 level for high risk clients and 0.05 for lower risk clients. Other auditing firms work with the broader descriptions of audit risk as high, moderate, or low and adjust the nature of their audit procedures accordingly.

EXHIBIT 4.4 Relationship Between Engagement Risk and Audit Risk

	ENGAGEMENT RISK		
	High	**Moderate**	**Low**
AUDIT RISK	Do not accept client	Set very low	Set within professional standards, but can be higher than companies with higher engagement risk
NUMERICAL EXAMPLE OF AUDIT RISK	None—Do not accept client (0.0)	0.01	0.05

The following general observations influence the implementation of the audit risk model:

- Complex or unusual transactions are more likely to be recorded in error than are recurring or routine transactions.
- The better the organization's internal controls, the lower the likelihood of material misstatements.
- The amount and persuasiveness of audit evidence gathered should vary inversely with audit risk, i.e., lower audit risk requires gathering more persuasive evidence.

These general premises have been incorporated into an audit risk *(AR)* model with three components: inherent risk *(IR),* control risk *(CR),* and detection risk *(DR)* as follows:

$$AR = f(IR, CR, DR)$$

Where

Inherent risk (IR) is the initial susceptibility of a transaction or accounting adjustment to be recorded in error, or for the transaction not to be recorded in the absence of internal controls.

Control risk (CR) is the risk that the client's internal control system will fail to prevent or detect a misstatement.

Detection risk (DR) is the risk that the audit procedures will fail to detect a material misstatement.

The audit risk model is sometimes written as a multiplicative model in the following form to illustrate the logical relationships within the model:

$$AR = IR \times CR \times DR$$

Stated in a different way, audit risk is the risk of not detecting a material misstatement. It is influenced by: (IR) the likelihood risk that a transaction, estimate, or adjustment might be recorded incorrectly; (CR) the likelihood that the client's internal control processes would fail to prevent or detect the misstatement and (DR) the likelihood that, if a misstatement occurred, the auditor's procedures would fail to detect the misstatement.

Audit risk is a planning judgment that is *set* by the auditor. The auditor *assesses* the inherent and control risks (the risk of a material misstatement existing in the accounting records) for each significant component of the financial statements. From these two assessments, the auditor *determines* the level of detection risk needed to control for the potential misstatement in each significant component of the financial statements.

Inherent risk recognizes that an error is more likely to occur in some areas than in others. For example, an error is more likely to occur in calculating foreign currency translation amounts or in making deferred income tax projections than in recording a normal sale. As the auditor identifies accounts that are more susceptible to material misstatement, the audit plan should be adjusted to reflect the increased inherent risk.

Control risk is the likelihood that a material misstatement could occur in a transaction, estimate, or adjustment and will not be detected by the entity's internal controls. In other words, control risk reflects the possibility that the client's system of controls will allow erroneous items to be recorded and not detected in the ordinary course of processing.

Internal control may vary with classes of transactions: controls over the recording of receivables, for example, may be strong, but those for recording foreign currency transactions may be much weaker. Because of the inherent limitations associated with all internal controls, the professional standards recognize that some control risk is present in every audit engagement.

Practical Point

Auditors can only assess the risk of material misstatements (inherent risk coupled with control risk). The company can control inherent and control risk, but the auditor cannot.

Detection risk is the risk that the auditor's direct testing or analysis of an account balance will not detect a material misstatement that exists in an account balance. Detection risk is controlled by the auditor and is an integral part of audit planning. The auditor's determination of detection risk determines the nature, amount, and timing of audit procedures to ensure that the audit achieves no more than the desired audit risk.

Illustration of the Audit Risk Model Consider the typical accounting system as an input-process-output model (Exhibit 4.5). The output is the financial statement account balance. The input and process represent the client's internal controls and the difficulty in recording the transaction or accounting entry. If the input and process are reliable, then there is little likelihood that the account balance is misstated. The auditor would need to perform only a minimal amount of work to ensure that the account balance is correct.

However, if the client's internal controls are inadequate, or management is motivated to misstate the account balance, or if the nature of the transaction is inherently difficult, then the risk of material misstatements occurring and not being detected and corrected is quite high. Consequently, the auditor will do more work in testing the account balance. Audit risk is held constant, but the high levels of inherent and control risk demand that the auditor's detection risk be small in order to control audit risk at the predetermined level.

The audit risk model may also be illustrated using a quantitative approach with probability assessments applied to each of the model's components. Although useful, a strictly quantitative approach tends to give the appearance that each component can be precisely measured—when they cannot be. Therefore, many public accounting firms apply subjective, qualitative assessments to each model component; control risk, for example, is identified as high, moderate, or low.

Practical Point

Audit risk can be viewed as the flip side of statistical confidence in determining the size of testing. An audit risk of .01 implies taking a statistical sample with a 99% confidence level—demanding greater assurance from the audit tests.

Quantitative Example of Audit Risk: High Risk of Material Misstatement Assume an audit of an organization that has many complex transactions and weak internal controls. The auditor assesses both inherent risk and control risk at their maximum implying that the client does not have effective internal control and there is a high risk that a transaction would be recorded incorrectly. Assume that engagement risk is high and the auditor has set audit risk at the .01 level; i.e., the auditor does not want to take much of a risk that a misstatement goes unfound in the financial statements.

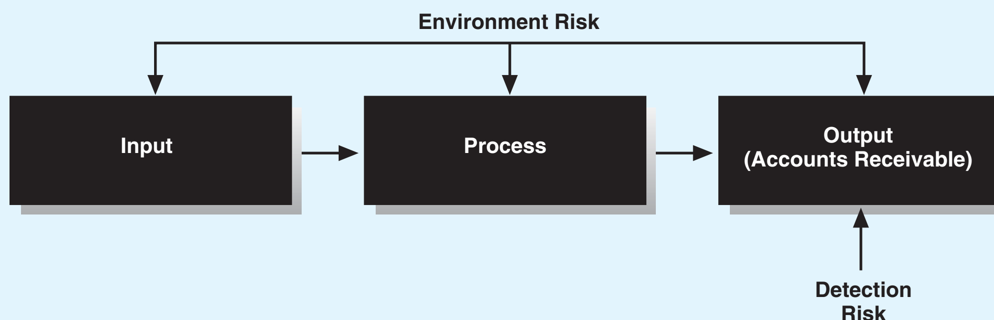
The effect on detection risk, and thus the extent of audit procedures, is as follows:

$$AR = IR \times CR \times DR;$$

$$\text{therefore, } DR = AR \div (IR \times CR)$$

$$DR = 0.01 \div (1.0 \times 1.0) = .01 \text{ or } 1 \text{ percent}$$

EXHIBIT 4.5 Illustration of Risk Components



In this case, detection risk and audit risk are the same because the auditor cannot rely on internal controls to prevent or detect misstatements. The illustration yields the intuitive result: poor controls and a high likelihood of misstatement lead to extended audit work to maintain audit risk at an acceptable level.

Quantitative Example: Risk of Material Misstatement Is Low Assume that the client has simple transactions, well-trained accounting personnel, no incentive to misstate the financial statements, and effective internal control. The auditor's previous experience with the client and the results of preliminary testing this year indicate a low risk of material misstatement existing in the accounting records. The auditor assesses inherent and control risk as low at 50% and 20%, respectively. Audit risk is set at .05 consistent with a low engagement risk.

The auditor's determination of detection risk for this engagement would be

$$DR = AR \div (IR \times CR)$$
$$DR = 0.05 \div (0.50 \times 0.20) = 0.50, \text{ or } 50\%$$

In other words, the auditor could design tests of the accounting records with a lower detection risk, in this case 50%, because only minimal substantive tests of account balances are needed to provide corroborating evidence on the expectations that the accounts are not materially misstated.

***Practical* Point**

A DR of .5 might imply that the auditor could use more reasonableness-type tests in determining the correctness of an account balance such as comparison of an account balance with previous years, as adjusted for current economic activity.

Limitations of Audit Risk Model The audit risk model has some limitations that make its actual implementation difficult. In addition to the danger that auditors will look at the model too mechanically, CPA firms in determining their approach to implementing the model have considered the following limitations:

1. *Inherent risk is difficult to formally assess.* Some transactions are more susceptible to error, but it is difficult to assess that level of risk independent of the client's accounting system.
2. *Audit risk is subjectively determined.* Many auditors set audit risk at some nominal level, such as 5%. However, no firm could survive if 5% of their audits were in error. Audit risk on most engagements is much lower than 5% because of conservative assumptions that take place when inherent risk is assessed at the maximum. Setting inherent risk at 100% implies that every transaction is initially recorded in error. It is very rare that every transaction would be in error. Because such a conservative assessment leads to more audit work, the real level of audit risk will be significantly less than 5%.
3. The model *treats each risk component as separate and independent* when in fact the components are not independent. It is difficult to separate an organization's internal controls and inherent risk.
4. *Audit technology is not so precisely developed that each component of the model can be accurately assessed.* Auditing is based on testing; precise estimates of the model's components are not possible. Auditors can, however, make subjective assessments and use the audit risk model as a guide.

***Practical* Point**

Audit risk is a concept that drives the auditor's thinking. It should not be rotely applied to any client.

Developing an Understanding of Enterprise and Financial Reporting Risks

Lessons Learned—The Lincoln Savings and Loan Case

Erickson, Mayhew, and Felix make the case for a greater understanding of business risk in an article entitled, "Why Do Audits Fail? Evidence from Lincoln Savings and Loan."[2] These authors examined one of the major savings and loan failures of the 1980s and noted that the auditors had apparently followed standard

[2] Merle Erickson, Brian Mayhew, and William L. Felix, Why Do Audits Fail? Evidence from Lincoln Savings and Loan, *Journal of Accounting Research,* Spring 2000.

audit procedures and yet failed to discover major misstatements in the financial statements. They concluded that the auditors would have done a much better job of finding the misstatements had they understood more about the business, economic trends affecting the client, and the risks inherent in the client's transactions. The authors cited two major reasons for their conclusions:

> First, in cases of management fraud, auditors are unlikely to receive reliable evidence from a client. . . . Second, a business understanding approach can provide reliable audit evidence even in the presence of management fraud. Specifically, economic data and information in the financial press provided a reliable basis from which Lincoln Savings and Loan's (LSL) auditors could have developed expectations about LSL's operations.[3]

Let's examine their conclusions a little further. If there are major problems within a company, it is likely that the reliability of evidence gathered from within the company will be reduced. Because of the reduced reliability of internally generated evidence, the auditor should (a) understand the company, its strategies, and operations in depth; (b) develop an understanding of the market in which the company operates, including economic trends, product trends, and competitor actions; (c) develop an understanding of the economics of the client's transactions; and (d) develop a set of expectations about financial results or transaction outcomes.

Lincoln Savings & Loan (LSL), although a savings and loan company, had made a number of real estate deals in the Phoenix area. If the auditors had followed a risk-based approach to determine where and how much audit evidence was needed, they would have learned the following:

- The company had increasingly moved to high risk real estate transactions; that is, they moved beyond lending to real estate development and speculation.
- The real estate market in Phoenix, as well as in the rest of the Southwest, was in a significant downturn with fewer new housing starts.
- Most of the funds used to finance the sales that accounted for most of LSL's net income came from one single LSL subsidiary; that is, all the risks of the sale remained with LSL.
- Many of the real estate sales transactions would have defaulted because the risks of default remained with the parent company.

Their description of the audit failure at LSL leads us to a better understanding of how to conduct a risk-based audit. The fundamental concept is simple:

> By understanding the nature of the business, management motivation, the client's control system, and the complexity of transactions, the auditor can better determine the risks that a particular account balance may be misstated. The auditor should focus greater skepticism and greater audit testing on the account balances and disclosures that contain the highest risk of material misstatement.

Consider the risks and potential causes of misstatement that might be associated with management's assertions regarding accounts receivable. There is a risk that receivables could be overstated because sales were recorded during the wrong period to improve reported financial performance. There may be a risk that the accounts may not be collectible because of poor economic conditions or poor credit decisions. The auditor assesses the risks associated with the cause of potential misstatement and adjusts auditing procedures accordingly.

Every audit engagement should start with a thorough analysis of the company's business, its strategy, the nature of its transactions, its processes to identify and manage risk, and the economics of its transactions. The approach is summed up as follows:

- Develop an independent understanding of the business as well as the risks the organization faces.
- Use the risks identified to develop expectations about account balances and financial results.

[3] Ibid.

- Assess the quality of the control system to manage risks.
- Determine residual risks, and update expectations about financial account balances.
- Manage the remaining risk of account balance misstatement by determining the direct tests of account balances (*detection risk*) that are necessary.

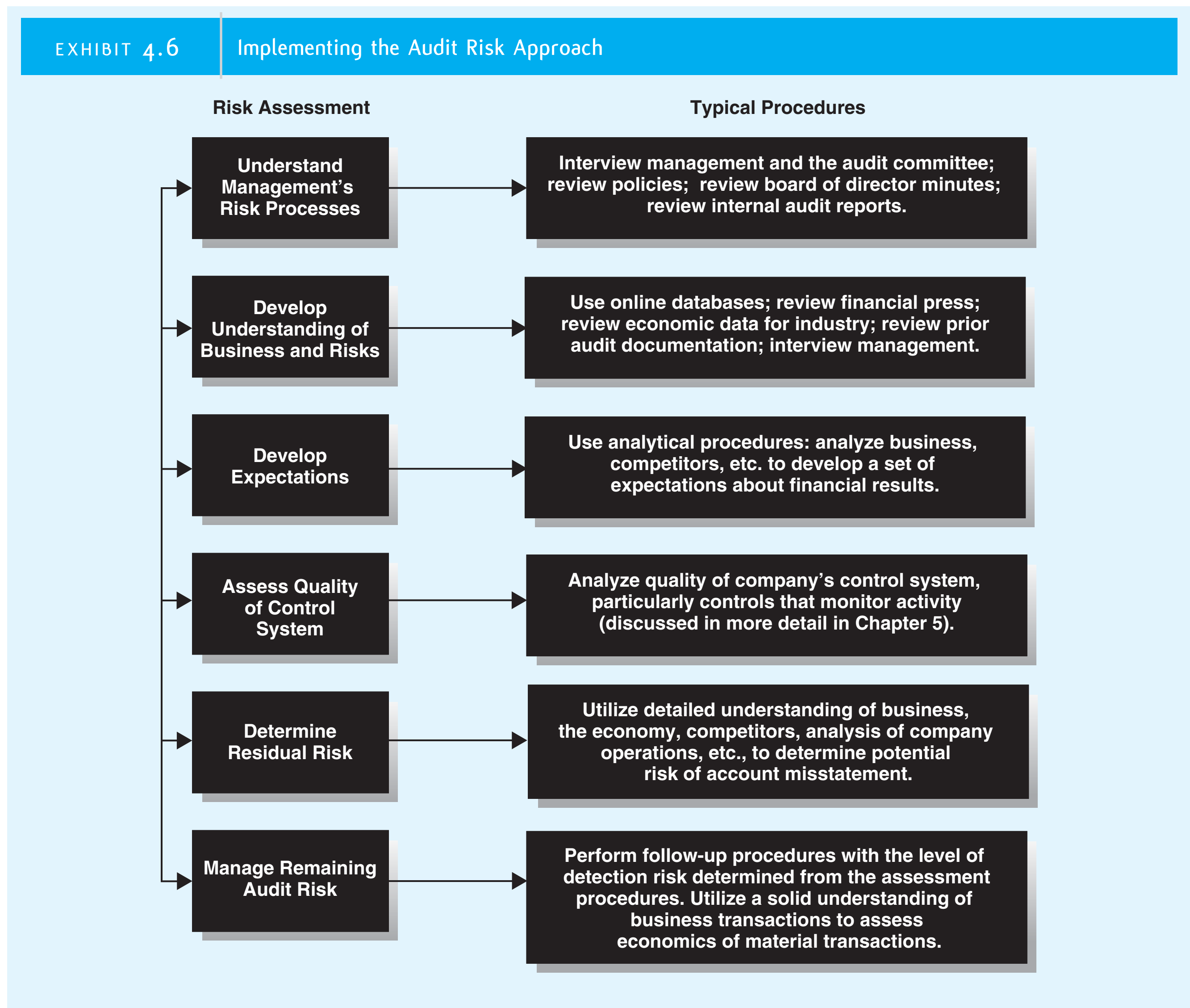
An overview of this process and the activities involved in each step are shown in Exhibit 4.6. The exhibit also identifies the typical procedures performed in each step of the audit process. Exhibit 4.6 shows how the auditor analyzes the risk of financial statement misstatement from the top down. Much of the risk of misstatement can be analyzed without directly testing the account balance.

Applying the process to the LSL example, the auditor would have seen that there were significant risks in the real estate loans and that the audit would need to go beyond traditional confirmations of account balances to gain a better understanding of significant transactions, the underlying collateral for the loans, and the relationship of the loans to other entities that make up the consolidated financial statements. The financial results that were at odds with the industry should have alerted the auditor to focus on the accounts that were most out of line and susceptible to financial manipulation. This point is important enough to repeat: the **risk-based approach** to auditing is dependent on the auditor's ability to understand the business sufficiently to identify account balances that are more likely to

Practical Point

Management should have a risk management process in place to address significant risks. The auditor should gain an understanding of this process to assist in developing expectations of potential misstatements.

EXHIBIT 4.6 Implementing the Audit Risk Approach



be materially misstated, and then adjust audit procedures to increase the likelihood of detecting material misstatements—if they had occurred.

Understanding Management's Risk Management Process

To understand the processes in place, the auditor will normally utilize some or all of the following techniques:

- Develop an understanding of the processes utilized by the board of directors and management to periodically evaluate risks.
- Review the risk-based approach used by internal auditing with the director of internal auditing and the audit committee.
- Interview management about their risk approach, risk preferences, risk appetite, and the relationship of risk analysis to strategic planning.
- Review outside regulatory reports, where applicable, that address the company's policies and procedures toward risk.
- Review company policies and procedures for addressing risk.
- Gain a knowledge of company compensation schemes to determine if they are consistent with the risk policies adopted by the company.
- Review prior years' work to determine if current actions are consistent with risk approaches discussed with management.
- Review risk management documents.

If the auditor determines, through inquiry and testing, that the company has strong risk management processes in place, the auditor may be able to focus the audit program on testing internal controls and developing corroborative evidence on account balances (an integrated audit—discussed in later chapters). On the other hand, if the company does not have a risk management process in place, the auditor will identify areas where account balances are more likely to be misstated and concentrate audit tests on those areas.

Practical Point

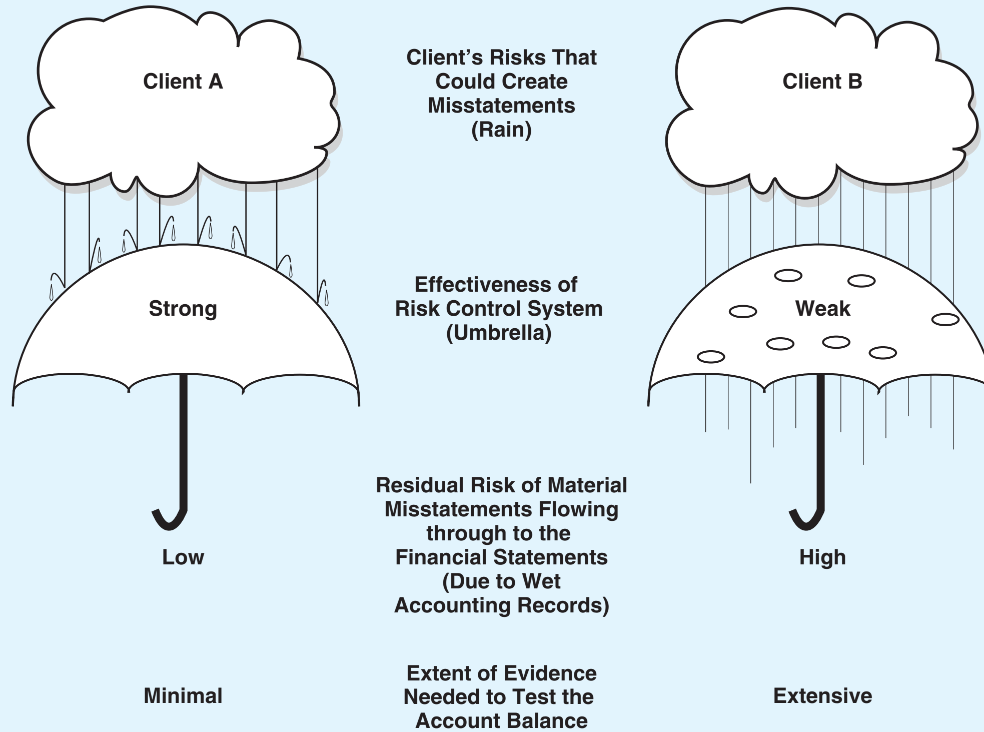
A risk-based approach to auditing is consistent with the audit risk model. Risk-based implies that the auditor is applying more direct testing to account balances that have a higher likelihood of being misstated.

One way of looking at risk management is to think of material misstatements as analogous to water from a rain shower getting us wet. Risks may result in material misstatements (rain). Management is responsible for keeping the financial statements free of material misstatements (dry). The auditor's objective is to gather enough information to objectively assess how well management is doing in keeping the financial statements free from material misstatement (dry). Exhibit 4.7 shows that client A has an effective risk management and control system (the umbrella without holes) that prevents material misstatements (rain) from getting into the accounting records. But, we know that umbrellas are not always perfect—they may spring leaks when least expected, or one of the supporting arms may fail and all of the rain may come through on one side. The auditor has to test the umbrella (controls) to see that it is working, but must do enough direct testing of the account balance to determine that leaks (misstatements) had not occurred in an amount that would be noticeable (material misstatement). Client B's umbrella has holes in it (weak risk control system), resulting in wet accounting records (they are likely to contain material misstatements). Thus, the auditor must perform extensive direct tests of the account balance to identify the misstatements and get them corrected.

Developing an Understanding of Business and Risks

The auditor will utilize a variety of tools to understand the client's business and its business risk. Much of the work will be done by monitoring the financial press, SEC filings, reading broker analyses, and developing a firm and industry-based knowledge management system, and utilizing other online information sources about a company. Some traditional approaches will continue to be used, including inquiries of management, inquiries of business people, and review of legal or regulatory proceedings against the company.

EXHIBIT 4.7 Effect of Risk Analysis on Audit Plan



Electronic Sources of Information The following are some of the major online resources an auditor can use to learn more about a company:

- *Intelligent agents*—Internet software is emerging that allows an auditor to train an electronic agent to go out on the Web and gather all the available information on a company.
- *Knowledge management systems*—Public accounting firms have developed these systems around industries, clients, and best practices. These systems also capture information about relevant accounting or regulatory requirements for the companies and can be utilized to develop "risk alerts" for the companies.
- *Online searches*—Internet search companies such as Hoovers On-Line are an excellent source of information about companies. Other online searches can be conducted through other portals such as Google or Ask.com. Yahoo has two excellent sources of information: (1) its financial section provides data about most companies and (2) its "chat" line contains current conversations about the company (much of which may be unreliable).
- *Review of SEC filings*—The SEC filings can be searched online through the Edgar system. The filings include company annual and quarterly reports, proxy information, and registration statements for new security issues. These filings contain substantial information about the company and its affiliates, its officers, and directors.
- *Company web sites*—A company's web site may contain information that is useful in understanding its products and strategies. As companies move to provide more financial information online, auditors will want to review these websites to keep abreast of developments.
- *Economic statistics*—Most industry data, including regional data, can now be found online. The auditor can compare the results of a client with regional economic data.

For example, the auditor could easily question why a company is growing at a rate of 50% while the overall industry is declining by 20% or more. But that question can be asked only if the auditor has industry information.

- *Professional practice bulletins*—The AICPA publishes "Audit Risk Alerts" online, and the SEC often issues practice bulletins to draw the profession's attention to important issues.
- *Stock analysts' reports*—Brokerage firms invest millions of dollars in conducting research about companies, their strategies, competitors, quality of management, and likelihood of success. Many of the major investment analysts are granted access to top management and are the beneficiaries of frequent analysts' meetings. These reports may contain a wealth of useful information about a client.

More Info

http://www.aicpa.org;
http://www.sec.gov

Understanding Key Business Processes Each organization has a few key processes that give it a competitive advantage (or disadvantage). The auditor should gather sufficient information to understand these processes, the industry factors affecting key processes, how management monitors the processes and performance, and the potential operational and financial effects associated with key processes. For example, a major computer manufacturer may have important processes focusing on distribution and supply chain management. The auditor wants to gain assurance that management identifies the risks associated with the supply chain and how those risks might affect:

- Inventory levels
- Potential obsolescence of inventory
- Likelihood of goods being returned because of defective parts
- Ability to charge-back returns to a supplier

If the supply chain is well controlled, inventory levels should be low and there will be only a small likelihood of obsolete inventory at year end. However, if the process is not well controlled, the likelihood of obsolete inventory at year end increases and the auditor will respond with more direct tests of ending inventory to determine the extent of inventory obsolescence.

Sources of Information about Key Processes The following are other sources of information about the company:

- *Management inquiries*—The auditor should interview management to identify their strategic plans, their analysis of industry trends, the potential impact of actions they have taken or might take, and their management style.
- *Review of client's budget*—The budget represents management's fiscal plan for the forthcoming year. It provides insight on management's approach to operations and to risks the organization may face. The auditor looks for significant changes in plans and deviations from budgets, such as planned disposition of a line of business, significant research or promotion costs associated with a new product introduction, new financing or capital requirements, changes in compensation or product costs due to union agreements, and significant additions to property, plant, and equipment.
- *Tour of client's plant and operations*—A tour of the client's production and distribution facilities offers much insight into potential audit issues. The auditor can visualize cost centers. Shipping and receiving procedures, inventory controls, potentially obsolete inventory, and possible inefficiencies can all be observed. The tour increases the auditor's awareness of company procedures and operations, giving him or her direct experience in sites and situations that are otherwise encountered only in company documents or observations of client personnel.
- *Review of data processing center*—The auditor should tour the data processing center and meet with the center's director to understand the computing structure and controls.
- *Review important debt covenants and board of director minutes*—Most bond issues and other debt agreements contain covenants, often referred to as **debt covenants,** that

the organization must adhere to or risk default on the debt. Common forms of debt covenants include restrictions on the payment of dividends, requirements for maintaining minimum current ratios, or requiring annual audits.

- *Review relevant government regulations and client's legal obligations*—Few industries are unaffected by governmental regulation, and much of that regulation affects the audit. An example is the need to determine potential liabilities associated with cleanup costs defined by the Environmental Protection Agency. The auditor normally seeks information on litigation risks through an inquiry of management, but follows up that inquiry with an analysis of litigation prepared by the client's legal counsel.

Practical Point

For a continuing audit client, such information will normally be included in a permanent file, containing a summary of items of continuing audit significance.

Exhibit 4.8 highlights the types of questions the auditor may want to ask when making inquiries of management and in analyzing the information from other sources.

Develop Expectations The auditor should, and can, develop informed expectations about company results without having set foot in the company. The expectations should be documented, along with a rationale for the expectations.

EXHIBIT 4.8 Gathering Information: Sample Questions for Management

SAMPLE QUESTIONS AND AREAS OF INTEREST

Risks—Industry

- How is the industry changing?
- Who are your major competitors? What are their competitive advantages? What are your competitive advantages?
- How fast do you expect the industry to grow over the next five years?
- How fast do you expect to grow? What accounts for the difference between your growth expectations and that of the industry?

Risks—Financial and Other

- What process do you have in place to identify important business risks to the company?
- What are the company's principal business risks and what procedures are employed to monitor these risks?
- What are the company's principal financial statement and internal control risks, and what procedures are employed to monitor and manage those risks?
- What is the overall level of sophistication of the existing financial systems? Does the level of complexity create unusual business or financial risks? How does management address these risks?
- What subsidiaries, operating divisions, or corporate activities, not subject to audit, offer unusual business or financial risk but are viewed as "not material" in establishing the external audit scope? How does management view this "exposure"?

Controls

- What is your assessment of the overall control environment, including key business information systems? What are the principal criteria for your assessment of controls?
- Are there any significant deficiencies in the accounting systems or accounting personnel that should be addressed? Where improvements should be made? What process has management implemented to encourage these improvements?
- What process is used to assess and assure the integrity of new or revised operating or financial systems?
- Have the internal auditors identified control deficiencies? If so, what is management's view about the seriousness of the control deficiencies? What is the plan and timetable for corrective action?

Legal and Regulatory Issues

- Is there a specific management-level person designated as responsible for knowing and understanding relevant legal and regulatory requirements? What are the key risks and how are the risks of noncompliance identified and managed?

Code of Ethical Conduct

- Were there any reported conflicts of interest or irregularities or other violations of the code of ethical conduct identified during the year? What are the procedures for resolution? How were conflicts, irregularities, or other violations resolved?
- Were any significant, or potentially significant, regulatory noncompliance issues identified? If so, what is the status and what is the potential risk?
- Does the company have a comprehensive 'whistleblower policy' and processes in place to implement the whistleblower function? Are complaints regularly reviewed by the audit committee and senior management?

Practical Point

Auditors should use tools similar to those of financial analysts to develop expectations about the industry and the audit client. Those expectations allow the auditor to better implement a risk-based approach to the conduct of an audit.

The analysis of the company should be communicated to all audit team members, emphasizing an understanding of the areas they are assigned to audit. The audit is not complete when the expectations are set. However, research has shown that audits are more effective when auditors develop expectations in advance.

Assess Quality of Internal Controls Internal controls exist to manage risks. Controls range from broad policies to effective oversight, starting with the board of directors and permeating through management to every level in the organization. The auditor may gain a great deal of confidence about the correctness of financial account balances based on their confidence in the client's system and the consistency of its operations with objectively developed expectations. We discuss internal control over financial reporting and its role in an integrated audit in Chapter 7.

Management should also have controls in place to monitor operations and the auditor is interested in those controls because operational efficiency will affect the valuation of some account balances. The auditor will usually inquire whether a company has implemented feedback on key performance indicators on such areas as:

- Backlog of work in progress
- Dollar amount of return items (overall and by product line)
- Increased disputes regarding accounts receivable or accounts payable
- Surveys of customer satisfaction
- Employee absenteeism
- Decreased productivity by product line, process, or department
- Information processing errors
- Increased delays in important processes

The key performance indicators may indicate that some areas are managed very well, while others are not managed as well and constitute a high risk concern. The absence of implementation of key performance indicators may indicate an overall high risk.

Practical Point

In the absence of a risk-based approach, the auditor will apply a standard audit program for the audit of material account balances. Such an approach can be both ineffective and inefficient.

Assess Risk that an Account Balance Is Misstated Based on the foregoing, the auditor develops expectations and makes an assessment of the risk that a particular account balance may be misstated. If the auditor has a sound basis to believe the risk of misstatement is low, the auditor may be able to gain satisfaction regarding the account balance without directly testing the account balances. Other techniques such as using analytical procedures or analyzing the quality of the control system may yield persuasive evidence about the correctness of an account balance. This is not meant to imply that an auditor can perform a complete audit without ever directly testing some account balances; it means that the amount of testing can be minimized if risks are adequately addressed. However, if there is a high risk that an account balance may be misstated the auditor should direct more attention to the audit of that account.

Managing Detection and Audit Risk The auditor manages audit risk through (1) adjusting audit staffing to reflect the risk associated with the client; (2) developing direct tests of account balances consistent with the detection risk; (3) anticipating potential misstatements or accounting problems likely to be associated with account balances; and (4) adjusting the timing of audit tests to minimize overall audit risk. For example, a company with high audit risk requires a more experienced audit staff, and direct tests of account balances performed at year end. In contrast, a company with less audit risk requires less direct tests of account balances at year end and will rely more on analytical procedures.

Preliminary Financial Statement Review: Techniques and Expectations

The ACL software included with this text is one of the most effective tools used by auditors to gather this kind of information.

The auditor should apply financial analysis techniques to the client's unaudited financial statements and industry data to better identify the risk of misstatement in particular account balances. Most commonly, the auditor will import the client's unaudited data into a spreadsheet or a software program to calculate trends and ratios and help pinpoint areas for further investigation. These trends and ratios will be compared with expectations developed from previous years, industry trends, and current economic development in the geographic area served by the client.

Assumptions Underlying Analytical Techniques A basic premise underlying the application of analytical procedures is that plausible relationships among data may reasonably be expected to exist and continue in the absence of known conditions to the contrary. Typical examples of relationships and sources of data commonly used in an audit process include the following:

- Financial information for equivalent prior periods, such as comparing the trend of fourth-quarter sales for the past three years and analyzing dollar and percent changes from the prior year
- Expected or planned results developed from budgets or other forecasts, such as comparing actual division performance with budgeted performance
- Comparison of linked account relationships, such as interest expense and interest-bearing debt
- Ratios of financial information, such as examining the relationship between sales and cost of goods sold or developing and analyzing common-sized financial statements
- Company and industry trends, such as comparing gross margin percentages of product lines or inventory turnover with industry averages
- Survey of relevant non-financial information, such as analyzing the relationship between the numbers of items shipped and royalty expense or the number of employees and payroll expense

Two of the most frequently used analytical procedures are trend and ratio analysis.

Trend Analysis Trend analysis includes simple year-to-year comparisons of account balances, graphic presentations, and analysis of financial data, histograms of ratios, and projections of account balances based on the history of changes in the account. It is imperative for the auditor to establish decision rules in advance in order to identify unexpected results for additional investigation. One potential decision rule, for example, is that dollar variances exceeding one-third or one-fourth of planning materiality should be investigated. Such a rule is based on the statistical theory of regression models, even though regression is not used. Another decision rule is to investigate any change exceeding some percentage. This percent threshold is often set higher for balance sheet accounts than for income statement accounts because balance sheet accounts tend to have greater year-to-year fluctuations.

Auditors often use a trend analysis over several years for key accounts, as shown in the following example.

	2007	2006	2005	2004	2003
Gross sales ($000)	$29,500	$24,900	$24,369	$21,700	$17,600
Sales returns ($000)	600	400	300	250	200
Gross margin ($000)	8,093	6,700	6,869	6,450	5,000
Percent of prior year: sales	118.5%	102.2%	112.3%	123.3%	105.2%
Sales returns	150.0	133.3	120.0	125.0	104.6
Gross margin	120.8	97.5	106.5	129.0	100.0
Sales as a percentage of 2003 sales	167.6	141.5	138.5	123.3	100.0

In this example, the auditor would want to gain an understanding about why gross margin is increasing more rapidly than sales, and why sales returns are increasing.

Time-series analysis and multiple-regression analysis represent more sophisticated approaches to trend analysis and are increasingly incorporated into CPA firm software packages.

Ratio Analysis Ratio analysis is more effective than simple trend analysis because it takes advantage of economic relationships between two or more accounts. It is widely used because of its power to identify unusual or unexpected changes in relationships. Ratio analysis is useful in identifying significant differences between the client results and a norm (such as industry ratios), or between auditor expectations and actual results. It is also useful in identifying potential audit problems that may be found in ratio changes between years (such as inventory turnover).

Comparing ratio data over time for the client and its industry can yield useful insights. For example, the percent of sales returns and allowances to net sales for the client may not vary significantly from the industry average for the current period, but comparing the trend over time may yield an unexpected result, as shown in the following example.

	SALES RETURNS				
	2007	2006	2005	2004	2003
Client	2.1%	2.6%	2.5%	2.7%	2.5%
Industry	2.3%	2.1%	2.2%	2.1%	2.0%

This comparison shows that even though the percentage of sales returns for 2007 is close to the industry average, the client's percentage declined significantly from 2006 while the industry's percentage increased. In addition, except for the current year, the client's percentages exceeded the industry average. The result is unexpected, and the auditor should investigate the potential cause. Here are some possible explanations for the differences:

- The client has improved its quality control.
- Fictitious sales have been recorded in 2007.
- The client is not properly recording sales returns in 2007.

The auditor must design audit procedures to identify the cause of this difference to determine whether a material misstatement exists.

Commonly Used Financial Ratios Exhibit 4.9 shows several commonly used financial ratios. The first three ratios provide information on potential liquidity problems. The turnover and gross margin ratios are often helpful in identifying fraudulent activity or items recorded more than once, such as fictitious sales or inventory. The leverage and capital turnover ratios are useful in evaluating going concern problems or adherence to debt covenants. Although the auditor chooses the ratios deemed most useful for a client, many auditors routinely calculate and analyze the ratios listed in Exhibit 4.9 on a trend basis over time. Other ratios are specifically designed for an industry. In the banking industry, for example, auditors calculate ratios on percentages of nonperforming loans, operating margin, and average interest rates by loan categories.

Ratio and trend analysis are generally carried out at three levels:

- Comparison of client data with industry data
- Comparison of client data with similar prior-period data
- Comparison of preliminary client data with expectations developed from industry trends, client budgets, other account balances, or other bases of expectations

EXHIBIT 4.9 Commonly Used Ratios

Ratio	Formula
Short-term liquidity ratios:	
Current ratio	Current Assets/Current Liabilities
Quick ratio	(Cash + Cash Equivalents + Net Receivables)/Current Liabilities
Current debt-to-assets ratio	Current Liabilities/Total Assets
Receivable ratios:	
Accounts receivable turnover	Credit Sales/Accounts Receivable
Days' sales in accounts receivable	365/Turnover
Inventory ratios:	
Inventory turnover	Cost of Sales/Ending Inventory
Days' sales in inventory	365/Turnover
Profitability measures:	
Net profit margin	Net Income/Net Sales
Return on equity	Net Income/Common Stockholders' Equity
Financial leverage ratios:	
Debt-to-equity ratio	Total Liabilities/Stockholders' Equity
Liabilities to assets	Total Liabilities/Total Assets
Capital turnover ratios:	
Asset liquidity	Current Assets/Total Assets
Sales to assets	Net Sales/Total Assets
Net worth to sales	Owners' Equity/Net Sales

Comparison with Industry Data A comparison of client data with industry data may identify potential problems. For example, if the average collection period for accounts receivable in an industry is 43 days, but the client's average collection period is 65 days, this might indicate problems with product quality or credit risk. Or, a bank's concentration of loans in a particular industry may indicate greater problems if that industry is encountering economic problems.

Financial service companies such as Dun and Bradstreet, Dow Jones Information Services, and Robert Morris Associates accumulate financial information for thousands of companies and compile the data for different lines of businesses. Many CPA firms purchase these publications as a basis for making industry comparisons.

One potential limitation to utilizing industry data is that such data might not be directly comparable to the client. Companies may be quite different but still classified within one broad industry. Also, other companies in the industry may use accounting principles different from the client's (for example, LIFO vs. FIFO).

Comparison with Previous Year Data Simple ratio analysis comparing current and past data that is prepared as a routine part of planning an audit can highlight risks of misstatement. The auditor often develops ratios on asset turnover, liquidity, and product-line profitability to search for potential signals of risk. For example, an inventory turnover ratio might indicate that a particular product line had a turnover of 4 times for the past three years, but only 3 times this year. The change may indicate potential obsolescence, realizability problems, or errors in the accounting records.

Comparison with Expectations Developing informed expectations, and critically appraising client performance in relationship to those expectations, is fundamental to a risk analysis approach to auditing. The auditor needs to understand developments in the client's industry, general economic factors, and the client's strategic development plans in order to generate informed expectations

about client results. Critical analysis based on these expectations could lead the auditor to detect many material misstatements. Fundamental questions arising from expectations might be as simple as these:

- Why is this company experiencing such a rapid growth in insurance sales when its product depends on an ever-rising stock market, and the stock market has been declining for the past three years?
- Why is this company experiencing rapid sales growth when the rest of the industry is showing a downturn?
- Why are a bank client's loan repayments on a more current basis than those of similar banks operating in the same region with the same type of customers?

This analysis provides a basis for identifying risks and developing expectations about account balances. The analytical results are critical in implementing the risk-based approach to auditing. It is only when these expectations are properly developed that the auditor can determine the amount of residual risk in key account balances. Please note that the analytical techniques contain a combination of both quantitative techniques, such as mathematical ratios, and qualitative techniques, such as comparison with industry data and expectations about the industry. Although performed at the beginning of the audit, this kind of risk analysis continues throughout the audit engagement.

Risk Analysis and the Conduct of the Audit

Auditors must be business savvy and business alert. The auditor must understand the company and its risks as a basis for determining which account balances should be directly tested as well as which ones can be corroborated by analytical procedures.

Linkage to Direct Tests of Account Balances The auditor assesses the likelihood that an account balance contains a material misstatement. For example, assume that the auditor concludes there is a high risk that management is using "reserves" or account balance estimates to manage earnings. In such a case, the auditor must set materiality at an appropriate level and undertake procedures to determine if there is an apparent manipulation of the reserves to influence reported net income.

Quality of Accounting Principles Used There is a significant risk that a client may record a transaction, but not make correct accounting judgments. Further, the auditor is required to discuss with the audit committee not only whether the financial statements are fairly presented in accordance with GAAP, but also whether the accounting principles chosen by management were the most appropriate. Although the phrase "most appropriate" may be somewhat ill defined, the FASB has developed guidelines that auditors can implement to help evaluate the most appropriate accounting treatment. These guidelines include the following:

- *Representational faithfulness*—That is, are the transactions recorded according to their economic substance, fairly reflecting the relative risks of all parties involved?
- *Consistency*—Are the transactions reported consistently over time and across divisions within the company?
- *Accounting estimates*—Are the estimates based on proven models? Does the client reconcile actual costs with estimates over a period of time? Are there valid economic reasons for significant changes in accounting estimates?

Practical Point

The auditor must be prepared to discuss the "quality of earnings" with the board and the audit committee.

The National Association of Corporate Directors (NACD) has suggested specific items for discussion between the auditor and the audit committee on the quality of accounting. The nature of the questions posed provides an additional guide to quality of accounting issues. Selected excerpts from the NACD guide are shown in Exhibit 4.10. The questions probe the rationale and motivation for accounting choices.

EXHIBIT 4.10 Guides in Determining the Quality of Accounting: Selected Excerpts from the NACD Blue Ribbon Commission on Audit Committees

Financial Statements—Accounting Choices

- What are the significant judgment areas (reserves, contingencies, asset values, note disclosures) that impact the current-year financial statements? What considerations were involved in resolving these judgment matters? What is the range of potential impact on future reported financial results?
- What issues or concerns exist that could adversely impact the future operations and/or financial condition of the company? What is the plan to deal with these future risks?
- What is the overall "quality" of the company's financial reporting, including the appropriateness of important accounting principles followed by the company?
- What is the range of acceptable accounting choices the company has available to it?
- Were there any significant changes in accounting policies, or application of accounting principles during the year? If yes, why were the changes made and what impact did the changes have on earnings per share (EPS) or other key financial measures?
- Were there any significant changes in accounting estimates, or models used in making accounting estimates during the year? If yes, why were the changes made and what impact did the changes have on earnings per share (EPS) or other key financial measures?
- What are our revenue recognition policies? Are there any instances where the company may be thought of as "pushing the limits" of revenue recognition? If so, what is the rationale for the treatment chosen?
- Have similar transactions and events been treated in a consistent manner across divisions of our company and across countries in which we operate? If not, what are the exceptions and the reasons for them?
- Do the accounting choices made reflect the economic substance of transactions and the strategic management of the business? If not, where are the exceptions and why do they exist?
- To what extent are the financial reporting choices consistent with the manner in which the company measures its progress toward achieving its mission internally? If not, what are the differences? Do the financial statements reflect the company's progress, or lack thereof, in accomplishing its overall strategies?
- How do the significant accounting principles used by our company compare with leading companies in our industry, or with other companies that are considered leaders in financial disclosure? What is the rationale for any differences?
- Has there been any instance where short-run reporting objectives (e.g., achieving a profit objective or meeting bonus or stock option requirements) were allowed to influence accounting choices? If yes, what choices were made and why?

Source: *Report of the NACD Blue Ribbon Commission on Audit Committees—A Practical Guide* (Washington, D.C.: National Association of Corporate Directors), 2000, 39–40.

Summary

The auditor must be thoroughly knowledgeable about the company, its industry, its products, its financing, and its plans to assess the risks associated with the client and to plan an effective and efficient audit. Automated news services can assist the auditors in keeping up-to-date with changes in the industry. However, many of the key risk elements will come from company management and its procedures for identifying, managing, and communicating risks.

Risk assessment and business knowledge are integral parts of auditing. Analytical tools can help the auditor assess risk, develop expectations, and determine the likelihood that fraud may be present.

Significant Terms

audit risk The risk that an auditor may give an unqualified opinion on financial statements that are materially misstated.

control risk The risk that a material misstatement could occur but would not be prevented or quickly detected by an organization's controls.

debt covenant An agreement between an entity and its lender that places limitations on the organization; usually associated with debentures or large credit lines.

detection risk The risk that the auditor will fail to detect a material misstatement that exists in an account balance. The auditor controls detection risk after specifying audit risk and assessing inherent and control risk.

engagement letter Specifies the understanding between the client and the auditor as to the nature of audit services to be conducted and, in the absence of any other formal contract, is viewed by the courts as a contract between the auditor and the client; generally covers items such as client responsibilities, auditor responsibilities, billing procedures, and the timing and target completion date of the audit.

engagement risk The economic risk that a CPA firm is exposed to simply because it is associated with a client. Engagement risk is controlled by careful selection and retention of clients.

enterprise risk Those risks that affect the operations and potential outcomes of organizational activities.

financial reporting risk Those risks that relate directly to the recording of transactions and the presentation of financial data in an organization's financial statements.

inherent risk The susceptibility of transactions to be recorded in error or to be influenced by management's fraudulent activities.

management integrity The honesty and trustworthiness of management as exemplified by past and current actions; auditors' assessment of management integrity; reflects the extent to which the auditors believe they can trust management and its representations to be honest and forthright.

materiality The magnitude of an omission or misstatement of accounting information that, in view of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

risk A concept used to express uncertainty about events and/or their outcomes that could have a material effect on the organization.

risk-based approach An audit approach that begins with an assessment of the types and likelihood of misstatements in account balances and then adjusts the amount and type of audit work to the likelihood of material misstatements occurring in account balances.

Review Questions

4-1 Define the following terms:
- Enterprise risk
- Engagement risk
- Financial reporting risk
- Audit risk

4-2 What is enterprise risk management (ERM) and why is it important that an organization implements an effective ERM? Who has the primary responsibility for the effective implementation of an ERM?

4-3 Explain how *enterprise risk* affects *engagement risk* and how both *enterprise risk* and *engagement risk* affect financial reporting risk.

4-4 Explain why the internal environment is so important and why many corporate losses are tied to a poor risk management environment.

4-5 How are risks and controls related? Why is it important to assess risks prior to evaluating the quality of an organization's controls?

4-6 What kinds of risks does a company encounter if it decides to develop a new product?

4-7 What are the major procedures an auditor will utilize to identify the risks associated with an existing or a potential new client?

4-8 Why is the quality of corporate governance a significant determinant of the auditor's risk assessment of an entity?

4-9 How would an auditor go about assessing management integrity? Why is management integrity considered the most important factor affecting the client acceptance or continuation decision?

4-10 What are the primary factors an auditor will want to investigate before accepting a new audit client?

4-11 What is a "high risk" audit client? What are the characteristics of clients that are considered high risk?

4-12 Why do related party transactions represent special risks to the auditor and the conduct of an audit?

4-13 What sources of information should an auditor look at in determining whether to accept a new client? Why is it important that the auditor systematically make the accept decision?

4-14 What information should the auditor seek from the predecessor auditor?

4-15 What is an engagement letter? What is the purpose of the engagement letter?

4-16 How will an auditor find out if there has been a dispute between the client and the preceding auditor regarding accounting principles?

4-17 What is audit risk? Does the auditor determine audit risk or does the auditor assess it? What factors most influence audit risk?

4-18 Explain how the concepts of audit risk and materiality are related. Must an auditor make a decision on materiality in order to implement the audit risk model?

4-19 Some audit firms develop very specific guidelines, either through quantitative guidelines or in tables, relating planning materiality to the size of sales or assets for a client. Other audit firms leave the materiality judgments up to the individual partner or manager in charge of the audit. What are the major advantages and disadvantages of each approach? Which approach would you favor? Explain.

4-20 Explain how an accounting estimate would not be materially misstated for two consecutive years, but because of the "swing" in the accounting estimate, net income could be misstated by a material amount.

4-21 The SEC is very concerned that auditors recognize the qualitative aspect of materiality judgments. Explain what the "qualitative" aspect of materiality means.

4-22 A recent graduate of an accounting program went to work for a large international accounting firm and noted that the firm sets audit risk at 5% for all major engagements. What does a literal interpretation of setting audit risk at 5% mean? How could an audit firm set audit risk at 5% (i.e., what assumptions must the auditor make in the audit risk model to set audit risk at 5%)?

4-23 What is inherent risk? How can the auditor measure it? What are the implications for the audit risk model if the auditor assesses inherent risk at less than 100%?

4-24 What are the major limitations of the audit risk model? How should those limitations affect the auditor's implementation of the audit risk model?

4-25 What are the major lessons learned in the analysis of the audits of Lincoln Savings & Loan? Where would the auditor obtain information regarding the real estate market in the Phoenix area or in the southwestern United States? Why is it important that the auditor have such information during an audit of a savings and loan organization?

4-26 Janice Johnson is an experienced auditor in charge of several clients. Her approach to an audit is to plan the audit without referring to previous year's documentation to ensure that a fresh approach will be

taken in the audit. Explain why Johnson should examine the permanent file, as well as other selected audit documentation, as part of her risk analysis and audit planning.

4-27 Explain the linkage of a risk-based approach to particular account balances. Use either inventory or accounts receivable to explain the linkage.

4-28 Why is it important for the auditor to use risk analysis to develop expectations about client performance?

4-29 What background information might be useful to the auditor in planning the audit to assist in determining whether the client has potential inventory obsolescence or receivables problems? Identify the various sources the auditor would utilize to develop this background information.

4-30 On accepting a new manufacturing client, the auditor usually arranges to take a tour of the manufacturing plant. Assuming that the client has one major manufacturing plant, identify the information the auditor might obtain during the tour that will help in planning and conducting the audit.

4-31 Explain how ratio analysis and industry comparisons can be useful to the auditor in identifying potential risk on an audit engagement. How can such analysis also help the auditor plan the audit?

4-32 What ratios would best indicate problems with potential inventory obsolescence or collectibility of receivables? How are those ratios calculated?

4-33 Explain why a thorough understanding of the business, its risks, and the competitive environment is essential to an auditor in making judgments about the quality of accounting choices used by the client.

4-34 How does risk analysis affect the nature of procedures performed on specific account balances? Use as an example the following accounts for illustration:

- Allowance for loan losses
- Inventory
- Sales commissions
- Accounts receivable

Multiple-Choice Questions

4-35 Management integrity affects all of the following risks *except:*

a. Enterprise risk
b. Financial reporting risk
c. Engagement risk
d. All of the above

4-36 An external auditor is interested in whether or not a company has implemented an effective Enterprise Risk Management process because:

a. It reduces the likelihood that an organization will fail.
b. It provides a framework for the company to develop broad-based controls.
c. It provides a framework to reduce financial statement misstatements.
d. All of the above.

4-37 Which of the following would not be a source of information about risk of a potential new audit client?

a. The previous auditor
b. Management
c. The Internet
d. The PCAOB

4-38 An engagement letter should be written before the start of an audit because:

a. It may limit the auditor's legal liability by specifying the auditor's responsibilities.
b. It specifies the client's responsibility for preparing schedules and making the records available to the auditor.
c. It specifies the expected cost of the audit for the upcoming year.
d. All of the above.

4-39 If the auditor has concerns about the integrity of management, which of the following would not be an appropriate action?

a. Refuse to accept the engagement because a client does not have an inalienable right to an audit.
b. Expand audit procedures in areas where management representations are normally important by requesting outside verifiable evidence.
c. Raise the audit fees to compensate for the risk inherent in the audit, but do not plan any extended audit procedures.
d. Plan the audit with a higher degree of skepticism, including specific procedures that should be effective in uncovering management fraud.

4-40 Which of the following combinations of engagement risk, audit risk, and materiality would lead to the most audit work?

	Engagement Risk	*Audit Risk*	*Materiality*
a.	Low	High	High
b.	Moderate	Lowest	Lowest
c.	Low	Moderate	Lowest
d.	High	High	High

4-41 Which of the following would not be considered a limitation of the audit risk model?

a. The model treats each risk component as a separate and independent factor when some of the factors are related.
b. Inherent risk is difficult, if not impossible, to formally assess.
c. It is difficult, if not impossible, to formally assess either control or detection risk.
d. The model provides an overall framework for determining the allocation of audit work to risk areas.

4-42 Which of the following models expresses the general relationship of risks associated with the auditor's evaluation of control risk *(CR),* inherent risk *(IR),* and audit risk*(AR)* that would lead the auditor to conclude that additional substantive tests of details of an account balance are not necessary?

	IR	*CR*	*AR*
a.	20%	40%	10%
b.	20%	60%	5%
c.	10%	70%	5%
d.	30%	40%	5%

4-43 Which of the following would indicate that inventory would be a high risk account for the upcoming audit?

a. Inventory has decreased even though sales have increased.
b. Sales growth is lower than inventory growth.
c. Average inventory age is higher than the industry.
d. All of the above.
e. B and C above.

4-44 Comparing client data with industry data and with its own results for the previous year, the auditor finds that the number of days' sales in

accounts receivable for this year is 66 for the client, 42 for the industry average, and 38 for the previous year. Inventory levels have remained the same. The increase in this ratio could indicate all of the following except:
a. Fictitious sales during the current year
b. A policy to promote sales through less strenuous credit policies
c. Potential problems with product quality and the inability of the client to meet warranty claims
d. Increased production of products for expected increases in demand

4-45 An auditor suspects that fictitious sales may have been recorded during the year. Which of the following analytical review results would *most likely* indicate that fictitious sales were recorded?
a. Uncollectible account write-offs increased by 10%, sales increased by 10%, and accounts receivable increased by 10%.
b. Gross margin decreased from 40 to 35%.
c. The number of day's sales in accounts receivable decreased from 64 to 38.
e. Accounts receivable turnover decreased from 7.1:1 to 4.3:1.

Discussion and Research Questions

4-46 **(Types of Risk)** The auditor can control some types of risks, but must assess other types of risks. A number of different types of risk were introduced in this chapter.

Required
a. Define each of the following risk concepts that were introduced in this chapter.
b. Indicate the importance of the risk to the conduct of the audit.
c. Indicate whether the auditor either assesses the risk or whether the auditor controls the risk.
Use the following format:

Risk	Definition	Importance to Audit	Assessed or Controlled
Enterprise Risk			
Engagement Risk			
Financial Reporting Risk			
Audit Risk			
Inherent Risk			
Control Risk			
Detection Risk			

4-47 **(Relationship between Risk and Control)** The concepts of risk and control are integrally related.

Required
a. Explain how risk and control are related. Is one concept broader than the other? Explain.
b. What risks does a company have in developing and introducing a new product? Take the example of a new product in any industry that you are interested in and (a) identify the risks, (b) identify the controls that you would recommend to address those risks, and (c) identify the possible effect on the organization and the audit if the controls are not in place.

4-48 Consider the payment of individuals working in a factory and who are paid by the hour. According to union contract, they have extensive benefits.

Required
What are the risks that affect the processing and payment of the employees? What controls do you suggest to address those risks?

Organize your answer as follows:

Risks	Payroll Processing and Payments Controls

4-49 **(Risk Analysis: Linkage to Direct Testing)** Two auditors were having the following discussion:

Auditor 1: Risk analysis is good. But, when all is said and done, it does not add much to the audit. You still need to directly test the account balances with procedures such as confirmations or observation. You can't ever get away from good old-fashioned auditing.

Auditor 2: The problem with "good old-fashioned auditing" is that there is a tendency to overaudit. We spend a lot of time on areas in which the likelihood of material misstatement is almost nil. At the same time, we don't spend enough time understanding the company's strategy and the structure of its transactions to determine where the real risk of misstatement may be occurring.

Required

a. Analyze the arguments made by the two auditors. Which has the more persuasive argument? Why is the argument more persuasive?
b. Explain how the two approaches to auditing are complementary, not conflicting.
c. The SEC and others have worried that (1) the risk analysis approach isn't auditing at all, (2) there is a greater likelihood that auditors can see trends that management makes to look consistent with previous results, and (3) that auditors will miss major problems because not enough detailed testing is performed. How would you address these concerns raised by the SEC?
d. How are tests of account balances linked to the risk analysis? Describe in detail.

4-50 **(Management Integrity and Audit Risk)** The auditor needs to assess management integrity as a potential indicator of risk. Although the assessment of management integrity takes place on every audit engagement, it is difficult to do and is not often well documented.

Required

a. Define management integrity, and discuss its importance to the auditor in determining the type of evidence to be gathered on an audit and in evaluating the evidence.
b. Identify the types of evidence the auditor would gather in assessing the integrity of management. What are sources of each type of evidence?
c. For each of the following management scenarios:
   1. Indicate whether you believe the scenario reflects negatively on management integrity, and explain why.
   2. Indicate how the assessment would affect the auditor's planning of the audit.

Management Scenarios

a. The owner/manager of a privately held company also owns three other companies. The entities could all be run as one entity, but they engage extensively in related party transactions to minimize the overall tax burden for the owner/manager.
b. The president of a publicly held company has a reputation for being a "hard nose" with a violent temper. He has been known to fire a divisional manager on the spot if the manager did not achieve profit goals.
c. The financial vice president of a publicly held company has worked her way to the top by gaining a reputation as a great accounting manipulator. She has earned the reputation by being very creative in finding ways to circumvent FASB pronouncements to keep debt off the balance sheet and in manipulating accounting to achieve

short-term earnings. After each short-term success, she has moved on to another company to utilize her skills.

d. The president of a small publicly held firm was indicted on tax evasion charges seven years ago. He settled with the IRS and served time doing community service. Since then he has been considered a pillar of the community, making significant contributions to local charities. Inquiries of local bankers yield information that he is the partial or controlling owner of several corporations that may serve as shells to assist the manager in moving income around to avoid taxes.

e. James J. James is the president of a privately held company that has a reputation for running hazardous facilities. The company has been accused of illegally dumping waste and failing to meet government standards for worker safety. James responds that his attitude is to meet the minimum requirements of the law, and if the government deems that he has not, he will clean up. "Besides," he asserts, "it is good business; it is less costly to clean up only when I have to, even if small fines are involved, than it is to take leadership positions and exceed government standards."

f. Carla C. Charles is the young, dynamic chairperson of Golden-Glow Enterprises, a rapidly growing company that makes ceramic specialty items, such as Christmas villages for indoor decorations. Golden-Glow recently went public after five years of 20% annual growth. Carla has a reputation for being a fast-living party animal, and the society pages have carried reports of "extravagant" parties at her home. However, she is well respected as an astute businessperson.

***4-51** **(Sources of Information for Audit Planning)** In early summer, an auditor is advised of a new assignment as the senior auditor for Lancer Company, a major client for the past five years. She is given the engagement letter for the audit covering the current calendar year and a list of personnel assigned to the engagement. It is her responsibility to plan and supervise the fieldwork for the engagement.

Required

Discuss the necessary preparation and planning for the Lancer Company annual audit before beginning fieldwork at the client's office. In your discussion, include the sources that should be consulted, the type of information that should be sought, the preliminary plans and preparation that should be made for the fieldwork, and any actions that should be taken relative to the staff assigned to the engagement.

4-52 **(Accepting a New Client)** Bob Jones, a relatively new partner for Kinde & McNally, CPAs, has recently received a request to provide a bid to perform audit and other services for Wolf River Outfitting, a large regional retailing organization with more than 50 stores in the surrounding five-state area. Wolf River is a fast-growing company specializing in premium outerwear and outdoor sports equipment. It is not publicly traded. Bob realizes that bringing in new clients is important to his success in the firm. Wolf River looks like a good audit that might provide opportunity to sell other services. Consequently, Bob is thinking about "lowballing" the audit (i.e., bidding very low on audit fees) as an effort to gain a foothold in providing other services to the client.

Required

a. What other information should Bob gather about Wolf River before proposing to perform the audit? For each item of information, indicate the most efficient way for Bob to gather the information.

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* All problems marked with an asterisk are adopted from the Uniform CPA Examination.

b. Auditing firms are often encouraged to bid low for the audit work in order to get the more lucrative consulting work. Explain both the positive and negative effects of such behavior on the public accounting profession. In particular, discuss the potential effect on the audit function within a public accounting firm.
c. Explain how the auditor could use the Internet or other data services to gather information about the potential client.
d. Explain why Bob would want an engagement letter before beginning the audit.

4-53 **(Audit Risk Model)** A staff auditor was listening to a conversation between two senior auditors regarding the audit risk model. The following are some statements made in that conversation regarding the audit risk model.

Required

Indicate whether you agree or disagree with each of the statements. Present the rationale for your answer.

1. Audit risk can be applied quantitatively or qualitatively. In essence, it is a concept used to ensure that the auditor gathers sufficient evidence to render an opinion on the financial statements with little likelihood of being wrong.
2. Setting audit risk at 5% is a valid setting for controlling audit risk at a low level only if the auditor assumes that inherent risk is 100%, or significantly greater than the real level of inherent risk.
3. Inherent risk may be very small for some accounts (e.g., the recording of sales transactions at a Wal-Mart). In fact, some inherent risks may be close to .01%. In such cases, the auditor does not need to perform direct tests of account balances if he or she can be assured that inherent risk is indeed that low.
4. Control risk refers to both (a) the design of controls and (b) the operation of controls. To assess control risk as low, the auditor must gather evidence on both the design and operation of controls.
5. Detection risk at 50% implies that the direct test of the account balance has a 50% chance of not detecting a material misstatement.
6. Audit risk should vary inversely with engagement risk: the higher the risk with being associated with the client, the lower should be the audit risk taken.
7. In analyzing the audit risk model, it is important to understand that much of it is judgmental. For example, setting audit risk is judgmental, assessing inherent and control risk is judgmental, and setting detection risk is simply a matter of the individual risk preferences of the auditor.

4-54 **(Audit Assessment of Materiality)** The audit report provides reasonable assurance that the financial statements are free from material misstatements. The auditor is put in a difficult situation because materiality is defined from a user's viewpoint, but the auditor must assess materiality in planning the audit to ensure that sufficient audit work is performed to detect material misstatements.

Required

a. Define materiality as used in accounting and auditing.
b. Briefly discuss the difference between a "quantitative" assessment of materiality and a "qualitative" assessment of materiality. Give an example of each. Is one dimension more important than the other? Explain.
c. Once the auditor develops an assessment of materiality, can it change during the course of the audit? Explain. If it does change, what is the implication of a change for audit work that has already been completed? Explain.

4-55 **(Materiality and Audit Adjustments)** Assume that the auditor has set $100,000 as materiality for misstatements affecting income and $125,000 for asset or liability misstatements that do not affect income. The auditor tests some accounts and has a great deal of confidence in the correct determination of the account balance. For other accounts, such as estimates, the auditor has a best estimate and a range in which he or she believes the correct amount exists. The following information is available upon completion of the audit:

	This Year Balance	Auditor Estimated Balance	Last Year Unadjusted Misstatement
Accounts Receivable	$1.2 million	$1.15 *Range:* 1.0–1.25	$80,000 over
Prepaid Insurance	120,000	100,000	5,000 under
Prepaid Revenue	1.8 million	1.95 million *Range:* 1.92–1.98	90,000 over

Auditors often deal with uncertainty—including uncertainty about the correct amount of an account balance. The uncertainty occurs because (a) the auditor uses sampling and (b) some estimates are imprecise.

Required

a. How should the auditor deal with uncertainty when making materiality judgments regarding account balances and the company's financial statements? For example, should the auditor use the best estimate or the upper or lower limit of the estimated range in determining whether an account balance is materially misstated? Explain.
b. How much is net income misstated for this year? Is the amount of misstatement considered material? Explain.
c. What is the minimum amount of adjustment that needs to be made this year in order for the financial statements to not be materially misstated? Explain.
d. What adjustments do you recommend making to the current year's financial statements? Prepare a list of adjustments.
e. What is the rationale for not booking immaterial adjustments? Do you agree with the rationale?
f. An estimate is an estimate; that is, it is not a precise answer. Assume that management is absolutely convinced that its estimates are correct and the auditor's estimates are incorrect. What options are open to the auditor regarding the account balance? Could the auditor give an unqualified opinion on the financial statements because the financial statements are management's statements and management is convinced that they are correct?

4-56 **(Risks Associated with a Client)** James Johnson has just completed a detailed analysis of a potential new audit client, Rural Railroad and Pipeline, Inc. (RRP). James reports that the name is deceiving. The company is no longer in the railroad business but owns a significant amount of land rights along former railway lines. The land rights have been leased to pipeline companies for transporting natural gas. It has also leased some land rights to communications companies for laying fiber-optic cable. The company is traded over the counter. James interviewed the current auditors and members of management in preparing the following outline report:

> The company is dominated by Keelyn Kravits. Ms. Kravits has recently acquired the company through a leveraged buyout (LBO). The LBO was achieved through a substantial borrowing that is now recorded on the books of RRP. The debt is at 3% over prime and requires the maintenance of minimum profitability and current ratios. If those ratios are not attained, the debt

will either be immediately due—or, at the option of the lender, the interest rate can be raised anywhere from 2 to 4%.

Ms. Kravits has a reputation for coming into a company, slashing expenses, and making the company profitable. At the end of three to five years, she often takes the company back to being publicly traded. Although most of this is commendable, it should also be noted that Ms. Kravits has been very aggressive in using the flexibility in accounting principles to achieve profitability objectives.

The LBO has generated a large amount of recorded goodwill. In fact, the recorded goodwill represents 43% of total assets. The company recently acquired a small communications company that is providing local phone service in one part of the region covered by RRP. The company has older technology and appears to have lagged behind the industry in developing computerized billing procedures. Its billing is all computerized, but it appears to be more error prone than that of some of its competitors, judging by the number of phone calls to the customer service department.

The company has been subject to governmental investigations and has constantly pushed the limit in acquiring and marketing additional rights of way. The governmental complaints have often focused on environmental issues and noncompliance with land-use approvals for new developments.

The previous auditor had no significant problems with the company under its old management. Ms. Kravits believes the previous audit firm was not large enough to render services needed; she wants an auditor who acts like a "business partner" and will not be reluctant to offer constructive suggestions.

Ms. Kravits states that she will look to the new audit firm to do a substantial amount of consulting work.

One recent acquisition is a small casino that will operate on the company's property in Las Vegas. Although the company is not experienced in this area, it plans to retain existing management to run this operation. Ms. Kravits believes this acquisition is an ideal fit, because she would like to use communications technology to bring the excitement of Las Vegas to the Internet.

Required

a. The audit partner wants a report summarizing the potential benefits and disadvantages of becoming the auditor for RRP. In your memo, identify all the pertinent risks the audit partner should consider in determining whether to make a proposal to become the auditor for RRP.
b. What factors should the audit partner consider in determining how much to bid to become the auditor for RRP? For each factor identified, indicate its effect on the cost and conduct of the potential audit.
c. What other information would you want to gather before developing a proposal for the audit of RRP?

4-57 **(Understanding a Business: Risk Assessment)** The auditor needs to understand the business in order to assess the risk of potential account misstatements. In preparing for a new audit, the auditor arranges to take a tour of the manufacturing plant and the distribution center. The client is a manufacturer of heavy machinery. Its major distribution center is located in a building next to the manufacturing facility.

Required

The auditor made the following list of observations during the tour of the plant and distribution center. For each observation, indicate the following:

a. The potential audit risk associated with the observation.
b. How the audit should be adjusted for the knowledge of the risk.

Tour of Plant Observations

1. The auditor notes three separate lines of production for three distinct product lines. Two seem to be highly automated, but one is seemingly antique.
2. The auditor notes that a large number of production machines are sitting idle outside, and that a second line of one of the company's main products is not in operation.
3. The client utilizes a large amount of chemicals. The waste chemicals are stored in vats and barrels in the yard before being shipped for disposal to an independent disposal firm.
4. The distribution center seems busy and messy. Although there appear to be defined procedures, the supervisor indicates that during peak times when orders must be shipped, the priority is to get them shipped. Employees "catch up" on paperwork during slack time.
5. One area of the distribution center contains some products that seem to have been there for a long time. They are dusty and the packaging looks old.
6. Some products are sitting in a transition room outside the receiving area. The supervisor indicates that the products either have not been inspected yet, or they have failed inspection and he is awaiting orders on what to do with them.
7. The receiving area is fairly automated. Many products come packaged in cartons or boxes. The receiving department uses computer scanners to read the contents on a bar code, and when bar codes are used, the boxes or containers are moved immediately to the production area where they are to be used.
8. One production line uses just-in-time inventory for its major component products. These goods are received in rail cars that sit just outside the production area. When production begins, the rail cars are moved directly into production. There is no receiving function for these goods.
9. The company uses minimum security procedures at the warehouse. There is a fence around the facilities, but employees and others seem to be able to come and go with ease.

4-58 **(Analytical Review in Planning an Audit)** Analytical review can be an extremely powerful tool in identifying potential problem areas in an audit. Analytical review can consist of trend and ratio analysis and can be performed by comparisons within the same company or comparisons across industry. The following information shows the past two periods of results for a company and a comparison with industry data for the same period.

ANALYTICAL DATA FOR JONES MANUFACTURING

	Prior Period (000 omitted)	Percent of Sales	Current Period (000 omitted)	Percent of Sales	Percent Change	Industry Average as a Percent of Sales
Sales	$10,000	100	$11,000	100	10	100
Inventory	$2,000	20	$3,250	29.5	57.5	22.5
Cost of goods sold	$6,000	60	$6,050	55	0.83	59.5
Accounts payable	$1,200	12	$1,980	18	65	14.5
Sales commissions	$500	5	$550	5	10	Not available
Inventory turnover	6.3	—	4.2	—	(33)	5.85
Average number of days to collect	39	—	48	—	23	36
Employee turnover	5%	—	8%	—	60	4
Return on investment	14%	—	14.3%	—		13.8
Debt/Equity	35%	—	60%	—	71	30

Required

a What are the advantages and limitations of comparing company data with industry data during the planning portion of an audit?

b. From the preceding data, identify potential risk areas and explain why they represent potential risk. Briefly indicate how the risk analysis should affect the planning of the audit engagement.

4-59 **(Analytical Review and Planning the Audit)** The following table contains calculations of several key ratios for Indianola Pharmaceutical Company, a maker of proprietary and prescription drugs. The company is publicly held and is considered a small- to medium-size pharmaceutical company. Approximately 80% of its sales have been in prescription drugs; the remaining 20% are in medical supplies normally found in a drugstore. The primary purpose of the auditor's calculations is to identify potential risk areas for the upcoming audit. The auditor recognizes that some of the data may signal the need to gather other industry- or company-specific data.

A number of the company's drugs are patented. Its number-one selling drug, Anecillin, which will come off of patent in two years, has accounted for approximately 20% of the company's sales during the past five years.

INDIANOLA PHARMACEUTICAL RATIO ANALYSIS

Ratio	Current Year	One Year Previous	Two Years Previous	Three Years Previous	Current Industry
Current ratio	1.85	1.89	2.28	2.51	2.13
Quick ratio	0.85	0.93	1.32	1.76	1.40
Interest coverage:					
Times interest earned	1.30	1.45	5.89	6.3	4.50
Days' sales in receivables	109	96	100	72	69
Inventory turnover	2.40	2.21	3.96	5.31	4.33
Days' sales in inventory	152	165	92	69	84
Research & development as a percent of sales	1.3	1.4	1.94	2.03	4.26
Cost of goods sold as percent of sales	38.5	40.2	41.2	43.8	44.5
Debt/equity ratio	4.85	4.88	1.25	1.13	1.25
Earnings per share	$1.12	$2.50	$4.32	$4.26	n/a
Sales/tangible assets	0.68	0.64	0.89	0.87	0.99
Sales/total assets	0.33	0.35	0.89	0.87	0.78
Sales growth over past year	3%	15%	2%	4%	6%

Required

a. What major conclusions regarding risk can be drawn from the information shown in the table? State how that risk analysis will be used in planning the audit.

b. What other critical background information might you want to obtain as part of the planning of the audit or would you gather during the conduct of the audit? Briefly indicate the probable sources of the information.

c. Based on the information, what major actions did the company enact during the immediately preceding year? Explain.

Cases

4-60 **(Risk Analysis)** The auditor for ABC Wholesaling Company has just begun to perform analytical procedures as part of planning the audit for the coming year. ABC Wholesaling is in a competitive industry, selling products such as STP Brand products and Ortho Grow products to companies such as Wal-Mart, Kmart, and regional

Group Activity

retail discount chains. The company is privately owned and has experienced financial difficulty this past year. The difficulty could lead to its major line of credit being pulled if the company does not make a profit in the current year. In performing the analytical procedures, the auditor notes the following changes in accounts related to accounts receivable.

	Current Year (000) omitted	Previous Year (000) omitted
Sales	$60,000	$59,000
Accounts Receivable	$11,000	$7,200
Percent of Accounts Receivable Current	72%	65%
No. of Days' Sales in Accounts Receivable	64	42
Gross Margin	18.7%	15.9%
Industry Gross Margin	16.3%	16.3%
Increase in Nov.–Dec. Sales over Previous Year	12%	3.1%

The auditor notes the large increase in receivables and decides to make inquiries of management. Management explains that the change is due to two things: (1) a new computer system that has increased productivity; and (2) a new policy of rebilling items previously sold to customers, thereby extending the due dates from October to April. The rebilling is explained as follows: many of the clients' products are seasonal, for example, lawn care products. To provide better service to ABC's customers, management instituted a new policy whereby management negotiated with a customer to determine the approximate amount of seasonal goods on hand at the end of the selling season (October). If the customer would continue to purchase from the client, management would rebill the existing inventory, thereby extending the due date from October until the following April, essentially giving an interest-free loan to the customer. The customer, in turn, agreed to keep the existing goods and store them on their site for next year's retail sales.

The key to analytical procedures is to determine whether potential explanations satisfy all the changes that are observed in account balances. For example, does the explanation of a new computer system and the rebilling adequately explain all the changes? The auditor must be able to answer these questions to properly apply the risk-based approach to audit. There are several factors indicating that these explanations might not hold:

1. The company has a large increase in gross margin. This seems unlikely, because it is selling to large chains with considerable purchasing power. Further, other competitors are also likely to have effective computer systems.
2. If the rebilling items are properly accounted for, there should not be a large increase in sales for the last two months of this year when the total sales for the previous year is practically the same as that of the preceding year.
3. If the rebillings are for holding the inventory at customers' locations, the auditor should investigate to determine (a) if the items were properly recorded as a sale in the first place, or if they should still be recorded as inventory; (b) what is the client's motivation for extending credit to the customers indicated; and (c) whether it is a coincidence that all of the rebilled items were to large retailers who do not respond to accounts receivable confirmations received from auditors.

Required

a. What potential hypotheses would likely explain the changes in the financial data given?

b. Which hypothesis would best explain all the changes in the ratios and financial account balances?
c. What is the most likely cause of the changes?
d. What risks are identified and what are the implications for audit procedures? What specific audit procedures do you recommend as highest priority? Why

4-61 **(Using Electronic Information in Performing Risk Analysis)** The auditor increasingly relies on electronic sources of information to keep up to date on industry developments, new trends in the economy, regulatory requirements, and other coverage of the client in the financial press.

Internet Activity

Required

Select a publicly owned company that is of interest to you. Log on to the Web to gather information about the company, the industry, and the risks associated with the company. In your online search, include the following:

- The company's annual report, either on its home page or as filed with the SEC using EDGAR or SEC.gov (look at the management discussion and analysis section as well as other information)
- A company chat line, such as Yahoo: Finance
- Another source of industry data such as Yahoo Finance or Hoovers On-Line
- A stockbroker analysis or investment analyst
  a. Develop an industry analysis and a business risk analysis for the company (ask your instructor about length of paper)
  b. Consider the online search sources and answer the following issues for each source:
    1. Usefulness of the site in providing relevant background information about the company, including its strategies and competitors
    2. Ease of use in obtaining the information
    3. Reliability of information. Contrast the information received from (a) the chat line, (b) the stockbroker/investment analyst, (c) management's discussion and analysis section of the annual report, and (d) the other financial sources of industry data
    4. Comprehensiveness of information obtained
    5. Usefulness of the data in identifying risks
  c. Describe "intelligent agents," and explain how they could be used to improve your search process as well as the presentation of information for your analysis.

4-62 **(Industry Analysis)** Auditors cannot effectively audit clients unless they fully understand the client's industry and the inherent risks that may affect their client. Therefore, an important part of every audit plan is to understand how current developments in the industry may be affecting an audit client.

Research Activity

Required

a. Perform a background analysis of one of the following industries:
   1. Specialty retailers (e.g., catalog retailers, e-commerce retailers)
   2. Financial institutions (e.g., banks, insurance companies)
b. Identify the following:
   1. Potential problems identified in the financial press
   2. Current economic trends as described in industry publications
   3. The regulatory environment affecting the industries, including pending legislation
   4. Components of the balance sheets of companies in each industry that would represent high risk
c. Select one company in the industry and analyze the specific risks associated with that company. Consult the periodical index in your library for news articles and trade statistics. See, for example, Robert Morris statistics for banks or Best's Review for insurance companies.

Group Activity

4-63 **(Semester Analysis of Company Risks)** With your instructor's consent, identify a company and perform a background review of it to identify high risk areas for an upcoming audit. Utilize all the electronic sources that have information available about the company. Obtain the latest financial results, either from the company's home page or from EDGAR (http://www.sec.gov). If your group chooses a local company, consider arranging an interview with the firm's controller to find out more about its operations.

Required

Prepare a detailed analysis of risk for the company, and discuss the implications of the risk areas for the audit of that company. In preparing the analysis, be sure to include the following:

- Business strategies
- Key competitors
- Industry trends
- Key business processes
- Financial resources and availability
- Major risks
- Implications of those risks for the conduct of the audit

4-64 **(Lincoln Federal Savings & Loan)** The following is a description of various factors that affected the operations of Lincoln Federal Savings & Loan, a California savings and loan (S&L) that was a subsidiary of American Continental Company, a real estate development company run by Charles Keating.

Required

a. After reading the discussion of Lincoln Federal Savings & Loan, identify the risk areas that should be identified in planning for the audit.
b. Briefly discuss the risks identified and the implication of those risks for the conduct of the audit.
c. The auditor saw independent appraisals in folders for loans indicating the market value of the real estate. How convincing are such appraisals? In other words, what attributes are necessary in order for the appraisals to constitute persuasive evidence?

Lincoln Federal Savings & Loan

Savings and Loan Industry Background—The S&L industry was developed in the early part of the century in response to a perceived need to provide low-cost financing to encourage home ownership. As such, legislation by Congress made the S&L industry the primary financial group allowed to make low-cost home ownership loans (mortgages).

For many years, the industry operated by accepting relatively long-term deposits from customers and making 25- to 30-year loans at fixed rates on home mortgages. The industry was generally considered to be safe. Most of the S&Ls (also known as *thrifts*) were small, federally chartered institutions with deposits insured by the FSLIC. "Get your deposits in, make loans, sit back, and earn your returns. Get to work by 9 a.m. and out to the golf course by noon" seemed to be the motto of many S&L managers.

Changing Economic Environment—During the 1970s, two major economic events hit the S&L industry. First, the rate of inflation had reached an all-time high. Prime interest rates had gone as high as 19.5%. Second, deposits were being drawn away from the S&Ls by new competitors that offered short-term variable rates substantially higher than current passbook savings rates. The S&Ls responded by increasing the rates on certificates of deposit to extraordinary levels (15 or 16%) while servicing mortgages with 20- to 30-year maturities made at old rates of 7 to 8%. The S&Ls attempted to mitigate the problem by offering variable-rate mortgages or by selling off some of their mortgages (at substantial losses) to other firms.

However, following regulatory accounting principles, the S&Ls were not required to recognize market values of loans that were not sold. Thus, even if loan values were substantially less than the book value, they would continue to be carried at book value as long as the mortgage holder was not in default.

Changing Regulatory Environment—Congress moved to deregulate the S&L industry. During the first half of 1982, the S&L industry lost a record $3.3 billion (even without marking loans down to real value). In August 1982, President Reagan signed the Garn–St Germain Depository Institutions Act of 1982, hailing it as "the most important legislation for financial institutions in 50 years." The bill had two key elements:

- S&Ls would be allowed to offer money market funds free from withdrawal penalties or interest rate regulation.
- S&Ls could invest up to 40% of their assets in nonresidential real estate lending. Commercial lending was much riskier than home lending, but the potential returns were greater. In addition, the regulators helped the deregulatory fever by removing a regulation that had required a thrift to have 400 stockholders with no one owning more than 25% to allowing a single shareholder to own a thrift.
- Making it easier for an entrepreneur to purchase a thrift. Regulators allowed buyers to start (capitalize) their thrift with land or other "non-cash" assets rather than money.
- Allowing thrifts to stop requiring traditional down payments and to provide 100% financing with the borrower not required to invest a dime of personal money in the deal.
- Permitting thrifts to make real estate loans anywhere. They had previously been required to make loans on property located only in their own geographic area.

Accounting—In addition to these revolutionary changes, owners of troubled thrifts began stretching already liberal accounting rules—with regulators' blessings—to squeeze their balance sheets into [regulatory] compliance. For example, goodwill, defined as customer loyalty, market share, and other intangible "warm fuzzies," accounted for over 40% of the thrift industry's net worth by 1986.

Lincoln Federal S&L. American Continental Corporation, a land development company run by Charles Keating and headquartered in Phoenix, purchased Lincoln Federal S&L. Immediately, Keating expanded the lending activity of Lincoln to assist in the development of American Continental projects, including the Phoenician Resort in Scottsdale.[4] Additionally, Keating sought higher returns by purchasing junk bonds marketed by Drexel Burnham and Michael Millken. Nine of Keating's relatives were on the Lincoln payroll at salaries ranging from over $500,000 to over $1 million.

Keating came up with novel ideas to raise capital. Rather than raising funds through deposits, he had commissioned agents working in the Lincoln offices who sold special bonds of American Continental Corp. The investors were assured that their investments would be safe. Unfortunately, many elderly individuals put their life savings into these bonds, thinking they were backed by the FSLIC because they were sold at an S&L, but they were not.

Keating continued investments in real estate deals, such as a planned mega community in the desert outside of Phoenix. He relied on appraisals, some obviously of dubious value, to serve as a basis for the loan valuation.

[4] The Phoenician was so lavishly constructed that a regulator estimated that just to break even, the resort would have to charge $500 per room per night at a 70% occupancy rate. Similar resort rooms in the area were available at $125 a night.

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Biltrite: A Computerized Audit Practice Case

Description of the Practice Case

This case has two learning objectives. First, it provides an opportunity to apply auditing concepts to a "real-life" audit client. The client, Biltrite Bicycles, Inc., operates within a unique business climate and internal control environment, and you must assess inherent risk and control risk accordingly. The case contains modules involving sampling applications, audit program design, audit documentation completion, audit adjustments, and an audit report upon completion of the 2007 examination.

The second purpose served by the practice case is to enable you to utilize the computer as an audit assist device. You may use the computer in the Biltrite case to both automate the fieldwork and assist in decision-making.

The case consists of modules. At the end of each module is a set of requirements. You will need an Intel-based computer, an Excel or Excel-compatible spreadsheet program, and will need to download the data files from the web site http://www.thomsonedu.com/accounting/rittenberg under the tab "Student Resources."

The modules parallel the phases of a financial statement audit. Many of the modules require both qualitative and quantitative analyses. Based on narrative material and on partially completed audit documentations, you will be asked to complete the documentations, arrive at audit conclusions, and/or answer questions relating to specific auditing standards and interpretations. The following modules make up the Biltrite case:

Module I: Assessment of inherent risk
Module II: Assessment of control risk
Module III: Control testing the sales processing subset of the revenue cycle
Module IV: PPS sampling—factory equipment additions
Module V: Accounts receivable aging analysis and adequacy of allowance for doubtful accounts
Module VI: Sales and purchases cutoff tests
Module VII: Search for unrecorded liabilities
Module VIII: Dallas Dollar Bank—bank reconciliation
Module IX: Analysis of interbank transfers
Module X: Analysis of marketable securities
Module XI: Plant asset additions and disposals
Module VII: Estimated liability for product warranty
Module XIII: Mortgage note payable and note payable to Bank Two
Module XIV: Working trial balance
Module XV: Audit report

For maximum learning benefit, the modules should be completed as follows:

Module I:	Following Chapter 4
Module II:	Following Chapter 8
Module III and IV:	Following Chapter 10
Module V:	Following Chapter 11
Modules VI and VII:	Following Chapter 12
Modules VIII, IX, and X:	Following Chapter 13
Module XI:	Following Chapter 14
Module XII and XIII:	Following Chapter 15
Module XIV:	Following Chapter 16
Module XV:	Following Chapter 17

Accordingly, the modules are at the ends of the chapters to which they are related. For purposes of this case, the income tax effects of audit adjustments have been ignored.

Description of the Company

Biltrite was incorporated in 1970 to manufacture ten-speed touring bikes. An exercise bike was added to the product line in 1980, and mountain bikes were added in 1987.

Currently, the company makes the following products:

Grand Prix:	Ten-speed touring bike
Phoenix:	Deluxe eighteen-speed racing bike
Pike's Peak:	Twelve-speed mountain bike
Himalaya:	Eighteen-speed deluxe mountain bike
Waistliner:	Stationary exercise bike

All of these products are manufactured in one plant, which is located in eastern Texas.

Derailleurs (front and rear) comprise a major portion of the parts inventory. Other purchased parts consist of tires, handle grips, pedals, wheels, and spokes. Materials and supplies consist primarily of paint and steel. Biltrite manufactures the frames and handlebars, and assembles and paints the bikes.

The factory, which employs 2,000 workers, was built in 1970; was refurbished and updated in 1999; and is now quite automated. Biltrite's administrative offices are located in another building in the same complex. The company has ten regional distribution locations in various parts of the United States; each location consists of a warehouse headed by a warehouse superintendent and a sales office directed by a regional sales manager.

Products are shipped to the warehouses upon completion, and from the warehouses they are shipped to licensed dealers in the respective regions. The dealer network consists of approximately 1,500 outlets located throughout the United States and Canada.

All products carry a full one-year warranty covering parts and labor. The company is known for the quality of its products and for its strong service support.

As of the end of 2007, the company had a total of 60 customer accounts ranging in amounts from $2,200 to approximately $1,350,000. The cumulative accounts receivable at year end December 31, 2007, was $12 million.

Biltrite experienced steady growth in sales and profitability of all product lines from the date of incorporation until the beginning of 1986. From early 1986 until the present time, competition from Asian and European manufacturers has had a significant impact on Biltrite's revenue (see Exhibit BR.1).

EXHIBIT BR.1 Biltrite Bicycles, Inc., Comparative Income Statements 1998–2007 (in thousands of dollars)

	2007*	2006	2005	2004	2003	2002	2001	2000	1999	1998
Sales	$335,000	$280,000	$272,000	$274,500	$266,800	$269,300	$268,700	$265,570	$263,440	$262,890
Cost of Goods Sold	227,800	215,600	209,440	211,365	205,436	188,510	188,090	185,899	184,408	184,023
Gross Profit	107,200	64,400	62,560	63,135	61,364	80,790	80,610	79,671	79,032	78,867
Operating Expenses	45,770	42,330	41,400	42,000	40,680	39,997	40,100	38,965	38,670	37,700
Operating Income	61,430	22,070	21,160	21,135	20,684	40,793	40,510	40,706	40,362	41,167
Other Expenses (net)	15,668	8,960	8,700	8,240	8,150	7,890	7,940	7,760	7,240	7,123
Net Income before Taxes and Extraordinary Item	45,762	13,110	12,460	12,895	12,534	32,903	32,570	32,946	33,122	34,044
Income Taxes	13,729	4,542	4,150	3,869	3,760	9,871	9,771	9,884	9,937	10,213
Net Income before Extraordinary Item	32,033	8,568	8,310	9,026	8,774	23,032	22,799	23,062	23,185	23,831
Extraordinary Gain (Loss)—Net of Tax	0	1,235	0	(2,650)	0	0	(1,540)	0	3,400	0
Net Income	$ 32,033	$ 9,803	$ 8,310	$ 6,376	$ 8,774	$ 23,032	$ 21,259	$ 23,062	$ 26,585	$ 23,831

*Unaudited.

Your firm, Denise Vaughan & Co., Certified Public Accountants, has audited Biltrite since its incorporation in 1970. Denise Vaughan is presently the partner in charge of the engagement and Carolyn Volmar is the audit manager. The audit team consists of Richard Derick, senior auditor in charge of the Biltrite audit; Cheryl Lucas, assistant auditor, in her third year with the firm and her third year on the Biltrite audit; Shelly Ross, assistant auditor in her second year with the firm and her second year on the Biltrite audit; and a student (you), assistant auditor, newly hired. Biltrite will be your first audit.

Derick has been in charge of the Biltrite audit fieldwork for the past two years. Prior to that time he had been a part of the Biltrite audit team as an assistant. He is completely familiar with the client's operations and internal controls and works well with Biltrite personnel.

Gerald Groth, the corporate controller of Biltrite, has been with the company since receiving his MBA in 1988. Groth is also a CPA and was a staff accountant with Denise Vaughan & Co. from 1983 to 1988.

Other Biltrite personnel are Trevor Lawton, president and chief executive officer; Elmer Fennig, vice president, production; Charles Gibson, vice president, marketing; Marlene McAfee, treasurer; Laura Schroeder, director of human resources; John Mesarvey, chief accountant; Glenn Florence, director of internal auditing; and Malissa Rust, director of computer-based information systems (CBIS). Mesarvey, Florence, and Rust report to Groth. Emil Ransbottom, the director of purchasing, as well as the plant manager and the factory supervisors, report to Fennig.

Biltrite has three product managers—one for touring bikes, one for mountain bikes, and one for stationary bikes. The sales staff report to the product managers and the product managers report to Gibson. Under Mesarvey, the chief accountant, are Harriet Smith, transaction processing; Oliver Perna, cost accounting; and Janice Hollins, financial statements.

Transaction processing is divided into the following sections: general ledger, accounts receivable, accounts payable, and payroll. The managers of these sections report to Smith. Three staff auditors report to the director of internal auditing; three personnel officers report to the director of human resources. Harold Cannon, information technology manager, and Nancy Karling, management information systems manager, report to the CBIS director. Cannon's department is divided into four sections: data entry, data processing, control, and systems analysis and programming. Karling's department is divided into three sections: statistical analysis, budget coordination, and report generation. Reporting to the treasurer are Lawrence White, credit manager; Paula Penelee, portfolio manager; and Mark Wilkins, cashier.

Biltrite closes its general ledger on a calendar-year basis. Unaudited financial statements are prepared quarterly and are reviewed by Denise Vaughan & Co. The accounting information system, including the general ledger, inventories, receivables, payables, and plant assets, was computerized in 1982, and was upgraded to a real-time system in 2004. After extensive debugging, the real-time system seems to be functioning smoothly.

The company employs approximately 2,000 production workers and 200 salaried administrative employees, including the corporate management staff, warehouse superintendents, and regional sales managers. In addition, the regional units employ 100 warehouse personnel and 120 salespersons. Hourly employees, consisting of the production workers and warehouse personnel, are paid weekly; salaried employees are paid biweekly. Salespersons receive a salary plus 5% commission, based on gross sales.

All bank accounts have been reconciled on a monthly basis, including the December 31, 2007, reconciliation. The company has provided the auditors with a year-end adjusted trial balance and a complete set of financial statements, together with supporting schedules (see Exhibits BR.2–BR.6). Richard Derick and his audit team were present at Biltrite's year-end physical inventory.

EXHIBIT BR.2 Biltrite Bicycles, Inc., Adjusted Trial Balance as of December 31, 2007

	Account Number	Debit (in thousands of dollars)	Credit
Bank Two Demand Deposit	1001	$ 10,200	
Dallas Dollar Bank Demand Deposit	1002	2,100	
Dallas Dollar Bank Payroll Account	1008	57	
Petty Cash	1012	5	
Investments in Marketable Securities	1101	7,000	
All for Decline in Market Value of Securities	1102		$ 2,800
Accounts Receivable—Trade	1201	11,920	
Notes Receivable—Trade	1202	80	
Notes Receivable—Officers	1203	0	
Allowance for Doubtful Accounts	1250		220
Raw Materials Inventory	1310	6,200	
Derailleurs Inventory	1320	5,500	
Purchased Parts Inventory	1330	15,100	
Goods in Process—Grand Prix Touring Bike	1350	800	
Goods in Process—Phoenix Touring Bike	1351	700	
Goods in Process—Pike's Peak Mountain Bike	1352	1,500	
Goods in Process—Himalaya Mountain Bike	1361	1,200	
Goods in Process—Waistliner Stationary Bike	1365	300	
Finished Goods—Grand Prix Touring Bike	1371	1,616	
Finished Goods—Phoenix Touring Bike	1372	2,300	
Finished Goods—Pike's Peak Mountain Bike	1373	5,800	
Finished Goods—Himalaya Mountain Bike	1376	4,600	
Finished Goods—Waistliner Stationary Bike	1379	1,200	
Indirect Materials	1385	800	
Repair Parts Inventory	1390	2,600	
Prepaid Insurance	1410	600	
Deferred Taxes—Warranty	1440	400	
Land	1510	4,000	
Factory Building	1520	50,000	
Accumulated Depreciation—Building	1525		14,140
Warehouses and Sales Offices	1527	200,000	
Accumulated Depreciation—Warehouses and Sales Offices	1529		105,000
Factory Equipment	1530	360,000	
Accumulated Depreciation—Factory Equipment	1535		144,660
Office Building	1540	20,000	
Accumulated Depreciation—Office Building	1545		8,000
Office Fixtures and Equipment	1550	10,000	
Accumulated Depreciation—Office Fixtures and Equipment	1555		6,150
Autos and Trucks	1560	1,000	
Accumulated Depreciation—Autos and Trucks	1565		620
Patents	1610	4,000	
Copyrights	1620	2,000	
Deposits	1710	340	
Cost of Goods Sold—Grand Prix Touring Bike	5100	34,448	
Cost of Goods Sold—Phoenix Touring Bike	5200	32,903	

(continued)

EXHIBIT BR.2 Biltrite Bicycles, Inc., Adjusted Trial Balance as of December 31, 2007 (*continued*)

	Account Number	Debit (in thousands of dollars)	Credit (in thousands of dollars)
Cost of Goods Sold—Pike's Peak Mountain Bike	5300	$ 89,584	
Cost of Goods Sold—Himalaya Mountain Bike	5400	22,075	
Cost of Goods Sold—Waistliner Stationary Bike	5500	48,790	
Direct Labor	6100	35,600	
Direct Labor Applied	6200		$ 35,600
Indirect Labor	7201	5,500	
Depreciation—Factory Building	7205	2,000	
Depreciation—Factory Equipment	7206	42,060	
Real Estate Taxes	7210	4,400	
Personal Property Taxes	7211	1,600	
Manufacturing Supplies	7220	15,042	
FICA Tax Expense	7230	3,980	
State Unemployment Tax Expense	7231	1,120	
Federal Unemployment Tax Expense	7232	880	
Workers' Compensation Premiums	7233	550	
Health Insurance Premiums—Factory	7234	2,860	
Employee Pension Expense	7235	3,810	
Repairs and Maintenance Expense	7236	1,222	
Utilities Expense	7241	16,100	
Miscellaneous Factory Expense	7242	2,200	
Manufacturing Overhead Applied	7250		103,324
Sales Commissions	8310	16,500	
Sales Salaries	8320	1,200	
Bad Debts Expense	8325	500	
Product Warranty	8330	1,139	
Advertising	8340	3,311	
Miscellaneous Selling Expense	8350	420	
Administrative Salaries	9410	7,550	
Research and Development Costs	9420	1,050	
Patent Amortization	9425	700	
FICA Tax Expense	9431	856	
State Unemployment Tax Expense	9432	224	
Federal Unemployment Tax Expense	9433	120	
Workers' Compensation Premiums	9434	100	
Health Insurance Premiums—Administrative	9435	500	
Employee Pension Expense	9436	100	
Employee Profit Sharing Expense	9437	345	
Depreciation—Office Building	9440	800	
Depreciation—Office Fixtures and Equipment	9445	1,875	
Depreciation—Autos and Trucks	9447	320	
Depreciation—Warehouses and Sales Offices	9449	10,000	
Accounting Fees	9450	320	
Legal Fees	9451	430	
Other Professional Services	9452	20	

EXHIBIT BR.2 Biltrite Bicycles, Inc., Adjusted Trial Balance as of December 31, 2007 (*continued*)

	Account Number	Debit (in thousands of dollars)	Credit (in thousands of dollars)
Supplies Expense	9460	$ 200	
Insurance Expense	9470	450	
Printing and Copying Expense	9480	235	
Postage Expense	9481	285	
Gain/Loss on Disposal of Plant Assets	9485		$ 4,000
Miscellaneous Administrative Expense	9490	220	
Interest Expense	9701	12,890	
Loss on Decline in Market Value of Securities	9702	2,800	
Federal Income Tax Expense	9990	10,329	
State Income Tax Expense	9991	1,923	
City Income Tax Expense	9992	1,477	
Notes Payable—Trade	2010		3,660
Accounts Payable—Trade	2020		10,200
Interest Payable	2030		3,400
Sales Salaries Payable	2041		30
Administrative Salaries Payable	2042		870
Factory Wages Payable	2043		1,290
FICA Payable	2051		310
State Income Taxes Withheld	2052		150
City Income Taxes Withheld	2053		50
Unemployment and Workers' Compensation Premiums Payable	2054		25
Accrued Profit Sharing Payable	2055		345
Federal Income Taxes Payable	2061		4,000
State Income Taxes Payable	2062		1,200
City Income Taxes Payable	2063		800
Estimated Product Warranty Liability	2070		544
Accrued Commissions Payable	2080		1,400
Mortgage Note Payable (10%)	2110		60,000
Deferred Tax Liability—Depreciation	2120		10,600
12% Note Payable to Bank Two	2130		45,000
10% Preferred Stock	3110		120,000
Common Stock	3120		100,000
Additional Paid-in Capital	3130		50,000
Treasury Stock	3140	8,153	
Retained Earnings	3150		29,574
Dividends	3160	15,000	
Sales—Grand Prix Touring Bike	4100		50,659
Sales—Phoenix Touring Bike	4200		47,360
Sales—Pike's Peak Touring Bike	4300		132,892
Sales—Himalaya Mountain Bike	4400		34,299
Sales—Waistliner Stationary Bike	4500		69,790
Interest Earned	4901		115
Dividends Earned	4902		105
Loss on Disposal of Investments	4903	198	
		$1,203,182	$1,203,182

EXHIBIT BR.3 Biltrite Bicycles, Inc., Income Statements for the Years Ended December 31, 2006 and 2007 (in thousands of dollars)

	Year Ended 12/31/07*		Year Ended 12/31/06	
Sales Revenue		$335,000		$280,000
Cost of Goods Sold:				
Beginning Inventories	$ 10,142		$ 6,690	
Cost of Goods Manufactured (Schedule 1)	233,174		219,052	
Cost of Goods Available for Sale	243,316		225,742	
Ending Inventories	15,516		10,142	
Cost of Goods Sold		227,800		215,600
Gross Profit on Sales		107,200		64,400
Operating Expenses (Schedule 2)		45,770		42,330
Operating Income		61,430		22,070
Financial Income and Expense:				
Interest Expense	12,890		9,682	
Interest and Dividends Earned	(220)		(1,022)	
Loss (Gain) on Disposal of Investments	198		(100)	
Loss on Decline in Market Value of Securities	2,800		400	
Net Financial Expense		15,668		8,960
Net Income before Taxes and Extraordinary Items		45,762		13,110
Income Taxes		13,729		4,542
Net Income before Extraordinary Items		32,033		8,568
Extraordinary Gain from Eminent Domain Sale (net of tax)				1,235
Net Income		$ 32,033		$ 9,803

SCHEDULE 1
COST OF GOODS MANUFACTURED
(IN THOUSANDS OF DOLLARS)

	Year Ended 12/31/07*		Year Ended 12/31/06	
Beginning Work-in-Process Inventories		$ 4,000		$ 4,663
Manufacturing Costs:				
Direct Materials:				
Beginning Inventories of Materials and Purchased Parts	$ 16,150		$ 15,320	
Purchases	105,400		86,200	
Available for Production	121,550		101,520	
Ending Inventories of Materials and Purchased Parts	26,800		16,150	
Cost of Materials Used in Production	94,750		85,370	
Direct Labor	35,600		31,300	
Manufacturing Overhead (Schedule 1A)	103,324		101,719	
Total Manufacturing Costs		233,674		218,389
Total Work in Process		237,674		223,052
Ending Work-in-Process Inventories		4,500		4,000
Cost of Goods Manufactured		$233,174		$219,052

EXHIBIT BR.3 Biltrite Bicycles, Inc., Income Statements for the Years Ended December 31, 2006 and 2007 (in thousands of dollars) (*continued*)

SCHEDULE 1A

MANUFACTURING OVERHEAD

	Year Ended 12/31/07*	Year Ended 12/31/06
Indirect Labor	$ 5,500	$ 5,300
Depreciation of Factory Building	2,000	2,000
Depreciation of Factory Equipment	42,060	42,860
Property Taxes	6,000	5,800
Manufacturing Supplies	15,042	14,600
Payroll Taxes and Fringe Benefits	13,200	12,400
Utilities	16,100	15,600
Repairs and Maintenance	1,222	1,159
Miscellaneous	2,200	2,000
	$103,324	$101,719

SCHEDULE 2

OPERATING EXPENSES

(IN THOUSANDS OF DOLLARS)

	Year Ended 12/31/07*		Year Ended 12/31/06	
Selling Expenses:				
Sales Commissions	$ 16,500		$ 13,800	
Sales Salaries	1,200		1,180	
Bad Debts Expense	500		900	
Product Warranty	1,139		1,078	
Advertising	3,311		2,522	
Miscellaneous Selling	420		146	
		$ 23,070		$ 19,626
General Expenses:				
Administrative Salaries	7,550		6,677	
Research and Development	1,050		2,200	
Patent Amortization	700		700	
Payroll Taxes and Fringe Benefits	2,245		2,200	
Depreciation—Office Building	800		800	
Depreciation—Office Fixtures and Equipment	1,875		2,260	
Depreciation—Autos and Trucks	320		300	
Depreciation—Warehouses	10,000		10,000	
Accounting and Legal Fees	750		720	
Other Professional Services	20		18	
Supplies	200		280	
Insurance	450		240	
Printing and Postage	520		115	
Gain/Loss on Disposal of Plant Assets	(4,000)		(3,850)	
Miscellaneous Administrative	220		44	
		22,700		22,704
		$ 45,770		$ 42,330

* Unaudited.

EXHIBIT BR.4 Biltrite Bicycles, Inc., Balance Sheets as of December 31, 2006 and 2007 (in thousands of dollars)

	12/31/07*		12/31/06	
ASSETS				
Current Assets				
Cash on hand and in banks		$ 12,362		$ 15,800
Investments in marketable securities		4,200		5,300
Accounts and notes receivable—trade	$ 12,000		$ 13,200	
Less allowance for doubtful accounts	(220)		(800)	
		11,780		12,400
Inventories				
Materials and purchased parts	26,800		16,150	
Goods in process	4,500		4,000	
Finished goods	15,516		10,142	
Indirect materials and repair parts	3,400		3,200	
		50,216		33,492
Prepaid Expenses		600		560
Deferred Tax Asset—warranty		400		460
Total current assets		79,558		68,012
Property, Plant, and Equipment				
Land		4,000		4,000
Factory building	50,000		50,000	
Less accumulated depreciation	(14,140)		(12,140)	
		35,860		37,860
Warehouses and sales offices	200,000		200,000	
Less accumulated depreciation	(105,000)		(95,000)	
		95,000		105,000
Factory equipment	360,000		320,000	
Less accumulated depreciation	(144,660)		(147,460)	
		215,340		172,540
Office building	20,000		20,000	
Less accumulated depreciation	(8,000)		(7,200)	
		12,000		12,800
Office fixtures and equipment	10,000		9,000	
Less accumulated depreciation	(6,150)		(5,075)	
		3,850		3,925
Autos and trucks	1,000		900	
Less accumulated depreciation	(620)		(300)	
		380		600
Total Property, Plant, and Equipment		366,430		336,725
Investments and Other Assets:				
Patents and copyrights (net of accumulated amortization)	6,000		6,700	
Deposits	340		340	
Total investments and other assets		6,340		7,040
TOTAL ASSETS		$452,328		$411,777

EXHIBIT BR.4 Biltrite Bicycles, Inc., Balance Sheets as of December 31, 2006 and 2007 (in thousands of dollars) (*continued*)

	12/31/07*		12/31/06	
LIABILITIES				
Current Liabilities				
Notes payable	$ 3,660		$ 14,890	
Accounts payable	10,200		18,600	
Interest payable	3,400		2,200	
Salaries and wages payable	2,190		2,018	
Payroll withholdings	510		490	
Taxes and fringe benefits payable	370		345	
Income taxes payable	6,000		1,800	
Estimated product warranty liability	544		860	
Accrued commissions payable	1,400		1,200	
Total current liabilities		28,274		42,403
Long-Term Liabilities				
Mortgage note payable (10%)	60,000		60,000	
Deferred tax liability—depreciation	10,600		9,800	
12% note payable to Bank Two	45,000			
Total long-term liabilities		115,600		69,800
TOTAL LIABILITIES		143,874		112,203
STOCKHOLDERS' EQUITY				
Invested Capital				
Preferred stock—$100 par value, 10% cumulative, 10,000,000 shares authorized, 1,200,000 shares issued and outstanding	120,000		120,000	
Common stock, $10 par value, 90,000,000 shares authorized, 10,000,000 shares issued, of which 220,000 shares are in the treasury	100,000		100,000	
Paid-in capital in excess of par value of capital stock	50,000		50,000	
Total invested capital		270,000		270,000
Retained Earnings		46,607		29,574
Total		316,607		299,574
Less cost of 220,000 shares of treasury stock		(8,153)		0
TOTAL STOCKHOLDERS' EQUITY		308,454		299,574
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$452,328		$411,777

*Unaudited.

EXHIBIT BR.5 Biltrite Bicycles, Inc., Statements of Retained Earnings for the Years Ended December 31, 2006 and 2007

	(in thousands of dollars) Year Ended 12/31/07*	Year Ended 12/31/06
Retained Earnings—beginning of year	$ 29,574	$ 29,771
Net Income	32,033	9,803
Dividends	(15,000)	(10,000)
Retained Earnings—end of year	$ 46,607	$ 29,574

*Unaudited.

EXHIBIT BR.6 Biltrite Bicycles, Inc., Statements of Cash Flows for the Year Ended December 31, 2007

CASH PROVIDED BY OPERATING ACTIVITIES		
Net Income	$ 32,033	
Add (deduct)		
Increase in inventories	(16,724)	
Decrease in accounts and notes receivable	620	
Increase in prepaid expenses	(40)	
Increase in deferred tax liability	800	
Decrease in deferred tax asset	60	
Decrease in accounts payable	(8,400)	
Increase in interest payable	1,200	
Increase in salaries and wages payable	172	
Increase in payroll withholdings	20	
Increase in taxes and fringe benefits payable	25	
Increase in income taxes payable	4,200	
Decrease in product warranty liability	(316)	
Increase in accrued commissions payable	200	
Depreciation and amortization	57,755	
Loss on sale of investments	198	
Gain on disposal of plant assets	(4,000)	
Loss on decline in market value of securities	2,800	
Total Cash Provided by Operating Activities		$ 70,603
CASH USED IN INVESTING ACTIVITIES		
Disposal of Property and Equipment		
Factory equipment	9,000	
Office equipment	200	
Purchase of Plant Assets		
Factory equipment	(89,860)	
Office fixtures and equipment	(2,000)	
Autos and trucks	(100)	
Sale of Marketable Securities	1,102	
Purchase of Marketable Securities	(3,000)	
Purchase of Treasury Stock	(8,153)	
Total Cash Used in Investing Activities		(92,811)

EXHIBIT BR.6 | Biltrite Bicycles, Inc., Statements of Cash Flows for the Year Ended December 31, 2007 (*continued*)

CASH PROVIDED BY FINANCING ACTIVITIES		
Issuance of 12% note payable to Bank Two	45,000	
Payment of dividends	(15,000)	
Payment of mortgage note installment	(10,000)	
Payment of notes payable	(1,230)	
Total Cash Provided by Investing Activities		18,770
INCREASE (DECREASE) IN CASH		$ (3,438)

Module I: Assessment of Inherent Risk

In this module, you will assess inherent risk after you have done the following:

1. Analyzed Biltrite's organizational structure and prepared an organization chart
2. Applied analytical procedures to Biltrite's financial data
3. Studied Biltrite's business operations and the bicycle manufacturing industry generally

In completing this assignment, you may assume that Derick has decided on the following initial risk assessments:

Inherent risk: 100%
Control risk: maximum
Audit risk: 5%

Study of the Business and the Industry

As part of his continuing study of Biltrite's operations, Derick has extracted the following data from the computerized permanent file entitled "Business and Industry":

1. Charles Lawton founded Biltrite in 1970 and successfully led the company during the ensuing twenty-five years. He retired in 2000 and his only son, Trevor, assumed control of the company. The Lawton family presently owns 25% of the outstanding Biltrite common stock; the remaining 75% is publicly held. However, Biltrite is not subject to SEC regulation.
2. Biltrite has been known for the quality of its products and its strong after-sale service support. (All bicycles are under 100% parts and labor warranty for one year following sale.) These attributes led to many years of steadily increasing sales and profits.
3. Beginning in 1985, imports of bicycles significantly increased industry competition. As a result, from 1985 to 1991, domestic manufacturers, including Biltrite, experienced declining sales and profits; from 1992 until recently, earnings stabilized for both Biltrite and the industry. In response to foreign competition, Biltrite updated its manufacturing facility in 2002, incorporating the latest technology into its products. These efforts produced a modest increase in 2006 sales and profits and, based on unaudited data, a more dramatic increase in 2007.
4. The increased automation resulting from the 2002 manufacturing update enabled Biltrite to decrease its factory labor force from 3,000 in 2001 to 2,000 in 2007, and to reduce its sales force from 150 to 120 in response to declining sales volume. Elmer Fennig, production vice president, observed that the factory refurbishing has enabled the company to significantly increase the productivity of its production employees. Charles Gibson, marketing vice president, agrees, and predicts a continued increase in revenues and profits, at least through 2008. However, Gerald Groth, corporate controller, is concerned about the decline in the operating income margin as a percent of sales. He attributes the decline to the increased proportion of fixed overhead to total manufacturing costs, given increased automation.

5. In 2007, in the face of increasing liquidity problems accompanying the automation, payment of trade accounts payable within the specified credit terms became increasingly difficult. After much discussion with Harvey Bombenmyr, the president of Bank Two, and Bank Two's lending officers, Lawton was able to negotiate a ten-year 12% note payable for $45 million. The note is unsecured and is payable in equal annual installments, together with interest, beginning March 1, 2007, and contains restrictive covenants. Those relevant to the Biltrite audit are the following:
   a. A minimum balance of $10 million must be maintained in Biltrite's demand deposit account with Bank Two.
   b. Further borrowing is prohibited until the Bank Two note has been amortized below $10 million.
   c. Dividends may be declared only from retained earnings in excess of $45 million.
6. In April 2006, Lawton borrowed $3 million from the company in exchange for an unsecured note. The transaction resulted in a debit to Account 1203—Notes Receivable, Officers. According to Groth, Lawton plans to repay this note prior to December 31, 2007.
7. Legal action against the company was initiated by Rollfast, a competitor, in late 2006. The suit alleges that Biltrite infringed on a process already patented by Rollfast. The process, according to Rollfast's attorneys, enables a bicycle manufacturer to produce a frame in one piece, thereby adding strength to the bicycle by eliminating welding. Biltrite has responded to the action by demonstrating the unique characteristics of its patented bicycle frame. By July 2007, the suit had neither been heard by the court nor settled outside the courts by the litigants. Rollfast is suing Biltrite for $50 million.
8. Although Lawton and Groth have intensified efforts in recent years to establish and implement a sound internal control system, the independent auditors have not seen fit to reduce the assessed level of control risk below the maximum level. If the auditors' 2006 recommendations have been implemented, however, Derick anticipates a reduction in the assessed level of control risk in one or more of the transaction cycles.
9. Biltrite's internal audit staff, directed by Glenn Florence, is viewed by our firm as competent, but not outstanding. Because the company does *not* have an audit committee, Florence reports directly to Groth, the controller. In the past, our audit team has utilized Florence and his three staff auditors only when necessary to assist in various phases of the Biltrite audit.

Requirements

1. Prepare an organizational chart for Biltrite and identify the major strengths and weaknesses in Biltrite's organizational structure.
2. Using the downloaded data and the spreadsheet program, retrieve the file titled "Analy1." Scroll through the file and locate the following documentation:
   - WP A.1—Comparative income statements
   - WP A.2—Sales and cost of goods sold—by product line
   - WP A.3—Comparative schedule of manufacturing overhead and operating expenses
   - WP A.4—Inventories
3. After scrutinizing the documentation, perform the following:
   a. Using the "Comparative Income Statements" data in WP A.1, calculate each income statement component as a percentage of sales for 2007. (*Hint*: For help with the cell equations, examine the comparable cells for 2006.)
   b. Using the "Sales and Cost of Goods Sold—By Product Line" data in WP A.2, calculate the cost per unit as a percentage of sales price for 2007 by product line. (You may examine the comparable 2006 cell equations as you did in requirement (a).)
   c. Using the "Comparative Schedule of Manufacturing Overhead and Operating Expenses" data in WP A.3, calculate each component as a percentage of sales for 2007. (You may examine the comparable 2006 cell equations as you did in requirements (a) and (b).)

   d. Using the product line data from requirement (b) and the "Inventories" data from WP A.4, calculate finished goods inventory turnover for 2007 by product line. Calculate materials and purchased parts turnover for 2007 by component. (Again, you may refer to comparable cell equations for 2006.)
   e. Print the results of your analytical procedures.
4. Using the downloaded data and spreadsheet program, load the file titled "Budget." Examine the worksheet carefully and locate the following schedules:
   - WP A.6—Budgeted vs. actual income statements for 2007
   - Schedule 1—Cost of goods manufactured
   - Schedule 2—Operating expenses

   Compare with the results of requirement (3). Do any of the variances, when considered in relation to the results of requirement (3), raise warning signals? Print the budget.
5. Using the downloaded data and spreadsheet program, load the file titled "Analy2" and locate the following in WP A.5:
   - Comparative percentage balance sheets for 2007 and 2006
   - Comparative ratios:
     2007 vs. 2006
     Industry ratios for 2007

   After reviewing the documentation, perform the following:

   a. Using the "Balance Sheets" data, calculate the percent of each asset component as a percentage of total assets for 2007, and calculate each liability and stockholders' equity component as a percentage of total liabilities and stockholders' equity for 2007. (*Note*: This has been done for 2006; as in requirement (3), you may refer to the comparable cell equations for 2006 to expedite calculating the 2007 percentages.)
   b. Using the "Balance Sheets" and "Comparative Income Statements" data, calculate the following ratios for 2007:
      - Current ratio
      - Quick ratio
      - Times interest earned
      - Return on stockholders' equity

      (*Note*: The 2006 calculations already have been done for you.)
   c. Compare pertinent ratios with industry averages (these are located next to the 2006 Biltrite ratios). Are there any significant disparities between Biltrite's ratios and the industry averages?
   d. Print the results of your analytical procedures.
   e. Wheels-4-U Company is a competitor in the bicycle industry. Using the downloaded data, retrieve the file "Wheels-4-U." Using the data contained in that report, perform the following:
      1. Compare Wheels-4-U's percentage income statements with Biltrite's percentage income statements for the same years.
      2. Go to Wheels-4-U's comparative balance sheets and income statements and calculate the same ratios that you calculated for Biltrite in (b) above.
      3. On the basis of (1) and (2) above, what strengths and weaknesses of Biltrite relative to Wheels-4-U can you identify?
6. What is the purpose of performing analytical procedures during the planning phase of the audit? What is the purpose of including budgets and performance reports in the application of analytical procedures? Based on your analytical procedures performed in requirements (2), (3), (4), and (5), what, if any, concerns do you have? Relate your concerns to management's assertions contained in the financial statements (existence, completeness, accuracy, etc.). Can you suggest some specific audit procedures to allay your concerns?
7. Based on analytical procedures and study of the business and industry, in what specific transaction areas are you willing to reduce inherent risk below 100%? In deciding whether or not to reduce inherent risk, consider audit complexity and the probability of management misrepresentation fraud.

CHAPTER 5

Audit Evidence: A Framework

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Identify the basic sources of audit evidence.
- Describe the assertions contained in financial statements.
- Discuss what is meant by the sufficiency and competence of evidence.
- Explain what is meant by directional testing.
- Identify basic audit procedures and the assertion(s) of each test.
- Explain the nature and purposes of audit programs.
- Describe the purposes and contents of good audit documentation.
- Explain the uniqueness of procedures for testing management's estimates.
- Explain the purpose of concurring partner reviews.

CHAPTER OVERVIEW

Auditing is a process of objectively gathering and evaluating evidence pertaining to assertions. In planning an audit, three basic questions need to be answered: What procedures should be performed, how much evidence is needed, and when should the procedures be performed (see Exhibit 5.1). Audit programs, no matter what their size, whether standardized or customized, are designed to provide assurance on management's assertions on financial statements or other measures of business performance. The specific audit procedures used must address the risk of potential misstatement. Different types of evidence are identified along with characteristics that affect the persuasiveness of audit evidence. The auditor's process of gathering and assessing the evidence must be documented, explaining the evidence gathered, the auditor's reasoning process, and the conclusions reached.

Overview of the Audit Model

Audit evidence is all the information used by auditors in arriving at the conclusions on which the audit opinion is based. Auditors spend most of their time obtaining and evaluating evidence concerning the assertions that management makes in its financial statements and its reports on internal control. The evidence-gathering process is the core of an audit. Often there are no right or wrong answers as to the best evidence to gather. Rather, the auditor considers the risk associated with an account balance or the importance of a control, and the reliability of evidence available to develop an audit approach. This chapter develops a framework for the evidence-gathering process. We focus primarily on evidence for auditing financial statements and focus on auditing internal controls in the next chapter.

Management makes assertions about a number of different things: earnings and financial conditions, the organization's internal controls and its operations,

compliance with governmental regulations, and other measures of business performance such as on-time arrival information for an airline. Auditors may be called on to perform audits of these assertions. The scope of auditing is limited only by the demands for reliable information and an auditable information system.

No two audits are exactly the same. Organizations vary in size, complexity, extent of computerization of information systems, and the extent to which they are involved in electronic commerce. Organizations are diverse—financial institutions, public utilities, state and local governments, other not-for-profit entities, retailers, manufacturers, and service providers. They all require audits.

This chapter develops a framework for approaching the detailed evidence-gathering process that is common across all audits. This general framework can then be tailored to the unique risks, controls, and activities of an individual company.

The need for audit evidence is driven by two factors. First is the need to minimize audit risk, the risk that the auditor may fail to detect a material misstatement in a financial statement or another type of report. The auditor minimizes that risk through the gathering of sufficient evidence. In planning tests of account balances and transactions, the auditor is guided by the third standard of fieldwork, which states:

> The auditor must obtain sufficient appropriate audit evidence through audit procedures performed to afford a reasonable basis for an opinion regarding the financial statements under audit.

Thus, the auditor must obtain an appropriate amount of reliable evidence concerning the fairness of the financial statements and their conformity with GAAP. Exhibit 5.2 shows the various sources of evidence. When the auditor believes there is more than a minimal risk that an account balance may contain a material misstatement, the auditor needs to gather sufficient evidence that the risk of misstatement is minimized. That assurance is gained through a combination of procedures that ALWAYS includes (a) an evaluation of internal controls over the financial reporting process and (b) direct tests of the account balance or

Understanding Audit Concepts and Tools

- Internal Control
- Audit Evidence
- Sampling
- Financial Statement Assertions
- Information Technology

Practical Point

Assurance services are designed to address assertions broader than financial statements. Evidence can be gathered to evaluate a wide array of assertions.

EXHIBIT 5.1 Basic Evidence Questions

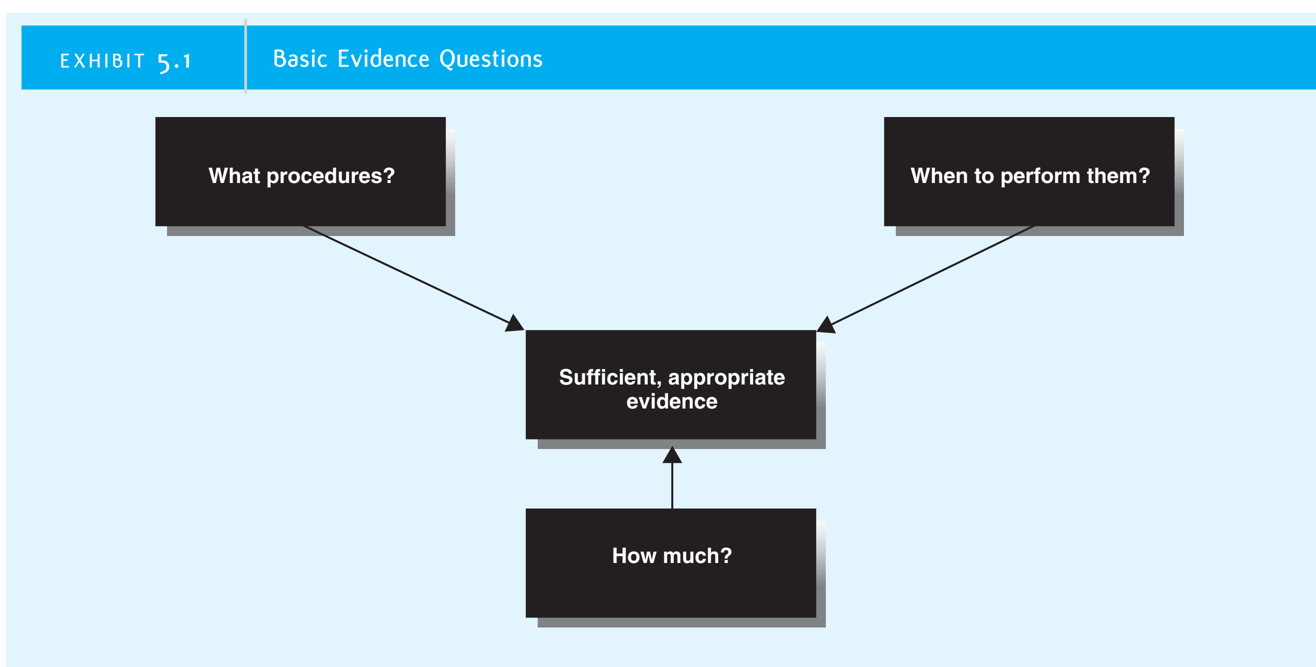
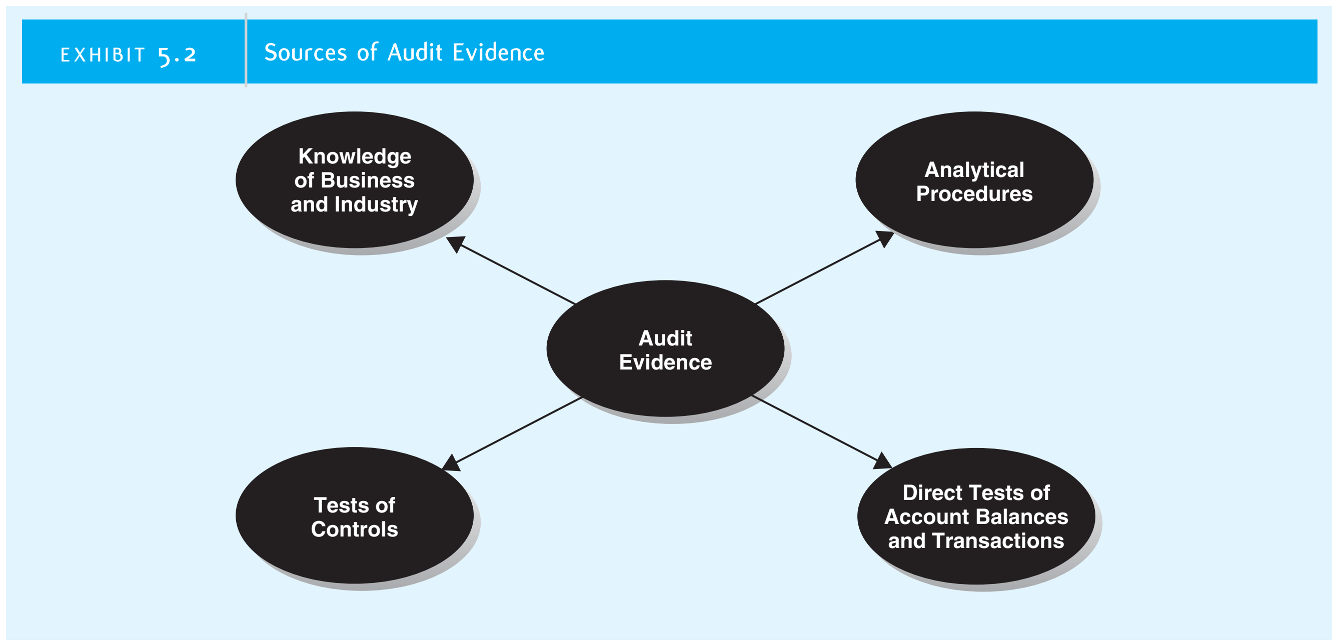


EXHIBIT 5.2 Sources of Audit Evidence



underlying transactions. Evidence is obtained through the combination of control testing and account balance testing. In the past, many auditors have focused almost solely on testing the account balances. The recent risk standards from the AICPA dictate that both approaches be used.

Assertion Model for Financial Statement Audits

In performing direct tests of account balances, the auditor is guided by the overall framework of assertions that are embodied in financial statements and individual accounts. The procedures to gather audit evidence are referred to as an *audit program*.

The following primary assertions are embodied in the financial statements:

- Existence and occurrence
- Completeness
- Rights and obligations
- Valuation and allocation
- Presentation and disclosures

These primary assertions for account balances also have their counterparts for transactions and events, and disclosures as follows:

Transactions and Events	Account Balances	Presentation and Disclosures
Occurrence	Existence	Occurrence and Rights and Obligations
Completeness	Completeness	Completeness
	Rights and Obligations	
Accuracy	Valuation and Allocation	Accuracy and Valuation
Classification		Classification and Understandability
Cutoff		

Practical Point

Fraud can occur by holding books open after year end. The cutoff assertion addresses the possibility of such a misstatement.

The specification of the assertions assists the auditor in planning audit tests. The following is a more explicit statement of the assertions. For transactions and events, management is asserting that:

- Recorded transactions and events have *occurred* and pertain to the entity.
- All transactions and events that have occurred have been recorded *(completeness)*.
- Amounts and other data relating to recorded transactions and events have been recorded at the correct amounts (*accuracy)*.
- Transactions and events have been recorded in the proper accounts *(classification*).
- Transactions and events have been recorded in the correct accounting period (*cutoff*—relates to both *occurrence* and *completeness)*.

Similarly for account balances, management is asserting that:

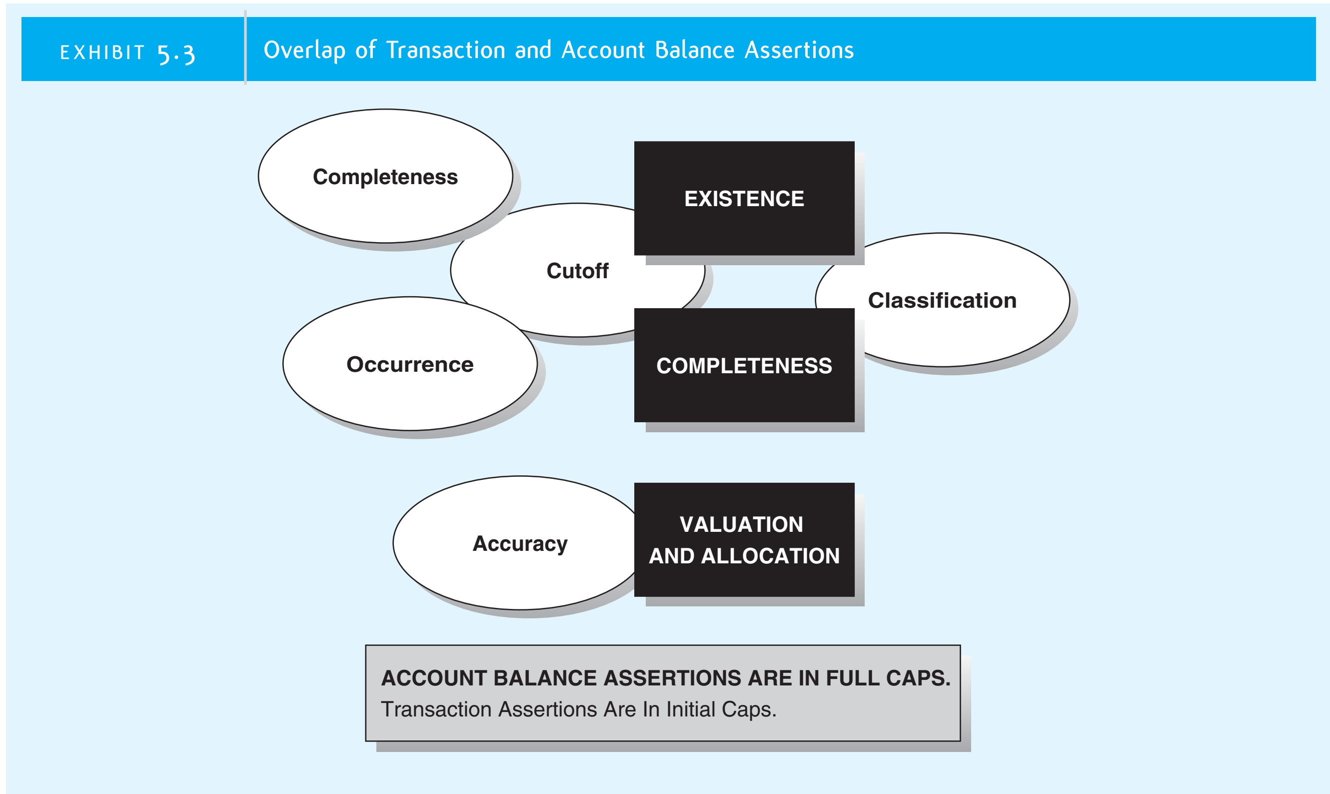
- The assets, liabilities, and equity interests *exist*.
- All assets, liabilities, and equity interests that should have been recorded have been recorded (*completeness)*.
- The entity holds or controls the *rights* to assets, and liabilities are the *obligations* of the entity.
- Assets, liabilities, and equity interests are included in the financial statements at appropriate amounts and any resulting valuation or allocation adjustments are appropriately recorded (*valuation and allocation)*.

For presentation and disclosures, management is asserting that:

- Disclosed events and transactions have *occurred* and pertain to the entity *(rights and obligations)*.
- All required financial statement disclosures have been included (*completeness)*.
- Information is disclosed fairly and at appropriate amounts (*accuracy and valuation)*.
- Information is appropriately presented and described (*classification and understandability)*.

There are overlaps among some of the transaction and account balance assertions (see Exhibit 5.3). For example, if some sales were recorded in the current year that should have been recorded in the subsequent year (transactions: *cutoff*),

EXHIBIT 5.3 Overlap of Transaction and Account Balance Assertions



the related accounts receivable do not *exist* at the balance sheet date (account balance: existence). If some sales that took place in the current year were not recorded until the subsequent year (transactions: *cutoff*), current year sales and accounts receivable are not *complete* (account balances: completeness). If transactions are not properly *classified*, for example, some expenses are capitalized, the related expenses are not *complete* and the related assets do not *exist*. If transactions are not recorded *accurately*, the related account balances are not properly *valued*.

The objective of gathering audit evidence is to determine the validity of these assertions.

To better understand how the auditor approaches the evidence-gathering process, consider the inventory of Pioneer Hi-Bred. The company develops seed corn to be sold to farmers and its inventory consists of seed corn that will be sold for spring planting. The inventory is described as follows:

Finished Seed Products	$164,034,000
Unfinished Seed Products	190,070,000
Total	$354,104,000

The account represents the culmination of inventory transactions during the year. A footnote explains that unfinished seed includes the cost of planting seed as well as other production costs incurred by the company to produce its seed supply. The account also represents the costs of payments to independent growers who contract for the production of seed. The account also reflects risks related to holding the inventory to the next planting season. The total amount of evidence is obtained from the auditor's understanding of the process and evaluation of the internal control over those processes. For illustration purposes, we discuss the assertions for examining the account balance only in this section. Chapter 6 discusses the evidence gained through testing of internal control.

Inventories for Pioneer Hi-Bred are valued at the lower of cost or market (FIFO basis) and include gains or losses on commodity hedging transactions (futures prices related to corn). Hedging transactions usually have high inherent risk. There is also a risk associated with the quality of the products held. The seeds need to be fresh or they will not germinate. The company needs about a year's supply, but if there is an excess of supply, it is not likely that all will be sold, or it will not be sold at current market prices. If there is too much inventory, there may be a question of whether the current value includes possible losses due to oversupply. With these risks in mind, the auditor must develop an audit approach to gather sufficient evidence to determine that inventory exists, is owned by the company, is properly valued, is recorded during the correct period, and contains proper disclosure.

Gathering Sufficient, Appropriate Evidence

When considering the best approach to gather audit evidence, the auditor needs to consider factors affecting the reliability of the financial data: management integrity, client economic risk, quality of the client's information system, client's internal controls, and current market conditions and competitor actions. Management's integrity and competence affect both the design and operation of the client's information system. The client's business, by its nature, carries distinct risks that require judgments that may affect valuation. Finally, competitors may be introducing new products that will affect the marketability of inventory on hand. The auditor cannot prepare an audit program to directly test financial statements without considering the risk factors that could cause the account balances to be incorrect. Exhibit 5.4 presents a condensed overview of the audit approach that reflects audit risk, control risk, and persuasiveness of alternative sources of evidence.

EXHIBIT 5.4 Overall Audit Approach

Step	Concerns	Action
1. Understand client and industry.	• Industry characteristics • Management integrity and pressures that could influence reliability of the data • Nature and quality of information system • Economic influences	• Review database on client and industry. • Assess management integrity. • Identify red flags. • Perform preliminary analytical procedures.
2. Assess risk of material misstatement by assertion for each significant component of the client's financial or other information.	• Inherent risk • Control risk • Computer systems	• Identify factors affecting reliability of client data. • Obtain an understanding of and, when appropriate, test internal controls.
3. Test details of account balances and transactions.	• How much • Which procedures • When to perform	• Perform analytical procedures, and/or direct tests of account balances and transactions to corroborate financial data or other information about organizational performance.
4. Assess adequacy of evidence documented and issue a report.	• Need for adjustments • System deficiencies	• Perform final analytical procedures and additional procedures when necessary. • Decide on the type of report the evidence supports.

Exhibit 5.4 depicts four important steps in the overall audit process:

1. Understand the client and the industry.
2. Assess the risk of material misstatement, including an assessment of internal controls as part of an integrated audit of public companies.
3. Directly test transactions and/or account balances.
4. Assess adequacy of evidence.

Each of the first three steps provides important evidence on the overall reliability of the company's financial statements. For public companies, auditors are required to report on the quality of a company's internal controls. Thus, a significant portion of audit evidence for these companies will come from the auditor's tests of internal controls and the processing of the underlying transactions. In addition to understanding the steps in the process, there are two important points that need to be understood regarding this process:

1. Reports can be made at periodic intervals, such as quarterly or yearly for financial statements, or the reports can occur almost continuously as companies implement XBRL for public reporting.
2. The process is intended to be followed in sequence. Risk is assessed. The auditor evaluates internal control over financial reporting and determines whether additional direct tests need to be performed. If a company moves to a continuous reporting process, most of the evidence will come from control analysis and tests of transactions.

Current auditing standards for audits of financial statements require that all four phases presented in Exhibit 5.4 be performed on every audit, and that some direct tests of material account balances and transactions always be performed. The direct

EXHIBIT 5.5 Cost and Persuasiveness of Evidence during Each Phase

Phase	Relative Cost Evidence	Persuasiveness of Evidence	Situations in Which Evidence from This Step Is Most Reliable
1. Understand client and industry.	Lowest	Moderate	• Prior history of error-free financial statements • High management integrity • Reliable and stable information system • Reliable and stable economic conditions • Accurate public databases about company • Analytical procedures are effective in predicting problem areas • Company has been conservative in its accounting choices and accounting estimates • Company has an active audit committee and internal audit department
2. Assess risk of material misstatement.	Medium to high	Medium to high	• Reliable and stable information system • High management integrity with history of strong monitoring controls • Company used embedded audit techniques
3. Test transactions and account balances.	Highest	Highest May be less when company has paperless information system	• Paper-based evidence exists • Outside parties can corroborate financial information • Only option when sufficient persuasive evidence cannot be obtained from other phases

tests of transactions and account balances, however, can be efficiently performed when the auditor considers the effectiveness of internal control in reducing the risk of material misstatements. Auditors focus on risks that may exist in an account balance as a basis to determine the best way to gather assurance that the account balance is correct. There is a trade-off between persuasiveness of evidence and audit cost as shown in Exhibit 5.5. For example, where there is little risk of misstatement, internal controls are effective, then an integrated audit would require only a minimal number of direct tests of transactions and account balances. Conversely, if there is high risk of misstatement and internal controls are not effective, the auditor must perform more direct tests of transactions and account balances.

Sufficiency

The amount of evidence must be convincing and of sufficient quantity to convince the individual auditor. Similarly, the evidence must stand on its own such that another unbiased professional would reach the same conclusion. But, how much is enough? To some extent, it is a matter of experienced audit judgment. Statistical sampling can help determine how much evidence is enough based on the quantification of audit judgments about materiality, audit risk, and sampling risk, as discussed in Chapter 10.

Reliability of Audit Evidence

The reliability of audit evidence means that it is relevant to the audit objectives. The Auditing Standards Board has established the following presumptions about the **reliability of audit evidence:**

More Reliable	Less Reliable
Directly observable evidence	Indirectly observable evidence
Evidence derived from a well-controlled information system	Evidence derived from a poorly controlled system or easily overridden information system
Evidence from independent outside sources	Evidence from within the client's organization
Evidence exists in documentary form	Verbal evidence not supported by documentation
Original documents	Photocopies or facsimiles

The guidance presented by the Auditing Standards Board is common sense. Evidence obtained directly by the auditor is preferable to that obtained indirectly. Evidence from well-controlled information systems is preferable to that from poorly controlled systems. Independent third-party evidence obtained from knowledgeable individuals with adequate time and motivation to respond to audit inquiries is preferable to internally generated information. Evidence supported by original documents is preferable to photocopied documents or verbal evidence not supported by original documents. But some evidence better addresses specific assertions, and there will always be a trade-off in each audit. For example, if the auditor wishes to examine the estimate of warranty liabilities, it is likely that most of the information resides internally—some in the client's accounting system and some in operational data.

Internal Documentation Internal documentation ranges from legal agreements (leases, sales contracts, and royalty arrangements) to business documents (purchase orders and receiving reports) to accounting documents (depreciation schedules and standard cost system records) to planning and control documents (original source documents such as time cards, inventory scrap reports, and market research surveys). See Exhibit 5.6 for examples of internal documents. The reliability of internal documentation varies according to the following:

- Effectiveness of internal controls
- Management motivation to misstate individual accounts (fraud potential)
- Formality of the documentation, such as acknowledgment of its validity by parties outside the organization or independent of the accounting function
- Independence of those preparing the documentation from those recording the transactions

Documentation may be paper-based or electronic. The quality of electronic evidence depends on the controls built into the information system; in particular, it depends on whether access to documents is appropriately restricted. An example of documentation is a personnel record containing data about an employee's pay rates, benefit packages, and wages paid. The document is prepared by the payroll department but is subject to review by employees. It, therefore, contains a higher degree of reliability than a document that is not independently prepared or subject to review.

External Documentation External documentation is generally considered to be highly reliable, particularly when the auditor receives it directly. Most external documentation, however, is directed to the client. Therefore, in high-risk situations the auditor should confirm the validity of the documentation with the pertinent outside party.

External documentation can vary in content, ranging from business documents normally found in the client's possession (vendor invoices and monthly statements), to confirmations received directly from the client's legal counsel, banker, or customer, to trade and credit information.

External documentation varies in reliability and is influenced by its formality, its source, and its independence. When an auditor uses a confirmation as a form

EXHIBIT 5.6 Examples of Internal Documents

Category	Examples
Legal Documents	Labor and fringe benefit agreements Sales contracts Lease agreements Royalty agreements Maintenance contracts
Business Documents	Sales invoices Purchase orders Canceled checks Payment vouchers EDI agreements
Accounting Documents	Estimated warranty liability schedules Depreciation and amortization schedules Standard cost computations and schedules Management exception reports
Other Planning and Control Documents	Employee time cards Shipping and receiving reports Inventory movement documents such as scrap reports and transfer receipts Market research surveys Pending litigation reports Variance reports

Note: Many of the planning and control documents have analyses attached. Market research survey data usually appear as part of the marketing department's opinion of new product potential; variance reports are accompanied by explanations of the causes of the variances and recommendations with respect to them. These analyses are generally considered to be testimonial rather than documentary evidence.

to gather external evidence, the auditor must also have some assurance that the outside party treats the request in a conscientious fashion. See Exhibit 5.7 for a partial list of external documentation examples.

One standard business document normally in the client's possession is a vendor invoice (see Exhibit 5.8). A vendor's invoice shows the purchase price (cost) of

EXHIBIT 5.7 Examples of External Documents

Category	Examples
Business Documents	Vendor invoices and monthly statements Customer orders Sales or purchase contracts Loan agreements Other contracts
Third-Party Documents	Confirmation letters from legal counsel Confirmation statements from banks Confirmation replies from customers Vendor statements requested by auditors
General Business Information	Industry trade statistics Credit rating reports Data from computer service bureaus

EXHIBIT 5.8 Vendor Invoice

Nature Sporting Goods Manufacturing Company
200 Pine Way
Kirkville, WI 53800
Phone (607) 255-3311 Fax (607) 256-1109

Sold To:	**Ship To:**	
Bain's Sporting Goods	Bain's Sporting Goods	**Invoice #** 44779
123 Lock Avenue	123 Lock Avenue	**Invoice Date** 8/30/07
Cedar Rapids, Iowa 52404	Cedar Rapids, Iowa 52404	**PO #** 32348
	Shipped Via	**Terms:** Account # 127000
	Roadway 8/30/07	Net 30

Ordered	Quantity Shipped	Back Ordered	Item Number & Description	Unit Price	U/M	Extension
125	125	0	T-332B 2-person tents	34.99	Each	4,373.75
50	50	0	T-500Y Umbrella tents	55.75	Each	2,787.50
Freight	Collect		**Comments:**		**Sale**	7,361.25
					Tax	
			Finance charge of 1½% per month on overdue invoices.		**Total**	7,361.25

items in the client's inventory, dates of invoice and shipment, payment and ownership terms, shipping address (inventory location), purchase order reference, purchasing agent (evidence of authorization), and amount due (liability as well as asset valuation evidence). Because a vendor invoice is formal, it is generally not altered by clients, even though it is in the client's possession. It is therefore considered reliable except for situations in which the auditor questions management's integrity and has assessed the client and account balance being tested as high risk.

Practical Point

An increasing amount of evidence is developed and maintained in electronic form. The reliability of the evidence is dependent on the quality of internal controls over computer access and document development.

Paper vs. Electronic Documentation Assume that all the information found in a typical invoice shown in Exhibit 5.8 was not on a paper invoice, but was on an electronic invoice received by the client via electronic commerce and was available only in electronic form in the client's computer system. Would that make a difference to you? If yes, why would it make a difference? What safeguard controls would have to be built into the computer system to conclude that the electronic document was a reliable representation of the client's purchase, the purchase price, the items and quantity purchased, and so forth?

A major challenge for auditors is to determine which electronic data have the same degree of reliability as paper-based documents. Fortunately, computer systems can be designed to provide safeguards similar to those that surround paper-based documents. Electronic commerce often is guided by contracts between trading partners. As evidence is increasingly held in electronic form, auditors must develop an understanding of the client's computer system and the controls developed to safeguard electronic data from manipulation or accidental destruction.

Nature of Audit Testing

Direct tests of account balances and transactions are designed by determining the most efficient manner to substantiate the assertions embodied in the account or transactions. There are many alternatives open to the auditor in planning audit tests. The following table summarizes some of those alternatives and provides an example of each type of test.

Types of Audit Tests	Example	Purpose
Tests of Effectiveness of Internal Control	a. Test a sample of cash disbursements for evidence that vendor invoices are matched with receiving reports and purchase orders before authorizing payment.	a. Determine whether the controls are effective and utilize in planning an integrated audit of controls and account balances.
	b. Process test transactions through the client's computer system to test the operation of computer controls.	b. Determine whether controls in the application program work.
Dual Purpose Tests (a combination of tests of controls and direct tests of transactions)	Same as tests of controls plus the auditor matches the information on the vendor's invoice with the receiving report and purchase order and verifies that the appropriate account was charged for the purchase (e.g., inventory, expense, or equipment).	Determine whether the controls are effective to help plan the nature, timing, and extent of other audit tests; and test the accuracy of recording the related transactions.
Substantive Tests: Analytical Procedures	a. Calculate the number of day's sales in accounts receivable and compare with prior years and industry information.	a. Help determine whether account relationships meet expectations, including the possibility that some of the receivables are not collectible.
	b. Estimate depreciation expense using the average of the beginning and ending balances of a class of equipment.	b. Establish the reasonableness of depreciation expense. Further testing may not be needed.
Direct Tests of Account Balances	Confirm customer balances with a sample of customers.	To test the existence and dollar accuracy of account balances.
Direct Tests of Transactions	Select a sample of recorded sales and vouch them back to evidence the sale actually took place (evidence of shipment and customer orders).	To test the occurance of sales transactions.

The auditor's task is to determine, for each significant component of the financial statements and related assertions, what types of tests to perform, how much to do, and when to perform them.

When directly testing an account balance or related transactions, the auditor considers two basic types of **evidence**:

- The *underlying accounting records*, including evidence of controls, as well as supporting records such as checks, invoices, contracts; the general and subsidiary ledgers; journal entries; and worksheets supporting cost allocations, computations, reconciliations, and disclosures.

- *Corroborating information* that validates the underlying accounting records, such as minutes of meetings, confirmations from independent parties, industry data, inquiry, observation, physical examination, and inspection of documents.

Auditors have traditionally focused most audit procedures on the direct tests of asset and liability account balances, as opposed to examining transactions during the year, because:

- There are usually *fewer items* in the ending balance than are contained in the transactions that have taken place during the year. Most companies, for example, have fewer items in ending inventory than the number of purchase and sales transactions recorded during the year.
- *Reliable evidence*, which can be gathered efficiently, usually exists for items making up an ending balance more so than for transactions. Ending inventory can be physically observed, but goods sold are gone and cannot be observed.
- *There is a preference to focus on changes.* For many long-term assets and liabilities, and for owner equity accounts—such as fixed assets, bonds payable and contributed capital—audit attention is often directed toward the changes in the account balances during the year if the opening balances were audited the previous year.

In the remainder of this chapter we will focus on the nature of direct tests of account balances and will develop an integrated approach to auditing both controls and balances in the next two chapters.

Audit Procedures

Overview of Audit Procedures Audit procedures vary according to the risks associated with the client and the methods used to record transactions. The following framework identifies audit approaches and procedures according to the three major phases of the audit:

1. Preliminary Planning and Risk Analysis

a. Review prior year audit work.
b. Review publicly available data about the organization.
c. Perform analytical procedures.
d. Inquire of management and employees.
e. Perform internal control walkthroughs.

2. Understand and Test Internal Controls and System Processing

a. For all systems:
   (1) Inquire of management and supervisory personnel.
   (2) Review system documentation and perform a "walk-through" of processes.
   (3) Observe system in operation.
   (4) Document process flow and control points.
   (5) Select transactions and trace through processing to determine if controls are working properly.
b. Additional work for computerized systems:
   (1) Test important computer controls such as input edit checks, access, and other safeguarding controls.
   (2) Use computer software to trace transactions through system.
   (3) Use software to select transactions for further verification.

3. Test Account Balances or Other Business Measurements

a. Review of authoritative documents and client records:
   (1) Vendor invoices and monthly statements.
   (2) Receiving and shipping records.
   (3) etc.
b. Testimonial evidence:
   (1) Inquire of client personnel.
   (2) Inquire of outside parties.

c. Auditor-generated evidence:
   (1) Direct observation.
   (2) Perform recomputations, including recalculations and mathematical tests.
   (3) Reprocess transactions from origin to final records.
   (4) Vouch transactions from final records back to origin.
   (5) Physically examine assets.
   (6) Perform analytical procedures.
   (7) Auditor analysis through reasoning and examining integrated portions of the evidence.

Each of these procedures has strengths and weaknesses that should be considered on each audit engagement. Some procedures are more persuasive than others, some address specific management assertions, and all vary in the cost to perform. The auditor looks at the relative weight of evidence from the three basic phases of the audit, including the test of controls, and considers the costs of procedures and the persuasiveness of evidence needed for a particular account balance and related management assertion(s).

Directional testing involves testing balances primarily for either over- or understatement and creates audit efficiency by taking advantage of the double-entry bookkeeping system. Directional testing leads to audit efficiency because:

- Misstatements of some accounts are more likely to occur in one direction than the other. For example, management may be more motivated to overstate sales and assets than to understate them. Alternatively, a company is more likely to understate liabilities.
- Directional testing of an account balance provides evidence on a complementary set of accounts. For example, testing accounts receivable for overstatement provides evidence on the possible overstatement of sales.
- Some assertions are directional by nature. Existence assertions address overstatement, whereas completeness assertions address understatement.

Following the concepts of directional testing, assets are most often tested for overstatement. The tests of assets provide indirect evidence on the overstatement of revenue and liabilities and potential understatement of other asset or expense accounts. For example, if accounts receivable are overstated, it is likely that revenue is overstated or cash is understated if the collection of the receivable has not been recorded.

Similarly, testing liabilities for understatement provides indirect evidence on the potential understatement of expenses or assets, or the potential overstatement of revenue and other liabilities. For example, if there are unrecorded liabilities, such as a failure to accrue payroll expense, the related payroll expense is understated, and possibly inventory is understated if payroll costs are not properly allocated to inventory.

Commonly Used Audit Procedures for Direct Tests of Account Balances and Transactions A wide variety of audit procedures are used to perform direct tests of account balances and transactions. The primary types of procedures used by auditors include the following:

- Observation of client personnel and procedures
- Physical examination of client assets
- Inquiries of client personnel
- Confirmations with outside parties
- Examination of documents including internal and external documents and electronic documents
- Recomputation or recalculation of data
- Reprocessing transactions by tracing documents from origination through accounting records to the general ledger

- Vouching of transactions by selecting recorded transactions and tracing backward through accounting records to original documentation
- Analytical procedures

Observation Observation is the physical process of observing activities. It is most often used to gain an understanding of a client's processing system, including a "walkthrough" of processes. It is very effective in understanding the nature of processing. It is also a common practice to observe the client's process of taking physical inventory.

Although intuitively appealing, observation suffers from major limitations. Observation of processing is rarely unobtrusive. Individuals who know they are being observed typically act differently than when not observed. There is also a problem in generalizing the results. Observation of processing on one day does not necessarily indicate how the transactions were processed on a different day.

Practical Point

The PCAOB requires the use of "walkthroughs" as an important part of the auditor's process of evaluating internal control. Walkthroughs represent a combination of inquiries, observations, and physical examination.

Physical Examination Physical examination is useful in verifying the existence of tangible assets and in identifying potential obsolescence or signs of wear and tear. Although examining inventory establishes existence, it does not provide evidence on completeness, ownership, or proper valuation. The inventory might be held on consignment from others or be on consignment to others. Further, the auditor's physical examination of inventory does not provide evidence about the cost of inventory items and may not uncover problems of obsolescence or quality control.

Inquiries of Client Personnel Inquiry is used extensively to gain an understanding of the following:

- The accounting system
- Management's plans for such things as marketable investments, new products, disposal of lines of business, and new investments
- Pending or actual litigation against the organization
- Changes in accounting procedures or accounting principles
- Management's assessment of the valuation of key accounts, such as the collectability of accounts receivable or the salability of inventory
- Management's or the controller's assessment of potential problems related to the audit

Inquiry is a strong source of evidence that can be corroborated through other forms of audit evidence. Further, the strength of inquiry is strongly related to management integrity and the business risk associated with the client.

Confirmations with Outside Parties Confirmations consist of sending an inquiry to an outside party to corroborate information. The outside parties are asked to respond directly to the auditor as to whether they agree or disagree with information that is reflected in the client's account. For example, outside parties are often asked to confirm the amount that the client shows that the customer owes them.

Confirmations often include requests to legal counsel for an assessment of current litigation and the client's potential liability, letters to customers asking whether they agree with the client's accounts receivable records, and letters to banks confirming bank balances and loans. In some cases, the auditor will confirm the terms of sales agreements or other contracts.

Although confirmations can be a strong source of evidence, auditors must not rely on them unduly. If the auditor is utilizing confirmations with outside parties, the auditor must gain assurance that the party:

- Exists
- Is able to respond objectively and independently
- Is likely to respond conscientiously, appropriately, and in a timely fashion
- Is unbiased in responding

FOCUS ON FRAUD

Parmalat Confirmation Fraud

In the Parmalat fraud, the auditor confirmed the existence of $3.2 billion cash in Parmalat's account with the Bank of America in New York. Unfortunately, the auditor put the confirmation letter in the client's mail room and it was intercepted by management. Management was able to scan the signature of an actual Bank of America employee from another document and put it on a copy of the confirmation form. A Parmalat employee flew to New York from Italy just to mail that confirmation to the auditors. The cash did not exist!

Professional standards presume, but do not require, that the auditor separately confirms accounts receivable. Often, however, the auditor complements confirmations with other sources of evidence, such as the customer's subsequent payment of the outstanding balance, as persuasive evidence of the amount owed at year end.

Confirmations primarily address the existence assertion and only indirectly address the valuation assertion. Confirmation that the customer owes an amount to the client does not necessarily indicate that the client will collect the full amount due (valuation) or that the receivable has not been sold to a third party (rights). Finally confirmations must be sent independently of the client. (See the *Focus on Fraud*—Parmalat Confirmation Fraud feature.)

Examination of Documents Much of the audit process depends on examining documents—either in paper or electronic form. Documents exist in forms such as invoices, payroll time cards, and bank statements. Auditors examine invoices from suppliers, for example, to establish the cost and ownership of inventory or various expenses. They also read contracts to help establish the potential existence of liabilities.

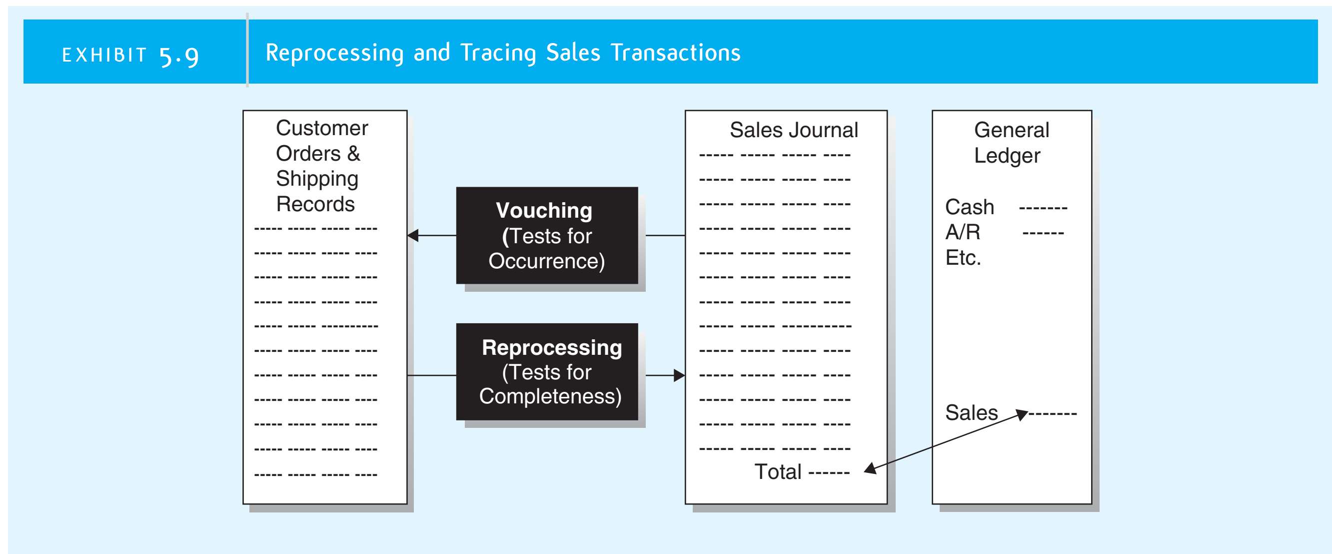
Recomputation or Recalculation of Data Auditors often find it useful to recalculate a number of client computations. Recalculations include the following:

- *Footing*—Adding a column of figures to verify the correctness of the client's totals
- *Cross-footing*—Checking the agreement of the cross-addition of a number of columns of figures that sum to a grand total. (The sum of net sales and sales discounts should, for example, equal total sales.)
- *Tests of extensions*—Recomputing items involving multiplication (for example, multiplying unit cost by quantity on hand to arrive at extended cost)
- *Recalculating* estimated accounts or allowances (recomputing the allowance for doubtful accounts based on a formula related to the aging of accounts receivable ending balances)

Although it may seem redundant in today's computerized environment to perform recalculations, some major frauds have been covered up by mathematical manipulation. There are many court cases involving auditors where the detail in the records did not agree with the balances in the financial statements. Moreover, many of the client's estimated figures are derived from calculations made using computer spreadsheets. Auditors can test the accuracy of the estimates by recalculating them using an auditor-developed spreadsheet or evaluating the logic incorporated in the client's spreadsheet.

Reprocessing of Transactions Reprocessing involves selecting a sample from a population of source documents and reprocessing them to be sure they have all been properly recorded. For example, reprocessing would include taking a sample from the client's shipping records and tracing that sample through internal processes and into the sales journal and general ledger (see Exhibit 5.9). Reprocessing provides

EXHIBIT 5.9 Reprocessing and Tracing Sales Transactions



evidence that valid transactions have been recorded (completeness). Auditors often use reprocessing to test the operation of controls. For example, when testing sales transactions, the auditor might also examine whether controls involving credit approval, sequencing of shipping documents, authorized billing prices, and so forth are operating properly.

Vouching of Transactions Vouching is complementary to reprocessing. Vouching involves taking a sample of already recorded transactions and tracing them back to their original source. For example, a sample of items recorded in the sales journal is traced back to shipping documents and customer orders (see Exhibit 5.9). Vouching provides evidence on the assertion that recorded transactions are valid (occurrence).

Audit software can be used to extract information from computer records for subsequent processing, to foot a file, and to calculate inventory extended costs.

Analytical Procedures Analytical procedures involve comparisons, either judgmentally or statistically, of data over time, across operating units, or between components of the financial statements to develop insight concerning expected relationships. If there are no unexpected differences and the organization has good internal controls over financial reporting, the auditor may conclude that little additional audit evidence needs to be examined. However, if there are unexpected differences, the auditor will need to perform extensive additional tests of the underlying account balance.

Application to Assertions An audit procedure may provide evidence for one or more assertions affecting an account balance. The following table presents examples of procedures that address specific assertions regarding fixed assets and contingencies. The procedures are organized according to the assertion and you should note that some of the procedures cover more than one assertion. An audit program consolidates the procedures to gain audit efficiency.

Fixed Assets Physical examination addresses the existence assertion for many assets, including fixed assets. Vouching to vendor invoices helps establish existence, ownership (rights), and the obligation to pay as well as establishing that what was purchased was an asset, not an expense. Inquiry of management can help identify the acquisition of assets that may not have been recorded (completeness) and the unrecorded disposals of assets (existence). Examining the repairs and maintenance expense account may uncover costs that should have been capitalized (completeness). Recalculating depreciation expense or estimating depreciation expense using analytical procedures helps determine the appropriateness of the book value of

	Existence	Completeness	Rights/ Obligations	Valuation/ Allocation
Fixed Assets	Physically examine the assets Vouch selected new additions to vendor's invoice to determine it is an asset not an expense Inquiry	Vouch repairs/ maintenance expense to determine if a fixed asset was inappropriately expensed Inquiry	Vouch to vendor's invoice recognizing ownership Review purchase contracts	Vouch to vendor's invoice to establish purchase price Recalculate depreciation expense Estimate total depreciation using analytical procedures
Contingencies (pending litigation)	Inquiry of management Send confirmation request to legal counsel	Inquiry of management Vouch legal expense Review nature of legal services to determine if a liability might exist	Inquiry of management Confirmation from legal counsel Examine payments related to in-progress litigation	Inquiry of management Confirmation from legal counsel Review court rulings

depreciable assets (valuation). Related notes to the financial statements should be reviewed to ensure appropriate disclosures have been made by management.

Contingencies (Pending Litigation) Management is the primary source of information concerning the existence of pending litigation, the probability of an unfavorable outcome, and the potential amount of damages. Vouching major legal expense transactions will help establish the reasons the client is paying lawyers. This may identify litigation issues that need to be investigated for possible accrual and disclosure. Corroboration of management's information is obtained from the client's legal counsel. The lawyers will be asked to comment on the completeness and reasonableness of the information provided by management. Related notes to the financial statements should be reviewed to ensure appropriate disclosures have been made by management.

Timing of Procedures In addition to determining which procedures to perform, the auditor must determine when to perform them—as of or after the balance sheet date, or at an interim date. Performing procedures prior to the balance sheet date will allow earlier completion of the audit and require less overtime of the audit staff. It may also meet management's desire to distribute the financial statements shortly after year end. However, performing the procedures at an interim date increases the risk of material misstatements occurring between the interim date and the year-end balance. The intervening period may require additional corroborating procedures if unusual transactions are recorded in the interim period. The timing decision is usually based on the assessment of risk associated with the account, the effectiveness of internal controls, the nature of the account, and the availability of audit staff.

When an organization has effective internal controls over financial reporting, the risk of misstatements occurring between the interim audit date and year end is decreased. For example, if internal controls surrounding accounts receivable transactions are effective, the auditor may decide to confirm balances with customers as of a month prior to the balance sheet date and review subsequent transactions for unusual entries. Customer balances can be compared between the confirmation date and the balance sheet date to identify any that have significantly increased and may warrant an additional confirmation.

There are several accounts for which the auditor can more effectively and efficiently test the transactions during the year rather than the final balance. For example, if the beginning balances for property, plant, and equipment were previously audited, the auditor will test the additions and disposals during the year. A major portion of this testing can be done prior to the balance sheet date and completed later. A similar approach can often be used for other non-current assets, long-term debt, and owners' equity transactions.

Extent of Procedures How much evidence is needed? Audit standards require that the evidence gathered be persuasive. The persuasiveness is dependent on the quality of the procedures and the amount of testing performed. The extent of testing is affected by (a) risk of a misstatement, (b) materiality, and (c) persuasiveness of the procedures performed. When the risk of material misstatements in an account is high, more persuasive evidence is required. Individual auditor judgment is required. However, auditors cannot tolerate significant differences in individual judgments. Therefore, they promote consistent judgments through training on determining sample sizes, review of evidence, and minimum requirements on direct testing of material account balances.

Practical Point

Evidence is persuasive only when other trained professionals in the field would reach a similar conclusion of the audit inference based only on the evidence examined.

Audit Programs and Documenting Audit Evidence

Audit Program Development

Audit procedures are designed to gather evidence regarding management's assertions on the effectiveness of internal control and the fairness of financial statement presentations. An audit program specifies the audit objectives; the procedures that should be followed in gathering, documenting, and evaluating audit evidence; and the auditor's reasoning process in reaching an audit conclusion. Audit programs address issues such as how many transactions need to be examined, or what population should be sampled to determine the validity of a particular account balance. The auditor makes decisions on the best combination of procedures to use in testing assertions for each client.

Consider the Pioneer Hi-Bred inventory of seed corn example at the beginning of the chapter. Physical examination of corn held in storage provides evidence on the existence and condition of the corn, but not its ownership or valuation. Examination of purchase documents provides evidence of ownership and valuation because the documents indicate the cost of the purchases as well as transfer of ownership to the company. An examination of current market conditions provides evidence on marketability and indicates whether there may be a permanent decline in inventory value. Examination of year-end shipping and receiving documents provides evidence on the proper cutoff of transactions. Finally, reading the footnotes to the financial statements will help the auditor determine whether footnotes are properly disclosed.

However, the procedures identified only partially address the question: "What is the optimal amount and type of evidence to be gathered?" Pioneer will have its inventory stored in hundreds of storage sites all around the world. It would be very costly to visit each site. How should the auditor determine which sites to visit, or how many sites should be visited? There are two answers. First, part of the auditor's inferences about the correctness of the inventory account comes from an overall risk analysis. Analytical procedures can help the auditor determine whether the overall inventory account is likely to be over- or understated. The auditor can use analytical procedures to compare corn storage across all storage locations and identify any locations that seem out of line. Second, the quality of the internal controls will affect the extent of direct testing needed. If internal controls are effective and the information system reliable, the auditor can sample the locations to visit and documents to examine. The better the controls, the smaller the sample; the poorer the controls, the larger the sample and more persuasive the direct tests have to be.

Practical Point

Most auditors use computers and data files that are shared among the audit team. Thus, most of the audit evidence exists in electronic form and must be saved and backed up for subsequent review.

Documenting Audit Evidence

Auditors like to assume that their work will never be questioned; but that is not the case. It is important that evidence shows that each audit is carefully planned, the process of gathering and evaluating evidence is properly documented, and the auditor's conclusions and reasoning process be properly documented. The documentation of audit work needs to stand on its own: it should be possible for an experienced auditor to evaluate the evidence independently of the individuals who performed the audit and reach the same conclusion.

Audit documentation, paper and/or electronic, should typically include the following:

- Evidence of planning, including the audit program
- The client's trial balance and any auditor adjustments to it
- Copies of selected internal and external documents
- Memos describing the auditor's approach to gathering evidence and the reasoning process in support of account balances
- Results of analytical procedures and tests of client records
- Auditor-generated analysis of account balances

Together, these items serve as the primary evidence in support of audit conclusions. A key aspect of good audit documentation is that it should enable someone to (a) clearly understand the work performed, who performed it, and when it was performed; and (b) repeat the work performed to verify audit conclusions. Audit documentation will contain confidential information about the client that should be safeguarded.

Revisions and Retention of Audit Documentation Audit documentation should be completed and assembled within 60 days following the audit report release date. After that date, the auditor must not delete or discard audit documentation before the end of the retention period of at least five years. Occasionally, because of an internal or external quality review process, it may be determined that procedures considered necessary were omitted from the audit or the auditor subsequently becomes aware of information related to financial statements that have already been issued. The auditor should then perform any necessary procedures and make the necessary changes to the audit documentation.

Audit Planning Documentation The planning process lays the foundation for the audit and should be carefully documented. Interviews with key executives should be summarized with implications clearly drawn for the conduct of the audit. Analytical procedures should be documented with a clear identification of accounts requiring special audit attention. The auditor's assessment of materiality, overall audit approach, and personnel needed should also be summarized. The documentation serves an important planning function for the audit; it also serves as evidence that the auditors took their responsibilities seriously in evaluating potential problems or special circumstances involved in, or related to, the audit.

The Audit Program An audit program specifies the *actual procedures* to be performed in gathering audit evidence and provides a space to indicate the *successful* completion of each step in an audit program. The audit program *is the single most important piece of documentation in an audit engagement* and provides an effective means for:

- Organizing and distributing audit work
- Monitoring the audit process and progress
- Recording the audit work performed
- Reviewing the completeness and persuasiveness of procedures performed

EXHIBIT 5.10 Standard Audit Program for Accounts Receivable

AUDIT OBJECTIVES

1. Determine that accounts receivable are authentic obligations owed to the company (existence, rights).
2. Verify that accounts receivable include all amounts owed to the company (completeness).
3. Determine that the allowance for doubtful accounts is adequate but not excessive. Determine that all significant doubtful accounts have been written off (valuation).
4. Verify that pledged, discounted, or assigned accounts receivable are properly disclosed. Related-party receivables are properly disclosed (presentation and disclosure).
5. Determine that accounts receivable are appropriately classified in the balance sheet (presentation).

Audit Procedures	Performed by	Ref
1. Test the accuracy and competence of the underlying accounting records by footing the accounts receivable file and agreeing it to the general ledger.		
2. Take a sample of recorded accounts receivable balances and confirm the balances with the customers (existence, valuation, rights).		
3. Vouch aging details to supporting documents, discuss collectibility of receivables with responsible officials, and review correspondence with customers (valuation).		
4. Analyze allowance for doubtful accounts; compare to past history and industry trends to determine adequacy (valuation).		
5. Take a sample of recorded receivables and prepare a list of subsequent cash receipts to determine if they are fully paid before the end of the audit (existence, valuation, rights).		
6. Verify cutoff for sales, cash receipts, and returns by examining transactions near the end of the year (completeness, existence).		
7. Determine adequacy of disclosure of related-party, pledged, discounted, or assigned receivables (presentation).		

Most audit firms have standardized audit programs that can be modified to correspond to a client's unique features. For example, the audit of accounts receivable in many commercial enterprises is about the same, but may differ in regards to specific processing or credit terms of the audit client. The differences affect the selection of procedures and sample sizes to be taken. Standardized audit programs are designed to address the assertions embodied within each particular account and are expected to be modified, as necessary, for individual clients. A partial audit program for accounts receivable is presented in Exhibit 5.10.

Practical Point

Once the audit programs have been developed, they may need to be modified to address unexpected problems or issues that arise.

Copies of Documents Some client documents are of such importance that a copy should be included in the audit documentation. Such documents usually have legal significance, such as lease agreements, bond covenant agreements, significant portions of the board of directors' minutes, government correspondence regarding client investigations, and loan agreements. Responses to the auditor's confirmation requests for accounts receivable, pending litigation, or bank loans are examples of documents from outside parties that are retained. Finally, management representations are formally documented in a *management representation letter.*

Auditor-Generated Memos Auditors piece evidence together and reach an opinion as to whether a particular account balance is fairly stated. The auditor's reasoning process in assembling and analyzing evidence is important and should be documented.

Practical Point

Electronic audit documentation is often used because of the ability to download client data and perform fairly simple calculations such as footing or cross-footing data.

Characteristics of Good Audit Documentation Audit documentation serves as the primary evidence of an audit. Well-developed audit documentation contains the following:

- A heading that includes the name of the audit client, an explanatory title, and the balance sheet date
- The initials or electronic signature of the auditor performing the audit test and the date the test was completed
- The initials or electronic signature of the manager or partner who reviewed the documentation and the date the review was completed
- A description of the tests performed and the findings
- Tick marks and legend indicating the nature of the work performed by the auditor
- An assessment of whether the tests indicate the possibility of material misstatement in an account
- An index to identify the location of papers
- A cross-reference to related documentation, when applicable

The public accounting firm must have a policy on the length of time documentation should be retained. The Sarbanes-Oxley Act requires that the audit documentation for audits of public companies be retained for at least seven years.

An example of an audit document used as the basis to document the performance of a price test on a client's inventory is shown in Exhibit 5.11. The documentation indicates the tests performed, the source of evidence examined,

EXHIBIT 5.11 Working Paper for Inventory Price Test

C-1/3

CMI Manufacturing Company
Inventory Price Test
Year Ended December 31, 2007

Prepared by: ACM
Date: 1/21/08
Reviewed by: BJS

Item No.	Item Name	Quantity	Cost Per Unit	Extended Cost
4287	Advanced Micro stamping machine	22*	$5,128†	112,816.00‡
5203	1/4 HP electric motor	10*	$39†	390.00‡
2208	Assembly kit for motor housing	25*	$12†	300.00‡
1513	Micro stamping machine, Model 25	200*	$2,100†	420,000.00‡
0068	Rack & Pinion component	300*	$42†	12,600.00‡
8890	Repair kits for stamping machines	1,000*	$48†	48,000.00‡
	Total value of items tested			594,106.00
	Items not tested			1,802,000.00
	Balance per general ledger			2,396,106.00§
				F T/B

Sampled items were selected utilizing a dollar unit sampling technique with materiality set at $50,000, and internal control judged to be good.

Tick Mark Legend:

*Quantities agree with client physical inventory tested earlier.

†Traced to client's standard cost system that was independently tested. Amount agrees with client's standard cost.

‡Tested extension, no exceptions.

§ Footed, no exceptions; agrees with trial balance.

Conclusion: In my opinion, the pricing and clerical accuracy of inventory is proper.

and the conclusion of the audit tests. It also indicates the dollar amounts tested and those not tested. If exceptions had been noted, the auditor would have documented them and would have projected the potential misstatement to the total account balance to determine whether the work might indicate material misstatements in the account balance.

Example of Audit Program to Directly Test Account Balances An audit program starts with audit planning and risk analysis. The auditor assesses the risk and determines how much testing of internal controls needs to be performed and how much direct testing of account balances should be performed.

We illustrate the design of an audit program by examining the inventory account of Shirt Shak Stores, Inc. For illustration purposes, we focus only on the direct tests of inventory and wait to examine internal control tests in subsequent chapters. Shirt Shak is a retailer of swimwear, water sport equipment, and gifts with several locations along the Florida coast. Its home office is in Cocoa Beach and serves as the central purchasing and distribution center. The inventory account represents assertions made by management as to the existence, completeness, ownership, and valuation of the inventory.

An example of an audit program for the direct testing of inventory is shown in Exhibit 5.12. The audit program is based on these assumptions: (1) the company

EXHIBIT 5.12 Example of an Audit Program

Shirt Shak Stores, Inc.

Audit of Inventory, Year Ended December 31, 2007

Audit Procedures	Done by	Ref
1. General		
a. Review industry trends and determine potential implications for the realizability of Shirt Shak's inventory.	______	______
b. Inquire of management regarding any changes in lines of business or product mix that may affect inventory	______	______
c. Review prior year documentation to identify problem areas and determine the potential effect on this year's audit.	______	______
2. Planning		
a. Perform an analytical review of inventory by product line and by location to determine whether there are any significant changes from the prior period.	______	______
b. Perform a cross-sectional analysis of inventory by store to identify any outliers. If there are outliers, include them in step 3a.	______	______
c. Inquire of management as to whether any product lines have been disposed of or added.	______	______
d. Inquire of management as to whether there have been any significant pricing or other changes that may affect the valuation of inventory.	______	______
e. Determine the location of computer records and the computer applications and file structures on which inventory data are located.	______	______
f. Determine the need for specialized personnel, either computer audit or inventory specialists.	______	______
3. Audit Procedures		
a. Select specific locations including the distribution center and any outliers identified in 2b. Take a statistical sample of items at those locations from the client's perpetual inventory records, and do the following:	______	______
(1) Identify the location of the items, observe their existence, and count them. Statistically analyze any exceptions and determine whether the		

(continued)

EXHIBIT 5.12 Example of an Audit Program (*continued*)

Audit Procedures	**Done by**	**Ref**
exceptions could lead to a material error in the inventory account balance (existence).	______	______
(2) For items selected, observe their condition and determine whether they appear to be in saleable condition (valuation).	______	______
b. Using a computerized audit program (such as ACL), do the following:	______	______
(1) Foot the inventory file and verify that it agrees with the general ledger (valuation).	______	______
(2) Select a statistical sample for performing price tests by examining purchase documents (valuation).	______	______
(3) Compute inventory turnover by product and prepare a printout of any product whose turnover is less than 6. Inquire of management as to the possibility that the goods cannot be sold (valuation).	______	______
(4) Based on previous tests that show net realizable value to be 93% of sales price, compute net realizable value by multiplying sales price by 0.93 and prepare a printout of all items for which net realizable value is less than cost. Determine the amount of write-down needed to reflect LOCOM (valuation).	______	______
(5) Verify extensions by multiplying quantity by cost for all items (valuation).	______	______
c. For the items selected in 3b (2), perform price tests by tracing the product FIFO cost per the printout to the latest purchases.	______	______
(1) Note and statistically analyze any exceptions and project the results to the population as a whole.	______	______
(2) Based on the exceptions, determine whether there is any pattern to the errors such that they might be isolated to a particular time period, product, or location.	______	______
(3) Based on the exceptions and any pattern to the errors found, determine whether there is an unacceptable risk of material error existing in the account balance. If such a risk exists, consult with the partner in charge regarding the expansion of audit tests.	______	______
(4) Determine the ownership of the items by inspecting relevant purchase documents, receiving documents, and other related documentation.	______	______
d. Observe the receiving and sales cutoff procedures of the client to determine that all goods are recorded in the proper period. Obtain the last number of receiving documents at the distribution center. Review the December and January purchases journal to determine that all purchases have been recorded in the proper time period (cutoff, completeness, existence).	______	______
e. Review the client's presentation of the balance sheet inventory items and related footnotes for completeness and accuracy of presentation (disclosure).	______	______
4. Completion		
a. Perform an analytical review of inventory by comparing current year inventory by product line with previous inventory levels in relation to sales. Determine whether there are any large or unusual increases in inventory that have not been adequately explained. Determine the extent to which our investigation ought to be extended.	______	______
b. Formulate an opinion on the fairness of the financial statement presentation. Document that conclusion and the adequacy of the testing performed on inventory in a memo to be included in the inventory file.	______	______

has effective internal control, (2) the inventory is relatively homogenous and is valued according to the FIFO cost assumption, and (3) the client's records are computerized. The auditor has previously tested purchase and sales transactions and has determined that they have been appropriately recorded in the inventory accounts. The audit program does not indicate the sample size for items selected. Determining the appropriate sample size is covered in Chapter 10.

Auditing Account Balances Affected by Management's Estimates

Many account balances are based on information gathered related to making estimates, appraisals, or other management assumptions. These accounts include estimated warranty liability, allowance for doubtful accounts or loan loss reserves, pension costs and liabilities, evaluations of fixed assets, and analysis of goodwill for possible impairment. Although based on management judgments, those judgments should be based on objective, verifiable data that support the estimates. Unfortunately, accounting estimates have too often been subject to earnings manipulation. (See the Earnings Management feature.) Auditors must take special care in evaluating the reasonableness of these estimates.

Evidence

There is usually objective data that can be gathered in evaluating accounting estimates. Auditors should find out and evaluate the processes used by management in making its estimates. The results of management processes can be tested. For example, actual warranty costs or bad debt write-offs can be compared with the estimates over recent years to determine the reasonableness of the estimates. When making these comparisons, changes in product quality or economic conditions need to be considered.

Estimates that are based on industry-wide or economy-wide trends need to be independently evaluated. For example, the earnings assumptions related to returns on pension funds are based on how well stocks are doing within the economy and predicted performance in the future. Other pension data include actuarial reports on life expectancies and benefits. The auditor ought to review economic reports, actuarial reports, and other data for consistency with other clients and with other companies in the same industry.

EARNINGS MANAGEMENT

"General Motors, Ford Offset Losses by Dipping into Cookie-Jar Funds"

The Wall Street Journal reported the following:

> General Motors Acceptance Corp (GMAC), the credit arm of General Motors, and Ford Motor Credit, the credit arm of Ford Motor Company, must establish reserves to cover bad loans, such as foreclosures or repossessions. They have flexibility with these rainy-day funds and have allowed their loan-loss reserves to dwindle during 2005. The auto makers each lost more than $1.3 billion in the third quarter of 2005 in their world-wide automotive operations. GMAC reduced its reserves through the first three quarters of 2005 by $525 million that helped boost GMAC's pretax profit by nearly 20% for the year. Ford Motor Credit's reserves fell $1.85 billion between 2002 and 2004 and another $813 million during the first three quarters of 2005.

The Wall Street Journal also reported that the reserves (allowance for uncollectible accounts) had decreased even though (a) the amount of total loans were increasing, and (b) economic signs pointed to a downturn for the portion of the economy that held those loans. The *Journal* was questioning whether the estimates were realistic assumptions or ploys to meeting earnings objectives. General Motors and Ford responded that their previous estimates were too high and that these changes just brought the estimates more in line. The auditor has to determine which "story" is correct before signing off on audit reports, i.e. the estimates should be reasonable based on the data available at the time of the audit engagement.

Source: *The Wall Street Journal Online,* November 22, 2005.

Asset impairment is based on either appraisals of current market value or estimates of future cash flows. If appraisals are done by professional appraisers, the auditor should determine the qualifications and reputation of the appraisers. Estimates of future cash flows provided by management need to be analyzed for the reasonableness of the assumptions and consistency with current and predicted future results.

Importance of Quality Review

Audits of corporations subject to SEC regulation (public companies) must be subjected to a **concurring (independent) partner review** before the audit report is issued. Such reviews are also a good idea for all audits. The concurring partner should be a partner who is not otherwise involved in the audit, but who has knowledge of the client's business and industry. The purpose of this review is to help ensure that the evidence documented adequately supports the audit opinion. It serves as a double check on the quality of the audit.

Summary

Each audit is unique, but the approach to all audits is essentially the same. Implicit assumptions exist in financial statements. These assumptions are embodied in the form of assertions that are directly tested during an audit. The strength of any particular audit depends on the relevance and reliability of the evidence gathered. *Relevance* is determined by the assertions tested; that is, some evidence will be relevant to an existence assertion but only tangentially relevant to a valuation assertion. *Reliability* relates to the quality of the evidence gathered and is affected by the independence of the evidence from the influence of the client or by the quality of the client's overall control structure. The auditor uses the risk assessments discussed in previous chapters to assist in determining the potential reliance on internally generated audit evidence. An effective audit combines relevant and persuasive audit evidence to provide reasonable assurance that the financial statements are free of material misstatement when the auditor renders an opinion on the financial statements. It is also important to perform each audit as efficiently as possible without jeopardizing quality. Determining the sufficiency of evidence is a matter of professional judgment. This judgment can be assisted by the use of statistical sampling, described in Chapter 10.

Significant Terms

audit documentation The primary documentation of the work performed by the auditor; documents the items sampled, the work done, the conclusions reached, the auditor performing the tests, the date completed, and the auditor's assessment of potential misstatements in the account balance tested.

concurring partner review A review of the audit conducted by a partner not otherwise involved in the audit to help assure that the evidence in the documentation adequately supports the audit report.

directional testing An approach to testing account balances that considers the type of misstatement likely to occur in the account balance and the corresponding evidence provided by other accounts that have been tested. The auditor normally tests assets and expenses for overstatement, and liabilities and revenues for understatement, because (1) the major risks of misstatements on those accounts are in those directions, or (2) tests of other accounts provide evidence of possible misstatements in the other direction.

evidence The underlying accounting data and all corroborating information utilized by the auditor to gain reasonable assurance as to the fairness of an entity's financial statements.

relevance of audit evidence Evidence that pertains to the assertion(s) of the account being tested.

reliability of audit evidence A key characteristic of the evidence that must be evaluated by the auditor in determining the persuasiveness of the evidence-gathering procedures.

Review Questions

5-1 What is "audit evidence"? Describe the basic sources of audit evidence.

5-2 What are the three basic decisions auditors must make concerning audit evidence during the planning process?

5-3 Explain the importance of audit assertions for financial statement audits. Define each of the following types of assertions:
- Existence
- Occurrence
- Completeness
- Cutoff
- Accuracy
- Rights and obligations
- Valuation or allocation
- Understandability

5-4 The valuation assertion is often difficult to audit. Identify all the components of the valuation assertion for short-term investments in marketable securities.

5-5 The third standard of fieldwork requires the auditor to gather sufficient appropriate evidence to afford a reasonable basis for an opinion regarding the financial statements. What are the basic presumptions about the reliability of audit evidence?

5-6 Are the concepts of reliability of evidence and audit risk interrelated, or are they two separate concepts? For example, could the auditor accept less reliable audit evidence for an engagement in which audit risk has been set high as opposed to an engagement in which audit risk has been set lower than normal? Explain.

5-7 Explain how the following transaction assertions are related to the account balance assertions:

Transaction Assertions	Account Balance Assertions
a. Cutoff	Existence and Completeness
b. Classification	Existence and Completeness
c. Accuracy	Valuation and Allocation

5-8 Discuss the relative reliability and usefulness of internal and external documentation. Give two examples of each.

5-9 What is directional testing? How can the concept of directional testing assist the auditor in attaining audit efficiency?

5-10 Explain how testing an asset account for overstatement provides evidence on potential overstatements of revenue and understatement of expenses. Illustrate using accounts receivable and inventory as examples.

5-11 Which assertions are best tested by observation? What are the relative strengths and weaknesses of observation as an audit procedure?

5-12 Are inquiries of management considered reliable evidence? Under what conditions and for what assertions would inquiry of management be considered reliable evidence?

5-13 Is paper-based evidence more reliable than the same evidence generated through EDI and stored on a computer system? Explain. Under what conditions is electronically stored evidence as reliable as paper-based evidence?

5-14 What is the difference between reprocessing a transaction and vouching a transaction? What underlying assertion does each test address?

5-15 Assuming that the client has external documentation on hand, such as correspondence with its lawyers or payments from its customers, why is sending confirmations to those same parties considered necessary?

5-16 Confirmations at times may be unreliable even if they involve external documentation. What assumptions should the auditor address concerning confirmations before concluding that utilizing confirmations will result in reliable audit evidence?

5-17 Why is it generally more efficient to test ending account balances rather than testing transactions throughout the year? Explain why the efficiency might change in a computerized environment with effective internal controls.

5-18 What are the purposes of an audit program?

5-19 What are the important considerations (judgments) that determine what is included in an audit program?

5-20 What is audit documentation? What key components should each audit document contain?

5-21 Is a memo that explains the rationale for an auditor's conclusion about the correctness of an account balance considered an audit document?

5-22 Many organizations are consciously eliminating paper documents by integrating their computer system with those of their suppliers and customers. Paper documents, such as purchase orders, are being replaced by machine-generated purchase orders. How is this change in documentation likely to affect the audit approach for such clients? Explain and give an example.

5-23 What is meant by the phrase, "Audit documentation ought to stand on its own"? What is the importance of this concept?

5-24 Assume an auditor wishes to estimate an account balance by reference to outside data or other information generated from outside the accounting system. Under what conditions would such a procedure generate reliable audit evidence?

5-25 What is a concurring partner review, and what is its purpose?

Multiple-Choice Questions

5-26 The auditor wishes to gather evidence to test the assertion that the client's capitalization of leased equipment assets is properly valued. Which of the following sources of evidence will the auditor find to be the most persuasive (most reliable and relevant)?

a. Direct observation of the leased equipment.
b. Examination of the lease contract and recomputation of capitalized amount and current amortization.
c. Confirmation of the current purchase price for similar equipment with vendors.
d. Confirmation of the original cost of the equipment with the lessor.

***5-27** Which of the following is the least persuasive documentation in support of an auditor's opinion?

a. Schedules of details of physical inventory counts conducted by the client.
b. Notation of inferences drawn from ratios and trends.

[*] All questions marked with an asterisk are adopted from the Uniform CPA Examination.

c. Notation of appraisers' conclusions in the auditor's documentation.
d. Lists of confirmations and the nature of responses received from the client's customers.

5-28 An auditor determines that management integrity is high, the risk of account misstatements is low, and the client's internal controls are effective. Which of the following conclusions can be reached regarding the need to perform direct tests of account balances?
a. Direct tests should be limited to material account balances, and the extent of testing should be sufficient to corroborate the auditor's assessment of low risk.
b. Direct tests of account balances are not needed.
c. Direct tests of account balances are necessary if audit risk was set at a low level, but are not necessary if audit risk was set at a high level.
d. Direct tests should be performed on all account balances to independently verify the correctness of the financial statements.

5-29 A test of inventory for overstatement provides corresponding evidence on:

	Cost of Goods Sold	*Revenue*	*Accounts Payable*
a.	Overstatement	Overstatement	Understatement
b.	Understatement	Overstatement	Overstatement
c.	Understatement	Understatement	Understatement
d.	Overstatement	Overstatement	Overstatement

5-30 Observation is considered a reliable audit procedure but one that is limited in its usefulness. Which of the following does not represent a limitation of the use of observation as an audit technique?
a. Individuals may act differently when being observed than they do otherwise.
b. It is rarely sufficient to satisfy any assertion other than existence.
c. It can provide an overview of the client's processing, but that processing may be different than the client's procedures specify.
d. It is difficult to generalize from one observation as to the correctness of processing throughout the period under audit.

***5-31** Confirmation is most likely to be a relevant form of evidence with regard to assertions about accounts receivable when the auditor has concern about the receivables'
a. Valuation
b. Classification
c. Existence
d. Completeness

***5-32** An auditor would most likely verify the interest earned on short-term bond investments by:
a. Examining the receipt and deposit of interest checks.
b. Confirming the bond interest rate with the issuer of the bonds.
c. Recomputing the interest earned on the basis of face amount, interest rate, and period held.
d. Recomputing interest according to the face of the bond and adjusting by a bond discount or premium amortization.

5-33 An auditor observes inventory held by the client and notes that some of the inventory appears to be old, but in good condition. Which of the following conclusions is justified by the audit procedure?
I. The older inventory is obsolete.
II. The inventory is owned by the company.
III. Inventory needs to be reduced to current market value.
a. I only
b. II only

c. I and III only
d. III only

5-34 Which of the following statements is *not* true concerning the auditor's documentation?

a. The auditor should document the reasoning process and conclusions reached for significant account balances even if audit tests show no exceptions.
b. Documentation review is facilitated if a standard documentation format is utilized.
c. Audit documents should cross-reference other documents if the other documents contain work that affects the auditor's overall assessment of an account balance contained in the documentation.
d. The client should not prepare documentation schedules for the auditor even if the auditor independently tests them.

Discussion and Research Questions

5-35 **(Financial Statement Assertions for a Liability Account)** Accounts Payable is generally one of the larger, and most volatile, liability accounts to audit. However, the auditor can use the assertion approach developed in this chapter to develop an overall audit program for accounts payable.

Assume that you are auditing the Accounts Payable account for Appleton Electronics, a wholesaler of hardware equipment. You can assume that the company has good internal controls and is not designated as a high risk audit client. You are the continuing auditor. During the previous audit, adjustments were made regarding Accounts Payable, but none of them were considered material.

Required

a. Identify the financial statement assertions that apply to Accounts Payable.
b. For each assertion identified, list two or three types of audit evidence that would address the assertion and the procedures used to gather the audit evidence. Organize your answer as follows:

   Financial Statement Assertion   *Audit Evidence and Procedures*

c. How would the evidence-gathering procedures be affected if you had assessed the client as a high risk client because (1) there are questions of management integrity, (2) the company is in a perilous financial situation, and (3) the company has inadequate internal controls? Be specific in your answer, explaining what additional evidence, or alternative types of evidence, you would gather.

5-36 **(Financial Statement Assertions)** Several of the financial statement assertions are interrelated.

Required

a. For each of the following, indicate what **transaction** assertion is violated and describe the affect on related **account balance** assertions and, where appropriate, on the **disclosure** assertions.
   1. Sales shipped FOB destination are recorded when shipped. Some of these are in transit at the balance sheet date.
   2. An inventory purchase shipped FOB shipping point is in transit at the balance sheet date. The client records the purchase when the shipment is received.
   3. Certain repair costs that should be expensed are capitalized.
   4. No loss is recorded or disclosed for a pending lawsuit against the client that is material, probable, and can be estimated.

5. Sales shipped FOB shipping point are recorded before the balance sheet date but not shipped until after the balance sheet date.
6. Wages earned but not paid by the balance sheet date are not recorded.
7. Some checks in payment of accounts payable are recorded before the balance sheet date but not mailed until after the balance sheet date.
8. Collections from customers received after the balance sheet date are recorded as of the balance sheet date.
9. A capital lease is improperly accounted for as an operating lease.
10. A $56,000 sale on account near year end was recorded at $65,000.

b. Under what circumstances might the recording of FOB destination sales that are in transit at the balance sheet date be acceptable to the auditor?
c. Do all of the items in part (a) affect net income? Explain.

5-37 **(Procedures and Assertions—Inventory)** You are planning the audit of the Pagemate Company's inventory. Pagemate manufactures a variety of office equipment.

Required

Describe how each of the following procedures could be used in the audit of inventory and the related assertion(s) it tests:

Procedure	How used	Assertion(s) tested
Observation		
Physical Examination		
Inquiry		
Confirmation		
Examination of Documents		
Recomputation		
Reprocessing		
Vouching		
Analytical Procedures		

5-38 **(Classification and Reliability of Audit Evidence)** The following are examples of documents typically obtained by auditors.

Required

For each example:

a. Classify the document as internal or external evidence.
b. Classify the document as to its relative reliability (high, moderate, or low).
c. Identify an account balance and related assertion(s) for which the auditor might use the document.

Documentary Evidence Utilized in an Audit:

1. Vendor invoices
2. Vendor monthly statements
3. Sales invoices
4. Shipping documents for sales
5. Bank statements
6. Employee payroll time cards
7. Receiving reports for goods received from vendors
8. Sales contracts
9. Purchase commitment contracts
10. Lease agreements
11. Estimated warranty schedules
12. Purchase order stored on client computer and received by EDI
13. Credit rating reports
14. Vendor invoice stored on client computer and received by EDI

5-39 **(Reliability of Audit Evidence)** In this chapter, several different kinds of audit evidence were identified. The following questions concern the reliability of audit evidence.

Required

a. Explain why confirmations are normally considered more reliable than inquiries of the client. Under what situations might the opposite hold true?
b. Give three examples of reliable documentation and three examples of less reliable documentation. What characteristics distinguish them?
c. Explain why physical examination is considered strong, but limited, evidence. Under what circumstances would the auditor's physical examination of inventory be considered of limited use?
d. Identify characteristics of internal evidence that would lead the auditor to assess its reliability as high.
e. Explain why tests of details may be more reliable than analytical procedures.
f. Explain how analytical procedures might lead to insight about the correctness of an account balance that might not be obtained through tests of details.
g. Identify three instances when an auditor is likely to use recomputation as audit evidence. Why is it important that recomputation take place? Is an auditor-prepared spreadsheet a recomputation or an independent estimate of an account balance? Explain.

5-40 **(Account Relationships and Audit Efficiency)** One way that the auditor might achieve audit efficiency is to recognize the interrelationship between accounts. In many situations, evidence gathered in auditing a balance sheet account (asset, liability, or equity) can be easily expanded to audit a related income statement account.

Required

a. For each of the following accounts:
   1. Identify one or more related accounts that could be audited efficiently by expanding on the audit evidence gathered during the audit of the account.
   2. Identify how the evidence gathered from auditing the balance sheet account could be used in auditing the related income, equity, or expense account.
b. Explain why auditors generally consider it more efficient to directly test a year-end balance sheet account rather than testing transactions during the year. Does this mean that auditors do not need to test the transactions that make up an account balance; that is, they need to test only the year-end balance? Explain your answer in terms of the reliability and persuasiveness of audit evidence.

Account Balances Audited

1. Marketable Equity Securities
2. Bond Payable
3. Property, Plant, and Equipment
4. Equity Method Investments
5. Capitalized Leases
6. Capitalized Lease Obligations
7. Notes Payable
8. Estimated Warranty Liability (Reserve)
9. Preferred Stock

5-41 **(Complementary Effect of Audit Tests)** With the double-entry accounting system, testing one account balance produces audit evidence concerning another account balance or class of transactions. For example, testing for overstatement of current marketable securities may

uncover an understatement of long-term investments due to a misclassification (presentation and disclosure).

Required

For each of the following tests of account balances, indicate at least two other account balances or classes of transactions for which evidence is also provided, as well as the related assertions.

1. Testing Inventory for overstatement (existence and valuation)
2. Testing Revenue for understatement (completeness)
3. Testing Accounts Receivable for overstatement (existence)
4. Testing Accrued Salaries for understatement (completeness)
5. Testing Repairs and Maintenance Expense for overstatement (existence)
6. Testing the Adequacy of the Allowance for Doubtful Accounts (valuation)

5-42 **(Types of Audit Procedures)** Nine major types of audit procedures are identified as part of the audit evidence-gathering process. These procedures are as follows:

Observation	Physical examination
Examination of documents	Inquiry of company personnel
Reprocessing	Recomputation
Analytical procedures	Vouching
Confirmations	

Required

Following is a list of audit procedures performed. For each procedure, classify the evidence gathered according to one (or more, if applicable) of the nine audit procedure types, and identify the assertion(s) being tested. Organize your answer as follows:

	Procedure	***Type of Procedure***	***Assertion Tested***
a.			
b.			

Auditing Procedures Performed

a. Calculate the ratio of Cost of Goods Sold to Sales as a test of overall reasonableness of the balance for Cost of Goods Sold.

b. Trace a sales transaction from the origination of an incoming sales order to the shipment of merchandise to an invoice and to the proper recording in the sales journal.

c. Test the accuracy of the sales invoice by multiplying the number of items shipped by the authorized price list to determine extended cost. Foot the total and reconcile it with the total invoiced.

d. Select recorded sales invoices and trace the corresponding shipping documents to verify the existence of goods shipped.

e. Examine canceled checks returned with the client's January bank statement as support of outstanding checks listed on the client's December year-end bank reconciliation.

f. Perform test counts of the client's marketable securities held in a safe deposit box.

g. Tour the plant to determine that a major equipment acquisition was received and is in working condition.

h. Review a lease contract to determine the items it covers and its major provisions.

i. Request a statement from a major customer as to its agreement or disagreement with a year-end receivable balance shown to be due to the audit client.

j. Develop a spreadsheet to calculate an independent estimate of the client's warranty liability (reserve) based on production data and current warranty repair expenditures.

k. Develop a spreadsheet to independently test the calculations made by the client in computing a warranty liability (reserve).
l. Meet with the client's internal legal department to determine its assessment of the potential outcome of pending litigation regarding a patent infringement suit against the company.
m. Review all major past-due accounts receivable with the credit manager to determine whether the client's allowance for doubtful accounts is adequate.
n. Make test counts of inventory items, and record the items in the audit documentation for subsequent testing.
o. Obtain information about the client's processing system and associated controls by asking the client's personnel to fill out a questionnaire.
p. Examine board of directors' minutes for the approval of a major bond issued during the year.
q. Have the client's outside law firm send a letter directly to the auditor providing a description of any differences between the lawyer's assessment of litigation and that of the client.

5-43 **(Evaluation of Testimonial Evidence)** One major task for an auditor is to evaluate the reliability of testimonial evidence, which may come in the form of oral representations from management or in written form from parties outside the organization.

Required

a. In the course of an audit, the auditor asks many questions of client officers and employees. Describe the factors the auditor should consider in evaluating oral evidence provided by client officers and employees.
b. For each of the following examples of testimonial evidence, identify either (1) an alternative source of evidence or (2) corroborative evidence the auditor might seek.

Examples of Testimonial Evidence:

1. Confirmations received from customers as to the balance of accounts receivable shown by the client.
2. Management is optimistic that all items in a product line will be sold at normal prices in spite of a temporary downturn in sales.
3. Management intends to hold investments in marketable securities with an intent to convert into cash within the next operating period as cash needs dictate.
4. Management tells the auditor that the Food and Drug Administration has approved its new drug for commercial sale.
5. The auditor interviews the production manager, who candidly identifies quality control problems and points out substantial pieces of inventory that should be reworked before shipment.

5-44 **(Alternative Sources of Evidence)** The following situations present the auditor with alternative sources of evidence regarding a particular assertion.

Required

a. For each of the following situations, identify the assertion the auditor is most likely testing with the procedure.
b. For each situation, identify which of the two sources presents the most persuasive evidence, and briefly indicate the rationale for your answer.

Sources of Audit Evidence

1. Confirming accounts receivable with business organizations vs. confirming receivables with consumers.
2. Visually inspecting an inventory of electronic components vs. performing an inventory turnover and sales analysis by products and product lines.

3. Observing the counting of a client's year-end physical inventory vs. confirming the inventory held at an independent warehouse by requesting a confirmation from the owner of the warehouse.
4. Confirming a year-end bank balance with the client's banking institution vs. reviewing the client's year-end bank statement vs. having a cut-off bank statement as of January 20 for all activity from December 31 to January 20 sent to the auditor.
5. Observing the client's inventory composed primarily of sophisticated radar detectors and similar electronic equipment vs. observing the client's inventory composed primarily of sheet metal.
6. Confirming the client's year-end bank balance with the bank vs. confirming the potential loss due to a lawsuit with the client's outside legal counsel.
7. Testing the client's estimate of warranty liability by obtaining a copy of the client's spreadsheet used for calculating the liability and determining the accuracy of the spreadsheet's logic by entering new data into the spreadsheet and independently calculating the result vs. developing an independent spreadsheet and using regression analysis to develop an independent estimate of the warranty liability using client sales and warranty return data.
8. Reviewing all payments made to vendors and suppliers after year end to determine if they were properly recorded as accounts payable vs. requesting vendor statements at year end for all significant vendors from which the client made purchases during the year.
9. For a financial institution, testing the organization's controls for recording customer savings deposits, including the existence of an independent department to explore any inquiries by customers vs. confirming year-end savings account balances with customers.
10. For a financial institution, testing the organization's controls for making and recording loans vs. confirming year-end loan balances directly with customers.

5-45 **(Audit Program and Assertions)** You have been assigned to audit the notes receivable of a medium-size audit client, Eagle River Distributing. The notes receivable account is new this year and per discussion with the controller, it came about because three major customers were experiencing payment difficulties. The three customers account for approximately 15% of the client's annual sales. The account was first used in July with a $300,000 balance and now has a year-end balance of $2.5 million (this compares to an accounts receivable year-end balance of $6.0 million).

On further investigation, you determine that the year-end balance is composed of the following notes:

J.P. McCarthur Printing, 10%, due July 1 of next year	$1.2 million
Stevens Point Newspaper, 11%, due Sept. 30 of next year	$0.8 million
Orbison Enterprises, 12%, due in 18 months	$0.5 million

You further discover the following:

1. Orbison Enterprises is a company wholly owned by the president of Eagle River Distributing and is backed by the personal guarantee of the president (including the pledging of personal assets).
2. The company continues to make sales to each of these companies. The notes represent a consolidation of previous outstanding receivables. All three companies are current in their payments of existing receivables.

Required

a. Identify any special risk concerns that you might have regarding the audit of this new account.
b. Identify the major assertions to be tested by the auditor in auditing this account. For each assertion, identify one or two auditing

procedures that could be used to gather evidence in determining the correct financial statement presentation of the account.

5-46 **(Audit Documentation)** The audit documentation represents the auditor's accumulation of evidence and conclusions reached on an audit engagement. Prior year audit documentation can provide insight into an audit engagement that will be useful in planning the current year audit.

Required

a. What are the purposes or primary functions of audit documentation?
b. Who owns the documentation, the auditor or the client?
c. What important planning information might an auditor learn when reviewing the prior year audit documentation of a client?
d. The auditor often requests the client to prepare a schedule, such as a schedule listing all repair and maintenance expenses over $5,000 for the past year. The client asks for a copy of the previous year's documentation to serve as a guide. The auditor is reluctant to furnish the documentation to the client.
   1. Is it permissible to provide the client copies of the auditor's previous documentation? If so, are there any particular conditions the auditor should examine before furnishing the documentation to the client?
   2. What procedures should the auditor use to ensure that the client has properly prepared the requested documentation?

5-47 **(Audit Documentation)** The following equipment schedule was prepared by the client and audited by Sam Staff, an audit assistant, during the calendar-year 2001 audit of Roberta Enterprises, a continuing audit client. As engagement supervisor, you are reviewing the documentation.

Required

Identify the deficiencies in the audit documentation.

ROBERTA ENTERPRISES
12/31/2007

		COST				**ACCUMULATED DEPRECIATION**			
Description	**Date Purchased**	**Beginning Balance**	**Additions**	**Disposals**	**Ending Balance**	**Beginning Balance**	**Depreciation Expense**	**Disposals**	**Ending Balance**
1020 Press	10/25/04	15,250		15,250*	0	10,500†	1,575‡	12,075§	0
40" Lathe	10/30/02	9,852		9,852	0	7,444†	1,250‡	8,694§	0
505 Router	10/15/04	4,635			4,635	3,395†	875		4,270
MP Welder	9/10/03	1,222			1,222	850†	215		1,065
1040 Press	3/25/07		18,956§		18,956	0	3,566		3,566
IBM 400AS Computer	7/16/03	12,547			12,547	7,662†	3,065†		10,727
60" Lathe	5/29/07		13,903§		13,903	0	950†		950
Fork Lift	6/2/01	7,881			7,881	3,578†	810†		4,388
Totals		51,387	32,859§	25,102	59,144	33,429†	12,306†	20,769§	24,966
			II			II	II	II**	

† Traced to 12/31/2006 audit documentation
‡ Recalculated
§ Verified
II Footed/cross-footed
* Traced to sales document and cash receipt
** Traced to trial balance

5-48 **(Accounting Estimates)** The SEC took action against Gateway Computer in 2001 because they believed that Gateway systematically understated their allowance for doubtful accounts to meet sales and earnings targets. This is essentially the way the alleged fraud took place:

- Gateway sold most of its computers over the Internet and had a strong credit department that approved sales.
- When sales dropped, management decided to go back to customers who had been rejected because of poor credit approval.
- During the first quarter, they went after the better of the "previously rejected" customers.
- As the need for more revenue and earnings remained, they continued down the list to include everyone.
- However, they did not change any of their estimates for the allowance for uncollectible accounts.

At the end of the process, the poor credit customers represented about 5% of total income, but the SEC alleged that the allowance account was understated by over $35 million, which amounted to approximately $0.07 per share. In essence, Gateway wanted to show it was doing well when the rest of the industry was doing badly.

Required

a. What is the requirement regarding proper valuation of the allowance for doubtful accounts? Does that requirement differ from account balances that are based on recording transactions as opposed to the allowance being an estimate? In other words, is more preciseness required on account balances that do not contain estimates?
b. What information should the company utilize in a system to make the estimate for the allowance for uncollectible accounts?
c. What evidence should the auditor gather to determine whether the client's estimate for the allowance for uncollectible accounts is fairly stated?
d. How should the expansion of sales to customers who had previously been rejected for credit affect the estimate of the allowance for doubtful accounts?
e. How important are current economic conditions to the process of making an estimate for the allowance for doubtful accounts? Explain.

Cases

5-49 **(Addeco—Audit Evidence for Sales)** Addeco SA is the world's largest temporary employment company. It lost several major accounts because customers felt it was not adequately serving their complex staffing needs. It announced that it was not able to deliver its 2003 financial statements on schedule. Ernst & Young, its auditors, raised questions about accounting and controls as part of an intensive review of internal controls as mandated by the Sarbanes-Oxley Act. It appears that Addeco recorded revenue for temporary services provided during the first several weeks in January 2004 as 2003 revenue.

Required

Describe audit procedures that could be used to determine whether the revenue cutoff was improper.

5-50 **(MiniScribe—Audit Evidence for Sales, Accounts Receivable, and Inventory)** As reported in *The Wall Street Journal* (September 11, 1989), MiniScribe, Inc., inflated its reported profits and inventory

through a number of schemes designed to fool the auditors. At that time, MiniScribe was one of the major producers of disk drives for personal computers. The newspaper article reported that MiniScribe used the following techniques to meet its profit objectives:

- An extra shipment of $9 million of disks was sent to a customer near year end and booked as a sale. The customer had not ordered the goods and ultimately returned them, but the sale was not reversed in the year recorded.
- Shipments were made from a factory in Singapore, usually by airfreight. Toward the end of the year, some of the goods were shipped by cargo ships. The purchase orders were changed to show that the customer took title when the goods were loaded on the ship. However, title did not pass to the customer until the goods were received in the United States.
- Returned goods were recorded as usable inventory. Some were shipped without any repair work performed.
- MiniScribe developed a number of just-in-time warehouses and shipped goods to them from where they were delivered to customers. The shipments were billed as sales as soon as they reached the warehouse.

Required

For each of the items just described, identify the following:

a. The assertion the auditor might be testing in relationship to the account balance and the transaction.
b. The audit evidence that should be gathered to assist in addressing the assertion.

5-51 **(Fraud and Investigations)** Cendant Corporation has been the subject of an intensive fraud investigation. A look at the company's web site reveals the following statements contained in a report given to the SEC. The company sold travel and health club memberships. Some of the most significant irregularities now confirmed include the following:

- *Irregular charges against merger reserves*—Operating results at the former Cendant business units were artificially boosted by recording fictitious revenues through inappropriately reversing restructuring charges and liabilities to revenues. Many other irregularities were also generated by inappropriate use of these reserves.
- *False coding of services sold to customers*—Significant revenues from members purchasing long-term benefits were intentionally misclassified in accounting records as revenue from shorter-term products. The falsely recorded revenues generated higher levels of immediately recognized revenues and profits for Cendant.
- *Delayed recognition of canceled memberships and "charge-backs" (a* charge-back *is a rejection by a credit-card-issuing bank of a charge to a member's credit card account)*—In addition to overstating revenues, these delayed charges caused Cendant's cash and working capital accounts to be overstated.
- *Quarterly recording of fictitious revenues*—Large numbers of accounts receivable entries made in the first three quarters of 1997 were fabricated; they had no associated clients or customers and no associated sale of services. This practice also occurred in 1996 and 1995.

Accounting Errors

Cendant, working with Deloitte & Touche, has also discovered accounting errors in Cendant's financial records that are not classified as accounting irregularities. Approximately six to nine cents per share of the total estimated restatement of 1997 earnings will result from the elimination of these errors. These accounting errors include inappropriate

useful lives for certain intangible assets, delayed recognition of insurance claims, and use of accounting policies that do not conform to generally accepted accounting principles.

Required

a. How could the auditor have used risk analysis to determine the likelihood that a material misstatement might have existed in Cendant's financial statements?
b. Identify audit procedures (and audit evidence gathered) that would have detected the misstatement of revenues and intangible assets.
c. How would the auditor's assessment of management integrity and management motivation have affected the nature, timing, and extent of audit procedures identified?

CHAPTER 6

Internal Control over Financial Reporting

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Understand internal control as an integral part of an organization's corporate governance and risk management processes.
- Know how the COSO Internal Control, Integrated Framework is used to help understand and identify the major elements of an entity's internal controls process and relate each element to the effectiveness of internal controls.
- Understand the demand for external reporting on the quality of an organization's internal controls over financial reporting.
- Understand the relationship between deficiencies in internal controls and misstatements that may occur in an organization's financial statements.
- Understand management's requirements to document controls and perform tests to ensure the effectiveness of internal controls over financial reporting.
- Describe auditor assessment of internal controls as a basis for subsequent audit testing.
- Understand the linkage of financial statement assertions to specific control activities.
- Understand common types of control procedures.
- Understand various types of auditor documentation procedures as a basis to determine the one best suited to an engagement.

CHAPTER OVERVIEW

The Sarbanes-Oxley (SOX) Act of 2002 requires management to independently assess and report on the effectiveness of internal control over financial reporting of public companies. The external auditor must also opine on the effectiveness of the client's internal controls over financial reporting. This chapter introduces the COSO *Internal Control, Integrated Framework,* which is used by companies and auditors as a standard against which to assess the quality of internal controls. We identify the major elements of an effective internal control system. We also identify the process management uses to independently document and assess the quality of its internal controls.

Internal controls are broader than controls built into accounting systems. Internal controls exist at a strategic level and include controls such as a well-designed capital budgeting process to minimize the risk of making large, unprofitable investments. Internal controls also exist at an operational level and include activities such as a well-designed procurement system to minimize the risk of excess inventory, or to minimize the effect of costly production processes when products are not available. There is a pattern here: internal controls exist to reduce risks and help an organization achieve its objectives.

The auditor needs to understand and assess the effectiveness of internal controls for two reasons: (1) for public companies, the auditor must attest to management's assertion on the effectiveness of internal control over financial reporting;

and (2) the auditor must consider the impact of internal control deficiencies on the types of misstatements that could occur and go undetected in the recording process. The auditor's assessment of potential misstatements, in turn, affects the types of audit procedures the auditor will choose to determine if actual misstatements have occurred in a company's financial statements.

A Framework for Control

The quality of an organization's internal controls affects not only the reliability of financial data, but also the ability of the organization to make good decisions and to remain in business. Recent business failures, such as those at Enron, WorldCom, and HealthSouth, were all characterized by ineffective internal controls, and where controls did exist, they were often circumvented by top management. Congress reacted to the abuses in corporate control by enacting the Sarbanes-Oxley Act of 2002, which requires public companies to report on the effectiveness of internal control over financial reporting.

Effective internal controls address risks and identify control activities that will mitigate those risks. An auditor must gain an understanding of the client's control system to (1) better understand the client, its risks, and how it manages or deals with those risks; (2) assess control risk and identify the types of financial statement misstatements that are most likely to occur; (3) plan direct tests of account balances to determine if misstatements have occurred; and (4) for public companies, report on the effectiveness of internal control over financial reporting.

In this chapter, we:

- Introduce the COSO *Internal Control, Integrated Framework*.
- Describe the elements of that framework and how they work together.
- Describe how management assesses internal control over financial reporting.
- Describe how the auditor tests internal control as a part of assessing control risk.

The first part of the chapter focuses on the components of internal control and management's assessment process. The second part of the chapter focuses on approaches to testing internal controls over processing. The testing approach will be similar whether it is performed by the auditor or by management as part of its assessment process.

COSO: Internal Control, Integrated Framework

Just as a company refers to GAAP as a basis to determine whether its financial statements are fairly presented, it needs to refer to a comprehensive framework of internal control when assessing the quality of internal control over financial reporting. The most widely known framework is referred to as **COSO**, which is short for the Committee of Sponsoring Organizations of the Treadway Commission. The sponsoring organizations include the American Accounting Association, the American Institute of CPAs, Financial Executives International, the Institute of Internal Auditors, and the Institute of Management Accountants. The sponsoring organizations came together in the mid-1980s to address an increasing problem of financial fraud. One recommendation of their earliest study was to develop a comprehensive framework of internal control.[1]

[1] Report of the National Commission on Fraudulent Financial Reporting, Washington, D. C., 1987, p. 28.

COSO defines **internal control** as:

> a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (1) reliability of financial reporting, (2) compliance with applicable laws and regulations, and (3) effectiveness and efficiency of operations.

These objectives are designed to assist the organization in achieving its most important objective, i.e., successfully implementing corporate strategies to achieve returns for shareholders. Internal control objectives are designed to assist the organization in assuring that it has effective and efficient operations related to its overall strategy, its activities are in compliance with applicable laws and regulations, it safeguards its assets from theft and fraud, and it prepares accurate financial information for internal decision-making and external reporting to the investor community.

There are other elements of the above definition that are important. Internal control:

- Is a *process* that includes all the elements of internal control working together to achieve the objectives
- *Starts at the top* of the organization with the board of directors and management creating and reinforcing a structure and a tone for controls in the organization
- Directly, or indirectly, *includes all people* in the organization ranging from the shipping clerk to the internal auditor, to the chief financial officer
- Is *broader* than internal control over financial reporting

The COSO *Internal Control, Integrated Framework* recognizes the importance of operational objectives and the increasing interdependencies of operations and financial controls built into computer programs.

The Need for Control

Control is part of corporate governance. Governance begins with stockholders, who delegate certain authorities and responsibilities to the board of directors, and through them, to management. The delegation of authorities and responsibilities comes with an obligation to (a) manage the risks to the assets entrusted to the organization and (b) to be accountable for the use of those assets. For many years, the only accountability back to shareholders by management was the financial statements that reported on how well the organization had done in the previous year. With Sarbanes-Oxley, the management of public companies is also accountable for reporting on how well it has protected the corporation's assets and whether the system of internal control over financial reporting is adequate.

Internal controls are needed because every organization faces significant risks ranging from (a) corporate failure, to (b) misuse of corporate assets, to (c) incorrect or incomplete preparation of financial information. Internal controls are designed to mitigate those risks. For example, a company that does not prepare accurate financial information not only misrepresents itself to the public, but equally importantly, it cannot make good decisions about running the organization.

Who Is Interested in an Organization's Control Structure? A number of parties have an interest in the quality of an organization's control system. These parties include the following:

- The board of directors and the audit committee of the board
- Management
- Regulators
- Auditors (both internal and external)
- Suppliers and customers

AUDITING IN PRACTICE

Poor Controls Lead to Bad Management Decisions and Company Failure

Reliable Insurance Co. of Madison, Wisconsin, introduced a new insurance policy to provide supplemental coverage to Medicare benefits for the elderly. The insurance was well received by elderly policyholders, many of whom were in nursing homes. The insurance policy was competitively priced and sold very well. To estimate reserves (liabilities) for future claims against the policies, the client used initial claims data to estimate costs and to build a model to estimate the reserves. For example, claims data for the first year could be compared with premiums for the same time period to estimate the needed reserve for claims. Unfortunately, the client's accounting system had control deficiencies that delayed the processing of claims. As a result, the internal estimation model was comparing claims data for one month with premiums for three months, which resulted in the model significantly underestimating the needed reserves for future claims.

Because the internal control system failed to record claims on a timely basis, the company (a) underpriced the policies and (b) misrepresented their financial health to shareholders and lenders. The low price attached to the policies allowed the company to greatly expand their sales. Unfortunately, the company was forced into bankruptcy when it could not meet policyholder claims. Had the internal control processes been properly designed, tested, and monitored, management would have made better decisions. The internal control deficiency led not only to misleading financial statements, but, more importantly, to the ultimate failure of the business.

- Investors and lenders
- Customers or others using the Web for commerce

Virtually everyone on this list has a vested interest in the quality of internal controls. Even if financial statements are accurate (after being audited), the internal control information provides better information on (a) the likelihood that the company had addressed significant risks, (b) how effectively the company can address risks in the future, and (c) the likelihood that interim financial data for decision-making will be accurate. See the *Auditing in Practice* feature for a practical example illustrating the importance of controls.

Internal Control and Financial Reporting

The Sarbanes-Oxley Act of 2002 requires management of publicly-held companies to report on the effectiveness of internal control over financial reporting.[2] The Public Company Accounting Oversight Board (PCAOB) requires the external auditor to perform an **integrated audit** of the effectiveness of internal controls and the accuracy of the company's financial statements. In other words, the same auditor must attest to both the financial statements and management's assertions regarding *the effectiveness of internal controls over financial reporting*.

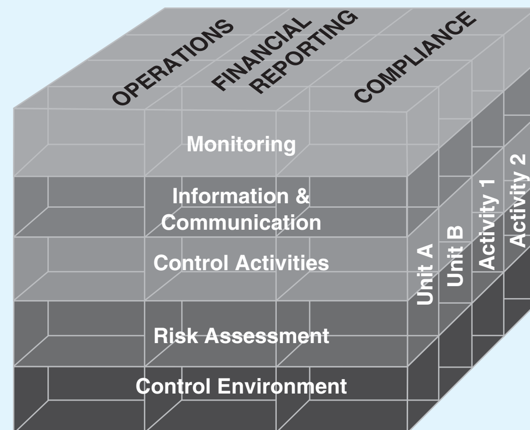
Internal control consists of five interrelated components designed to work together as a process to accomplish the organization's objectives. These are derived from the way management runs a business and are integrated with the management process. The five components of the COSO *Internal Control, Integrated Framework* are shown in Exhibit 6.1.

There are three important concepts that are embodied in the COSO framework:

1. Internal control relates to the organization's objectives, shown across the top of the cube.
2. There are five components of internal control that are logically and operationally intertwined to accomplish the objectives.
3. Internal control is applied across all activities of the organization; ranging from functional areas such as marketing, to operational units such as a division of a company, to interrelationships with other organizations as described in the *Auditing in Practice* feature.

[2] Although the requirement is only for publicly-held companies, the "best practice" of public reporting on internal control has carried over to large privately-held companies as well. Those companies need to reassure their stakeholders, including lenders, suppliers, and other creditors, that they have control processes in place sufficient to achieve the broad internal control objectives.

EXHIBIT 6.1 The COSO Internal Control, Integrated Framework



Components of an Internal Control System

The five components of the internal control process are as follows:

1. Control environment
2. Risk assessment
3. Control activities
4. Information and communication
5. Monitoring

The **control environment** starts with the board of directors, audit committee, and management. Together this group constitutes the leadership of the organization and sets the tone for acceptable conduct through policies, codes of ethics, and effective governance. Weaknesses in the "tone at the top" have been associated with most financial frauds during the past decade. Thus, the control environment must establish and reinforce the organization's commitment to strong internal control and management must demonstrate that commitment through their own actions.

Risk management, including **risk assessment,** is a process designed to identify potential events that may affect the entity's ability to accomplish its objectives and then to manage those risks within the entity's risk appetite. Risks exist at many different levels within organizations, such as in the external marketplace, in failures

AUDITING IN PRACTICE

Vendor Relations, Risks and Internal Control

As businesses become more integrated through mutual supply chain processes, the quality of a business partner's control system becomes increasingly important. Consider, for example, a manufacturer that enters into contracts with major suppliers to provide high-quality just-in-time inventory. The manufacturer needs to know that the supplier has controls in place that will ensure the following:

- Manufacture of high-quality components
- Shipment of goods such that they can be placed into the manufacturing process with no interruption of the process
- Acceptance of orders online with sufficient levels of privacy and security to avoid sharing secrets with competitors
- Proper accounting for receipts, transfers, and monetary payments

Many organizations are using internal or external auditors to review the controls of business partners before entering into such agreements.

to comply with environment laws, and in failures to accurately record and report financial information. There are various responses to risk. Management may initiate plans, programs, or actions to address specific risks, or it may decide to accept a risk because of cost or other considerations. To ensure reliable financial reporting, organizations develop accounting controls to mitigate the risks of inaccurate financial reporting. For example, management will build controls to ensure that all transactions are recorded at the correct price. Sarbanes-Oxley has mandated that the risks associated with the financial reporting objectives must be very low.

Control activities are the policies and procedures that are established to assist in accomplishing objectives and to mitigate risks. Controls can be embedded in processes, e.g., edit controls designed into computer applications or segregation of duties required in processing transactions. Controls also exist at the policy level, e.g., requiring approval of all expenditures over $6,000. While there are some generic controls that are seen in most internal control processes, e.g., segregation of duties, independent reconciliations, and management review, it is important to remember that there is no universal set of controls applicable to all situations. Rather, there is a wide variety of control activities that serve to reduce risks and an organization chooses those that are most effective at the least cost.

Practical Point

Controls are developed to reduce risks. There is no one set of prescribed controls that should be memorized for all companies, or even for similar situations. Thus, a checklist approach to evaluating controls, while effective in identifying controls, may not be most efficient for an organization because it does not address cost effectiveness.

Information and communication refers to the process of identifying, capturing, and exchanging information in a timely fashion to enable accomplishment of the organization's objectives. It includes the organization's accounting system and methods for recording and reporting on transactions. Management's ability to make appropriate decisions in managing and controlling the entity's activities and to prepare proper financial reports depends on the effectiveness of the information system, including the accounting system.

Monitoring is defined as a process that provides feedback on the effectiveness of the other four components of internal control. Monitoring can be done through *ongoing activities or separate evaluations.* Ongoing monitoring procedures are built into the normal recurring activities of an entity. Internal auditors, customers, and regulators contribute to the monitoring of internal controls. For an example, see the *Auditing in Practice* feature.

Practical Point

Monitoring is an important component of internal control. Identification of control failures must be accompanied by management action to determine the root cause of the problem to ensure that corrective action is taken.

AUDITING IN PRACTICE

Monitoring Controls in a Fast-Food Franchise

A company such as Wendy's or McDonald's that serves fast food across thousands of locations must be able to monitor the working of its controls at each location. The company has written policies and procedures dealing with control issues ranging from the acceptance of product (must be from authorized vendor), disposal of waste, recording of sales (must offer a cash register receipt or the meal is free), and supervision of employees. The companies have standardized procedures for counting cash, reconciling cash with the cash register, depositing the cash daily, and transferring cash to corporate headquarters. From previous statistics and industry averages, the company knows that food costs should run approximately 36.7% of revenue.

The company develops a performance monitoring process that results in daily and weekly reports on:

- Store revenue compared with expected revenue and previous year's revenue for the same week
- Special promotions in effect
- Gross margin

The company then uses the monitoring reports to follow up with local stores and to determine which stores, if any, need further investigation. For example, the company identifies a group of stores—all managed by one person—for which store revenue is lower than expected; but more important, the gross margin is significantly less than expected (63% expected, but 60% attained). The monitoring report indicates that one of the following explanations may represent the problems at the stores: (a) not all revenue is being recorded; (b) product is unnecessarily wasted; (c) product is diverted to other places; or (d) some combination of these. Although the original focus is on operating data, the implication is that there is a breakdown of internal controls at those specific locations. The monitoring of performance has led to the monitoring of controls.

The report leads management to determine the cause of the problem and to take corrective action.

Relationship of Internal Control Components to Each Other There is a conceptually logical integration of internal control components. That relationship is described as follows:

Step 1: The *control environment* establishes management's commitment to good governance, risk analysis, and control. It sets the tone for the organization's implementation of effective internal control.

Step 2: Management establishes a risk management policy and process to identify risks that affect the organization, including analysis of risks associated with financial reporting.

Step 3: Management and employees develop and implement controls that reduce the risks to an acceptable level. Accounting controls are designed into accounting information systems and are tested to determine that they are working effectively.

Step 4: An effective information and communication system is developed and implemented to process transactions and to develop reports that enable all levels of management to make reliable decisions and to recognize improper processing. Further, information is communicated both up and down in the organization to facilitate effective operation of controls.

Step 5: Management monitors the effectiveness of its control system by designing on-going monitoring activities. Management also monitors the effectiveness of internal control by engaging an effective internal audit department to perform separate evaluations of internal control.

Practical Point

Internal control is a continuous process that addresses objectives relating to operating effectiveness and efficiency, compliance with policies and procedures, and reliability of financial reporting.

The control process is continuous; management identifies and assesses risks to the accomplishment of its objectives, identifies control activities to reduce the risks to an acceptable level; develops effective information and communication processes; and monitors the effectiveness of the overall internal control system. We now describe the five components in more detail and discuss how management might go about the process of assessing the effectiveness of each component.

Control Environment

Many of the companies that had experienced corporate failures had fairly good controls over transaction processing. WorldCom recorded most of its telephone revenue correctly, Enron reported most of its trades correctly, and Tyco recorded its revenue-producing transactions correctly. However, all of these companies failed at the same point—the control environment. All three organizations had ineffective boards of directors who were dominated by top management. All three management teams were driven to increase the stock price, either as a basis to expand the company, or to personally enrich themselves through stock compensation. All three organizations developed complex reporting structures that obfuscated transactions. As an example, refer to the *Focus on Fraud* feature that describes a control environment problem at HealthSouth.

A ringing indictment of the problem with the control environment at WorldCom was given by Richard Breeden in a special report on WorldCom's collapse:

> Among other things, the board of directors of the Company consistently ceded power to Ebbers [Bernard Ebbers, CEO of WorldCom]. As CEO, Ebbers was allowed nearly imperial reign over the affairs of the company, without the board of directors exercising any restraint on his actions, even though he did not possess the experience or training to be remotely qualified for his position. One cannot say that the checks and balances against excessive power within the old WorldCom did not work adequately. *Rather the sad fact is there were no checks and balances* (emphasis added).[3]

The control environment is pervasive and the auditor should start the evaluation of internal controls at this level.

Understanding the Control Environment An organization's control environment is complex and the evaluation often requires some subjectivity. A skilled

[3] Richard Breeden, *Restoring Trust: Corporate Governance for the Future of Enron*; August 2003, pp. 1–2.

FOCUS ON FRAUD

Control Environment at HealthSouth

In testimony before the House Subcommittee in October 2003, the Director of Internal Audit of HealthSouth testified that she had inquired about expanding her department's work and that she needed access to corporate records. She reported directly to the HealthSouth CEO, Richard Scrushy. She told a congressional committee that Mr. Scrushy reminded her that she did not have a job before she came to HealthSouth and she should do the job she was hired to do. When asked by a congressman whether she had thought about reporting rumors of fraud to Ernst & Young, she indicated that she had run her concerns through the chain of command within the company and had done all she could do. Unfortunately, the chain of command was run by the CEO.

The internal auditor did not follow up with Ernst & Young. Others testified to the same effect—if they wanted to keep their jobs, they continued to do the work they were hired to do and let management take care of other items. The "tone at the top" sent a clear message: "Don't question management!"

In the case of HealthSouth, it did not matter that the organization had a code of ethics for its employees. The company and its board were dominated by management. The unwritten message was stronger than any written message: "Do what we want you to do or lose your job."

auditor has to be able to ask the right questions, review board of director meeting minutes, assess the adequacy of corporate policies, assess the competence of top management and the board, and determine whether policies and procedures have been effectively implemented. The auditor also has to be aware of compensation schemes because of their influence on individuals at all levels of the organization.

Practical Point

Compensation programs often focus on motivations of top management. However, as noted in the HealthSouth example, the compensation program, or the threat of withholding compensation, can significantly influence others in the organization who are entrusted to carry out company policies.

COSO has developed additional guidance for companies in implementing internal control to meet their Sarbanes-Oxley Section 404 requirements.[4] COSO has identified seven underlying principles of an effective control environment. Those seven principles are:

1. *Integrity and Ethical Values*—Sound integrity and ethical values, particularly of top management, are developed and set the standard of conduct for financial reporting.
2. *Importance of the Board of Directors*—The board of directors understands and exercises oversight responsibility related to financial reporting and related internal control.
3. *Management's Philosophy and Operating Style*—Management's philosophy and operating style support achieving effective internal control over financial reporting.
4. *Organizational Structure*—The company's organizational structure supports effective internal control over financial reporting.
5. *Commitment to Financial Reporting Competencies*—The company retains individuals competent in financial reporting and related oversight roles.
6. *Authority and Responsibility*—Management and employees are assigned appropriate levels of authority and responsibility to facilitate effective internal control over financial reporting.
7. *Human Resources*—Human resource polices and practices are designed and implemented to facilitate effective internal control over financial reporting.

Together, these factors provide the overall guidance to the organization for implementing specific controls, and we expand on them next.

Integrity and Ethical Values The effectiveness of internal control policies and procedures is tied to the integrity and ethical values of the people who create, administer, and monitor them. Integrity and ethical behavior are products of the entity's ethical and behavioral standards, including how they are communicated and how they are reinforced in practice. They include management's actions to remove or reduce incentives and temptations that might prompt personnel to engage in dishonest, illegal, or unethical acts. They also include the communication of ethical values and behavioral standards to personnel through policy statements and codes of conduct and by example.

[4] COSO, *Internal Control Integrated Framework: Guidance for Smaller Public Companies,* 2006, available at http://www.coso.org.

A culture of honesty and integrity is critical to an effective system of internal control.

Board of Directors and the Audit Committee Members of the board of directors are the elected representatives of shareholders and have responsibility for management oversight, including evaluating and approving the organization's basic strategy. The board of directors should approve the following:

- Major new debt or equity financing
- Acquisitions of other companies
- Major divestitures and corporate restructurings
- Appointment of, and compensations for, top officers

Good corporate governance requires that the majority of directors be "outside directors," i.e., directors who are not members or management and do not have business or personal relationships with management. It has been suggested that the chair of the board be independent of the CEO, or when the CEO is the chair, the independent board members appoint a "lead director" with authority to take action on behalf of the independent directors.

Most boards will have three subcommittees: (1) the audit committee, (2) the compensation committee, and (3) a nominating and governance committee. The audit committee has responsibility for oversight of external financial reporting and all audit functions. The compensation committee is responsible for recommending the appointment of top officers and compensation packages for senior management. The nominating and governance committee must identify independent, competent directors who will serve stockholder interests.

Management's Philosophy and Operating Style Management performs three critical processes that are important in evaluating internal control:

1. *Set the Tone*—Management's philosophy and operating style emphasize high-quality and transparent financial reporting.
2. *Articulating Objectives*—Management establishes and clearly articulates financial reporting objectives, including those related to internal control over financial reporting.
3. *Selecting Principles and Overseeing Estimates*—Management follows a disciplined, objective process in selecting accounting principles and developing accounting estimates.

Management must demonstrate that they set the right tone for individual and company activities, clearly articulate objectives regarding financial reporting and assure themselves that those objectives are understood and achieved, and that the company follows a disciplined approach in selecting accounting principles that best portray the economics of transactions.

Organizational Structure Well-controlled organizations have clearly defined lines of responsibility, authority, and accountability. The company should have clear procedures and lines of communication, and authority commensurate with responsibility.

An effective internal audit function is an important part of the organizational structure because it provides management with independent assessments of other controls, as well as the effectiveness of the organization's risk management, governance, and compliance processes. Interestingly, three of the major failures—Enron, WorldCom, and HealthSouth—all had ineffective internal audit functions:

- Enron had outsourced its internal audit function to its external auditors, Arthur Andersen, and the function was limited in scope.
- HealthSouth's internal audit function focused solely on the accuracy of data received from clinics and was not allowed access to the corporate records.
- WorldCom's internal audit function reported to the CFO and was told to focus on improving operational efficiency. Further, WorldCom's internal audit department was

only about one-third the size of their peer institutions. However, Cynthia Cooper, vice president and head of internal auditing, along with some of her staff, practiced professionalism by ignoring the CFO's directive and uncovered the fraud.

Commitment to Financial Reporting Competencies Competence is the knowledge and skills necessary to accomplish tasks that define the individual's job. Commitment to competence includes management's consideration of the competence levels for particular jobs and how those levels translate into requisite skills and knowledge. In simple terms, the organization should do the following:

- *Identify Competencies*—Identify competencies that support accurate and reliable financial reporting.
- *Retain Individuals*—The company employs or otherwise utilizes individuals who possess the required competencies related to financial reporting.
- *Evaluate Competencies*—Needed competencies are regularly evaluated and maintained.

Stated in another way, the organization has a commitment that shows an understanding of the complexity of the business and its processes and identifies the characteristics of individuals who can deal with those issues, retains those individuals, and periodically reevaluates the needed competencies.

Authority and Responsibility Authority and responsibility are intertwined with the organization's structure. An important point is that everyone in the organization has some responsibility for the effective operation of internal control. COSO has identified the following considerations:

- *Board Oversees Financial Reporting Responsibility*—The board of directors oversees management's process for defining responsibilities for key financial reporting roles.
- *Defined Responsibilities*—Assignment of responsibility and delegation of authority are clearly defined for all employees involved in the financial reporting process.
- *Limit of Authority*—Assignment of authority and responsibility includes appropriate limitations.

As an example of limited authority, a unit manager may be limited in the dollar amount of individual purchases that can be processed without further approval.

Human Resources Organizations need to establish policies and procedures for hiring, training, supervising, evaluating, counseling, promoting, compensating, and taking remedial action regarding its employees. These procedures are most often found in personnel policies designed to ensure that the organization hires the right people; that hiring and retention decisions comply with applicable federal and state laws and regulations; that employees are properly trained and supervised; the organization respects employee rights and delineates employee responsibilities; and finally, the organization's compensation plans and individual evaluation procedures facilitate the integrity of financial reporting.

Assessing the Control Environment The evaluation of the control environment is based on the seven fundamental principles, i.e., implementation of the seven principles articulated earlier is evidence that the organization has a strong control environment. Deficiencies in the implementation of each principle should lead management and the auditor to evaluate the potential effect of the deficiency on the control environment and on the possibility of misstatements occurring in the financial statements. For example, if the organization does not have a strong and independent audit committee, then it is less likely that the board is providing effective oversight over management and the possibility of management override of controls.

Management has a responsibility to identify its controls, document the controls, and prepare an independent evaluation of the controls as a basis for rendering their report on internal control over financial reporting. In evaluating the

Practical Point

Internal auditors should meet periodically alone with the audit committee. The internal audit department is often described as the "last line of defense" within an organization. For that reason, all budget requests for the internal audit function, as well as the appointment of the chief audit executive, should be approved by the audit committee.

Practical Point

Auditors think very carefully about management competence and will take action if they view it as a problem. For example, during the evaluation phase of internal control of a publicly-traded organization, the external auditors met privately with the audit committee and expressed concerns about the competence of the CFO. The audit committee recommended to the full board that the organization hire a new CFO.

control environment, management addresses the seven principles that provide the foundation for the control environment. An example of management's approach is seen in Exhibit 6.2, which demonstrates a workpaper summarizing the components of the control environment. The auditor's documentation of the control environment will be similar.

EXHIBIT 6.2 Elements of the Control Environment

Underlying Principle	Evidence Reviewed
Integrity and Ethical Values	
1. The company has a Code of Conduct that is actively distributed throughout the organization.	Reviewed Code of Conduct. Viewed a prominent reference to the Code on the company's web site. Randomly interviewed 30 employees across multiple disciplines and determined that all but one had knowledge of the Code.
2. The Code of Conduct is signed by all the officers and directors of the company.	The corporate secretary maintains a file of all signed documents by officers and managers acknowledging that they have read the Code and commit to abide by its principles.
3, There is continuing training on the commitment to ethics.	Reviewed schedule of offerings with the training department. Covers all employees on an every–three-year basis.
4. Independent tests indicate that employees are aware of the Code of Conduct and are committed to its achievement.	Randomly interviewed 30 employees across multiple disciplines and determined that all but one had knowledge of the Code.
5. Violations of the Code of Conduct are identified and dealt with in a manner that reinforces the company's integrity.	The corporate secretary keeps a file of all known ethical violations and the disposition of the issue that led to a reporting of the violation. Reviewed the files of actions taken and noted they were within the company policies.
6. Employees and stakeholders view the company as one with high ethical standards.	In addition to the random survey of company employees, a second survey was sent to important vendors and customers of the company regarding their view of the organization's commitment to ethical values.
Importance of Board of Directors	
1. The board meets a sufficient number of times and appropriate length to address company issues.	Read the minutes of the meetings of the board of directors and considered sufficiency of meetings in addressing important issues.
2. The board contains a majority of independent directors.	Considered board of director relationships, and calculated the percentage of independent directors.
3. The board has an independent lead director and the board holds "executive sessions" without members of management present.	Discussed with lead director to understand the authority of independent directors and their view of management's commitment to the importance of this control.
4. The board has a governance and nominating, compensation, and audit committee made up of independent directors only.	Reviewed composition of subcommittees.
5. The audit committee is composed of independent directors who have financial expertise.	Reviewed audit committee relationships, and evaluated resumes of audit committee members to consider expertise issues.
6. The audit committee meets in executive session with the external auditor and with the Director of Internal Audit.	Noted meetings during year in which this occurred.
7. The audit committee has a robust charter and the resources to carry out its mission.	Considered the audit committee's charter and compared operating budget to organizations of a similar size.
Management Philosophy and Operating Style	
1. Management emphasizes to all employees the importance of integrity in financial reporting.	Discussed this issue with personnel involved in the financial reporting process.

EXHIBIT 6.2 Elements of the Control Environment (*continued*)

Underlying Principle	Evidence Reviewed
2, Management has processes in place to review information before it goes public and to receive input, where applicable, from the audit functions.	Reviewed plans, and queried staff in financial reporting about whether there were instances when this did not occur.
3. Similar procedures to be performed as suited to the company.	
Organizational Structure	
1. The organization maintains a structure that facilitates communication regarding financial reporting objectives and internal control.	Queried financial reporting staff and internal audit staff about what they perceive financial reporting objectives to be.
2. Performance evaluations are consistent with promoting effective internal control over financial reporting.	Reviewed performance evaluations of three employees in internal audit and two employees in financial reporting to understand link between performance and internal–control–associated job activities. Discussed this issue with those employees.
3. Additional procedures as fits the organization.	
Commitment to Financial Reporting Competencies	
1. The organization has a commitment to hire individuals with requisite financial competence. That competence is evidenced in the work performance of the: • Corporate Controller • Director of Internal Audit • Divisional Controllers • Tax Manager • Other Accounting Managers	Evaluated resumes of the CFO, corporate controller, and director of internal audit to establish professional designations. Considered the responses of these individuals to complex financial reporting issues during the past year, with a focus on evaluating competence.
2. Similar objectives and procedures as fits the organization.	
Authority and Responsibility	
1. Clear lines of authority and responsibility are established for all individuals who can either commit financial resources on behalf of the company, or whose actions affect financial reporting.	Established a formal organization chart that reflects the manner in which the organization operates.
2. Independent reviews are performed to provide assurance that individuals do not exceed their limits of authority.	Asked Director of Internal Audit to discuss instances in which individuals exceeded their limits of authority.
3. Similar objectives and procedures as fits the organization	
Human Resources	
1. HR policies are designed to promote effective internal control by specifying needed competencies and ethical values.	Asked internal audit to assess the entity's ethical values and how those values are communicated and reinforced.
2. HR policies are designed to ensure compliance with all federal and state regulations.	Asked tax and internal audit personnel to discuss instances in which there were violations of federal and state regulations.
3. Similar objectives and procedures as fits the organization.	

Management assesses each of the individual components of the control environment. The assessment of the individual areas is then combined to form an overall opinion on whether there are deficiencies in the control environment.

Another way of looking at the control environment is that there are risks to financial reporting. A strong control environment is the first, and most important, line of defense against those risks. For example, a commitment to financial competence and an independent and active audit committee will significantly reduce the risks related to financial reporting.

However, a strong control environment cannot reduce all the financial reporting risks to zero. For example, individuals will still make mistakes. Someone on the shipping dock may be dishonest and not record all transactions, or may misappropriate assets. Therefore, management must implement other components of the COSO framework to establish a second line of defense to minimize misstatements in the financial records.

Risk Identification and Assessment

Risk identification and assessment involve the identification and analysis of the risks of material misstatement in financial reports. The manner in which the organization might incur the misstatement varies with the nature of processing. For example, a company might fail to capture all transactions because someone does not scan shipments into a computer file, or alternatively, a clerk may fail to fill out a shipping order. Control activities include the proper design of systems to mitigate these types of misstatements as well as other controls that reconcile accounting entries with other records of physical components.

Failure to sufficiently identify the risks likely results in deficiencies in the control processes to mitigate the risks. Management often uses a risk assessment questionnaire (see Exhibit 6.3) as a basis to identify the significant risks related to financial reporting and documents that it has an effective risk assessment approach.

Practical Point

Control activities are also designed to reduce risks associated with ineffective operations or lack of compliance with regulatory or company policies. Risks and controls associated with operations and compliance often need to be considered because they may affect financial reporting.

Control Activities

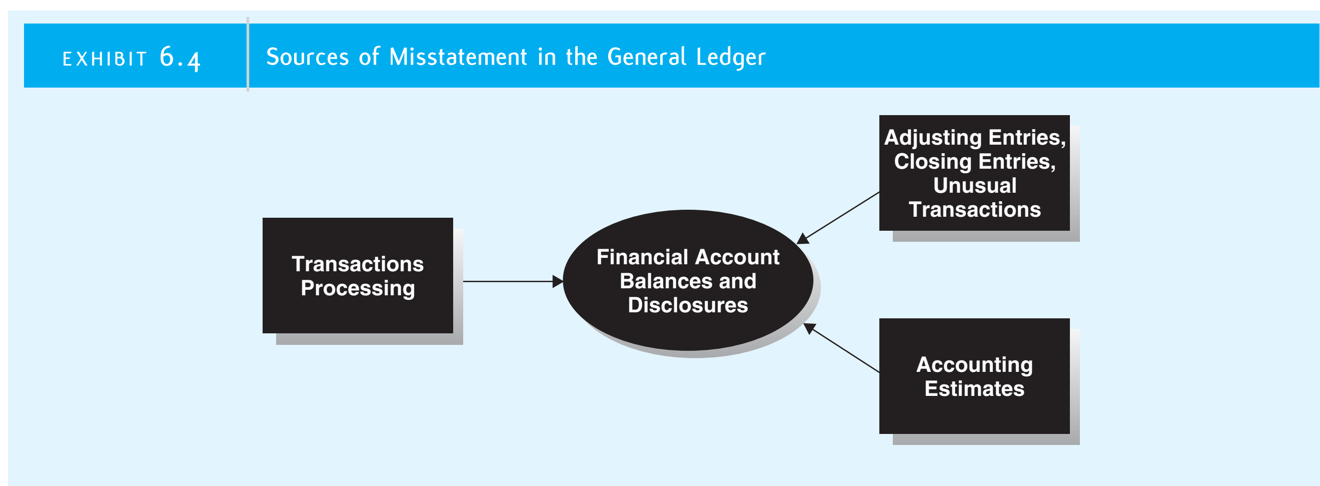
Control activities are policies and procedures implemented across the organization to reduce the risk of financial reporting misstatements. At a high level, the control activities include management review and analysis of operations. At a transaction level, controls are built into computer systems that limit access to programs or data (including data entry), or controls compare transactions with acceptable parameters. The control activities are linked to the risks identified to mitigate those risks.

Control activities involve two elements: (1) the design of the controls, which might include policies establishing what should be done or a description of the

EXHIBIT 6.3 Example of a Risk Assessment Questionnaire Concerning Financial Reporting

Financial Reporting Risk Issue	Response (Yes/No)
1. What is the history of past differences between the client and auditor on financial reporting? Is there a pattern of financial reporting problems indicated by trends in this regard?	
2. What is the history regarding the accuracy and variability of accounting estimates? Have any of the transaction cycles historically been plagued with inaccurate estimates?	
3. Are there inappropriate accounting policies identified by our external auditor that have not been reconsidered since last year?	
4. What is the nature of related-party transactions?	
5. Are there high-risk transactions? • Involving significant valuation judgments? • Involving up-front revenue or expense recognition? • Involving derivatives? • Involving aggressive accounting estimates? • Involving bill-and-hold transactions? • Involving unusually complex transactions? • Involving unusually large year-end transactions? • Involving issues currently the focus of SEC or PCAOB scrutiny?	

EXHIBIT 6.4 Sources of Misstatement in the General Ledger



control activities and (2) the operation of the controls, i.e., procedures implemented consistent with the design of the controls. Management (and the auditor) must first assess that the design of controls is adequate. But that is not enough; management must also demonstrate that the controls that were designed are working effectively. There are three important processes that affect the quality of data entering into the general ledger as shown in Exhibit 6.4. They include entries from:

- Transaction processing
- Accounting estimates
- Adjusting and closing journal entries

As noted earlier in this chapter, many organizations with fraudulent financial statements recorded fraudulent entries through adjusting, closing, and other unusual journal entries. Controls over these areas should include the following:

- Documented support for all entries
- Reference to underlying supporting data with a well-developed audit trail
- Review by the CFO or controller
- Independent reviews, as needed, by internal audit to determine that all supporting items are present and entries are appropriate

Accounting estimates, such as those developing the allowance for doubtful accounts, pension liabilities, environmental obligations, and warranty reserves, should be based on underlying processes and data that have been proven to provide accurate estimates. Controls should be built around the processes to ensure that the data are accurate, the estimates are faithful to the data, and the underlying data model reflects current economic conditions and has proven to provide reasonable estimates in the past.

Practical Point

Year-end journal entries and estimates are almost always high risk. The risk varies inversely with the quality of the control environment.

Usually management and the auditor evaluate the sufficiency of control activities in the context of a particular process, such as sales processing or purchasing activities. However, the controls are also applicable to other components of the internal control model, such as the policies and procedures applicable to risk analysis and control design. Every organization should give consideration to the types of activities identified previously because they have proven effective in mitigating many of the risks associated with transactions processing, estimates, and journal entries. More information is provided on the assessment of controls later in the chapter when we describe the auditor's approach to evaluating the effectiveness of internal controls. The approach used by management and the auditor will be very similar.

Preventive and Detective Controls Preventive controls are designed to prevent the occurrence of a misstatement and should be emphasized in the design of

processes. As an example, access controls prevent the unauthorized entry of transactions into the general ledger. Edit controls may prevent some inappropriate transactions from being recorded. Preventive controls are usually the most cost-efficient when designing processes. However, they may not provide evidence that controls are working effectively. For example, a control that prevents a fictitious transaction from being processed might not leave documentary evidence that it worked even though it is cost effective.

Many organizations supplement the preventive controls by building detective controls that provide evidence on whether processing has been effective in preventing errors. Reconciliations, for example, provide indirect evidence on the functioning of other controls. Other detective controls include continuous monitoring techniques that show whether transactions have been processed that should not have been processed.

Information and Communication

Information and communication represent a company's processes for gathering key financial information to support the achievement of financial reporting objectives. Generally, this means that companies develop reports that allow them to monitor processing and gain insight as to whether other controls may be failing. For example, a company should have an information system that facilitates timely identification of performance problems or control failures. The information system, by itself, is not sufficient. It must communicate to the right people to ensure that action is taken when needed.

Practical Point

Lowe's is a large home-repair, building, and lumber retailer. It has relationships with many vendors. Lowe's has communicated its commitment to high standards of ethical conduct. Therefore, they have a "hotline" in place where a vendor can communicate directly with the internal audit department if there has been any inappropriate action by a purchasing agent of the company toward the vendor, for example, a suggestion of a "kickback" if a large order is placed.

With the Sarbanes-Oxley Act, there is a stronger recognition that there is a need for "upstream" communication, particularly when an employee is concerned that there is something inappropriate in the company's operations. This is referred to as a "whistleblower" function and often includes processes such that reporting can be anonymous and non-retributive. There is a need to ensure that substantive issues are reported to the audit committee for their investigation.

Monitoring

Monitoring represents a company's processes to determine whether internal control over financial reporting is operating effectively. *Ongoing monitoring* processes are designed to identify control failures, often by identifying activities and outcomes that are out of the norm, unexpected, or inconsistent with management's objectives. *Separate evaluations*, another form of monitoring, are often performed by internal auditors or company employees and provide feedback on the effectiveness of other internal control processes.

Monitoring is very important in a SOX 404 context because if management has developed monitoring controls, then those controls can be used to reduce the amount of independent testing of internal controls. In other words, once a company establishes that controls are effective, attention can be then turned to how well the company monitors the continuing functioning of those controls. Future assessments of internal controls can rely heavily on monitoring if management can demonstrate that such monitoring is robust and effective.

Practical Point

The internal audit function, but not the external audit function, can be viewed as an integral part of internal controls.

Internal auditing is often considered a highly effective monitoring control. Some monitoring activities are established and exercised by parties outside an entity that affect an entity's operations and practices. Another example is that customers implicitly corroborate billing data by paying their invoices or complaining about their charges. Regulators may also communicate with the entity concerning matters that affect the functioning of internal controls, for example, communications concerning examinations by bank regulatory agencies.

Assessment of Internal Controls over Financial Reporting The assessment of the effectiveness of internal controls using the COSO framework requires an overall assessment of whether the five components of internal control over

financial reporting are present and operating effectively to achieve the organization's financial reporting objectives. Assuming management has effectively evaluated each of the five components of internal control, including the testing of controls, then management should report on its assessment. We now examine the nature of management's reports on internal controls and provide some examples of recent reports.

Management Reporting on Internal Controls Management of public companies must report on the quality of the company's internal controls over financial reporting. The external auditor must attest to management's assessment of internal controls as well as issue a separate report on the auditor's assessment of the quality of internal control over financial reporting. The reports must describe *material weaknesses* in internal control over financial reporting. To guide both management and the auditor, the PCAOB has developed the following definitions of control deficiencies:

- *Deficiency in design*—A deficiency in design exists when (a) a control necessary to meet the control objective is missing or (b) an existing control is not properly designed so that even if the control operates as designed, the control objective is not always met.
- *Deficiency in operation*—A deficiency in operation exists when a properly designed control does not operate as designed, or when the person performing the control does not possess the necessary authority or qualifications to perform the control effectively.
- *Significant deficiency in internal control*—A significant deficiency is a control deficiency, or a combination of control deficiencies, such that there is a reasonable possibility that a significant misstatement of the company's annual or interim financial statements will not be prevented or detected.
- *Material weakness in internal control*—A material weakness is a control deficiency, or combination of control deficiencies, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected.

A material weakness is one where there is reasonable possibility that the control deficiencies would allow material misstatements to occur in the financial statements and not be detected or corrected in the ordinary processing that includes management follow-up. An absence of a misstatement does not mean that internal control does not contain a material weakness; it just means that a misstatement did not occur. On the other hand, the discovery of a material misstatement of an account balance normally means that there was a breakdown in internal controls. For example, management did not employ individuals with sufficient competence to make judgments on the appropriateness of alternative accounting treatments for a transaction.

Management is required to report on its assessment of the effectiveness of the company's internal control over financial reporting as of the end of the most recent fiscal year. Management's report on internal control over financial reporting is required to include the following:

- A statement of management's responsibility for establishing and maintaining effective internal controls over financial reporting
- A statement identifying the framework used by management to evaluate internal control, e.g., the COSO framework identified earlier in this chapter
- An assessment of the effectiveness of the company's internal control as of the end of the period reported on, including an explicit statement as to whether internal control over financial reporting is effective
- A statement that their report has been audited and that audit report is contained in the annual financial report

EXHIBIT 6.5 Management Report on Financial Information and Internal Controls

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of J. C. Penney Company, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting.

J. C. Penney Company, Inc. management has assessed the effectiveness of the Company's internal control over financial reporting as of January 29, 2005. In making this assessment, management used criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework.* Based on its assessment, management of J. C. Penney Company, Inc. believes that, as of January 29, 2005, the Company's internal control over financial reporting is effective based on those criteria.

KPMG LLP, the registered public accounting firm that audited the financial statements included in this 2004 Annual Report to Stockholders, has issued an attestation report on management's assessment of the Company's internal control over financial reporting.

Robert B. Cavanaugh
Robert B. Cavanaugh

Executive Vice President and Chief Financial Officer

Practical Point

Management's report must be based on both an assessment of the quality of internal controls and evidence that the controls are working as planned.

Management's assessment must be made in concrete terms, i.e., it must be a direct statement about the effectiveness of internal control. For example, a statement that "the Company maintained effective internal control over financial reporting as of [date]," is acceptable. However, a statement that the company has "very effective internal control" is not acceptable because it is too subjective. Management cannot make a statement that controls are effective if there are any material weaknesses in controls. An example of management's report on a company's internal control is shown in Exhibit 6.5.

Examples of internal control deficiencies that have been identified in the past few years include those shown in Exhibit 6.6. Note that the control deficiencies are not limited to processing. Rather the deficiencies often include shortcomings in an organization's control environment. Recall that a significant deficiency does not mean the control failure leads to material, or even significant, misstatements in the financial statements. Rather, there is a reasonable possibility that the control deficiency could lead to a significant misstatement.

The identification of control deficiencies has helped companies in many ways including the following:

- A better understanding of risks the company faces
- A better understanding of controls throughout the organization
- A more defined ownership of controls by mid-level functional managers, i.e., accounting controls are owned by the process owners—not the auditors, not the accountants

A summary of some of the benefits of management's reporting on internal controls is shown in the *Auditing in Practice* feature found on page 206.

Auditor Evaluation of Internal Controls

In the last section, we learned how management assesses internal controls and (for public companies) reports publicly on the state of controls. In this section, we consider the external auditor's role in evaluating and reporting on internal controls. We focus on the testing of the control activities of the COSO framework and recognize that the approach for assessing and testing control activities will be similar for management. It is important to recognize that management has two purposes in assessing and testing the controls: (1) to evaluate their effectiveness to report to the public and (2) to improve the operation and efficiency of the controls.

EXHIBIT 6.6 Examples of Control Deficiencies That Have Recently Occurred in Practice

Deficiencies in the Design of Controls over Processing

- Absence of appropriate segregation of duties over important processes.
- Absence of appropriate reviews and approvals of transactions, accounting entries, or systems output.
- Inadequate controls to safeguard assets.
- Absence of controls to ensure that all items in a population are recorded.
- Inadequate processes to develop significant estimates affecting the financial statements, e.g., estimates for pensions, warranties, and other reserves.
- Undue complexity in the design of the processing system that obfuscates an understanding of the system by key personnel.
- Inadequate controls over access to computer systems, data, and files.
- Inadequate controls over computer processing.
- Inadequate controls built into computer processing.

Deficiencies in the Control Environment

- A low level of control consciousness within the organization.
- Audit committee does not have outside members.
- There is no ethics policy or a reinforcement of ethical behavior within the company.
- Company does not have procedures to monitor the effectiveness of internal control.
- Audit committee is not viewed as the client of the external auditor.
- Failure to follow up and correct previously identified internal control deficiencies.
- Evidence of significant undisclosed related-party transactions.
- Ineffective internal audit, including restrictions on the scope of internal audit activities.
- Management overrides accounting transactions.
- Personnel do not have the competencies to carry out the assigned tasks.

Deficiencies in the Operation of Controls

- Independent tests of controls at a division level indicate that the control activities are not working properly, e.g., purchases have been made outside of the approved purchasing function.
- Controls fail to prevent or detect significant misstatements of accounting information.
- Misapplication of accounting principles.
- Credit authorization processes are overridden by the sales manager to achieve sales performance goals.
- Reconciliations (a) are not performed on a timely basis or (b) are performed by someone independent of the underlying process.
- Testing reveals evidence that accounting records have been manipulated or altered.
- Evidence is found of misrepresentation by accounting personnel.
- Computerized controls leading to items identified for non-processing are systematically overridden by employees to process the transactions.
- The completeness of a population, e.g., prenumbered documents or reconciling items logged onto the computer with those processed, are not accounted for on a regular basis.

The auditor has an additional purpose in testing the controls: the auditor has to determine the most efficient manner in which to audit both the controls and the financial statements. If there are deficiencies in the organization's internal controls over financial reporting, the auditor does two things: (1) assesses control risk as higher, and (b) determines the type of misstatements that are most likely to occur as a basis for designing better tests of those account balances.

In this section, we examine the process by which the auditor evaluates control activities through an understanding and testing of those control activities. The auditor uses that understanding to plan the audit, communicate to management regarding control deficiencies, and report on the quality of internal control over financial reporting.

External auditors of *public companies* must report on management's assertion regarding the effectiveness of internal control over financial reporting. The requirements for this reporting are described in the PCAOB's Auditing Standard No. 5: "An Audit of Internal Control over Financial Reporting that is Integrated with an Audit of Financial Statements." The audit of internal controls culminates in a

AUDITING IN PRACTICE

The Impact of Sarbanes-Oxley on Management's Internal Controls

The mandatory reporting required by the Sarbanes-Oxley Act has dramatically changed the way many organizations think about and evaluate controls. The process of identifying, documenting, and testing internal controls has created an awareness of deficiencies that were never addressed previously. There had been a tendency to not look at controls if operations were profitably managed. The reporting requirement has had the following effects on day-to-day management of organizations:

- Mid-level and lower-level managers now understand they are the owners of the control processes, not the auditors.
- Companies have identified risks and control deficiencies that are often ignored if sub-units are profitable.
- Improved controls have led to improved efficiencies in operations.
- Management has become more risk conscious and has developed better monitoring controls.

The bottom line effect is that all managers realize they have responsibility for the effectiveness of internal controls, including processes that allow them to monitor controls and identify deviations from good practices. The new found attention on internal controls has led to improvements in business practices.

The stated intent of the Sarbanes-Oxley Act is that boards of directors need to understand they have a responsibility to improve the governance of the organization, including the organization's responsibility to develop effective control systems that safeguard assets and improve the reliability of financial reporting. It appears that the Act is having the desired effect.

report that expresses an opinion on the client's internal controls that is included in the client's annual report to the SEC and shareholders.

External auditors of *non-public* companies must report to management and the board the existence of significant deficiencies in the design or operation of internal controls that are identified in the normal course of a financial audit. No additional work is required beyond that necessary to conduct a financial audit. The purpose of the auditor's report is to help management fulfill its responsibilities for maintaining adequate internal controls.

Auditor Assessment of Internal Controls as a Basis for Subsequent Audit Testing

Practical Point

An integrated audit is based on the fundamental concept that effective controls reduce the risk of account balance or disclosure misstatements.

Assessing whether there are deficiencies in internal control over financial reporting is a complex task. Control risk can be evaluated on a scale from high (i.e., weak controls) to low (i.e., strong controls). Assessing control risk as high means the auditor does not have confidence that internal controls will prevent or detect material misstatements. When control risk is high, the auditor needs to perform more direct testing of account balances. In contrast, for companies with good internal control, the amount of direct testing of account balances can be significantly decreased.

The process for evaluating controls is shown in Exhibit 6.7. The approach can be described as four logical phases:

Phase 1: Obtain an understanding of risks and internal controls.

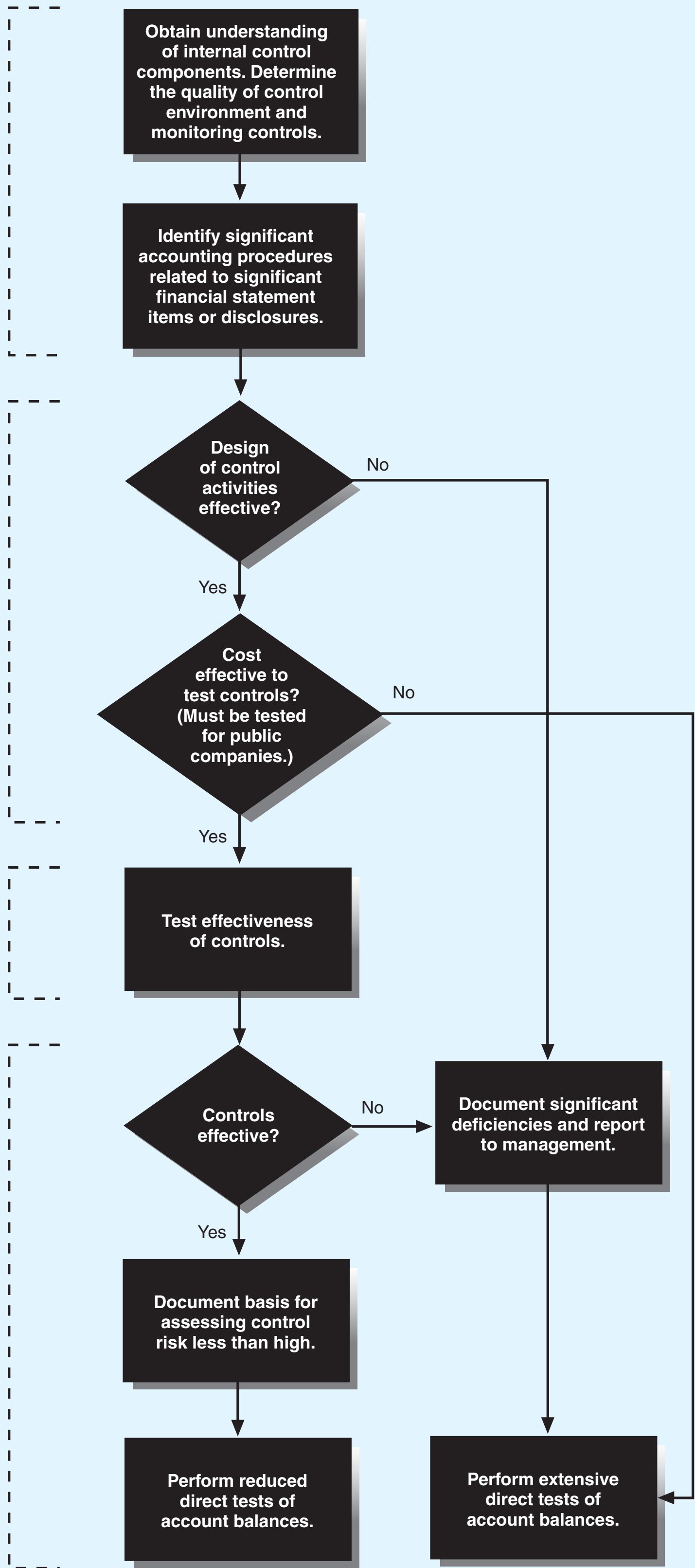
Phase 2: Make a preliminary assessment of control risk and decide whether to test control procedures (mandatory testing for public companies).

Phase 3: If appropriate, test the controls for effectiveness (optional for non-public companies).

Phase 4: Based on results obtained, reevaluate the preliminary assessment of control risk and the approach to direct testing of account balances, and revise the approach if necessary.

These phases are described in the following sections, with an emphasis on Phases 1 and 2. A detailed discussion of Phases 3 and 4 appears in the following chapter in conjunction with a description of the integrated audit of internal controls and the audit of financial statements.

EXHIBIT 6.7 Process for Evaluating Internal Controls—All Clients



Practical Point

Management's assessment of internal controls for the purpose of external reporting is consistent with the first three phases described here for the auditor's assessment.

Phase 1—Obtain an Understanding The auditor needs to gain an understanding of both the design and operating effectiveness of the five components of internal control: the control environment, the risk assessment process, control activities, the information and communication system, and monitoring activities. For continuing clients, much of the information is available from the previous-year's audit and will need to be updated for changes. For new clients, this process is necessarily much more time-consuming.

Obtain an Understanding of the Control Environment and Management's Risk Assessment Process The control environment has a pervasive effect on the culture of an organization, and therefore it affects the likelihood of errors or fraud. Understanding the risk assessment process is important because it reveals management's preferences, preparation, and risk tolerance. As with management's assessment, the control environment and risk assessment components must be assessed on the quality of components of the process rather than by looking at accounting transactions.

A partial sample of a control environment and risk assessment questionnaire was shown in Exhibit 6.3. That expanded questionnaire serves as a basis for the auditor to evaluate the control environment. In looking at Exhibit 6.3, it is important to understand that the auditor should not only gather information on the questions, but should observe how well each element is implemented by management or the board.

Understand Company Operations and Risk Assessment The auditor should gather information about the nature of the company's operations, the risks the company faces, and the approaches that management has taken to address those risks. Most of these items have been addressed in previous chapters. An overview of selected operational issues is presented in Exhibit 6.8.

Practical Point

Many audit firms now use electronic audit documentation systems with on-screen highlights that remind auditors about the specific financial reporting assertion they are testing with each audit step.

Obtain an Understanding of the Accounting Processes Auditors of both public and non-public clients are required to assess control risk for each relevant assertion for each important class of transactions and each significant account balance as a basis for planning the audit. See Exhibit 6.9 for a summary of financial reporting assertions for transactions and events.

Pervasive Control Activities Some control activities are implemented in almost all accounting systems. These pervasive control activities include the following:

EXHIBIT 6.8 Overview of Operations and Risk Assessment Issues

Nature of Company Operations

1. Is the company highly computerized? If yes, describe its computerization and the risks that should be considered during the course of the audit.
2. Does the company have a sound strategy for future growth and meeting customer needs? Please describe.
3. What main competitive factors are currently affecting the company? How is the company coping with these factors? What are the potential implications of these factors on major account balances such as inventory or accounts receivable?
4. Are important legal or regulatory developments currently affecting the company? If yes, please describe.

Nature of Management's Risk Assessment Process

1. What risks do management view as most crucial to their success?
2. What new risks have been identified by management in the past year?
3. How long has it been since the company has updated its risk assessment process?
4. Does the entity have a planned reaction to respond to a lack of resources? What is the nature of that plan?
5. Are the risks to financial reporting incorporated into a plan for developing controls over process transactions, adjusting entries, and accounting estimates?

EXHIBIT 6.9 Financial Reporting Assertions for Transactions and Events

Occurrence

1. Recorded transactions and events have occurred and pertain to the entity.

Completeness

2. All transactions and events that should have been recorded have been recorded.

Accuracy

3. Amounts and other data have been recorded accurately.

Cutoff

4. Transactions and events have been recorded in the correct accounting period.

Classification

5. Transactions and events have been recorded in the proper accounts.

- Segregation of duties
- Authorization procedures
- Documented transaction trail
- Physical controls to safeguard assets
- Reconciliation of control accounts with subsidiary ledgers, of transactions recorded with transactions submitted for processing, and of physical counts of assets with recorded assets
- Competent, trustworthy employees

Segregation of Duties The concept underlying segregation of duties is that individuals should not be put in situations in which they could both perpetrate and cover up fraudulent activity by manipulating the accounting records. Proper segregation of duties requires that at least three employees be involved in processing a transaction, so that one employee provides an independent check on the performance of the other.

The functions of *authorizing* a transaction, *recording* the transaction, and *physical custody* of assets should be kept separate. Separating these three functions prevents someone from authorizing a fictitious or illegal transaction and then covering it up through the accounting process. Separating record keeping and physical custody of assets is designed to prevent someone with custodial responsibilities from taking assets and covering it up by making fictitious entries to the accounting records.

Authorization Policies Controls should be established to ensure that only properly authorized transactions take place, and that unauthorized personnel do not have access to—or the ability to change—already recorded transactions. For example, organizations do not want individuals to have access to computer records that are not needed for the performance of their jobs. The specific implementation of authorization policies varies with organizational size and degree of computerization. The following authorization guidelines are pertinent for all organizations:

- *Authorization* to enter into transactions should be consistent with the responsibility associated with the job or management function.
- The *ability to commit* the organization to any long-range plans with substantial financial impact should be reserved for the highest functional level in the organization, including the board of directors.
- *Authorization policies* should be clearly spelled out, documented, and communicated to all affected parties within the organization.

- *Blanket authorizations*, for example, computer-generated purchase orders, should be periodically reviewed by supervisory personnel to determine compliance with the authorization procedure.
- *Authorization should be limited* to departments that are assigned responsibilities for a particular function. For example, the credit department, not the sales force, should have the authority to extend credit to customers.

Adequate Documentation Documentation should exist to provide evidence of the authorization of transactions, the existence of transactions, the support for journal entries, and the financial commitments made by the organization. The following are guidelines for developing reliable documentation and ensuring adequate control:

- *Prenumbered paper or computer-generated documents* facilitate the control of, and accountability for, transactions and are crucial to the completeness assertion.
- *Timely preparation* of documents, including electronic documents as part of an electronic audit trail, improves the creditability and accountability of the documents and decreases the rate of errors on all documents.
- *Authorization of* a transaction should be clearly evident.
- A *transaction trail* to provide information to respond to customer inquiries and identify and correct errors should exist.

Practical Point

Documentation is often thought of as paper. However, the documentation can be either paper or electronic. Auditors and managers have to adapt to the nature of client systems and computerization.

These guidelines apply to both paper and electronic documents. For example, a computer application may be programmed to pay for merchandise when there is an electronic copy of receipt of merchandise. The computer program compares the receipts with a purchase order and may or may not require a vendor invoice before payment.

Physical Controls to Safeguard Assets Physical controls are necessary to protect and safeguard assets from accidental or intentional destruction and theft. Examples of physical controls include the following:

- Security locks to limit access to computer facilities
- Inventory warehouses with fences, careful key distribution, and environmental (climate) control
- Vaults, safes, and similar items to limit access to cash and other liquid assets
- Physical segregation and custody to limit access to records and documents to those authorized

Reconciliations Reconciliation controls operate by checking for agreement between:

- Submitted transactions and processed transactions
- Detailed subsidiary accounts and the corresponding control account
- Physical counts of assets with the recorded assets

It is important that reconciliations be performed by someone other than the person originally recording the transaction, the individual with custody for the transaction, and the individual with the ability to authorize the transaction.

Practical Point

Many of the important control activities are based on policies, procedures, and commitment to competence established as part of the control environment.

Competent, Trustworthy Employees Misstatements are made by humans either in processing transactions or in designing and implementing the computer-based accounting applications. The auditor gains a sense of employee competence throughout the course of the audit. The auditor can observe the conscientiousness of client personnel in carrying out their functions, or sense whether employees are dissatisfied and not conscientious in their work.

Linking of Financial Statement Assertions to Specific Control Activities

Linking the understanding of the accounting information and communication system with the understanding of control activities is an important task for auditors. Once the auditor understands an accounting process, the control objectives can be used to identify control procedures that can be assessed for effectiveness in both design and operation. An example linking financial reporting assertions with control activities for payroll processing is shown in Exhibit 6.10. The affected accounts are payroll expense, accrued payroll, cash, fringe benefits, and payroll taxes.

Identifying Significant Processes and Major Classes of Transactions

Major classes of transactions are those that are significant to the company's financial statements, for example, sales and cost of sales. Perhaps the easiest way to understand the processing controls is to perform a "walkthrough," which has been

EXHIBIT 6.10 Financial Statement Assertions and Control Activities

Financial Statement Assertion	Control Activities
Occurrence: Recorded transactions have occurred and pertain to the entity.	An employee is paid only if the employee already exists on the master payroll and is entered on that payroll by someone independent of payroll processing.
	A supervisor verifies that the employee worked, or the payroll department verifies by existence of time cards.
	Employees are required to electronically check-in and check-out for hours worked, thereby establishing an electronic trail of hours worked.
Completeness: All transactions have been recorded.	Employee expects a check within a specific time frame and acts as an independent check on performance.
	All instances of potential misstatements are sent to individuals other than those who have responsibility for preparing the payroll (independent check on performance).
	Payroll department reconciles total hours paid within the time period with total hours worked per supervisor or time cards.
Accuracy: Amounts have been recorded accurately.	A computer program that has been thoroughly tested for accuracy makes all computations. No changes have been made to the program.
	Each employee is given a job classification, and wages are determined by the job classification. No one except supervisory personnel can change the job classification.
	Payroll supervisor reconciles hours worked and overall payroll cost for each period and investigates unusual differences.
	Individual employee examines paycheck to determine if amounts are correct. Any inquiries are directed to someone independent of the person processing the payroll.
Cutoff: Transactions have been recorded in the correct accounting period.	Employee expects a check within a specific time frame and acts as an independent check on performance.
	Payroll department reconciles total hours paid within the time period with total hours worked per supervisor or time cards.
Classification: Transactions have been recorded in the proper accounts.	Company uses a chart of accounts to ensure uniformity from period to period.
	Computer program performing calculations and postings is independently tested and maintained.
	Job codes are verified with the database of active job codes.

defined as tracing the processing of a transaction from its beginning to its recording in the general ledger and identifying the important controls over the process. The walkthrough provides the auditor with a visual image of processing and controls. Walkthroughs, coupled with good interviewing skills, are the most often utilized approaches to gain an understanding of how the system actually operates. The auditor normally documents the understanding gained during the walkthrough in a narrative memorandum and/or a flowchart.

In addition to walkthroughs, other methods to obtain information about internal controls include the following:

- Making inquiries of accounting and operational personnel
- Taking plant and operational tours
- Reviewing client-prepared documentation
- Reviewing prior-year's audit documentation

Inquiries The auditor interviews employees to learn about segregation of duties, the extent of computer usage, documents generated regarding controls, and the nature of transaction processing. Inquiries are an increasingly important part of the control evaluation and are often performed in conjunction with walkthroughs.

Plant and Operational Tours Many control procedures depend on the integrity of information developed in non-accounting areas. For example, important information needed to record inventory begins with someone in the plant or warehouse recording the receipt of goods. Inventory or production personnel generate information regarding the transfer of goods from raw material to work in process to finished goods. The auditor should assess how conscientiously the operational employees carry out these procedures. Part of this assessment is made by examining documentary evidence, but part of it can be obtained from a plant tour and discussions with personnel.

Practical Point

Internal controls change slowly over time. Assessment of the effectiveness of controls is an ongoing process—hopefully one that is made by management and internal auditors on a regular basis. Previous years' control documentation should describe important accounting processes and control procedures. The auditor can use the previous work as a basis for review and update when necessary.

Client-Prepared Documentation Publicly-held companies are required to prepare documentation that describes *how* the organization's accounting systems and controls are supposed to operate. Such information can provide an initial understanding of procedures. That documentation, along with tests of controls performed by management, will become a basis for the auditor's testing of management's assertion on the effectiveness of internal controls. Such documentation and testing are also desirable for non-public companies.

Obtaining an Understanding of Management's Monitoring Activities Monitoring controls are important because they reflect the strategic decisions that management makes about how to evaluate the operation of the control system, both periodically and on a real-time basis. Effective monitoring controls require formal, standardized control procedures and a commitment to continuous improvement on the part of management. Monitoring activities can include both those that management completes itself or those that it delegates to the internal audit function. A partial questionnaire designed to assist auditors in understanding management's monitoring activities is shown in Exhibit 6.11.

Phase 2—Preliminary Assessment of Control Risk and Control Effectiveness After gaining an understanding of the company's controls, the auditor makes a preliminary assessment of the effectiveness of internal controls as a basis to assess control risk. The preliminary assessment is important because it drives the planning for the rest of the audit. If the auditor views control risk as high, the auditor cannot plan on relying on the controls to reduce other tests of account balances. The direct testing of account balances must be planned so that no reliance is placed on the client's internal controls. The *Auditing in Practice* feature demonstrates the linkage of control weaknesses and audit tests.

EXHIBIT 6.11 Evaluating Management's Monitoring Activities: Sample Questions

Operational Monitoring Controls

1. How does management manage and evaluate the performance of key business processes?
2. How has management determined that its internal controls are operating properly? Do operational data identify control problems?
3. What types of business-activity monitoring occur in the organization? For example:
   - What types of information technologies is management using to monitor business performance?
   - What signals problems in operational units or systems?
   - Is the monitoring system real-time or periodic?

Internal Audit

1. Is the respect afforded to the internal audit function within the entity appropriate? Does the internal audit function view its budget as adequate?
2. Has the internal audit function adopted and followed professional standards?
3. Is there a clear internal audit mission statement from the audit committee? What is the relationship between the internal audit function and the audit committee?
4. Are there restrictions on internal audit access to records or on its scope of activities?
5. Is there any evidence that the internal audit department is inadequate?

Assessing Control Risk as Moderate In some cases, the auditor may believe that control risk is not high, but that the cost of gathering evidence on the effectiveness of the controls will be higher than the savings obtained by reducing the substantive audit tests. This is applicable only when the auditor is not attesting to management's assertion on the effectiveness of internal controls (i.e., for non-public companies). If the auditor believes the design of controls is effective, but does not test the controls, the best the auditor can do is to assess control risk at the moderate level. Auditors should assess risk at the moderate level without testing controls only if (1) the organization audited is a continuing client, (2) past-year audit results indicate that the system was operating effectively, (3) preliminary analysis of the system indicates no significant changes since last year, (4) management has effective monitoring controls, and (5) the company is not issuing a report on internal control. Otherwise, control risk should be assessed as high.

Practical Point

An auditor's strategic decision to assess control risk as moderate without testing the underlying controls is limited to (a) non-public companies and (b) situations where the auditor has correlating evidence on internal controls.

Phase 3—Perform Test of Controls The auditor's preliminary assessment of control risk is based on an understanding of the control system as it *has operated in the past* and *how it is designed to operate.* If the auditor is going to assess control risk as low, then the auditor must gather assurance that the controls were indeed operating effectively throughout the fiscal period. To accomplish this, the auditor examines the

AUDITING IN PRACTICE

Linking Controls and Account Testing

Scenario. The auditor finds that the client does not use prenumbered receiving slips to record the return of sales merchandise nor does it have procedures to ensure prompt recording of returned merchandise. The auditor is also concerned that the overall control environment is weak and management seems obsessed with increasing earnings.

Linkage to Audit Tests. The auditor expands the tests for sales returns by (1) arranging to be on hand at the end of the year to observe the taking of physical inventory, observing items received during the inventory counting process, and the client's procedures for documenting receipts; (2) tracing receipts for items returned by customers to credit memos to determine if they are issued in the correct time period; (3) reviewing all credit memos issued shortly after year-end to determine whether they are recorded in the correct time period; and (4) increasing the number of accounts receivable confirmations sent to the client's customers. All four of these procedures represent an expansion of tests beyond that required if the company had good internal controls over receiving returned goods.

client's documentation of how controls work and develops an approach to test the controls.

In considering how auditors have implemented Auditing Standard No. 5, the PCAOB issued a policy statement emphasizing that auditors should "use a top-down approach that begins with company-level controls." Further, auditors and management need to focus only on those accounts that are material and processes that are relevant to internal control over financial reporting. Risk assessment should be used to eliminate from further consideration those accounts that have only a remote likelihood of containing a material misstatement.

Practical Point

The auditor must test the effectiveness of control operation for all significant controls if the auditor is reporting on internal controls.

An example of an audit program to test the effectiveness of internal controls over the shipment of items and recording of sales transactions is shown in Exhibit 6.12. Significant controls identified by the auditor include (1) use of prenumbered shipping documents, (2) review of sales order forms by supervisory personnel for completeness, (3) requirement that all shipments have specific supervisory authorization, (4) requirement that sales have credit approval before shipment, and (5) reconciliation of the total number of items billed with the number of items shipped.

In reviewing Exhibit 6.12, note that the auditor has designed specific procedures that will be effective in determining whether each important control is operating effectively. However, the auditor may do more than that. For example, the auditor also traces selected transactions through the system and into the general ledger, thus providing information about the correctness of the recorded balance. This dual-purpose testing is an example of an integrated audit.

Guidance on Sample Size for Testing Controls The auditor may choose to test a wide variety of controls. As a basis for developing guidance for transaction testing, we classify control procedures into five types:

1. *Transaction-oriented* controls that are designed to operate on every transaction throughout the year
2. *Transaction controls built into computer applications* that are designed to operate independently of manual intervention throughout the year

EXHIBIT 6.12 Audit Program for Testing the Effectiveness of Control Procedures (Manual System)

Procedure	Performed by
1. Review shipping procedures and determine the shipping department's procedures for filing shipping documents. Select two blocks of 50 shipping documents, and review to determine that all items are accounted for either by a sales invoice or voided. Investigate the disposition of any missing document numbers. [Completeness]	________
2. Select a sample of sales orders and perform the following for each:	
a. Review sales order form for completeness and approval by an authorized agent of the company. [Authorization]	________
b. Determine whether sales order requires additional credit approval. If so, determine whether such approval has been granted and documented. [Authorization]	________
c. Trace sales order to the generation of a shipping document, and determine that appropriate items have been shipped. [Occurrence]	________
d. Trace shipping document to sales invoice, noting that all items have been completely and correctly billed. [Completeness and Valuation]	________
3. Review the daily error report generated by the computer run to process sales transactions, and note the type of transactions identified for correction. Take a sample of such transactions and trace them to resubmitted transactions, noting:	
a. Approval of the resubmitted transactions [Authorization]	________
b. Correctness of the resubmitted transaction [Valuation]	________
c. Proper update of the resubmitted transaction in the sales account [Completeness]	________

3. *Monthly control procedures,* such as monthly bank reconciliations or reconciliation of subsidiary ledgers with control ledgers
4. *Year-end controls* that are more relevant to estimate account balances at the end of the year, e.g., allowance for uncollectible receivables
5. *Adjusting-entry controls* that affect the closing of the books and at year end as well as adjustments that are made to significant estimates during the year

The amount of work the auditor will need to perform to test the controls will depend on whether management or the internal auditors have tested the controls as a basis for their assertion on the effectiveness of internal control. The following guidelines are prepared assuming that the company has a strong control environment and either management or the internal auditors have tested the controls. If neither of these assumptions is correct, the extent of testing should be increased significantly.

Transaction Controls Transaction controls should be tested using the guidelines developed for attribute testing utilizing statistical sampling techniques found in Chapter 10. The sample size will be based on (a) whether failure of the control procedure is likely to lead to a significant misstatement in the account balance, (b) the rate of failure that would lead to a material misstatement, and (c) a statistical confidence level that would assure the auditor that there is not more than a remote likelihood that the control could be failing and not be detected by the auditor. The criteria for these samples are developed further in Chapter 10, but for the most part, the sample sizes will vary between 30 and 100 transactions, but could be higher in some instances.

Transaction-Oriented Computerized Controls The sample size must be sufficient to persuade the auditor that the control operates effectively across a wide variety of transactions throughout the year. If the auditor has tested controls over program change and has concluded those controls are effective, the tests of computerized controls could be as small as one for each kind of control of interest to the auditor. However, in most cases, a control addresses a wide variety of circumstances and the auditor may choose to examine exception reports to identify how unusual transactions are handled.

Monthly Control Procedures Assuming the design of these procedures is adequate, the auditor could choose one month and retest the client's tests of these accounts. For example, the auditor could re-perform the bank reconciliation for one month.

Year-End Controls The auditor is most concerned that these controls are working when it is likely that the amounts would be in year-end balance sheet accounts. The auditor would take a sample of transactions during the latter part of the year, e.g., the last quarter.

Adjusting Entry Controls These transactions represent high risk of material misstatement. The auditor's testing of the controls over these processes will be inversely related to the control environment, i.e., the better the control environment the smaller the sample size will be and vice-versa. The auditor wants to review a number of transactions to determine that (a) other controls are not being overridden by management; (b) there is support for the adjusting entries, e.g., underlying data analyses; and (c) the entries receive proper approval by the appropriate level of management. The exact answer as to the sample size cannot be given because it is difficult to estimate how many of such transactions occur near the end of the year. In many cases, the auditor may want to look at as much as 25–60% of material entries.

Phase 4—Update Assessment of Control Risk and Need for Substantive Testing The auditor's work in gaining an understanding of the operation of a client's internal controls is not an end in itself. It is part of the process designed

to conduct the most efficient audit possible while minimizing overall audit risk. If control risk is assessed as high, the extent of direct testing of account balances must be higher. We very briefly discuss this phase of the process for evaluating internal controls in this section, and then provide greater detail incorporated in our discussion of the integrated audit in the following chapter.

Documenting the Auditor's Understanding of an Organization's Internal Controls

Audit documentation contains the written record that provides the basis and justification for the auditor's conclusions. Audit documentation is important because it helps auditors form judgments and facilitates senior auditor reviews of work performed by staff.

Documentation methods should clearly identify each component of the internal control model starting with the control environment through risk assessment and control activities. Documentation of the auditor's assessment of control risk should clearly delineate implications for the substantive testing of accounts.

For audits of public companies, the PCAOB has provided very specific new guidance in Auditing Standard No. 3: Audit Documentation (AS3). AS3 states that the audit documentation must provide support for the representations in the audit report, and that it should:

- Demonstrate that the engagement complied with the PCAOB's standards.
- Support the basis for the auditor's conclusions concerning all the relevant financial statement assertions.
- Demonstrate that the underlying accounting records agreed or reconciled with the financial statements.

AS3 provides specific instructions on how long documentation must be retained by the audit firm (usually seven years), and states that audit documentation must contain enough information to enable an experienced auditor (who has had no previous connection with the engagement) to:

- Understand the nature, timing, extent, and results of the procedures performed, evidence obtained, and conclusions reached.
- Determine who performed the work, when the work was performed, and who reviewed the work.

Practical Point

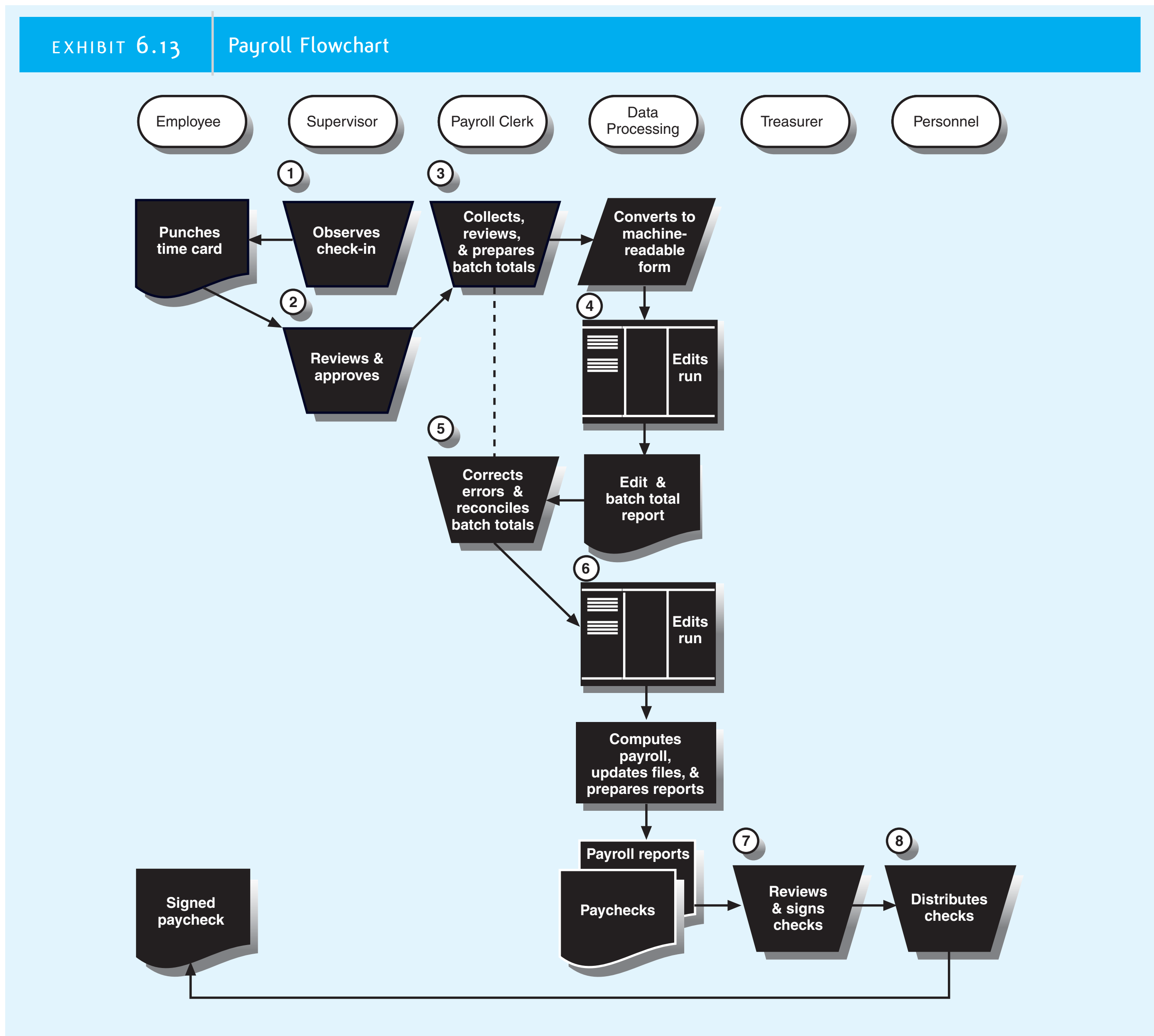
The PCAOB's requirement that documentation must be able to be interpreted by an auditor not connected to the engagement relates to the PCAOB inspection teams that review the quality of audit work on a sample of public company audits each year.

The documentation methodologies most often used are flowcharts, questionnaires, and written narratives. The approaches are not necessarily alternatives but are complementary. Once the overall internal control process has been documented, many audit firms will focus only on changes in the system in subsequent years and the effectiveness of monitoring controls to signal potential breakdowns in the overall control design. Documentation of the control environment and risk assessment has been discussed in the earlier section regarding management's assessment of internal controls. The auditor's approach for these areas will be similar. The remainder of the chapter concentrates on the auditor's documentation of control activities dealing with transactions. Overall auditor documentation must cover both.

Flowcharts Flowcharts provide a graphic description of an application or process. They can be highly detailed or prepared on a global level to present an overview of the accounting system and internal controls. Most companies use software to prepare the flowcharts and control analysis. The auditor's purpose in preparing a flowchart is threefold:

1. To communicate an understanding of the accounting system to members of the audit team
2. To document and assess the design of control activities
3. To identify significant processes and their effect on important account balances

EXHIBIT 6.13 Payroll Flowchart



Flowcharts are usually complemented by a description of control objectives and the auditor's identification of control activities addressing each objective. If sufficient controls are not present, the auditor normally includes comments on the implications of the control deficiencies on the design of substantive audit tests. An example of an overview flowchart identifying major processes and controls is shown in Exhibit 6.13. Items numbered (1) through (8) represent control features:

1. The supervisor periodically observes employees punching time cards to ensure that they do not punch in or out for someone else.
2. The supervisor reviews time cards and approves them for payment to ensure that employees are paid for appropriate hours worked.
3. The payroll clerk develops batch totals to compare with those developed by the computer while processing the payroll.
4. The computer is programmed to detect various types of errors, such as hours in excess of a reasonable limit and wrong employee numbers.
5. The payroll clerk prepares a reconciliation of items processed with those submitted for processing.
6. Corrections resubmitted by payroll are run through the computer edits to ensure that there are no other apparent errors.

EXHIBIT 6.14 Control Procedures Questionnaire—Accounts Payable (Manual System)

Purchases Authorized	Yes	No	N/A
1. Purchase requests are signed by the department supervisor.	_____	_____	_____
2. Approval of a purchase request is noted by the initials or signature of the purchasing manager.	_____	_____	_____
3. An approved vendor listing is readily available to all department supervisors requesting goods or services.	_____	_____	_____
Valid Recorded Purchases/Payables			
1. Receiving reports are independently signed and dated.	_____	_____	_____
2. Receiving reports are prenumbered, controlled, and accounted for.	_____	_____	_____
3. The purchase order, receiving report, and vendor invoice are agreed before recording the payable.	_____	_____	_____
4. Vendor invoices and supporting documents are defaced (e.g., stamped when paid) to prevent duplicate recording.	_____	_____	_____
Proper Account Distribution			
1. Account distribution is authorized by the department supervisor requesting the goods or services.	_____	_____	_____
2. Computer-generated account distribution reports are approved by an appropriate person signing or initialing the report.	_____	_____	_____
All Liabilities for Goods or Services Recorded			
1. Prenumbered purchase orders are accounted for.	_____	_____	_____
2. Computer batch control tickets are reconciled to edit reports.	_____	_____	_____
3. Edit reports identify invalid vendor numbers and part numbers.	_____	_____	_____
4. Online entry includes the input of vendor invoice control totals.	_____	_____	_____
All Payments Properly Supported			
1. Supporting documents are reviewed before the check is signed.	_____	_____	_____
2. Vendor invoice approval for payment is noted by the initials of the department supervisor authorizing the account distribution.	_____	_____	_____
Payments for Nonroutine Purchases			
1. Approved check request forms and/or billing statements accompany the check and are reviewed before the check is signed.	_____	_____	_____
All Returns Accounted for Properly			
1. Debit memos are prenumbered, controlled, and accounted for.	_____	_____	_____
2. Debit memos are approved by appropriate purchasing managers.	_____	_____	_____

7. The treasurer, who is not otherwise involved with payroll processing, reviews the payroll records before signing the paychecks.
8. A clerk in the personnel office, who is not otherwise involved with payroll processing, distributes the paychecks to prevent someone from having a fictitious employee paid.

Questionnaires An internal control **questionnaire** is an efficient documentation alternative. The questionnaire is designed to gather information by functional areas such as accounts receivable, credit analysis, accounts payable, fixed-asset accounting, and payroll. Questionnaires are designed so that a negative answer indicates the absence of a key control activity or an inadequate segregation of duties. Combinations of negative answers can be analyzed to determine the possibility of

misstatements that could occur without being prevented or detected. An example of a questionnaire for accounts payable is shown in Exhibit 6.14.

Questionnaires are comprehensive and fairly simple to use. If not used properly, they can also have drawbacks. First, they tend to be standardized and should be customized for each client. Second, and perhaps most important, questionnaires can lead to a "check the box" mentality in which the auditors get attuned to filling out the questionnaire, but may lose sight of the need to make judgments on the accomplishment of overall control objectives. Third, questionnaires can be completed with little thought about the implications of the various negative answers. Many firms address this second problem by (1) supervision and review and (2) using computer support systems to assist in evaluating questionnaire responses.

Narratives A verbal description of an organization's processes and internal controls is a **narrative**. They are used to describe accounting applications and often are prepared as supplements to flowcharts or questionnaires. They can be used to describe the client's processing in more detail and identify client personnel. Narrative memos are often used to provide complete documentation of relatively simple applications or for small-business applications.

Summary

Management's responsibility is for designing, operating, and maintaining an effective internal control system. Auditors' responsibility regarding internal controls comes from the mandate (for public companies) by the PCAOB to attest to the quality of internal controls, and the need to understand internal controls and associated control risk as a basis for subsequent audit planning and testing. The COSO Integrated Framework provides a tool for both management and auditors in these respects. The key elements of that framework include the control environment, risk assessment activities, control activities, information and communication systems, and monitoring. These elements are used by both management and auditors, and are helpful to financial statement users in understanding the specific sources of both strengths and potential weaknesses in internal controls. This chapter provides the foundation for understanding the "integrated audit" of financial statements and internal controls, which is covered in detail in Chapter 7.

Significant Terms

control activities The policies and procedures implemented by management to ensure the accomplishment of organizational objectives and the mitigation of risks.

control environment The overall control consciousness of an organization, effected by management through policies, procedures, ethical standards, and monitoring processes.

COSO A comprehensive framework of internal control used to assess the quality of internal control over financial reporting.

flowchart A graphical representation showing the flow of documents in a process.

information and communication One of the five components of internal control. Includes the process of identifying, capturing, and exchanging information in a timely fashion to assist in the accomplishment of an organization's objectives.

integrated audit The same auditor must attest to both the financial statements and management's assertions regarding the effectiveness of internal controls over financial reporting.

internal control A process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (1) reliability of financial reporting, (2) compliance with applicable laws and regulations, and (3) effectiveness and efficiency of operations.

material weakness in internal control A control deficiency that, by itself or in combination with other control deficiencies, results in a reasonable possibility that a material misstatement of the

annual or interim financial statements will not be prevented or detected.

monitoring One of the five components of internal control that assesses the quality of other transaction-based and operational controls over time. It includes the periodic assessment of both the design and operation of controls on a timely basis.

narrative A verbal description of an organization's processes and internal controls.

questionnaire A systematic set of questions designed to develop an understanding of an organization's internal controls and those responsible for implementing control activities.

risk assessment The process used to identify and evaluate all the risks that may affect an organization's ability to achieve its objectives.

significant deficiency in internal control A deficiency in the design or operation of a control that adversely affects the company's ability to initiate, record, process, or report external financial data reliably in accordance with generally accepted accounting principles. A significant deficiency could be a single deficiency, or a combination of deficiencies, that results in more than a remote likelihood that a misstatement of the annual or interim financial statements that is more than inconsequential in amount will not be prevented or detected.

Review Questions

6-1 How are internal control and corporate governance interrelated?

6-2 How are the concepts of risk and control interrelated?

6-3 What are the elements of the COSO Internal Control, Integrated Framework? How has the Sarbanes-Oxley Act affected the use of the COSO framework?

6-4 Define the term "internal control over financial reporting." What are the main components of an organization's internal control system? What is the difference between internal control and internal control over financial reporting? What are the implications of the difference to the auditor?

6-5 What is meant by the "tone at the top," and where does it fit into the COSO framework? Why is the tone at the top so important? How would an auditor go about assessing the tone at the top and its potential effect on the quality of an organization's controls?

6-6 What is an organization's control environment? What are the major elements of a control environment?

6-7 What functions do an organization's board of directors and the audit committee of the board of directors play in promoting a strong control environment? Explain.

6-8 What is monitoring? Give two examples of internal control monitoring and explain how they would be used by management.

6-9 What types of controls might a large-scale organization use to ensure that its divisional management is conducting business in a manner that will best achieve the objectives of the business? What control risks might be associated with a compensation system that places a heavy emphasis on year-end bonuses based on divisional profit performance?

6-10 Define the following terms:
- Deficiency in internal controls over financial reporting
- Significant deficiency in internal controls over financial reporting
- Material weakness in internal controls over financial reporting

6-11 Assume an audit committee is not effective. It has weak directors with little financial knowledge and they are not independent of management. How do the weaknesses affect the auditor's evaluation of internal control over financial reporting? Would a non-effective audit committee constitute a material weakness in internal control over financial reporting? State your reasons.

6-12 What does it mean to have a "material weakness in internal control"? How does the author distinguish between a significant deficiency in internal control and a material weakness in internal control? How does the auditor use the knowledge that there is a weakness in internal control as a basis to design direct tests of account balances?

6-13 Why would a company's potential customers or suppliers be interested in the quality of an organization's controls, particularly its computer controls?

6-14 Assume a stockholder or a creditor receives an audit report on a company's financial statements. Why would they be interested in a report on the effectiveness of internal control over financial reporting?

6-15 What is management's responsibility to report on the effectiveness of internal controls over financial reporting? How does the responsibility differ for public companies and privately-held companies?

6-16 What is the role of internal audit in assisting management in preparing its report on the effectiveness of internal control over financial reporting? Is internal audit considered to be independent of management, or an extension of management? Explain.

6-17 How does management gain assurance about the effectiveness of internal control over financial reporting?

6-18 Identify the major processes the auditor goes through in developing an understanding of internal control over financial reporting.

6-19 What is segregation of duties? What kinds of segregation of duties are important in accounting applications? Give an example of each type of segregation of duties that an auditor might look for in evaluating internal controls in a given accounting application.

6-20 What are the essential components of compensation practices that an auditor should look at when evaluating the control environment?

6-21 Identify controls the auditor would be looking for to achieve the objective that "all transactions that should have been recorded are recorded." For each control identified, briefly indicate how the auditor would go about testing whether the control operated effectively.

6-22 Identify the major control objectives related to the *occurrence* assertion. How is the occurrence assertion related to the accuracy assertion? Identify two or three key controls an organization might implement to achieve the occurrence objectives.

6-23 Identify the major objectives associated with the accuracy control objective. Briefly identify one or two controls that an organization might adopt to achieve the accuracy objective.

6-24 Is the auditor required to test the operation of controls on every audit engagement? Explain.

6-25 What are the testing requirements of internal controls for:

- A publicly-held company
- A non-publicly-held company

Identify situations in which an auditor might choose not to test internal controls.

6-26 What are the factors the auditor should consider in determining the sample size for tests of controls as part of the auditor's attestation to management's assertion on the effectiveness of internal control over financial reporting? Consider the following types of controls:

- Controls performed on every transaction
- Computerized controls as part of every transaction
- Monthly control procedures
- Controls over estimates
- Year-end adjusting entries

6-27 What are the advantages and disadvantages of using a questionnaire compared to a flowchart for documenting and assessing internal control?

6-28 Explain how a walkthrough would help the auditor understand and document the adequacy of controls in an accounting application.

6-29 How could a tour of the plant assist the auditor in gaining an understanding of the controls in place for important accounting applications?

6-30 What does the PCAOB standard require regarding auditor documentation of internal control?

6-31 What historical issues may have affected the PCAOB's decision to issue a standard on audit documentation, particularly a standard that emphasizes the retention of audit documentation files?

Multiple-Choice Questions

6-32 Which of the following would be considered a significant deficiency in an organization's control environment?

a. The internal audit function is outsourced to a public accounting firm that is not performing the financial statement audit.
b. Management has approximately 60% of its compensation in stock options but the options cannot be exercised for five years.
c. Management relies on the external audit as its primary source of monitoring controls.
d. The audit committee meets with the external auditor and the internal auditor, but does not allow the CFO to participate in these meetings.

6-33 Which of the following would *not* be considered an advantage of using an internal control questionnaire in understanding and documenting the controls in an important accounting application?

a. The questionnaire can be computerized to provide linkages of weaknesses to particular types of errors that might occur in the account balances.
b. Questionnaires can be used for many years without updating.
c. Questionnaires can be easily understood and provide easy identification of potential control deficiencies through "no" responses to questions.
d. Questionnaires can be adapted to both large and small businesses as well as to different industries.

6-34 Which of the following controls would be most effective in assisting the organization in achieving the completeness objective?

a. All employee time cards should be collected by the supervisor and transmitted directly to the payroll department for processing.
b. All shipments must be approved by the credit manager to ensure that the total invoice amount does not exceed approved limits.
c. All receipts of merchandise must be independently counted or weighed by someone in the receiving department who also reviews the goods for quality control deficiencies.
d. All shipments must be recorded on prenumbered shipping documents that are independently accounted for.

6-35 Proper implementation of reconciliation controls would be effective in detecting all of the following errors *except:*

a. Transactions were appropriately posted to individual subsidiary accounts, but because of a computer malfunction, some of the transactions were not posted to the master account.
b. The client has experienced inventory shrinkage that has caused the perpetual inventory records to be overstated.

c. Three shipments were never invoiced because employees in the shipping room colluded with a shipper to deliver goods to their own private company for resale and never recorded the shipments on any documents.
d. A bank teller properly recorded all transactions involving checks but pocketed all cash receipts, even though customers were given a receipt as evidence of the deposit to their accounts.

6-36 Which of the following statements would not be correct regarding the authorization function as implemented in an organization?
a. Blanket authorizations can be implemented in computer systems on the approval of the user area. All changes to the authorization parameters embodied in the computer should be made only on written, documented requests by the user area responsible for the authorization.
b. General authorizations may be delegated by top management in the form of company policies.
c. The auditor can rely on an authorization control only when there is documentary evidence of the authorization in the form of a signature or an authorizer's initials somewhere in the system.
d. Effective implementation of a "password" scheme to limit access to computer records is a form of authorization control.

6-37 Segregation of duties is best accomplished when the auditor can determine that:
a. Employees perform only one job; for example, someone working on accounts payable does not have access to other accounting records such as the detail in property, plant, and equipment.
b. The internal audit department performs an independent test of transactions throughout the year and reports any errors to departmental managers.
c. The person responsible for reconciling the bank account is responsible for cash disbursements, not cash receipts.
d. The payroll department cannot add employees to the payroll or change pay rates without the explicit authorization of the personnel department.

6-38 Authorization of transactions in a computerized processing environment can take place in the form of:
a. Computerized authorization in the form of user-approved blanket authorizations.
b. Electronic authorization of specific transactions carefully controlled by a password system.
c. User-approved (and tested) program to automatically compute economic order quantities and reorder when stock levels fall below a specified limit.
d. All of the above.

***6-39** The accounts payable department receives the purchase order form to accomplish all of the following *except:*
a. Compare invoice price to purchase order price.
b. Ensure that the purchase had been properly authorized.
c. Ensure that the party requesting the goods had received the goods.
d. Compare quantity ordered to the quantity purchased.

6-40 Which of the following would *not* be considered an effective implementation of the monitoring element of the COSO internal control framework?
a. Internal audit periodically performs an evaluation of internal controls that have been documented and tested in prior years.

* All problems marked with an asterisk are adapted from the Uniform CPA Examination.

b. Management reviews current economic performance against expectations and investigates to determine causes of significant deviations from the expectations.
c. The company implements software that captures all processed transactions that exceed company authorized limits.
d. The company builds in edit checks to determine whether all purchases are made from authorized vendors.

6-41 Which of the following best describes "more than a remote probability" as used in the PCAOB'S definition of significant and material deficiency in internal control? The failure is:
a. Likely
b. Reasonably possible
c. Unlikely
d. One in a 1000 chance

Discussion and Research Questions

6-42 **(Integral Role of Internal Control)** Internal control has been identified as a crucial part of corporate governance.

Required
a. What is the relationship between internal control and good governance practices?
b. Has mandatory reporting on internal control over financial reporting improved the quality of governance in organizations? Discuss the cost-benefit issues associated with mandatory reporting on internal control over financial reporting.
c. How might reports on internal control affect the valuation of a company's stock? Explain and justify your response.

6-43 **(Control Elements of COSO)** The COSO Internal Control, Integrated Framework describes an organization's internal controls as consisting of five elements.

Required
a. Briefly describe the relationship among the five components of an organization's internal controls.
b. Briefly explain how a deficiency in any one of the components of an organization's internal controls affects management's reporting requirements related to internal control over financial reporting.
c. For the purposes of conducting the financial statement audit, is an assessment of internal controls over financial reporting made at the overall organization level or for specific subsystems of the organization's transaction processing systems? Explain.

6-44 **(Control Elements–Tone at the Top)** A review of corporate failures as described in the financial press, such as *The Wall Street Journal,* often describes the tone at the top as one of the major contributors to the failure. Often the tone at the top at the failed companies reflects a disdain for controls and an emphasis on accomplishing specific objectives perceived to be important by top management.

Required
a. Identify the key components an auditor will evaluate in assessing the control environment of an organization, and indicate how the auditor's assessment of the overall control environment of an organization should affect the design and conduct of an audit.
b. For each component of the control environment identified in part (a), indicate the information (and the sources of the information) the auditor would gather in evaluating the factor.

c. Briefly describe how the auditor should go about documenting the assessment of the client's control environment. Does the auditor's evaluation of the control environment need to be documented in a memo, or could it be documented in some other way? Explain.

6-45 **(Monitoring Activities)** Companies can gain efficiencies by implementing effective monitoring of their internal control processes.

Required

a. Explain the importance of monitoring and identify the two major types of monitoring controls.
b. What comfort can the auditor get about the effectiveness of other controls in operation by testing the effectiveness of monitoring controls? Cite specific examples.
c. Identify (a) the important monitoring controls, and (b) what management might learn about the failure of other controls through the operations of monitoring controls that might be utilized in each of the following situations:
   - A convenience store such as a 7-Eleven
   - A chain restaurant such as Olive Garden
   - A manufacturing division making rubberized containers for the consumer market
   - A new Web-based book seller associated with a major book chain such as Barnes & Noble

6-46 **(Documenting Controls)** Management needs to document (a) the controls that exist to accomplish the objectives of good internal control over financial reporting, and (b) management's evaluation of the effectiveness of those controls.

Required

a. To what extent must the nature of internal controls utilized by a public company be documented and tested for effectiveness of operations?
b. What roles should each of the following parties play in the documentation and testing of internal controls over financial reporting?
   - Senior management
   - Internal auditing
   - Operating managers
   - Staff or operating personnel
c. Do management reports on internal control over financial reporting require independent testing of the controls by the organization, or just by the external auditor? Explain.

6-47 **(Reporting an Internal Control)** Various parties are taking an increased interest in the quality of an entity's internal controls.

Required

a. Briefly explain the difference between internal control and internal control over financial reporting. What are the major distinctions?
b. The Sarbanes-Oxley Act requires public reporting on the quality of internal controls over financial reporting. What are the primary benefits of such reporting?
c. Why might a company's trading partner be interested in the quality of an organization's internal controls, particularly its computerized controls?
d. How would a negative report on internal controls over financial reporting likely affect stock prices? Does the nature of the material deficiency make a difference in the likely effect on stock market prices? Explain by identifying, in your own view, the types of deficiencies that would most likely have a negative effect on stock market prices.

e. Does a report on internal control have to assess all of the COSO components or could it be based on the controls over the processing of transactions? Explain.

Group Activity

6-48 **(Risk Assessment)** Risk assessment is one of the five components of the internal control framework.

Required

Briefly describe:

a. Form into groups and identify the major risks to the achievement of effective internal control over financial reporting.
b. For each of the risks identified, identify one or two control procedures that would effectively mitigate the risks to an acceptable level.
c. For each control identified in part (b), identify a test to determine whether the control, if implemented by the company, is working effectively.

Group Activity

6-49 **(Control Environment Evidence)** Management and the auditor have to develop processes to assess the effectiveness of each principle contained in the control environment.

Required

Exhibit 6.2 is an example of an approach to identify the important elements of the company's control environment and an approach to gather evidence to determine if the underlying principle is being achieved. Examples are given for the first two principles underlying the control environment. Complete Exhibit 6.2 for the remaining principles. Consult with your instructor as whether you should use a company in your community for reference, or if it should be done in reference to a generic company. The remaining elements include the following:

a. Organizational structure
b. Management philosophy and operating style
c. Commitment to financial reporting competencies
d. Authority and responsibility
e. Human resources

6-50 **(Tests of Controls)** Auditing standards indicate that if control risk is assessed as low or moderate, the auditor must gain assurance that the controls are operating effectively.

Required

a. What is meant by testing the effectiveness of control procedures? How does an auditor decide which controls to test?
b. Do all control procedures need to be tested? Explain.
c. How is the auditor's assessment of control risk affected if a documented control procedure is not operating effectively?
d. Assume that an auditor needs to examine a document to determine that a control is working effectively and the client cannot locate the document. Should the auditor take another sample item? What should the auditor's conclusion be regarding the operation of the control if (i) the document cannot be found, and (ii) the auditor chooses another transaction and the documentation for that other transaction can be found?

6-51 **(Assessing Control Deficiencies)** Assume the auditor is testing management's assertion that internal control is effective. The company is a manufacturing company with high-dollar specialized machines used in constructing medical equipment. The auditor is testing controls over the revenue recognition process, including the recording of accounts receivable, cost of goods sold, and inventory.

Required

The following table identifies important controls the auditor is testing regarding the revenue cycle. The first column describes the control and the second the finding of the auditor.

a. Comment on whether the test results are sufficient to justify a conclusion. Explain your rationale.
b. Based on the test results, determine whether the auditor's results support a conclusion that either a significant deficiency or material weakness exists.

Describe your rationale in the last two columns.

Control Testing over Revenue

Control Tested	Test Results	Significant Deficiency?	Material Weakness?
(1) All sales over $10,000 require computer check of outstanding balances to see if approved balance is exceeded.	Tested throughout year with a sample size of 30. Only 3 failures, all in the last quarter, but all approved by sales manager.		
(2) The computer is programmed to record a sale only when an item is shipped.	Sampled ten items during the last month. One indicated that it was recorded before shipped. Management was aware of the recording.		
(3) All prices are obtained from a standardized price list maintained within the computer and accessible only by the marketing manager.	Auditor selected 40 invoices and found 6 instances in which the price was less than the price list. All of the price changes were initiated by sales people.		
(4) Sales are shipped only upon receiving an authorized purchase order from customer.	Auditor selects 16 transactions near the end of each quarter. On average, 3–4 are shipped each quarter based on salesperson's approval and without a customer purchase order.		
(5) Every shipment is assigned a number by the computer when an order is taken. A report is prepared each month showing the status of all items where purchase orders have been received, items currently in progress, and items shipped.	Auditor examines three of the weekly reports and observes that the items shown as shipped do not reconcile with the number of items invoiced. Management says this is a regular process and does not affect recording.		

6-52 **(Segregation of Duties)** For each of the following situations, evaluate the segregation of duties implemented by the company and indicate the following:

a. Any deficiency in the segregation of duties described (Indicate *None* if no deficiency is present.)
b. The potential errors or irregularities that might occur because of the inadequate segregation of duties
c. Compensating, or additional, controls that might be added to the process to mitigate potential misstatements
d. A specific audit test that ought to be performed to determine whether the potential misstatement had occurred

Situations

1. The company's payroll is computerized and is handled by one person in charge of payroll who is responsible for keying all weekly time reports into the computer system. The payroll system is password protected so that only the payroll person can change pay rates or add/delete company personnel to the payroll file. Payroll checks are prepared weekly, and the payroll person batches the checks by supervisor or department head for subsequent distribution to employees.
2. XYZ is a relatively small organization but has segregated the duties of cash receipts and cash disbursements. However, the employee responsible for handling cash receipts also reconciles the monthly bank account.
3. Nick's is a small family-owned restaurant in a northern resort area whose employees are trusted. When the restaurant is very busy, any of the waitresses has the ability to operate the cash register and collect the tab. All orders are tabulated on "tickets." Although there is a place to indicate the waiter or waitress on each ticket, most do not bother to do so.
4. Bredford Manufacturing is an audit client with approximately $16 million in annual sales. All of its accounting is performed on a high-end microcomputer located in a separate office area in the accounting department. The microcomputer has three terminals, one in the controller's department (used mostly for analysis purposes), one in the assistant accountant's area (individual is responsible for all accounting except cash receipts and sales billing), and one in the office of the individual responsible for billing and cash receipts. The office housing the microcomputer is locked each night when the controller leaves, but if the office is behind in processing, she often leaves it open for the sales clerk to work overtime and catch up on processing.
5. Bass Pro Shops takes all customer orders over a toll-free phone number. The order taker sits at a terminal and has complete access to the customer's previous credit history and a list of inventory available for sale. The order clerk has the ability to input all the customer's requests and then generate a sales invoice and shipment with no additional supervisory review or approval.
6. The purchasing department of Big Dutch is organized around three purchasing agents. The first is responsible for ordering electrical gear and motors, the second orders fabrication material, and the third orders nuts and bolts and other smaller supplies that go into the assembly process. To improve the accountability to vendors, all receiving slips and vendor invoices are sent directly to the purchasing agent placing the order. This allows the purchasing agent to better monitor the performance of vendors. When approved by the purchasing agent for payment, the purchasing agent must forward (a) a copy of the purchase order, (b) a copy of the receiving slip, and (c) a copy of the vendor invoice to accounts payable for payment. Accounts payable will not pay an invoice unless all three items are present and match as to quantities, prices, and so forth. The receiving department reports to the purchasing department.

7. The employees of Americana TV and Appliance are paid based on their performance in generating profitable sales for the company. Each salesperson has the ability to determine a sales price (within specified but very broad parameters). Once a sales price has been negotiated with the customer, an invoice is prepared. At the close of the day, the salesperson looks up the cost of the merchandise on a master price list. The salesperson then enters the cost of the merchandise on the copy of the invoice and submits it to accounting for data entry and processing. The salesperson's commission is determined by the gross margin realized on sales.

6-53 **(Documenting Internal Controls)** The auditor might document the preliminary analysis of an organization's internal controls in various ways. Three of the most common methods are (1) a flowchart, (2) an internal control questionnaire, and (3) a written narrative.

Required

a. For each of the three approaches:
   1. Identify the relative strengths and weaknesses of the approach.
   2. Indicate how important control procedures are identified and documented.
b. For each approach, explain how the auditor might use a computer to assist in documenting, updating, and evaluating internal controls of an organization and then determining the impact of the control structure on the conduct of the audit.

6-54 **(Testing Internal Controls)** If a company's control risk is low, the auditor needs to gather evidence on the operating effectiveness of the controls.

Required

a. For each of the following control activities, indicate the audit procedure the auditor would use to determine its operating effectiveness.
b. Briefly indicate the audit implication; that is, how direct tests of account balances would need to be modified if the auditor finds that the control procedure is not working as planned.

Controls

1. Credit approval by the credit department is required before salespersons accept orders of more than $6,000 and for all customers who have a past-due balance higher than $3,000.
2. All merchandise receipts are recorded on prenumbered receiving slips. The controller's department periodically accounts for the numerical sequence of the receiving slips.
3. Payments for goods received are made only by the accounts payable department on receipt of a vendor invoice, which is then matched for prices and quantities with approved purchase orders and receiving slips.
4. The accounts receivable bookkeeper is not allowed to issue credit memos or to approve the write-off of accounts.
5. Cash receipts are opened by a mail clerk, who prepares remittances to send to accounts receivable for recording. The clerk prepares a daily deposit slip, which is sent to the controller. Deposits are made daily by the controller.
6. Employees are added to the payroll master file by the payroll department only after receiving a written authorization from the personnel department.
7. The only individuals who have access to the payroll master file are the payroll department head and the payroll clerk responsible for maintaining the payroll file. Access to the file is controlled by computer passwords.

8. Edit tests built into the computerized payroll program prohibit the processing of weekly payroll hours in excess of 66, and the payment to an employee for more than three different job classifications during a one-week period.
9. Credit memos are issued to customers only on the receipt of merchandise or the approval of the sales department for adjustments.
10. A salesperson cannot approve sales return or price adjustment that exceeds 6% of the cumulative sales for the year for any one customer. The divisional sales manager must approve any subsequent approvals of adjustments for such a customer.

6-55 **(Authorizing Transactions)** Authorization of transactions is considered a key control in most organizations. Authorizations should not be made by individuals who have incompatible functions.

Required

Indicate the individual or function (for example, the head of a particular department) that should have the ability to authorize each of the following transactions. Briefly indicate the rationale for your answer.

Transactions

1. Writing off old accounts receivable
2. Committing the organization to acquire another company that is half the size of the existing company
3. Paying an employee for overtime
4. Shipping goods on account to a new customer
5. Purchasing goods from a new vendor
6. Temporarily investing funds in common stock investments instead of money market funds
7. Purchasing a new line of manufacturing equipment to remodel a production line at one of the company's major divisions (The purchase represents a major new investment for the organization.)
8. Replacing an older machine at one of the company's major divisions
9. Rewriting the company's major computer program for processing purchase orders and accounts payable (The cost of rewriting the program will represent one quarter of the organization's computer development budget for the year.)

6-56 **(Elements of Internal Controls)** Brown Company provides the following office support services for more than 100 small clients:

1. Supplying temporary personnel
2. Providing monthly bookkeeping services
3. Designing and printing small brochures
4. Copying and reproduction services
5. Preparing tax reports

Some clients pay for these services on a cash basis, some use 30-day charge accounts, and others operate on a contractual basis with quarterly payments. Brown's new office manager was concerned about the effectiveness of control procedures over sales and cash flow. At the manager's request, the process was reviewed and the following facts were disclosed:

a. Contracts were written by account executives and then passed to the accounts receivable department, where they were filed. Contracts had a limitation (ceiling) on the types of services and the amount of work covered. Contracts were payable quarterly in advance.
b. Client periodic payments on contracts were identified on the contract, and a payment receipt was placed in the contract file. Accounting records showed Credit Revenue; Debit Cash.
c. Periodically, a clerk reviewed the contract files to determine their status.
d. Work orders relating to contract services were placed in the contract file. Accounting records showed Debit Cost of Services; Credit Cash or Accounts Payable or Accrued Payroll.

e. Monthly bookkeeping services were usually paid for when the work was complete. If not paid in cash, a copy of the financial statement (marked "Unpaid $ _________ ") was put into a cash-pending file. It was removed when cash was received, and accounting records showed Debit Cash; Credit Revenue.
f. Design and printing work was handled like bookkeeping's work. However, a design and printing order form was used to accumulate costs and compute the charge to be made to the client. A copy of the order form served as a billing to the client and, when cash was received, as a remittance advice.
g. Reproduction (copy) work was generally a cash transaction that was rung up on a cash register and balanced at the end of the day. Some reproduction work was charged to open accounts. A billing form was given to the client with the work, and a copy was put in an open file. It was removed when paid. In both cases, when cash was received, the accounting entry was Debit Cash; Credit Revenue.
h. Tax work was handled like the bookkeeping services.
i. Cash from cash sales was deposited daily. Cash from receipts on account or quarterly payments on contracts was deposited after being matched with evidence of the receivable.
j. Bank reconciliations were performed using the deposit slips as original data for the deposits on the bank statements.
k. A cash log of all cash received in the mail was maintained and used for reference purposes when payment was disputed.
l. Monthly comparisons were made of the costs and revenues of printing, design, bookkeeping, and tax service. Unusual variations between revenues and costs were investigated. However, the handling of deferred payments made this analysis difficult.

Required

a. List the eight elements of poor internal control that are evident.
b. List six elements of good internal control that are in effect.

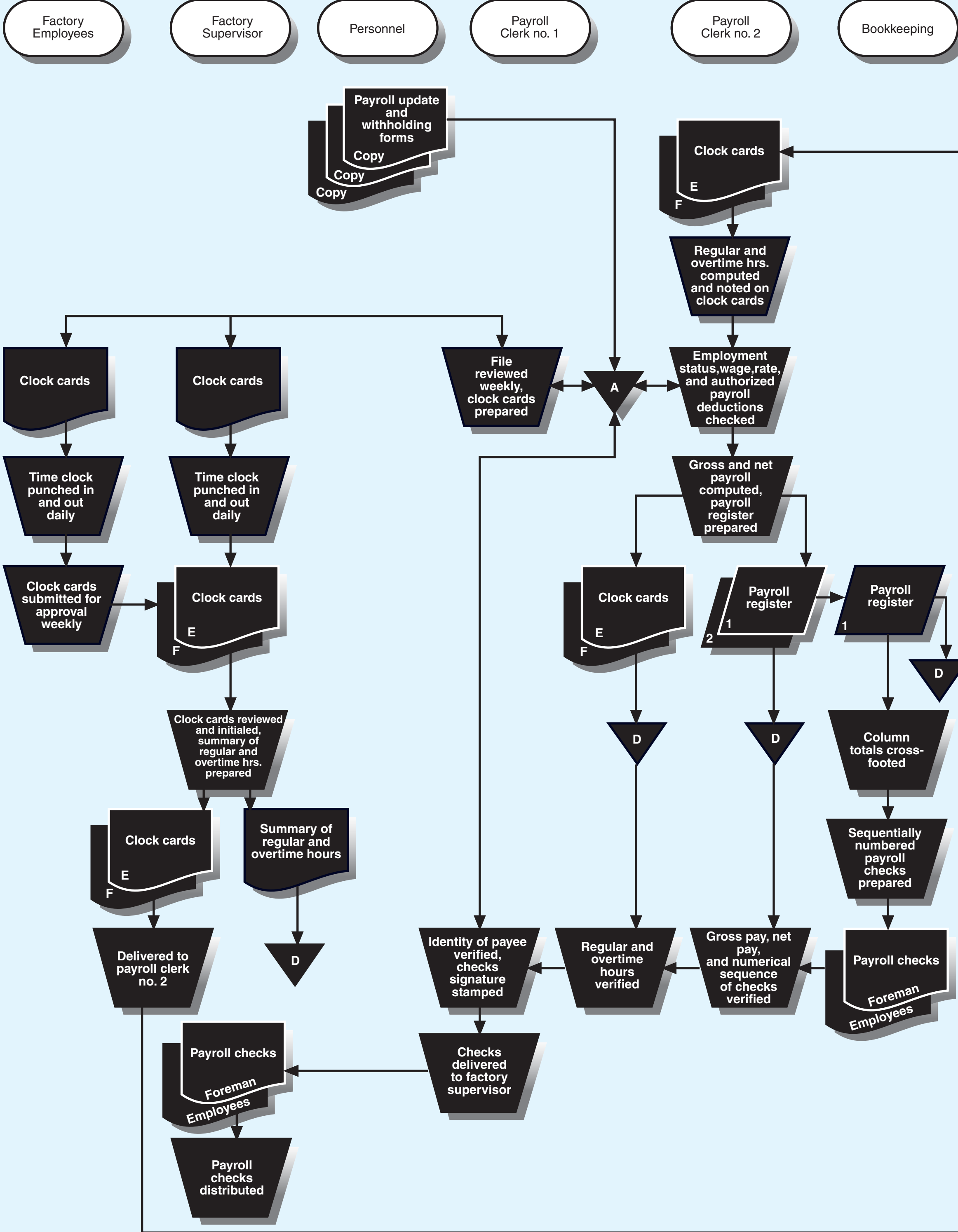
6-57 **(Payroll Controls)** A CPA's audit documentation contains a narrative description of a segment of the Crayden Factory, Inc., payroll system and an accompanying flowchart as follows:

- The internal control structure of the personnel department functions well and is not included in the accompanying flowchart.
- At the beginning of each workweek, payroll clerk 1 reviews the payroll department files to determine the employment status of factory employees, and then prepares time cards and distributes them as each employee arrives at work. This payroll clerk, who is also responsible for custody of the signature stamp machine, verifies the identity of each payee before delivering signed checks to the supervisor.
- At the end of each work week, the supervisor distributes payroll checks for the preceding workweek. Concurrent with this activity, the supervisor reviews the current week's employee time cards, notes the regular and overtime hours on a summary form, and initials the time cards. The supervisor then delivers all time cards and unclaimed payroll checks to payroll clerk 2.

Required

a. Based on the narrative and accompanying flowchart, what are the weaknesses in internal controls?
b. Based on the narrative and accompanying flowchart, what inquiries should be made in order to identify the existence of possible additional deficiencies in internal controls?

PROBLEM 6.57 Crayden Factory, Inc. Payroll Processing



6-58 **(Assessing the Control Environment)** During a discussion, a new auditor stated that an assessment of the organization's control environment is not very meaningful because it does not directly affect the processing of individual transactions, and it is the transactions that make up the account balance. As long as the auditor can test the details making up the account balances, the assessment of the control environment is unnecessary.

Required

a. Do you agree or disagree with the new auditor's statement? Justify your answer.
b. Identify six questions that should be included in a questionnaire designed to assess the control environment as it would affect the sales and receivable cycle.

6-59 **(Control Failures)** It has been alleged that many recent corporate failures have been largely due to the lack of adequate controls in the organization. For example, it has been alleged that internal control problems were pervasive at companies such as Enron, Global Crossing, and World Com. The financial press also contains many examples of frauds at the local level that have been perpetrated in organizations with weak controls.

Research Activity

Required

Identify a company or entity in your area of the country that has recently failed or has been involved in a fraud. Identify any elements of internal control that may have contributed to the decline and subsequent failure of the organization. Be prepared to discuss your answer in class.

6-60 **(Assessing Control Risk)** With your instructor's consent, select a place where you have worked part time, or an organization in which you have some acquaintance (relative or friend) and therefore have access to it. Select one area of operations (cash receipts, sales, shipping, receiving, or payroll) for review. For the area selected for review:

Research Activity

a. Identify the major transactions processed.
b. Select a representative transaction, and perform a walkthrough of the application to gain an understanding of processing and control procedures implemented to accomplish the control objectives described in the chapter.
c. Document the key control procedures using a control objectives framework.
d. Assess control risk for the assertions and document that understanding.
e. Identify control procedures you would recommend to improve the organization's internal controls.

Cases

6-61 **(Identification of Controls)** The university has a cafeteria plan that provides a meal ticket to each dormitory resident. Each meal ticket represents $20 of meals that can be purchased in any university cafeteria. All cafeterias also accept cash instead of a meal ticket. After choosing the entrees they desire, customers pay a cashier operating a cash register at the cafeteria exit. The cashiers are mostly students paid on an hourly basis by University Food Service.

The meal tickets are printed on blank card stock and are readily transferable. Students who subscribe to a meal plan level that is more than they need often sell their excess meal tickets to other students or faculty members. Each cafeteria is open only at specified times, such as lunch from 11:16 A.M. to 1:00 P.M.

Required

Identify the controls the university should implement to ensure that all purchases of meal tickets are recorded, meal tickets are properly deducted for the amount of purchase, and all cash is promptly and correctly deposited. Also consider the controls needed to protect against falsified meal tickets.

6-62 **(Control Deficiencies)** You have been assigned to review the internal controls of the credit department of a recently acquired subsidiary. The subsidiary imports several lines of microcomputers and sells them to retail stores throughout the country. The department consists of the credit manager (hired six months ago to replace the previous manager, who retired), a clerk, and a part-time secretary.

Sales are made by 15 sales representatives: 5 are at company headquarters and handle large accounts with retail chains and the local area, and 10 are located throughout the country. Sales representatives visit current and prospective customers and, if a sale is made, prepare a customer order form consisting of the original and three copies. One copy is retained by the customer, one by the sales representative, and one is sent to the warehouse; the original is sent to headquarters.

For new customers with orders of more than $6,000 a credit application is also completed and sent along with the order to headquarters. The credit application includes a bank reference and three credit references along with financial statements.

The sales order sent to headquarters goes first to the credit department for approval. The credit department looks up the customer's credit in a card file that is maintained for customers with "good credit." If the customer is found, the clerk examines a monthly report listing all accounts that have not been paid in 60 days. If the customer's account is not listed in the report, the clerk initials the order as approved and sends it to accounting for recording and billing. The credit manager holds orders from new customers or from customers listed on the 60-day report for review.

For orders of more than $6,000 from new customers, the credit manager reviews the credit application along with the financial statements and calls at least one of the credit references. If the order is approved, the manager initials it and gives it to the secretary, who prepares a card for the clerk's card file and then files the credit application.

If the order is denied, the manager adds the customer's name to a list of past rejected credit applications and canceled accounts. For new customers placing orders for less than the $6,000 limit, the credit manager reviews the order and checks it against the list of past rejections. If the customer's name is not on this list, the manager initials the order as approved and sends it to accounting. For orders from customers with accounts 60 days past due, the manager reviews the details of the accounts and the original credit application. If approved, such orders are initialed and sent to accounting.

If orders are not approved, the credit manager calls the warehouse to stop shipment. The order is marked "Credit Not Approved" and given to the secretary, who notifies the sales representative and the customer. The order and the credit application are then thrown away.

Once each quarter, the credit manager requests that the accounting department provide a list of all accounts more than 90 days old with supporting detail of account activity for the past 12 months. The credit manager reviews the information and determines whether action should be taken. Action consists of the following:

- The manager calls the sales representative and asks him or her to contact the client about payment.

- If payment is not made in three weeks, the credit manager calls the customer and requests payment. The customer's card is also pulled from the customer card file.
- If payment is not made within two additional weeks, the account is turned over to a collection agency.

When an account has been with a collection agency for two months without receiving payment, it is written off. The credit manager prepares the necessary adjusting entries.

Required

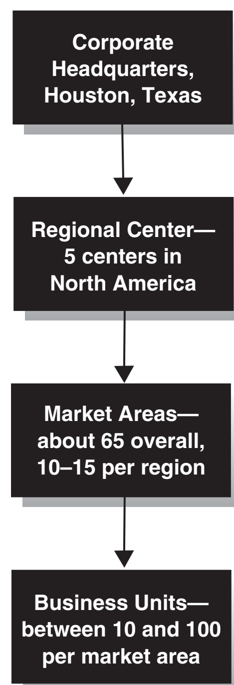
a. Identify the deficiencies associated with the credit function as just described. Use the following format:

Deficiency	*Associated Risk*	*Recommended Control*

b. Identify control improvements that could be made by computerizing more of the process.

6-63 **(Identification of Control Deficiencies)** Waste Management is an $11 billion company that picks up solid waste, and operates landfills, recycling centers, and electrical generation facilities. It produces electricity from land-fill by-products that serves about 1 million homes a year. It operates solely in North America. It is organized as follows:

Group Activity



The company is headquartered in Houston, Texas, and is organized to serve five major regions across the United States and Canada, i.e., East, North, South, West, and Canada. The regions are further subdivided into Market Areas, such as New York, Philadelphia, Eastern Ohio, etc. Within each market area are the actual business units, e.g., a landfill, a waste transfer station, a waste hauling division, and a recycling center. Much of the accounting takes place at the business unit level. The company operates about 300 landfill sites, 160 recycling centers, 400 solid waste sites, and about 1,000 waste hauling units. Thus, the company has approximately 2,000 separate business units.

Some of the company's applications operate at the corporate level, e.g., purchasing and accounts payable. Some operate at the market area level such as financial consolidation of units, development of monitoring

reports, and payroll processing. The remainder of the activities, particularly revenue processes, takes place at the business unit level. Principal revenue recording activities include the following:

- Billing governmental entities for contract prices for hauling solid waste. Billing is based on target number of households, but increases if the actual number of houses exceeds the set limit, and vice-versa.
- Billing individuals for special-request pick-ups, e.g., disposing of appliances.
- Selling recycled products to the secondary market.
- Collecting cash for non-Waste Management haulers that show up at a landfill. This is done through weighing the full trucks and collecting cash from the hauler for the amount weighed.

At this point, Waste Management has only begun installing integrated weighing and billing scales at the landfills. For most of the landfills, a scale operator weighs the truck, calculates the amount of solid waste received, and charges the hauler (or consumer) an amount based on authorized landfill policies. The operator collects the cash, and later, when time permits, enters all the data into the revenue recognition and cash accounting system kept on the computer.

All decisions on hiring new workers takes place at the business unit level even though payroll processing takes place at the market area level.

Required

a. Identify the control procedures that Waste Management should have in place for revenue processing and revenue recognition. Use the framework of internal control objectives for transaction processing to assist in the identification of needed controls. Also consider the risks associated with the processing, i.e., what things could go wrong with someone operating the weighing scales, collecting cash, and entering the data into the computer for revenue recognition purposes.
b. Identify two or three monitoring controls or exception reports that management might have in place to ensure that all solid waste accepted at a transfer station (to later be trucked to a landfill) or at a landfill are recorded.
c. Identify the control procedures the company should have in place to ensure that the internal control objectives for payroll processing are met.
d. Management has documented the controls and needs to develop tests to determine that the controls are operating effectively. For all the controls identified in part (a), indicate a test that would determine the effectiveness of the controls in operation.
e. Consider the three broad transaction classes identified above: (a) accounts payable, (b) payroll, and (c) revenue recognition. Develop a comprehensive approach that would guide the external auditor in determining how many controls need to be tested, and at what level they need to be tested, for each of the three processes. Consider the amount of testing that must take place at the corporate level, the market area level, and the business unit level.

6-64 **(Trading Partner Controls)** J. C. Penney department stores are the number one retailer of men's shirts in North America. In order to reduce inventory and order time, and to better anticipate market trends, J. C. Penney has established a sole sourcing contract with TAL industries of Hong Kong. J. C. Penney has signed a long-term purchase contract with TAL regarding the quality of shirts, prices, shipping requirements, and inventory levels.

TAL downloads information on sales from all J. C. Penney stores each evening. TAL has a responsibility to predict market demand and to increase the sales of its shirts in each J. C. Penney store. They have the advantage of analyzing diverse trends across the United States. They

have been known to rush-order the manufacturing of new shirts in specific styles and air-freight them directly to some stores—not at J. C. Penney's request, but because of their own market analysis.

In a sense, J. C. Penney does not know the exact quantities of shirts that will be shipped to each store. Nor does J. C. Penney have a formal receiving function at each store that logs in the items received. However, they do have a receiving function if the shirts go to one of their 12 distribution centers. But, if TAL labels and prices all the goods and ships directly to the stores, it saves time and effort for J. C. Penney.

TAL bills J. C. Penney electronically every week. J. C. Penney transfers the authorized amount electronically to TAL's bank account on the 16th and 30th of each month.

Required

a. What information does J. C. Penney need to know about TAL manufacturing before entering into a contract with them such as the one described?
b. Identify the controls that J. C. Penney should have in place to ensure that only goods that were received were billed, and that the billing is at the authorized prices.
c. What kind of reconciling procedure should J. C. Penney utilize to determine whether or not they paid TAL for more shirts than they actually received?
d. From TAL's viewpoint, what controls should J. C. Penney have on hand at the store level to ensure that shirts are not taken off the receiving dock before they reach the shopping floor, and that there is no shoplifting or other theft of the product? Why are these controls important to TAL?

CHAPTER 7

Performing an Integrated Audit

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Describe and outline an approach to perform an integrated audit.
- Describe the external auditor's report on internal control over financial reporting.
- Understand the auditor's responsibility to gather evidence to support an opinion on internal control over financial reporting.
- Understand the efficiencies, as well as the audit risk, associated with an integrated audit.
- Utilize the risk-based approach to determine financial statement accounts to independently audit and controls to test.
- Identify the audit efficiencies to be attained from an integrated audit.
- Determine the control elements that must be tested and evaluated in performing an integrated audit to support the auditor's opinion on internal control over financial reporting.

CHAPTER OVERVIEW

An **integrated audit** involves auditing a public company's financial statements as well as its internal controls. Public companies are required to have audited financial statements that are accompanied by (a) a management report on internal control over financial reporting, and (b) an external audit report on (1) the financial statements, on (2) management's assessment of internal controls over financial reporting, and on (3) internal controls over financial reporting. The external audit firm must identify, in its report on internal controls, any material weaknesses in internal control over financial reporting.

Auditors have always had a responsibility to understand internal control as a basis for determining the extent and timing of direct tests of account balances. But auditors were not required to test the controls, nor did auditors necessarily have to evaluate all components of the internal control framework in order to gather sufficient evidence to support the auditors' opinions on the financial statements. In many cases auditors found that it was efficient to directly test account balances and not test individual controls.

The audit requirements have changed with the enactment of the Sarbanes-Oxley Act of 2002. Auditors of public companies must evaluate and test internal controls over financial reporting. And they must perform those tests in an efficient manner in order to maintain audit firm profitability. This chapter describes approaches an auditor can take in efficiently gathering evidence to support two separate opinions: (1) an opinion on the financial statements and (2) an opinion on internal control over financial reporting.

Introduction—Expanded Audit Requirements

Performing Audits

- Risks of Material Misstatements
- Substantive Tests
- Conclusions

With the enactment of the Sarbanes-Oxley Act of 2002, both management of public companies and their external auditors must report on internal control over financial reporting. The reporting must be based on evidence of both the design and the operation of internal controls. Auditors must evaluate the five components of the COSO internal control framework and that evaluation must include testing of significant controls to determine whether they are working effectively. Further, the testing by the auditor must be independent of the testing that management might have performed in developing its own assessment of internal control, although the auditor can consider using some of the work performed by others in the organization.[1]

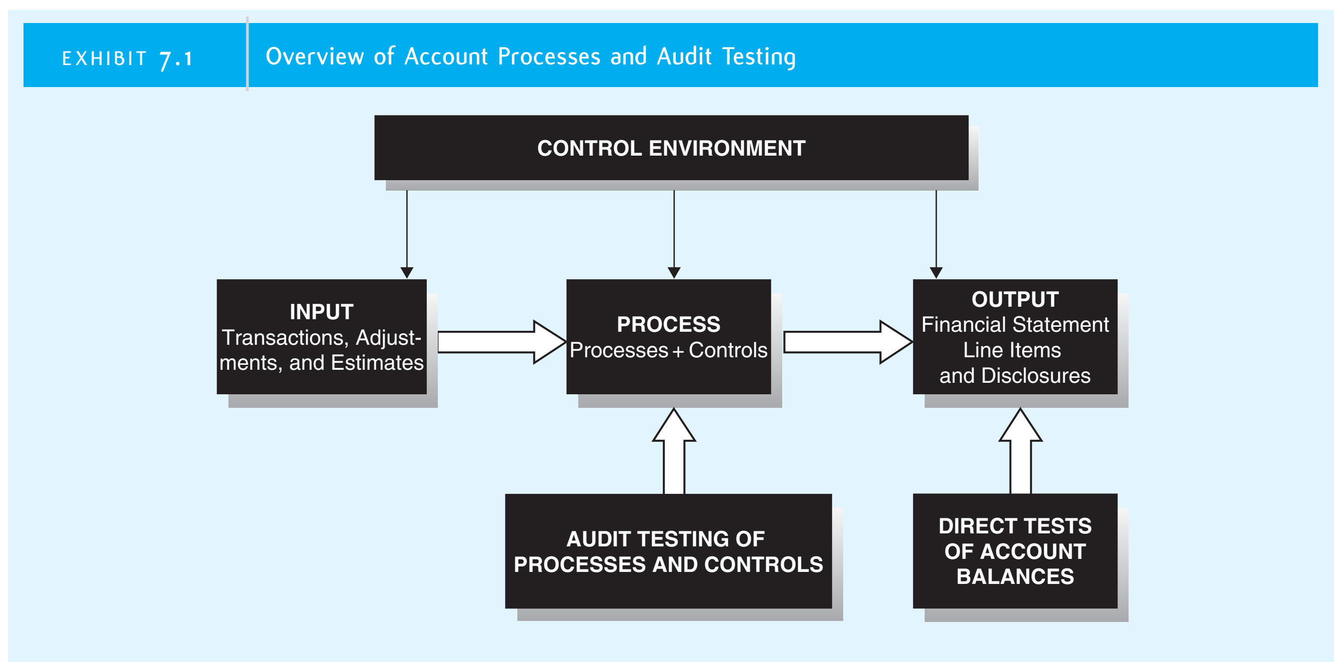
Even though an integrated audit is required for public companies, remember that this concept is important for audits of non-public companies as well. The objective is to plan and perform audits that detect material misstatements in an efficient manner. All audits must focus on those accounts where the likelihood of material misstatements is the greatest.

The components of internal control were presented in Chapter 6 along with approaches that the auditor and management might use to test the effectiveness of internal control. This chapter expands on the auditor's responsibility by analyzing how the auditor should integrate audit evidence to perform the most efficient procedures necessary to form the auditor's two separate opinions.

Framework for Audit Evidence in an Integrated Audit

The overall model leading to the preparation of financial statements can be seen in Exhibit 7.1.

EXHIBIT 7.1 Overview of Account Processes and Audit Testing



[1] For sake of brevity, we will use the term "internal control" in this chapter as a short-cut term for "internal control over financial reporting." The term "internal control," as described in the previous chapter, is much broader than the financial reporting objectives.

There are a number of important elements in Exhibit 7.1 that have implications for the integrated audit:

- The objective of both internal control and the external audit is developing confidence in the fairness of financial reports including all material account balances and needed disclosures.
- The control environment is pervasive and affects the process of recording transactions, making estimates, and making adjusting entries.
- If the control environment is strong and the controls over transaction processing, adjusting, and estimating are good, then both management and the auditor would have a high degree of confidence that the financial accounts are fairly stated and financial disclosures are adequate.
- There is potential for errors in input, processing, estimating, or adjusting even if internal controls are considered effective.
- Because errors could still occur, there is a need to do some, albeit limited and selective, testing of account balances and reviews of disclosures.
- There are three sources of evidence that the auditor can use to gather and evaluate the fairness of the financial statements. They are evidence derived from:
  - Tests that indicate that internal controls over transaction processing, adjusting, and estimating financial statement line items are effective
  - Tracing the recording of transactions through processes to determine that they are appropriately recorded in the account balances
  - Directly testing the account balance(s)

Public/Non-Public Clients

Auditors of public companies must render an opinion on internal control based on independent tests of internal controls. Auditors of non-public companies are not required to issue such reports. However, if a non-public company has effective internal controls, the integrated audit approach may also be most effective for auditing those companies.

The challenge in an integrated audit is to find the most cost-effective manner in which to develop sufficient evidence to render an opinion on the financial statements and the quality of a company's internal control.

For some account balances, the processing of transactions is computerized with few or no adjusting entries at year end. In such cases, the auditor might obtain sufficient evidence by testing the controls and tracing transactions through the system. For other accounts, such as accounting estimates, where the processes are not as well defined or may be subject to management bias or override, the auditor would have to perform direct tests of the account balance at year end to gather sufficient audit evidence to justify an audit conclusion.

The SEC and the PCAOB have encouraged audit firms to develop integrated audits. The auditor has to test internal controls to render a report on internal control. It makes sense that in situations where internal controls are effective, the auditor should reduce the direct tests of account balances. In other words, the auditor needs to take credit for the evidence and confidence that was gained through the internal control and transactions testing to reduce audit costs without increasing audit risk.

To provide a foundation for understanding how to conduct an integrated audit, we first consider the outcome of the control process investigation—the audit report on internal control over financial reporting. The report provides a road map for planning the integrated audit by describing the responsibilities of the auditor and the evidence that must be gathered to opine on management's assessment as well as on the financial statements.

Audit Report on Internal Control over Financial Reporting

The requirements for the audit of internal control were originally set out in Audit Standard No. 2[2] (AS 2), Para 4, as follows:

> The auditor's objective in an audit of internal control over financial reporting is to express an opinion on management's assessment of the effectiveness of the company's

[2] PCAOB, Audit Standard 2, *An Audit of Internal Control over Financial Reporting in Conjunction with an Audit of Financial Statements,* March 9, 2004.

> internal control over financial reporting. To form a basis for expressing such an opinion, the auditor must plan and perform the audit to obtain reasonable assurance about whether the company maintained, in all material respects, effective internal control over financial reporting as of the date specified in management's assessment. The auditor also must audit the company's financial statements as of the date specified in management's assessment because the information the auditor obtains during a financial statement audit is relevant to the auditor's conclusion about the effectiveness of the company's internal control over financial reporting. Maintaining effective internal control over financial reporting means that no material weaknesses exist; therefore, the objective of the audit of internal control over financial reporting is to obtain reasonable assurance that no material weaknesses exist as of the date specified in management's assessment.

The auditor is required to form an opinion on the quality of internal controls. The auditor gathers information on the quality of internal controls by:

- Assessing the quality of management's process in developing his or her opinion on internal control over financial reporting
- Evaluating the design of controls and the operation of controls that the auditor believes are designed effectively
- Making inferences about the quality of internal control based on findings in the financial statement audit

The last point is particularly important. The auditor must also audit the financial statements in order to express an opinion on internal control. Further, if the auditor finds material misstatements in account balances or disclosures, those misstatements usually imply that there were material weaknesses in internal control.

Unqualified Opinion on Internal Control over Financial Reporting

The auditor's report on internal control is integrated with their report on the company's financial statements. An example of a "clean" opinion on internal control is shown in Exhibit 7.2.

EXHIBIT 7.2 Auditor Report on Internal Control over Financial Reporting

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Woodward Governor Company:

We have completed an integrated audit of Woodward Governor Company's 2006 and 2005 consolidated financial statements and of its internal control over financial reporting as of September 30, 2006 and in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

[Section covering the financial statements is omitted for brevity for this illustration.]

Internal control over financial reporting

Also, in our opinion, *the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2006 and 2005, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).* The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

(*continued*)

EXHIBIT 7.2 Auditor Report on Internal Control over Financial Reporting (*continued*)

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
Fort Collins, Colorado
November 21, 2006

Emphasis added

Note that the auditor's unqualified report contains the following elements:

- The internal control report is contained in the same report that contains the opinion on the financial statements. An acceptable alternative is to issue two reports—one on the financial statements and the other on internal controls.
- The auditor provides an opinion on the effectiveness of internal control in the context of agreed-upon criteria, i.e., the *COSO internal control, integrated framework*.
- The auditor's opinion considers both the *design* and the *operating effectiveness* of internal control.
- The auditor recognizes and conveys to users that there are limitations of internal control that can affect its effectiveness in the future.

Adverse Audit Opinion on Internal Control over Financial Reporting

During the first reporting year (2004), approximately 15% of the SEC registrants received adverse reports on the quality of their internal controls. An **adverse report** is issued when the auditor finds material weaknesses in the client's internal controls over financial reporting. An example of an adverse report is shown in Exhibits 7.3 and 7.4. The first exhibit contains selected parts of Milacron, Inc.'s description of internal control deficiencies contained in their annual report. The deficiencies relate to controls over financial disclosures as well as to the adequacy of the organization's other internal controls. The company discloses that if they do not remediate the control deficiencies, it may be considered to be in default on its senior debt securities.

Investors and lenders are very interested in the quality of the organization's internal controls. Management's report indicates what they are doing to remediate the control deficiencies; for example, they have made a commitment to upgrade the quality of accounting personnel. It is interesting to note that the internal control deficiencies cover basic areas described in the previous chapter: competence of personnel, segregation of duties, and inventory management.

The external auditor's adverse report is shown in Exhibit 7.4.

The auditor describes the weaknesses identified in management's report, but does not discuss the actions being taken by the management team to remediate

EXHIBIT 7.3 Management's Description of Control Weaknesses Milacron, Inc. 2004

Item 9A. ***Controls and Procedures***

Disclosure Controls and Procedures (Interim Analysis)

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed by the company is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission (SEC). . . . the company's chief executive officer and chief financial officer have concluded that the company's disclosure controls and procedures were not effective as of December 31, 2004, due to the material weakness in internal control over financial reporting described below.

Internal Control over Financial Reporting

While the company's assessment of the effectiveness of its internal control over financial reporting is not complete, a material weakness, as defined in standards established by the Public Company Accounting Oversight Board (United States), has been identified. . . . The identified material weakness consists of inadequate levels of review of complex and judgmental accounting issues. Various audit adjustments were needed to correct errors resulting from the internal control deficiency. This deficiency manifested itself in the determination of deferred tax valuation allowances as well as litigation reserves and recoverables from third-party insurers. These adjustments are reflected in the company's audited financial statements for the year ended December 31, 2004. . . .

To address the identified material weakness, the company is in the process of implementing remediation plans, including the following:

- The company has increased its levels of review of complex and judgmental accounting issues.
- The company has initiated a plan to add personnel with technical accounting expertise.
- The company has made a commitment to increase professional development for finance and accounting personnel . . .

The indenture governing the company's 11 1/2% Senior Secured Notes due 2011 requires filing the Form 10-K in a timely manner. The failure to do so is a default under the indenture.

Updated Analysis Filed in Amended 10-K

The following is a description of the three material weaknesses in the company's internal control over financial reporting:

Review of Complex and Judgmental Accounting Issues—There are inadequate levels of review of complex and judgmental accounting issues. Various audit adjustments were needed to correct errors from this internal control deficiency . . . {*remainder of paragraph describes these deficiencies in more detail*}.

Segregation of Duties—There is inadequate segregation of incompatible duties with respect to the company's manual and computer-based business processes at the corporate and operating levels. Such inadequacy in segregation of incompatible duties significantly reduced or eliminated the effectiveness of many of the company's internal controls over the accounts which comprise the consolidated financial statements. This material weakness has been caused primarily by two factors:

- Instances in which, as a result of the company's effort to stream-line business processes, individuals are in various conflicting roles; and
- The use of older computer systems which are not always capable of limiting user's access to certain transactions.

No audit adjustments to the company's audited financial statements for the year ended December 31, 2004 resulted from this material weakness.

To address this material weakness, the company will implement, based on specific circumstances, one or more measures, which will include:

- Reassignment of certain responsibilities in order to eliminate incompatible roles;
- Implementation of independent reviews of certain completed transactions; and
- Further restriction of access to certain sensitive, conflicting transactions.

Additionally, the company is in the process of implementing a company-wide [computer] system to upgrade its overall operating systems. In addition to the many operating benefits, the new system will also be capable of adequate segregation of duties.

Inventory Valuation—There are insufficient controls with respect to the accounting for inventories primarily at one major North American manufacturing location. Specifically, the Company did not have effective controls to ensure inventory was properly valued and to ensure inventory was properly relieved at the time of sale.

Because of the material weaknesses described above, management has concluded that, as of December 31, 2004, the company did not maintain effective internal control over financial reporting.

Ernst & Young LLP, the registered public accounting firm that audited the company's financial statements included in the Form 10-K, has issued an attestation report on management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2004, which is included below.

EXHIBIT 7.4 Adverse Opinion on Internal Control

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Milacron Inc.

We have audited management's assessment, included in the accompanying "Management's Report on Internal Control over Financial Reporting" appearing in Item 9A of this Amended Annual Report on Form 10-K, that Milacron Inc. did not maintain effective internal control over financial reporting as of December 31, 2004, because of the effect of the three material weaknesses identified in management's assessment, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Milacron Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the company's internal control over financial reporting based on our audit.

[*scope paragraph eliminated for text only*]

[*description of internal control paragraph eliminated for text only*]

[*limitations of internal control paragraph eliminated*]

A material weakness is a control deficiency, or combination of control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. The following material weaknesses have been identified and included in management's assessment:

Review of Complex and Judgmental Accounting Issues—The Company does not have adequate levels of review of complex and judgmental accounting issues. Various audit adjustments to the financial statements as of and for the year ended December 31, 2004 were needed to correct errors resulting from this internal control deficiency, which manifested itself in the determination of deferred tax valuation allowances, litigation reserves, and receivable amounts due from third-party insurers.

In addition, during the fourth quarter of 2005, the Company became aware of the need to restate its consolidated financial statements for the year ended December 31, 2004 due to the failure to consider the effect of a beneficial conversion feature on the calculation of basic and diluted loss from continuing operations per common share and net loss per common share. This error also represents an effect of the material weakness in review of complex and judgmental accounting issues.

Segregation of Duties—There is inadequate segregation of incompatible duties within the Company's manual and computer-based business processes at the corporate and operating levels. The inadequate segregation of incompatible duties significantly reduced or eliminated the effectiveness of many of the Company's internal controls over the accounts which comprise the consolidated financial statements.

Accounting for Inventories—There are insufficient controls with respect to the accounting for inventories primarily at one major North American manufacturing location. Specifically, the Company did not have effective controls to ensure inventory was properly valued and to ensure inventory was properly relieved at the time of sale.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2004 financial statements and this report does not affect our report dated March 25, 2005 except for the footnote titled Restatement of Financial Statements, as to which the date is October 10, 2005, on those financial statements.

In our opinion, management's assessment that Milacron Inc. did not maintain effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the COSO control criteria. Also, in our opinion, because of the

effect of the material weaknesses described above on the achievement of the objectives of the control criteria, Milacron Inc. has not maintained effective internal control over financial reporting as of December 31, 2004 based on the COSO control criteria.

We do not express an opinion or any other form of assurance on management's statements referring to plans for corrective action and remediation of the material weaknesses identified in management's assessment.

Ernst & Young, LLP
Cincinnati, Ohio
June 28, 2005 (except for the second paragraph
under Review of Complex and Judgmental Accounting
Issues, as to which the date is October 10, 2005)

the problems. The report also does not discuss whether the control weakness was first identified by management or the auditor. The auditor does not offer an opinion on management's plans to remediate the control deficiencies. The audit plan for the next year will address whether management has been effective in addressing the deficiencies.

Looking at these reports is much like reading a road map, i.e., it helps us understand where we need to go. Auditors perform procedures to identify whether material weaknesses in internal control exist. The adverse report gives examples of the types of weaknesses that the auditor and management might find. In the Milacron case, the weaknesses were present in both the control environment and in the control activities. The remainder of this chapter completes the road map to perform an integrated audit.

Planning the Integrated Audit

The SEC and PCAOB have encouraged auditors to follow a top-down, risk-based approach that considers the risk in financial statements and control processes. Recall that a financial statement audit that reveals no misstatements is not sufficient to conclude that internal controls are effective. For example, in the adverse report on internal control of Milacron, Inc., one of the control weaknesses was identified during the audit of an account balance (accounting estimates, which were misstated), while the other items, e.g., segregation of duties, were identified during the testing of internal controls.

The planning of the integrated audit consists of five phases. The audit team:

Planning the Audit

Large public companies are required to file their annual reports within 60 days after their fiscal year end. The filing requirement supports gathering more evidence during the year as a basis for the auditor's opinions.

Phase 1: Identifies and assesses *business risk* and determines the implications for audit risk. Business risk is used to consider both the motivation for misstatement as well as the areas in which misstatements may exist.

Phase 2: Assesses *fraud risk* and brainstorms how fraud might occur within the organization (see Chapter 9).

Phase 3: Considers the *process used by management* to assess internal control and address internal control deficiencies in a timely manner, including the following:

- Documenting significant processes and controls within those processes
- Documenting the other COSO control elements, especially the control environment, risk analysis, and monitoring process
- Testing the effectiveness of important controls as a basis for establishing the quality of controls (first year and potentially thereafter when new processes or controls are introduced)
- Monitoring the effectiveness of previously identified controls
- Testing of important control activities to determine that there is no deterioration of controls
- Correcting control deficiencies
- Assessesing the effectiveness of internal control over financial reporting
- Developing their report on internal control

Phase 4: *Determines which controls must be tested* within each of the COSO elements, considering:

- The control environment, which has a pervasive effect on internal control
- The importance of various processes, including transaction processing, adjusting entries, and estimates, that affect material financial statement accounts
- The controls that must be evaluated and tested in order to reach a conclusion on the effectiveness of internal control
- The need to corroborate control testing with direct tests of account balances

Phase 5: *Determines the most efficient approach* to achieve the dual objectives of reporting on internal control and on the financial statements and executing the audit plan.

In planning the overall process, the auditor considers that the COSO internal control framework is evaluated by considering all of the components to determine if internal controls are adequate to achieve the organization's objective of reliable financial reporting. That is, the assessment is made as to whether there is a reasonable probability that there could be a material misstatement in an account balance. The subject of the assessment is the account balance, not the individual assertions.

Practical Point

Management must have processes in place to monitor the effectiveness of internal control over financial reporting throughout the year.

The PCAOB has mandated that the external auditor must gather sufficient evidence that might include some internal testing, e.g. by the internal auditor, as well as the auditor's own testing. The more material the account, the more evidence should be gathered independently by the external auditor. Management is required to evaluate the effectiveness of controls throughout the period. The client must report, on a quarterly basis, whether there are material changes in internal control. Thus, the client should be monitoring the effectiveness of controls throughout the year even though their public report describes the effectiveness of internal controls at a specific point in time, usually the balance sheet date.

A Top-Down, Risk-Based Approach

A top-down, risk-based approach requires auditors to consider the materiality of account balances and processes along with the risks that the account balance may be misstated. The approach requires auditors to identify:

- Account balances or related disclosures that might be materially misstated
- Potential causes of the misstatement
- Important processes that may affect one or more account balances

The natural inclination is to begin the risk-based approach by looking at the financial statements and working backward to identify individual account balances. This is the approach that is suggested by the PCAOB in AS 5. While this approach has advantages, the auditor should also look to determine if management has implemented the risk analysis part of the COSO internal control framework. If they have, that represents an appropriate starting point. Further, some processes may be more important than account balances because. some account balances may be significantly understated.

Practical Point

The more subjective a process, the greater the risk of misstatement. Accounting estimates, for example, are generally more prone to risk than are normal, recurring adjusting entries.

Risk Analysis: The Starting Point The starting point should be to understand (a) the risks that the business faces in meeting it's objectives, including the objective of accurate financial reporting, (b) the risks that may motivate management or other employees to misstate the financial statements, and (c) the risks inherent in important business processes. The following is an overview of the risk characteristics that the auditor should consider, and that are developed more thoroughly in other chapters:

OVERVIEW OF RISK ANALYSIS: IMPORTANT CONSIDERATIONS

Risk Areas	Examples of Risk Considerations
Business Risk	· Introduced in Chapter 4 · Economic and competitive changes facing the business · Valuation effects on company assets/liabilities · Company reaction to the risks · Investor analyst reviews of company approaches · Other competitive risks
Management Motivations That May Create Risk	· Compensation/reward structure for all levels of management · Stock market performance and debt covenants · The effect of competitive factors on management actions

Risk Areas	Examples of Risk Considerations
Significant Processes That Affect Financial Accounts and Disclosures	• Identify the significant processes that encompass most of the company's transactions, e.g., revenue, purchasing, and payroll. • Identify the important computer processes used by the organization and the vulnerability of those processes to various types of risks. • Identify the major processes affecting accounting estimates and adjusting journal entries.

Account Balances and Risk Analysis The PCAOB has made it clear that a top-down risk-based approach to an integrated audit must start with an analysis of account balances and disclosures. Neither the client or the auditor need to be concerned with account balances that are not material or do not have the potential to be material. An example of the latter is a liability account that is not material in the client's unaudited financial statements because the account balance is understated. After understanding the business and its risks, the audit team should identify material (or potentially material) account balances, and then proceed to analyze the control environment and significant processes that affect the account balances.

The Control Environment: Always Important to an Integrated Audit The control environment is an important part of every integrated audit because the quality of the control environment has a pervasive effect on all other processes. Note, for example, that one of the remediation efforts by Milicron (see Exhibit 7.4) was to make a commitment to upgrade the quality of its accounting personnel. The process for evaluating the control environment and its components was developed in Chapter 6. The auditor needs to not only evaluate that the design of the control environment is appropriate, but that the operation of the control environment is consistent with the design. For example, assume the design is that the organization is to have independent directors; the auditor should seek evidence that shows they meet independently of management and are willing to take actions independent of management.

Many of the misstatements in financial statements occur in the processes of accounting judgments and accounting estimates. Oftentimes the misstatements occur because the company does not have the required accounting competencies. The auditor needs to determine if the organization has a commitment to build, or acquire, the competencies needed to address the complexity of the business and its processes. Auditors also need to determine that the organization identifies the characteristics of individuals who can deal with those complexities, retains those individuals, and periodically reevaluates the needed competencies.

***Practical* Point**

An audit firm uses a questionnaire to gather information about ethical attitudes and behaviors in a company as independent evidence of the operation of the ethical component of the control environment.

Identification of Significant Processes The processes that are considered significant will vary by organization and industry. For example, a Web-oriented company that makes its revenue through selling online advertising (e.g., Google) will have a significantly different process than a company that sells physical products through normal distribution channels. The significant processes that the auditor will generally consider in evaluating internal control include the following:

***Practical* Point**

The financial competencies needed for an organization are directly correlated with the complexity of transactions in which the company engages and the size of the company. Management and the auditor must make a subjective evaluation of the financial competencies of those involved in making accounting decisions.

SIGNIFICANT PROCESSES IN MOST ORGANIZATIONS

Processes	Account Balances Affected
Revenue	• Accounts receivable • Revenue • Cost of goods sold • Inventory • Warranty liabilities • Accounting disclosures (contingencies)

Processes	Account Balances Affected
Purchasing	• Accounts payable • Inventory • Expenses • Cash
Cash Collection	• Cash • Accounts receivable • Estimates of uncollectible accounts (through aging of account)
Payroll	• Cash • Payroll expenses • Fringe benefit costs • Fringe benefit accruals • Payroll accruals
Important Accounting Estimation Processes	• Pension obligation and expense • Medical care obligation and expense • Income taxes • Inventory obsolescence • Warranty liabilities • Contingent liabilities • Uncollectible receivables • Depreciation • Asset impairment
Other Important Processes Leading to Accounting Judgments	• Potential environmental liabilities • Health and safety • Compliance with governmental requirements for human resources, e.g., ensuring there is no discrimination or other labor requirements • Other

Practical Point

One of the criticisms of the audit profession in the late 1990s was that auditors focused on comparing account balances with the past years. Auditors often ignored the processes that led to the recording of the balances as well as the economic factors affecting growth. Their narrow view led them to erroneous conclusions about the correctness of account balances.

Why look at both processes and account balances in determing the nature of the integrated audit? The answer is fairly simple: the processes drive the correct account balance. Further, if the processes are not performed correctly, this could result in significant misstatement of an account balance that would not be signaled by looking at the size of an account balance. For example, if the process significantly underestimated, or did not record, a contingent liability, the absence of the liability would not be disclosed by the size of the account balance. However, the risk analysis and the process analysis would have identified the area as material to the financial statements.

Materiality of Account Balances Materiality is a judgment that contains both a quantitative and qualitative dimension. The process for determining materiality was discussed in Chapter 2 and includes consideration of factors such as reported earnings, size of the misstatement, trends in performance, and market expectations.

Keep in mind that each account balance usually has a related income or a balance sheet account associated with it. For example, accounts receivable and sales are related. The latter part of this text is organized around "accounting cycles," which are designed to bring the balance sheet and the income statement accounts together in terms of the underlying processes that affect the relevant accounts.

The process of determining the important account balances should include the following:

- Input from the audit team's brainstorming analysis regarding potential for fraud
- Review of "market expectations" of company performance
- Trends in performance, including trends in key business segments
- The size of the account balance

- The subjectivity used in making the accounting estimate
- Comparison of account balances with industry trends, averages, etc.
- Other important factors specific to the client

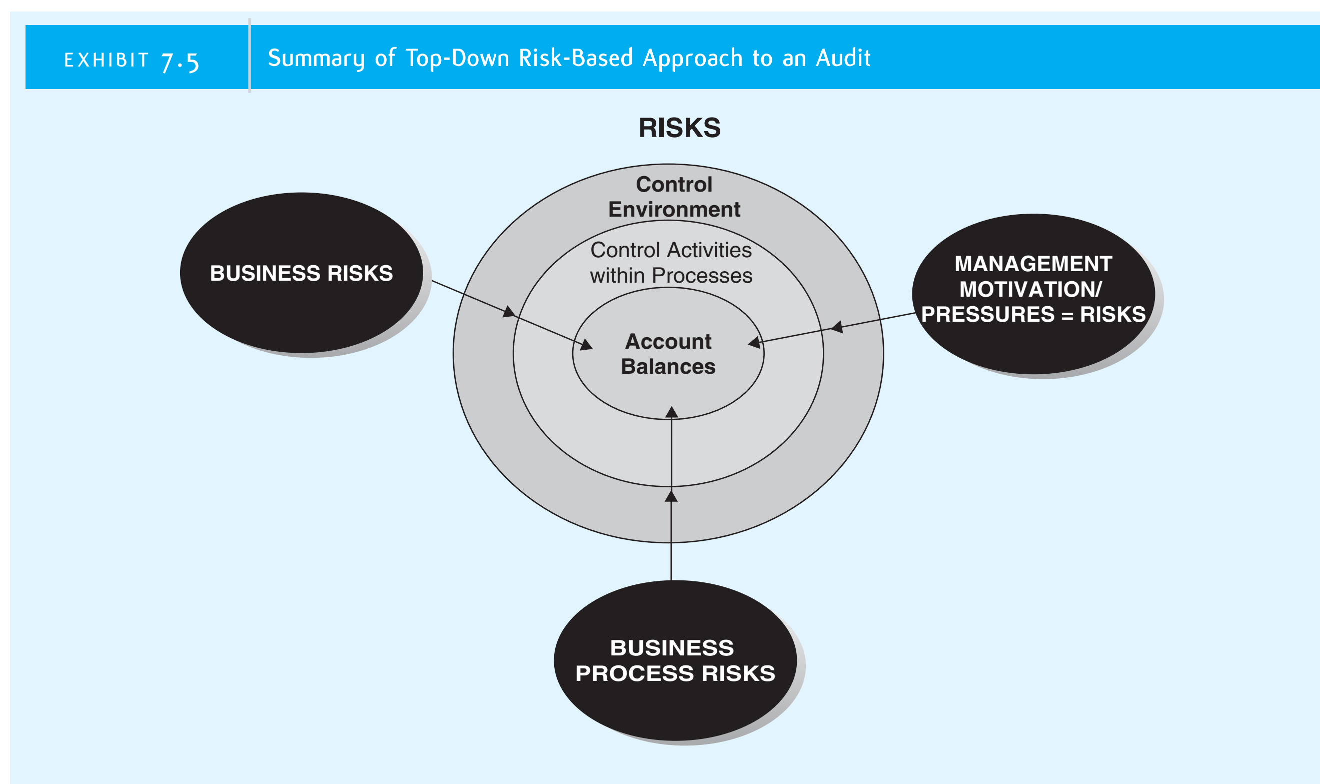
For most companies, the material account balances will be obvious and include accounts such as revenue, cost of goods sold, inventory, receivables, and accounts payable.

Summary of Risk-Based Audit Approach The summary of the risk-based approach is shown in Exhibit 7.5. The process starts by identifying the broad categories of risks that may affect the presentation of the financial statements. The control environment can serve as a "line of defense" in mitigating those risks, or alternatively, an ineffective control environment may exacerbate the risks. Next, the auditor identifies material account balances and considers the important processes that affect the financial statement account balances and, the subjectivity of individual judgments affecting those processes. Finally, the auditor must look at the account balances and related disclosures to determine which ones are material to informed users.

Through this process, the auditor develops a detailed analysis of the risks that affect the fair presentation of the financial statements, the processes that lead to financial balances, and the important account balances. A company can minimize risks to financial statement misstatements by implementing effective internal controls.

The following is an example of the concepts embodied in Exhibit 7.5. Assume the auditor determines that a company has a potential control deficiency because the controller was not competent in addressing complex accounting issues. The company decided to mitigate the risks, as a matter of policy, by (a) not engaging in complex business transactions and (b) minimizing the percentage of management compensation that is directly attributed to reported profit. Thus, while there is a risk and potential deficiency, other elements of the control environment work to mitigate the risks. Assume further that the process most prone to misstatement through unusual transactions is revenue recognition. The auditor knows that

EXHIBIT 7.5 Summary of Top-Down Risk-Based Approach to an Audit



revenue is always a material account balance and is subject to misstatement, so it is automatically included in any risk-based approach to an audit. Following the process in Exhibit 7.5, the auditor reviews the revenue recognition process and determines that the controls are structured to (a) prevent unauthorized transactions, (b) ensure that revenue is recorded only when earned, and (c) all unusual contracts are reviewed and approved by the CEO. Because there is a risk of management override, the controller develops a list of unusual contracts to be reviewed with the chair of the audit committee and the lead director. The auditor concludes that the combination of the control environment and control activities has limited the risks to misstated financial statements. The auditor has gained comfort from each element of the COSO internal control framework in forming an overall opinion on the effectiveness of internal controls. However, because revenue has been determined to be a high-risk area and there is still some risk of management override, the auditor plans to review unusual transactions near year end and will examine unusual sales contracts as part of the direct tests of the account balance.

Integrated Audit: Searching for Audit Efficiency

From the audit risk model, we know that companies with strong internal controls should require less direct testing of account balances. We also know that greater computerization of processes increases the likelihood of consistent processing throughout the year. The fundamental questions that the auditor must address to determine the optimal amount of audit work are as follows:

1. How much assurance can be obtained regarding financial reporting risk when a strong control environment is present and working?
2. If control activities within major processes are working properly throughout the year, what is the residual risk that remains that an account balance can still be misstated?
3. What is the risk that the analysis of internal controls is incorrect?
4. Which account balances might contain more than an acceptable amount of risk that a material misstatement could occur?
5. How would a misstatement in a material account balance most likely occur?
6. What are the most effective direct tests of account balances to determine whether there is a misstatement in the account balance?

The auditor must answer these six important questions to plan an effective integrated audit. There is no one right answer—all of the questions are interrelated. For example, the residual risk of a material misstatement is dependent on the joint answer to the first three questions. The remaining three questions address the identification of accounts that might be misstated, how a misstatement could occur, and how the auditor would most effectively determine if a misstatement did occur.

Remaining Residual Risk Residual risk is the probability that an account balance might be misstated after processing and the application of internal controls. From an auditor's view, the residual risk is based on:

- The strength of the control environment
- The design of the controls within major processes
- The operation of the controls and management's process to monitor the effectiveness of its controls
- The auditor's confidence that the assessment of residual risk is accurate

The auditor evaluates the design of the controls within major applications consistent with the methodology developed in Chapter 6. The auditor considers the repeatability of the controls (automated vs. non-automated), factors that could cause the controls to not work, potential management override of controls, and the possibility of human error. The auditor is concerned with controls built into the

processes as well as management's approach to monitoring the effective operation of those controls.

The auditor tests the operation of the controls by taking samples of transactions and determining that the controls are operating as designed. The guidelines for determining sample size are developed in Chapter 10.

The potential decisions for the auditor are summarized as follows:

RESIDUAL RISKS OF MATERIAL MISSTATEMENT CONSIDERATIONS

Factor to Consider	Potential Effect on Residual Risk of Account Balance Misstatement
Assessment of Control Risk	• Weak control environment increases residual risk. • Strong control environment decreases residual risk.
Design of the Controls • Repeatability • Factors affecting control • Human error possibilities	• The stronger the design of the controls, the less likely there will be material misstatement of the related account balances. • Repeatability (computerization) of the controls without additional human interface reduces residual risk. • Controls are designed consistent with the materiality of the account balances.
Operation of the Controls	• Auditor considers the nature of control failures and whether control failures would lead to a material misstatement. • Note: As further developed in Chapter 10, the sample size for testing controls is determined by the auditor's assessment of potential misstatements associated with the potential control failures.

Auditor's Confidence in the Tests Performed	• Auditor must consider the confidence justified by the work performed after considering the following:
	  • Changes in processes since last year
	  • Evaluation of controls last year
	  • Client (internal audit) tests of the controls
	  • Auditor tests of the controls

Account Balances Likely to Contain Misstatements When the auditor finds effective internal controls, there will be little risk that some accounts are misstated. At the same time, there may be other accounts that still have more than an acceptable amount of residual risk and will require some amount of direct testing. In determining the amount of direct testing still needed, the auditor considers the (a) source of potential misstatement and (b) extent and type of potential misstatement. This can be illustrated by looking at the typical entries into accounts receivable, including the allowance, as follows:

Accounts Receivable

Previous Balance	Cash Receipts
Revenue (sales)	Write-Offs
Adjustments	Adjustments

Allowance for Uncollectible Accounts

Write-Offs	Previous Balance
	Current Provision

Note that there are multiple processes that affect the account balances. Some of the processes contain subjectivity, e.g. determining how much of a receivable balance will ultimately be uncollectible, and are usually considered high risk. The following processes affect accounts receivable:

- *Revenue*—The processing for normal transactions is usually computerized with consistent controls built into the process. However, the SEC has designated revenue recognition as "high risk," requiring the auditor to do some direct tests of account balances (including receivables).

- *Cash Receipts*—The processing of cash receipts is usually automated with consistent controls. If a company has good segregation of duties, the likelihood of misstatement is relatively small.
- *Current Provision for Uncollectible Accounts*—Most companies rely heavily on previous experience in making these estimates. Recent SEC cases indicate that the allowance is often subject to misstatements based on (a) inaccurate or non-relevant data fed into the model and (b) motivation of management to meet earnings goals and therefore entering subjectivity and bias into the estimate.
- *Write-Offs*—The determination of when to write off account balances is also subjective.
- *Adjustments*—The adjustments to accounts receivable should be minor. If there are significant adjustments, the auditor will have to test the process or the adjustments to determine the correct balance.

Consider the Risk

The SEC initiated action against Gateway Computer because it changed its credit policy to sell a significant number of computers to customers who had formerly been turned down for credit. The company, however, did not change its process for estimating uncollectible receivables, therefore creating a material misstatement of accounts receivable.

The implications of this analysis of receivables for the integrated audit are as follows, and most of those implications can be generalized to all accounts:

- The riskiness of the account dictates the number of direct tests of accounts that need to be performed.
- The subjectivity of estimates, where material, requires that the affected account must be addressed with direct tests of the accounts.
- Non-standard and large adjusting entries should be directly tested.
- The size of the account (materiality) influences, but does not totally dictate, whether direct testing should be performed.
- The extent of testing performed by management, as well as the control testing performed by the auditor, will influence the amount of direct testing of account balances to be performed.
- The confidence the auditor has from all sources (knowledge of the business and industry, results of control testing, knowledge of system changes, previous misstatements) influences the amount of direct testing.
- The existence of other corroborating tests of the account balance, such as from knowledge gained from testing related accounts, also affects the amount of direct testing to be performed.

The effects of other information on direct testing are summarized as follows:

FACTORS AFFECTING EXTENT OF DIRECT TESTING TO BE PERFORMED

Audit Evidence Factors	Auditor Assessment	Effect on Direct Testing Performed
Audit risk	Low	More direct testing
Business risk	High	More direct testing
Subjectivity of accounting process	High	More direct testing
Materiality of account balance	Highly material account	More direct testing
Effectiveness of internal control as assessed by management and the auditor	Internal controls are effective	Less direct testing
Evidence from tests of other accounts	Directional tests indicate low risk of misstatement	Less direct testing

Likely Nature of Misstatements and Efficiency of Audit Tests Ultimately, the auditor needs to consider which account balances might be misstated and how they might be misstated. We will demonstrate the audit process using the accounts receivable example.

Assume the following scenario for illustration purposes: consistent with the SEC recommendation, the auditor has assessed revenue to be "high risk" even

though management has concluded that internal controls over transactions processing are effective. An analytical review of the last quarter leads the auditor to discover that a large number of sales had non-standard contractual terms. After reading a sample of the sales contracts, the auditor concludes that is an unacceptable level of residual risk in the revenue account. The risk could be occurring because sales might:

- Be recorded in the wrong period
- Contain unusual rights of return provisions
- Contain terms that are more consistent with consignment rather than sale
- Be concentrated in a very few customers, many of which are international customers and may have different credit risks than most other customers

Given the identified risks and the analytical review of the revenue account, the auditor concludes that if there is a misstatement, the misstatement is directly correlated with the revenue associated with the unusual sales terms. In order to bring the residual risk to an acceptable level, the auditor has to gather evidence on the revenue (and receivables) associated with the unusual contracts, and must identify the sales that have these special terms for audit investigation. Relating this to receivables, the auditor is concerned mostly with the contracts associated with the "special term" sales. A customary audit procedure is to send out a large number of confirmations. However, the risk is more localized, thus a more efficient approach would be to focus the auditor's investigation on the accounts most likely to be misstated.

Practical Point

Auditors must be prepared to think through audit implications to determine audit efficiency. Rotely applying routine audit procedures is both inefficient and ineffective regarding an integrated audit.

The audit process to address the residual risk remaining in accounts receivable and revenue is captured in the following analysis of the auditor's thought process:

Auditor's Thought Process

How are all of these "unusual" sales terms to be identified?	• Ask management for a listing of all such sales (not highly effective). • Use audit software to list all large sales in last quarter and all sales to foreign locations. • Use audit software to develop a list of all returns after the end of the year and develop an analysis of whether a pattern exists.
How much could revenue and accounts receivable be misstated if all of these transactions are incorrect?	• Once the transactions are identified, the auditor can summarize the dollar amount using audit software to determine if the amount would be material. If the amounts are not material, there is no need to perform additional audit work.

How does the auditor determine if the sales are proper and the receivables are valid?	• Examine a sample of the contracts.
	• Have the contracts reviewed by legal counsel if there are any questions regarding the terms of sale and the rights of the customer.
	• Send confirmation to the customers inquiring of both the account balance and the terms of the contract.
	• Review subsequent payments to determine:
	  • Whether payments were subsequently made
	  • Terms of the payment, e.g., whether there is reference that payments were made in response to the customer selling the goods to a third party.

If revenue and receivables are determined to be valid, how likely is	• Review subsequent payments and compare with contractual schedule of payments.

Practical Point

An important consideration for the auditor is the amount of time that exists after year end before the client is required to file its statements with the SEC. If that time is limited, then procedures that are dependent on gathering information after year end, e.g., subsequent collections, are also limited.

Auditor's Thought Process

it that the client will collect the full amount of the receivable (realizability of the account)?	• Review credit agency ratings and analysis of financial health of the customer. • Review past history of collections from the customer. • (Possibly) request current financial statements from the customer to evaluate their financial health. • Review the customer's industry to determine if there are signs of financial distress in the industry.

The key point to understand is that audit efficiency is gained only by auditing smarter. The auditor has to consider a number of important factors to reduce audit costs while, at the same time, managing audit risk at an acceptable level.

Conducting an Integrated Audit

Practical Point

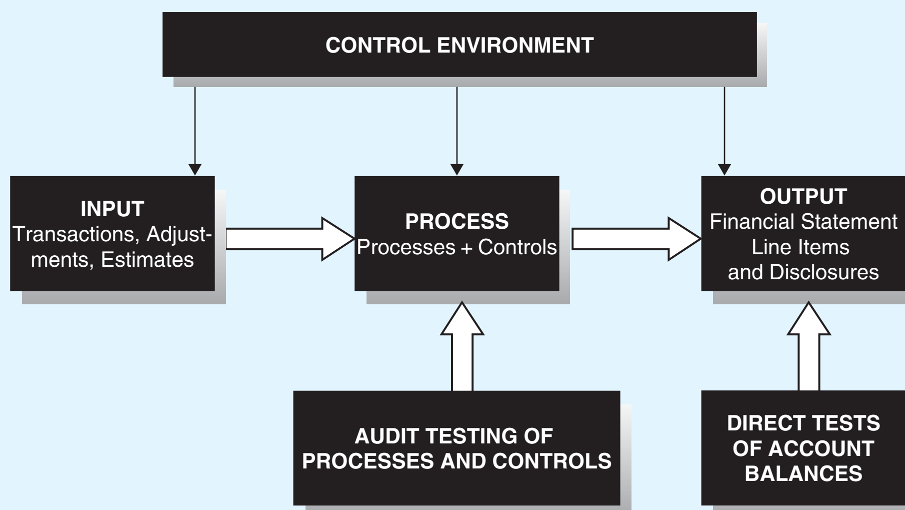
Audit risks pertain to both reports on internal control and reports on the financial statements. However, most auditors believe there is the potential for much greater negative financial impact to the auditor of an incorrect report on financial statements.

The auditor has the same objective in an integrated audit as in an audit of only the financial statements, i.e., to conduct an efficient audit that maintains audit risk at an acceptable level. For most audit firms, the economic consequences of not controlling audit risk on the financial statement audit are much larger than making a mistake in evaluating internal control. Thus, most auditors want to control audit risk on the financial statement audit very tightly, while still minimizing audit risk related to the internal control audit.

The implications for the conduct of the audit can be seen by reviewing Exhibit 7.1, repeated here as Exhibit 7.6. In reviewing the exhibit in the context of the previous discussion, the following should be apparent:

- Only material processes and material account balances need to be tested by the auditor.
- Material processes must be evaluated for design and operation to support the auditor's opinion on internal controls.
- Some material account balances will need to be tested—even with excellent internal controls—because the risk of misstatement is too high to control audit risk at an acceptable level.

EXHIBIT 7.6 Overview of Account Processes and Audit Testing



- If there are no deficiencies in either the design or operation of internal controls over significant processing, the transactions associated with those processes will either require minimal or no direct audit testing.
- The time requirement to meet SEC filing requirements encourages auditors, to the extent possible, to place more reliance on the control processes that are effective.

The auditor must make a judgment on materiality and audit risk for all significant account balances and accounting processes. The important decision factor is the amount of residual risk, i.e., remaining risk that there may be misstatements in the account balance after processing and the application of internal controls.

Evaluating Internal Control over Financial Reporting

The auditor's process for evaluating internal control over financial reporting is consistent with that used for developing management's report in Chapter 6. We expand the discussion of specific control testing in this chapter. Further, as management establishes the effectiveness of its controls, it may rely more on the monitoring process as a basis for making its assertion regarding the effectiveness of controls. The auditor can test the monitoring, but must also do a minimal amount of testing of control activities.

Evaluating the Control Environment, Risk Management, and Monitoring The process for evaluating these important components of the COSO *Internal Control, Integrated Framework* was developed in Chapter 6. We add the following observations that should be considered by the auditor in performing a similar evaluation.

Control Environment The auditor should examine management's assessment process, including the extent to which management performed independent assessments of the effectiveness of the control environment, e.g., testing the enculturation of the company's ethical standards in employees. The auditor should perform an independent assessment of the design of the control structure. For example, the auditor has first-hand knowledge about the financial expertise and independence of the audit committee because the auditor regularly meets with the committee. The auditor will know how the audit committee reacts to areas where there are disagreements between management and the auditor, or how the committee reacts when management "pushes the line" on accounting judgments.

The auditor must perform some independent analysis of the control environment. Exhibit 6.2 in Chapter 6 contains a number of audit procedures that can be performed to better assess the control environment. The adequacy of some control components often requires difficult judgments by the auditor. For example, the auditor may conclude that the company does not have adequate financial competencies, but may be reluctant to communicate that assessment to management and the board. Hard as it may be, there is little choice: inadequate financial competencies, if not compensated for by other controls, is a significant deficiency that must be communicated to the board and management.

Risk Management The auditor should observe the extent to which the company uses enterprise risk management in managing its organization. For example, the auditor can determine if the company has a chief risk officer, or if the company periodically engages employees in evaluating fraud risk. Most of the information can be gathered through inquiry and review of documents. The auditor needs to understand whether the company uses a consistent framework in evaluating the risks associated with transaction processing, adjustments, estimates, and disclosures.

Information and Communication The company should have robust information systems to ensure that management and the board receive relevant and timely information about company performance and the operation of internal controls. The auditor should assess the company's information and communication systems

Practical Point

Companies such as Enron and WorldCom did not have whistleblower programs, nor did they have an environment in which employees had faith that their complaints would be addressed. If there are concerns about the conduct of senior management, the board must exhibit a willingness to act.

through inquiry and observation. The auditor, for example, should ascertain that there are processes in place to (a) identify areas where corrective action needs to be taken and (b) that there are follow-up processes in place to determine if controls have failed. Further, the auditor needs to know that there is communication about (a) the company's ethical values, (b) the availability of a whistleblower program, and (c) other areas where employees can go if they have concerns about the operations of the company.

Sarbanes-Oxley requires the establishment of an effective whistleblower program. The auditor will need to determine that the program is effective by evaluating whether employees are aware of the program, the number of complaints filed, who receives the complaints, who handles the complaints, and the ultimate disposition of the complaints. The auditor also wants to know what information the board or the audit committee receives regarding the nature of whistleblower complaints.

Monitoring Monitoring is an integral part of the internal control framework. Monitoring is the process by which the organization determines whether its other control procedures are operating effectively. In order to effectively manage costs associated with internal control reporting required by Section 404 of the Sarbanes-Oxley Act, companies must develop processes that monitor the effectiveness of their controls. An audit approach to assessing the effectiveness of monitoring is shown in Exhibit 7.7.

EXHIBIT 7.7 Audit of Monitoring Controls

Audit Objectives	Evidence Gathered
1. Determine areas where the company performs separate evaluations of internal control through internal audit or other employees.	• Review the internal audit reports to determine the extent that tests of controls are covered. • Review management plans to test individual controls.
2. Determine the effectiveness of the separate evaluations of internal control.	• Review the internal audit programs and testing for the year. • Assess the independence and the competence of the internal audit function. If independent and competent, more reliance can be placed on their work. • Test, as deemed necessary, selected conclusions reached by the internal audit group. • Reach a conclusion regarding the effectiveness of the internal auditor's tests of controls.
3. Determine the extent that the evidence supports the conclusion that internal controls are effective.	• Evaluate the internal auditor's tests and the independent testing of the controls.
4. Determine the effect of the controls on the account balances and the amount of direct testing that needs to be performed.	• Auditor analysis of controls and effect on residual risks in account balances.
5. Determine the extent that the client has ongoing monitoring of processes and controls.	• Inquiry of client. • Review of previous audits regarding monitoring. • Review of new computer systems development and processes regarding development.
6. Determine the effectiveness of the ongoing monitoring procedures and whether the auditor needs to do any additional testing of controls.	• Review the monitoring process, including reporting of control or processing deficiencies, and the extent that the reported items are followed up and corrected. • Assess the effectiveness of the monitoring controls.
7. Consider effect of the controls on the likely misstatement of financial account balances.	• Auditor analysis of controls and effect on residual risks in account balances.

Management's Process of Evaluating Internal Control The amount of work performed by the auditor will be somewhat dependent on whether management's assessment process is comprehensive. The auditor should have open communication with management regarding the approach management is taking as well as the tests performed.

An interesting question is how much can the auditor rely on management's testing in planning its own tests of controls. The basic answer is that a thorough approach by management reduces the risk of an incorrect assessment by the auditor. Further, the auditor is allowed to rely on some work performed within the organization when the work is performed by individuals who are competent in evaluating controls and are independent of management. However, the auditor needs to independently (a) determine which controls need to be tested and (b) take samples based on the auditor's planning parameters and principles of audit sampling and the independence and reliability of management's tests, such as those performed by an independent and competent internal audit staff. The auditor often relies on the work performed by the internal auditor. In assessing whether the auditor can rely on the work of the internal auditor, the auditor considers:

- The independence of the internal audit function from management
- The competency of the internal audit department
- The design and comprehensiveness of the internal audit testing approach
- The documentation of the internal audit testing

The auditor still needs to independently test important controls. When the company has an independent internal audit department, the external auditor can test some of the same transactions performed by the internal auditor in determining the correctness of the internal audit tests. Thus, the auditor can rely on the work of the internal auditor to some extent in reducing the amount of independent testing of controls. However, the auditor must perform enough work to make an independent decision about the quality of the client's internal controls.

Practical Point

Once a company establishes that it has effective control over processes, monitoring can be effective by ensuring that any changes made to the processes are fully documented and tested (including interfaces with other systems), and that controls have not deteriorated.

Testing Control Activities

Auditors are required to assess control risk for each relevant assertion, and for important classes of transactions and account balances as a basis for planning the audit. For a public company, the auditor has to understand *and test* controls that are important to preventing or detecting significant misstatements. However, not all controls need to be tested. Further, the auditor need not test controls for all assertions if the auditor believes that a misstatement related to a particular assertion could not be material.

Each accounting application will have specific control procedures designed to ensure that the processing objectives are met; for example, that all transactions are recorded on a timely basis at the proper value. The reliability of internal controls built into each accounting application affects the likelihood that material misstatements could occur in the account balances and not be detected until the auditor directly tests the account balances.

Understand Important Supporting Systems Many significant accounting processes do not process transactions, but are related to transactions or legal requirements. For example, a company must have processes in place to ensure compliance with applicable laws, e.g., ensuring that proper remittances are made to state and federal taxing entities, or processes to estimate and record pension costs and associated liabilities. Thus when looking at a process like payroll, the auditor must consider the controls over related processes such as taxes, fringe benefits, and related liabilities.

Transaction-Based Systems Each accounting application should be designed to ensure that all transactions occurred and are recorded accurately in the correct time period and that the correct accounts are updated. The basic control objectives are derived from the assertions about classes of transactions. To ensure that recorded transactions have occurred and pertain to the entity, there must be proper authorization of the transaction and evidence the transaction actually occurred.

Because account balances are the culmination of the recording of transactions, assertions about account balances (such as existence) are directly linked with transaction processing objectives, which in turn can be linked to control activities for evaluation. For example, if sales recorded in the current period actually occurred in the subsequent period resulting in a cutoff error, the related receivable does not exist in the current period. Those assertions were developed in Chapter 5 and relate to the following:

Transaction Assertions	Examples of Controls
Occurrence—all recorded items are valid.	• Shipments recorded are reconciled with shipping documents on a daily basis. • Items cannot be recorded without establishing existence and validity of underlying source documents.
Completeness—all valid items are recorded.	• Prenumbered shipping documents are used and reconciled with shipments recorded on a daily basis. • A list of cash receipts is developed when cash enters the company. That list is reconciled with cash deposits and the debit to cash on a daily basis.
Accuracy—all items are recorded at the correct valuation.	• Preauthorized sales prices are entered into the computer pricing table by authorized individuals. • Sales prices can be overridden only on the direct authority of a key management person and there is a record made of the specific authorization that can be reviewed by internal audit, management, or others.
Classification—items are properly classified into account balances.	• A chart of accounts is established and used to guide entry into the books. • Computer programs are programmed for standard classifications of transactions entered from specific locations; for example, a limited number of classifications can be entered from a sales terminal in a retail store.
Cutoff—items are recorded in the correct time period.	• Employees are reinforced on the importance of corporate ethics dictating that items must be recorded in the correct time period. • Shipping documents are reconciled on a daily basis with shipments recorded. Differences are investigated.

Perform Test of Controls Once the auditor has identified the significant processes and assertions, the auditor identifies the important controls, such as those shown in the immediately preceding table, that need to be tested. The nature of the testing will vary with the nature of the process, the materiality of the account balance, and the control. For example, computerized edit controls built into a computer application could be tested by submitting test transactions to determine if the controls are working properly. For manual controls, such as authorizations, the auditor might select a number of transactions to determine if there is documented evidence that proper authorization has taken place. For the reconciliation of shipments with recorded sales, the auditor could select a number of day's sales and determine that the reconciliations were performed appropriately and differences were investigated. The general principles regarding audit testing are summarized in the following diagram:

Concepts Affecting Control Testing

Computerized Controls	**Concept:** Utilize knowledge of computer processes to test controls once during the year if there is evidence that there have been no changes to the program during the year. • Determine if there are changes in the computer program during the year; if there are, the program must be tested both before and after the changes. • Test by submitting test transactions through the system to determine that it is working properly. • Take a random sample of transactions and determine if the organization has evidence that key controls are working properly. • Review exception reports to determine (a) that proper exceptions are being noted and (b) that exceptions go to authorized personnel and there is adequate follow-up for proper processing.
Manual Controls: • Authorizations • Reconciliations • Segregation of duties • Review for unusual transactions	**Concept:** There should be documented evidence that a control is working. The auditor should take a sample of transactions to determine that there is evidence of the control's operation. • Take a sample of transactions and examine evidence supporting that the controls are working, for example, review a document or a computer print-out indicating proper approval. • Take a sample of reconciliations to determine that (a) they were performed by an authorized person and (b) they were performed properly. • Observe client personnel to determine who performs the procedure, what they do, and how well they do it. • Review selected transactions to determine who processed the transactions. • Take a sample of reports that management uses to identify unusual transactions. Review to determine (a) that they are utilized on a regular basis and (b) that unusual items are identified and followed up.
Adjusting Entries	**Concept:** There should be documented evidence that there are controls over normal journal entries, such as depreciation, and that they are applied on a regular basis. All other adjusting entries should document (a) the reason and support for the adjustment and (b) the authorization of the adjustment. • Take a sample of adjusting entries and review to determine (a) that there is supporting documentation for the entry, (b) the entry is appropriate, (c) the entry is made to the correct accounts, and (d) there is evidence that the entries are properly authorized. • Special attention should be given to significant entries made near yearend.

Accounting Estimates	**Concept:** There should be documented evidence of controls over the authorization of recording adjustment and there should be controls that ensure (a) accurate data, (b) that the process of making the estimate is consistent, whether automated or not, and (c) that the model for making estimates is updated as needed. For example, estimates of a health care liability should be updated for changes in the trend of health care costs and required employee deductibles and co-pays.
	• Review the process and supporting documentation noting that:
	  • All entries are authorized by appropriate personnel.
	  • There is evidence of controls in place to ensure that estimates are updated for current market or economic conditions.
	  • There is evidence that data used to make the estimates come from reliable sources.

Example—Integrated Audit

To illustrate the concepts introduced in this chapter, we provide an example of an integrated audit focusing on cost of goods sold, inventory, and accounts payable as material accounts of a publicly-held company. For simplicity purposes, we will assume that the company purchases and distributes other products, i.e., the company is not a manufacturer, but it does hold a significant amount of inventory.

Identifying Material Account Balances and Processes

The material account balances in the example integrated audit are as follows:

- Inventory
- Revenue
- Accounts receivable
- Cost of goods sold
- Accounts payable

The auditor determines that there are five major processes that affect the account balances:

- Purchasing
- Revenue and cost of goods sold
- Inventory management and adjustments
- Cash disbursements
- Adjusting and closing processes

In planning for the most efficient audit, the auditor notes the following:

RELATIONSHIP OF PROCESSES AND ACCOUNTS

Process	Related Accounts
1. Purchasing	Accounts Payable Inventory Expenses Other Assets
2. Revenue and Cost of Goods Sold	Revenue Cost of Goods Sold Inventory Accounts Receivable
3. Cash Disbursements	Accounts Payable Cash Expenses Other Assets
4. Inventory Management and Adjustments (periodic counts, etc.)	Inventory Cost of Goods Sold Loss
5. Adjusting and Closing Processes	Inventory • Inventory shrinkage • Obsolescence • Lower of cost or market adjustments Cost of Goods Sold

Management and the auditor determine that all five of these processes are important to effective internal control over financial reporting and decide that all five must be assessed for design and operation.

Evaluating Design and Testing

Management's Evaluation We will focus our example on the purchasing cycle. Management evaluates the process of procuring goods and recording the related accounts payable and inventory. In the process, management identifies the following control deficiencies:

- At one location, there is not proper segregation of duties. However, the location is very small, accounting for less than 1% of purchases.
- At a second location that handles 62% of the company purchases, management found that approximately 17% of the purchase orders did not contain proper approval. The reason for the lack of approval was the rush to get the material in to meet a contract requirement.

Management concluded that the first deficiency did not rise to the level of either a significant deficiency or a material weakness. However, management decides to use this deficiency as an opportunity to centralize at headquarters except for minor supplies.

The second deficiency is more of a problem. Even though there was not a proper approval of the purchase order, management determined that all of the products had been received by the company.

Management performed further testing of purchases and found the same result: when there is a rush to get goods in, the requirement for authorized purchases is bypassed. Management determines this is a significant deficiency based on the following rationale:

- It is a major departure from an approved process.
- It could lead to the purchase of unauthorized goods.
- The unauthorized goods could lead to either (a) inferior products or (b) potential obsolescence.
- Those making the purchases could cause them to be shipped elsewhere (fraudulently) and could lead to a material misstatement in the financial statements.

Management determines that other processes are in place that test for inferior products and obsolescence, and that cycle counting of inventory would eventually discover goods that are shipped to a different location. If the other controls were not in place, then management and the auditor would have had to assess the control deficiency as a material weakness. Management takes action to remediate this deficiency by reprogramming computer controls to require specific authorizations before purchases. Management makes this change three months before the end of the year to provide sufficient time to determine if the newly revamped control approach is working.

Auditor Evaluation of the Design of Controls The auditor performs a walkthrough of the control processes and concludes that the design of controls addresses important assertions and that if the controls are operating effectively the auditor could conclude that internal control over financial reporting is effective. The walkthrough included a review of the types of documentation that were used by the client to evidence that the controls were working. The auditor concluded that the documentation was sufficient to test whether the controls were working properly.

Practical Point

There can be reasonable differences of opinion as to whether a control deficiency is a significant deficiency or material weakness. The auditor must be able to reason through the process along with management to determine the proper categorization of the deficiency.

Auditor's Preliminary Testing of Internal Controls The auditor's preliminary testing of controls identified the same two deficiencies identified by management. However, the auditor reaches a different conclusion regarding the lack of authorization of purchases. Management viewed the deficiency as a *significant* deficiency

because (a) the company has a good ethical climate and (b) management's tests confirmed that all goods were delivered to the company. The auditor's tentative conclusion is that the deficiency in internal controls was a *materia*l weakness because:

- The location was responsible for ordering 62% of all of the company's products.
- Management's tests showed a very high failure rate of over 17%.

The fact that all the goods were delivered to the company is important and a testament to the ethical culture of the company. However, not all individuals are ethical and someone else could be in the purchasing position with a lower commitment to ethical behavior. Stated another way: a weakness in internal control can exist even if there were no errors in processing or misstatement in the current period. The potential for misstatement is high because the auditor believes that existing controls do not mitigate the risk of material misstatement.

Management and the auditor agreed that the deficiency was important and the company needed to remediate the problem before year end and demonstrate that controls had improved.

Auditor Testing of Controls

For discussion purposes, we will again concentrate on the purchasing process and assume that the auditor did not find any material weaknesses in the other processes. The auditor determines the following are key objectives for testing controls in the procurement process:

- Only authorized goods are purchased from authorized vendors.
- Purchase prices are negotiated by contract or from bids.
- All purchases are delivered to the company and received by a separate receiving department.
- All purchases are recorded in a timely fashion and are appropriately classified.
- Payments are made only for goods that are received.
- Payments are made consistent with the purchase orders or contracts.
- Payments are made in a timely fashion.

Since much of the process is computerized, the auditor performs computer security tests to ensure that access controls are working properly and there is adequate control over program changes. The auditor determines that those controls are effective. An additional advantage of testing the computer access controls is that the controls may be applicable to many other processes.

The auditor uses the sampling guidance provided in Chapter 10 and takes a sample of 50 purchase orders to examine whether purchases are authorized and are processed properly. The auditor's sample size is influenced by previous information about the operation of the control. Although management had also taken a random sample of purchases and tested the operating effectiveness, the auditor needs to independently determine that the controls are working (or not working). The sample is randomly chosen and the auditor traces the transactions through the system to determine that the objectives identified above are addressed by controls. In the testing the auditor notes the following:

- One of the 50 purchases was made from an unauthorized vendor. Investigation reveals that the vendor was subsequently authorized and it was a timing problem, i.e., the vendor should have been authorized earlier.
- Seven of the 50 did not have proper authorization, corroborating the finding by management.
- One of the 50 purchases was paid even though there was no receiving report.
- All of the other controls were found to work properly.

The auditor is concerned that the system allowed a purchase to be made before the vendor was authorized. Management concurs and implements steps

to reprogram the computer program to prevent such purchases. The auditor verifies that the programming has taken place and tests transactions to determine if an order can be placed with an unauthorized vendor. Independent testing of the computer program reveals that the newly implemented control is working properly. The auditor is also concerned with the other two problems and they are discussed below.

Auditor Assessment of Controls and Implications for the Financial Statement Audit

The auditor's testing of internal controls provides additional insight into the previous assessment regarding the design of controls, i.e., there is a significant deficiency in the controls, but it does not seem to be material. Based on the assessment the auditor determines the following implications for the financial statement audit:

- The auditor will do limited testing of inventory quantities at year end, primarily through random tests of the perpetual inventory system.
- The auditor will examine the year-end inventory for potential obsolescence by looking at industry trends and recent prices within the firm, and by using audit software to analyze the aging of inventory.
- The auditor will continue to examine all adjusting entries at the end of the year to determine that they reflect adequate documentation and process. The auditor and management agree that control improvements must be made to ensure that goods are paid for only when there is evidence that the goods have been received.

Looking Forward: Reducing 404 Compliance Costs

The major complaint regarding reporting on internal controls over financial reporting is that the costs are too high. Those costs were high during the first two years of Audit Standard No. 2 implementation because, quite frankly, many companies had not previously paid enough attention to the quality of their controls. Control problems were found, especially evidenced by about 15% of the companies receiving adverse opinions on their internal controls. More companies would have received adverse reports had they not started their assessment process early and remediated many of the control deficiencies they had identified. The costs were also high because, in many cases, the internal controls had not been previously documented.

The costs were also high because management did a significant amount of testing, only to be followed by the auditor doing virtually the same amount of testing. For companies with good internal controls, there are two ways to reduce these overall costs:

- Management has to do less testing.
- Alternatively, the auditor has to do less testing and rely more on management's tests.

Both of these are possible.

Management can achieve cost efficiencies by reengineering their processes for control and efficiency, and then developing effective monitoring controls. Assume, for example, that both management and the auditor have confidence that a particular process is working well and there are no control deficiencies. A monitoring process might include the following:

- A requirement that any changes must be approved, documented, and thoroughly tested, including all interfaces with other systems
- A process put into place that will identify control failures, e.g., signaling when data appear to be out of line with expectations
- A process to spot-check that the controls are still operating effectively, e.g., an internal audit of processes throughout the year

In applying the COSO framework, management should be able to rely on the monitoring controls to form their assessment and the basis for their report assuming all the elements described above are in place. The reengineering of

the processes, coupled with effective monitoring, should greatly reduce compliance costs.

Auditors must form their own independent assessment. However, overall audit cost can be reduced as follows:

- Focus only on material processes.
- Evaluate the effectiveness of the other four components (other than control activities) of the COSO internal control framework.
- Rely, to some extent, on the work performed by internal auditors. Verify their work through limited testing of the internal auditor's work and conclusions.
- Test the effectiveness of management's monitoring controls.

These suggestions for management and the auditor would significantly reduce, on an annual basis, the amount of direct testing of detailed controls within processes. This should lead to both effective audits with a significant cost reduction.

Summary

An integrated audit follows the concepts developed earlier with the audit risk model. The SEC and PCAOB have encouraged the audit profession to implement an integrated audit to take advantage of the significant amount of control testing that is performed in conjunction with attesting to management's assessment of the effectiveness of internal controls over financial reporting.

The audit can be more efficient when the auditor considers the risks in the financial statements and how those risks are effectively mitigated by controls. When the risks are effectively mitigated, the auditor needs to perform very limited, if any, direct testing of account balances. However, some areas are high risk and cannot be totally mitigated by controls.

Significant Terms

adverse report on internal controls A report in which the auditor communicates to shareholders that the company has not maintained effective internal control over financial reporting.

residual risk The probability that an account balance might be misstated after processing and the application of internal controls.

integrated audit An audit process that incorporates the knowledge obtained from internal control testing to determine the optimal amount of evidence necessary to attest to the financial statements and to management's assertion on effectiveness of internal controls.

Review Questions

7-1 What role does the auditor's assessment of the control environment play in the auditor's planning of an integrated audit of controls and financial statements? Explain.

7-2 Assume that internal controls are effective as assessed by the auditor through an analysis of their design and operation. To what extent does the auditor still need to directly test account balances? Explain.

7-3 To what extent does the audit of account balances at the end of the year provide feedback on the effectiveness of internal control over financial reporting? Explain.

7-4 What opinion must the external auditor provide regarding the adequacy of internal control over financial reporting?

7-5 What are the primary factors that should be considered in determining whether the auditor needs to directly test year-end account balances?

7-6 To what extent does the auditor need to comment on whether a material weakness resulted in a misstatement in the financial statements that was subsequently discovered by the auditor, or alternatively, that the deficiency did not lead to a misstatement?

7-7 In testing account balances such as accounts receivable, why is it important that some of the tests be performed after year-end? Provide an example of a test that might be performed after year-end.

7-8 To what extent can the auditor use management's process in evaluating internal control, including evidence gathered, to plan and execute the auditor's integrated audit?

7-9 In applying a top-down, risk-based approach to an audit, should the auditor start with the ending account balances or does the auditor start with the significant processes that lead to material account balances? Is one approach preferred over the other? Explain.

7-10 How do business risk and fraud risk affect the planning of an integrated audit?

7-11 Explain the following: "The effectiveness of internal control over financial reporting requires an integrated analysis of the COSO control components to reduce the residual risk to an acceptable level."

7-12 Define what constitutes an "acceptable level of residual risk" when evaluating the effectiveness of internal control over financial reporting.

7-13 What evidence might the auditor gather to evaluate whether or not a company has made a commitment to appropriate levels of financial competencies? For example, Milicron, Inc. indicated it had a deficiency related to financial competencies. How would the auditor assess whether the company's accountants and others in the process were competent.

7-14 What factors influence the auditor's confidence in the quality of the tests of controls? Explain how each factor might affect the auditor's confidence in the quality of the tests.

7-15 Does the auditor test the same transactions that management tested, or does the auditor test similar transactions? Explain the rationale.

7-16 To what extent can the auditor rely on tests of controls performed by the company's internal audit function?

7-17 What are the important controls that the auditor should expect to find over management's process of making accounting estimates? Consider for example, the process of estimating the proper allowance for uncollectible accounts.

7-18 What risks must an auditor evaluate in preparing for a top-down, risk-based approach to performing an integrated audit?

7-19 How does the subjectivity of an accounting process, e.g., making an accounting estimate, affect (a) the nature of the controls the auditor expects to find over the process, and (b) the amount of direct testing of the account balance that should be performed?

7-20 Is it possible to have effective controls over a subjective accounting process? Choose an example of a subjective process and use the process to explain your answer.

7-21 What is monitoring? How should the auditor go about determining whether management's process for monitoring the effectiveness of internal controls is adequate?

7-22 What are the factors that should be considered by management and the auditor in determining whether a deficiency is a "significant deficiency" or a "material weakness"?

7-23 How might a company reduce the costs of complying with Section 404 of the Sarbanes-Oxley Act of 2002? Explain.

Multiple-Choice Questions

7-24 The auditor wants to develop an efficient approach to perform an integrated audit of internal controls and financial statements for a public company. Which of the following statements is correct regarding the integrated audit?

a. The auditor should concentrate on transaction processing systems because they contain the "key" controls that should be evaluated.
b. The auditor should address materiality by first looking at significant processes affecting account balances, not just the balances.
c. Because accounting estimates are subjective, the auditor should perform direct tests only of accounts established by accounting estimates.
d. Accounting disclosures are separate and need not be included in the auditor's assessment of internal controls over financial reporting.

7-25 Which of the following statements is true regarding the conduct of an integrated audit?

a. The auditor must perform a financial statement audit for the same period of time covered by the internal control audit.
b. The auditor is not required to test important transaction controls if the auditor decides to perform direct tests of the account balances.
c. If the auditor does not find any material misstatements in the company's financial statements, the auditor can assert that internal control over financial reporting is effective.
d. All of the above.

7-26 Which of the following statements is not correct regarding the auditor's report on internal control over financial reporting?

a. The report must cover the same period of time for which the financial statements are prepared.
b. The auditor must explicitly reference the criteria for evaluating internal control, e.g., the COSO framework.
c. The audit is performed in conjunction with the auditing standards promulgated by the International Auditing Standards Board.
d. The audit must report on whether management used the appropriate tools in its assessment of internal control over financial reporting.

7-27 Regarding an auditor's adverse opinion on a company's internal controls, the following statement(s) is(are) true:

a. The auditor must state whether the company has developed an effective process to fix the control deficiency.
b. The auditor must explicitly state whether the deficiencies led to a material misstatement in the financial statements.
c. The auditor must explicitly state whether there were deficiencies in the control environment.
d. None of the above.

7-28 If management finds a material weakness in internal controls but remediates the control before year end and determines that no material misstatements have occurred because of the deficiency, the auditor should:

a. Test the remediated control to determine that it is working effectively
b. Issue an adverse opinion because the control was not working effectively throughout the year

c. Expand tests of the affected account balances to develop an independent assessment as to whether there are material misstatements
d. All of the above
e. (a) and (c) above

7-29 The auditor's tests of internal control over financial reporting include all of the following *except* controls over:
a. Disclosures
b. Processes leading to accounting estimates
c. Adjusting journal entries
d. Determining the income tax liability
e. All of the above are included

7-30 Which of the following would not be a primary consideration of the auditor in determining whether a deficiency was a significant deficiency or a material weakness?
a. The rate of failure of the control
b. The volume and dollar amount of transactions affected by the control
c. Whether the control is computerized or manual
d. Whether the control deficiency is mitigated by other control elements, e.g., the control environment

7-31 Residual risk is:
a. Best determined by management as the amount that is acceptable to them
b. Constrained by the PCAOB's definition of material weakness
c. Not explicitly addressed by the auditor, but is addressed by management
d. (a) and (c) only
e. All of the above

7-32 Which of the following are correct related to the auditor's tests of the client's processes of monitoring controls?
I. The auditor should test monitoring only if the management's evaluation of internal control indicates that management is relying on monitoring controls.
II. Monitoring is a process to determine that other controls are working properly.
III. Monitoring can substitute for a deficiency of other controls.
a. I only
b. I and II only
c. I, II, and III
d. II and III

7-33 All of the following would be included in the auditor's tests of controls over accounting estimates *except:*
a. Confirmation of the estimate with outside third parties
b. Review of documentation to determine that the estimate is properly reviewed and authorized
c. Review of processes used to determine if there are changes to the parameters used in the estimates, including management monitoring of the economic environment
d. Review of processes to approve changes to the estimation process

Discussion and Research Questions

7-34 **(Deficiencies in Internal Control)** In the report on internal control by Milacron's management, they indicate that they are going to remediate the control deficiencies they had encountered.

Required

a. Identify the control deficiencies that management identified in its report on internal control.

b. For each control deficiency identified answer the following:
   a. How would management identify the deficiency?
   b. How is management planning on remediating the deficiency?
   c. How would the auditor gather evidence to determine that the control deficiency has been remediated?
c. Management indicates that the deficiencies may cause the company to violate their debt covenants.
   a. Explain why the deficiencies might violate debt covenants.
   b. What are the implications to the company if the debt covenants are violated?
   c. Why are lenders interested in the effectiveness of a company's internal control?
d. Management asserts that the control deficiencies did not lead to material misstatements in the financial statements:
   a. How would management know that there were no material misstatements?
   b. Is the auditor required to attest to this assertion by management? Explain why or why not.

7-35 **(Importance of the Control Environment)** The auditor of a public company in the retailing industry is planning an integrated audit. The company has approximately 260 retail stores, primarily in the southeast part of the United States.

Required

a. Explain why an analysis of the company's control environment is important to the planning of the integrated audit.
b. The company claims that it has a strong control environment including a culture of high integrity and ethics, a commitment to financial reporting competencies, and an independent, active, and knowledgeable audit committee. For each of these items, develop an audit program to gather evidence that these elements are effective. Organize your answer around each of these three elements:
   - Integrity and ethical climate
   - Financial reporting competencies
   - Effective audit committee

   In developing your answer, identify the following two components:

   - Evidence that would convince the auditor that the component of the control environment was effective
   - Procedures the auditor would use to gather the evidence

Group Activity

7-36 **(Controls over Accounting Estimates)** Consider a company like General Motors that must make estimates on pension liabilities, health care liabilities, guarantees on the contracts with Delphi, warranty liabilities for its cars, uncollectible loans from its subsidiary (GMAC), and costs associated with restructuring.

Required

a. With the consent of your instructor, select one of the areas identified where General Motors makes accounting estimates and complete the following:
   - Identify the economic factors outside of the company that affect the computation of the liability.
   - Identify the internal data that affect the computation of the liability.
   - Identify the preciseness of the estimate that is expected; for example, if last year's estimate for uncollectible loans was $1.4 billion and net income last year was $1.8 billion, what is the allowable range of estimates your group would find acceptable for the estimate to be considered correct for the financial statements? If you cannot come up with a range, indicate the additional information you will need.
   - Identify the control activities that you would expect to be present in the process of making the estimate.

- Identify the approaches the auditor would utilize to determine whether the design of controls is appropriate and the controls are working properly.
- Discuss whether the approach you have taken to test the controls also tests the proper recording of the accounting estimate.

b. Assume that all of the controls your group has identified and tested are working as designed:
- To what extent do you believe the auditor still has to perform direct tests of the account balances?
- If you conclude that the auditor still has to perform direct tests of the account balances, identify one or two procedures to gather additional audit evidence that the auditor should use.

c. Report your analysis to the class.

7-37 **(Auditor's Report on Internal Control)** The auditor prepares a report on internal control over financial reporting.

Required

a. Is the auditor also required to audit the company's financial statements at the same time? Explain.
b. Does an unqualified report on internal controls over financial reporting imply that the company does not have any significant deficiencies in controls? Explain.
c. If the auditor does not find any material misstatements in the financial statements, can the auditor conclude that there are no material weaknesses in internal control? Explain.

7-38 **(Understanding Management's Assessment of Internal Control)** In preparing a report on internal control, the auditor is required to assess the process used by management in developing their report on internal control. Assume that the auditor did not find any material weaknesses in controls.

Required

a. The auditor did find that management's approach to assessing internal controls was deficient in that it (a) was not comprehensive and (b) did not contain sufficient sample sizes for testing controls. Management reports that controls over financial reporting were effective (same finding as the auditor). How does management's approach in its assessment of internal controls affect the auditor's opinion? Explain.
b. To what extent should the auditor and management collaborate in evaluating the design and effectiveness of internal controls over financial reporting? Explain.

7-39 **(Phases of an Integrated Audit)** Planning for an integrated audit consists of five phases that lead to audit testing of controls and financial statement account balances.

Required

a. Identify the five phases and indicate the process used by the auditor in each phase and the outcome of each phase.
b. Does the auditor need to evaluate each of the components of the COSO *Internal Control, Integrated Framework* to reach an opinion on the effectiveness of internal control?
c. Can one element of the framework be weak and yet be offset by another component? Explain.

7-40 **(Segregation of Duties)** Segregation of duties is an important concept in internal control. However, segregation of duties is often a challenge for smaller businesses because they do not have sufficient staff to always segregate duties. Normally, the segregation of duties identified below is either a significant deficiency or material weaknesses in internal control.

Group Activity

Required

For each segregation of duties problem identified below:

a. Identify the risk to financial reporting that is associated with the inadequacy of the segregation of duties.
b. Identify other controls, if any, that might mitigate the segregation of duties risks.
c. If a control is identified that would mitigate the risks, briefly indicate what evidence the auditor would need to gather to determine that the control is operating effectively.

The inadequate segregation of duties to be considered are as follows:

- The same individual handles cash receipts, the bank reconciliation, and customer complaints.
- The same person prepares billings to customers and also collects cash receipts and applies them to customer accounts.
- The person who prepares billings to customers does not handle cash, but does the monthly bank reconciliation which, in turn, is reviewed by the controller.
- The controller is responsible for making all accounting estimates and adjusting journal entries. The company does not have a CFO and has two clerks that report to the controller.
- A start-up company has very few transactions, less than $1 million in revenue per year, and only has one accounting person. The company's transactions are not complex.
- The company has one computer person who is responsible for running packaged software. The individual has access to the computer to update software, but can also access records.

7-41 **(High Risk Audit Area: Revenue Recognition)** The SEC has stated that revenue recognition should always be considered to be high risk in planning an audit of a company's financial statements.

Required

a. Identify the major accounting and operational processes that affect revenue.
b. Identify the other financial accounts normally associated with revenue recognition.
c. Assume management has identified effective controls over the recording of revenue transactions and the auditor concurs with that assessment:
   i. What risks still might exist in the account balance if the controls over the recording of shipments has been determined to be adequate?
   ii. Identify the direct tests of the revenue account that the auditor might still want to apply because the SEC has determined that revenue recognition is high risk.
d. The auditor is concerned that the client may have been involved in special contracts for goods that were shipped at year end that may have "non-standard" rights of return by the customer:
   i. What controls should be in place to mitigate this risk?
   ii. How would the auditor find out about the special contracts, i.e., what audit procedures should the auditor perform to identify the possibility that the special contracts might exist?

7-42 **(Residual Risk)** The COSO internal control framework provides guidance to management to reduce residual risk to an acceptable level.

Required

a. Define the term "residual risk."
b. Should residual risk be determined by:
   - Management
   - The external auditor

- The audit committee
- A regulatory body such as the PCAOB

c. What factors affect the auditor's assessment of residual risk remaining in an account balance before the auditor performs direct tests of the account balance?

7-43 **(Factors Affecting Amount of Control Testing)** There are many factors that may affect the size of the sample the auditor takes to test controls.

Required

a. Identify the factors the auditor should consider in developing the sample to perform tests of controls.
b. For each factor identified, indicate how it should affect the sample size for testing controls.

7-44 **(Factors Affecting Amount of Direct Testing)** There are many factors that affect the auditor's decision as to how much direct testing of an account balance will be required.

Required

a. Identify the factors that affect the auditor's decision as to whether to perform direct tests of an account balance, and if so, how much testing is required.
b. For each factor identified, indicate how it affects the auditor's decision of how much direct testing to perform.

7-45 **(Linking Deficiencies to Direct Tests)** The auditor determines that there may be misstatements in the inventory and cost of goods sold account. During the conduct of the audit, the auditor found a material weakness in internal controls in that (a) some shipments were recorded before the actual shipment took place (this happened throughout the year at a rate of 2 out of 30), (b) some shipping documents could not be found even though the shipment had been recorded (2 out of 30), and (c) some goods were received and sat on the shipping dock for up to 7 days before the receipt was recorded. This happened at a rate of 5 out of 30.

Required

a. For each of these deficiencies, indicate the potential misstatement affecting inventory.
b. Identify whether the potential misstatement of inventory identified above would be considered significant enough to require direct testing of inventory. State the rationale for your answer.
c. For each deficiency or potential misstatement, indicate how you might test to see whether inventory was misstated.
d. Assume that no deficiencies were found at all. How many direct tests of inventory would you recommend still be performed? Indicate the nature of those direct tests, if any.

7-46 **(Deficiencies and Compensating Controls)** For the company identified in Problem 7-45, assume that the company has an internal audit department that makes periodic test counts of inventory and management adjusts the inventory records to the test counts.

Required

a. What factors should the auditor consider in determining whether or not to rely on the work performed by the internal auditor?
b. If the internal auditor was doing a great job regarding inventory, what would the auditor expect to see with respect to (i) the pattern of the control failures found in Problem 45, (ii) recommendations made by the internal auditor to management, and (iii) responses by management?

c. Assume the following two scenarios:
   - The internal auditor's work on inventory consists primarily of making the test counts and seeing that the inventory is adjusted for differences.
   - The internal auditor's work meets all the criteria you have identified in part (b).

Explain how the two scenarios would affect the amount of direct testing of inventory the auditor should plan on performing.

7-47 **(Monitoring)** For the inventory scenario developed in Problems 7–45 and 7–46, consider the type of monitoring that might be performed.

Required

a. Explain the monitoring element of the COSO internal control framework. More explicitly, does monitoring refer to the monitoring of other controls, or does it refer to the monitoring of operations? Explain the difference.
b. Identify two or three types of monitoring that would be effective once the company has fixed all the control deficiencies that might have existed.
c. For the monitoring approaches you have identified, (i) describe how the approach would work, and (ii) what evidence the auditor might want to gather to determine the effectiveness of the monitoring control.
d. Explain why an improvement in the robustness of the monitoring element of internal controls should lead to a decrease in cost for a company to comply with Section 404 of Sarbanes-Oxley.

7-48 **(Using the Work of Others)** The PCAOB states that the auditor must perform enough of the testing of internal controls himself or herself so that it provides the principal evidence for the opinion on internal control. However, the auditor may use the work of others, such as internal auditors or other company personnel, to alter the nature, timing, or extent of their own testing of internal controls.

Client A has an internal audit department that reports to the CFO and audit committee. The department is fully staffed with personnel that are experienced, highly qualified, and professional. It has an external peer review conducted every three years that shows it has fully complied with the Institute of Internal Auditor's professional standards. It has a charter that clearly allows full access to all areas of the company, company personnel, records, and other sources of information. It focuses a lot of attention on testing controls of the more significant control activities of the company as well as on corporate government issues and management's processes for risk identification and assessment.

Client B has an internal audit department that reports to the controller and audit committee. It is understaffed and most of its personnel are recent college graduates. The chief audit executive, however, has had a lot of experience with the company and is considered to be "one of the guys." Its audit scope is determined by the controller. The department focuses most of its attention on financial auditing, but does some testing of controls in areas as directed by the controller. It does not have enough budget to undergo an external peer review of the quality of its performance.

Required

a. Discuss the factors the external auditor should consider in determining to what extent the work of the internal auditors can be relied on in forming an opinion on internal controls.
b. Is it likely that much reliance can be placed on the work performed by the internal auditors of Client A? Client B? Explain.

c. Why might the external auditors decide to test the effectiveness of the control environment themselves rather than rely to any extent on the testing of corporate governance by the internal auditors of Client A?

7-49 **(Adjusting Entries)** Adjusting entries have been utilized to improperly manage earnings.

Required

a. Identify two types of "routine" adjusting entries and two types of non-routine adjusting entries that might be made either monthly or quarterly.
b. Explain the types of controls that might be expected to be associated with routine adjusting entries. Illustrate with the types of entries you have identified in (a).
c. For the adjusting entries, identify how the auditor would gather evidence on the one or two most important controls built into the process.
d. Assume the non-routine adjusting entries can be material for the company. Identify two or three important controls that you would recommend be implemented for the non-routine adjusting entries.

7-50 **(Testing Controls and Financial Statement Integration)** For context, the auditor is assigned to analyze and test the controls related to purchasing, including inventory items as well as items that are expensed. There are three purchasing agents for a medium-sized company ($250 million in sales) with each specializing in areas. Department heads are authorized to purchase "expense-type" items up to $750 individually and up to $20,000 annually.

Required

a. Explain how the auditor would test to see that the following controls are working effectively:
   - Authorization of purchases by department heads
   - Authorization of inventory purchases by purchasing agents
   - Independent receipt of inventory
   - Reconciliation of inventory with perpetual records on a regular basis
   - Limit of total purchases for a month to amount approved by budget or planned production
   - Clear accounting policies regarding the accounts to be charged for purchases with periodic review by the controller's department
b. Assume management and auditors both conclude the controls are working properly. Of the total purchases made during the year, $120 million was for products (inventory and cost of goods sold) and another $20 million was for expenses, excluding legal and professional fees. These expenses ranged from office supplies, to production supplies, etc., and one large item—advertising expense at $10 million.
   1. Identify the implications for the remaining audit testing of expenses. Identify all the assumptions you have made about the nature of the auditor's tests of expense items. Explain your answer.
   2. Identify the implications for the remaining testing of cost of goods sold.

7-51 **(PCAOB Inspections and Controls)** One of the fundamental changes that occurred upon passage of the Sarbanes-Oxley Act of 2002 is that the audit profession is no longer allowed to be self-regulatory. Now, the Public Company Accounting Oversight Board (PCAOB) has the authority to assess whether audit firms are conducting high quality audits. To make that assessment, the PCAOB conducts formal inspections of audits completed by audit firms registered with the PCAOB, and the results of those inspections are made public on the PCAOB's web site (www.pcaobus.gov and follow the links to inspection reports). The inspection teams select certain higher-risk areas for review and

Research Activity

inspect the engagement team's audit documentation and interview engagement personnel regarding those areas. The areas subject to review include, for example, revenues, reserves or estimated liabilities, derivatives, income taxes, related party transactions, supervision of work performed by foreign affiliates, assessment of risk by the audit team, and testing and documentation of internal controls by the audit team. The inspection team also analyzes potential adjustments to the issuer's financial statements that had been identified during the audit but not recorded in the financial statements. For some engagements, the inspection team reviews written communications between the audit firm and the issuer's audit committee.

The reports that have been released to the public contain a variety of examples of audit engagements in which auditors have had difficulty in properly assessing and responding to weaknesses in client internal controls. Excerpts of these difficulties are as follows:

Audit Firm 1: "In this audit, the Firm's internal control testing and substantive procedures related to revenue were deficient. The Firm assessed control risk for revenue as 'below maximum' in an environment that the Firm concluded had 'pervasive weaknesses' in IT general controls. The nature and extent of the Firm's substantive procedures were not sufficient in a high control risk environment and inappropriately relied on system-generated information without testing the source data."

Audit Firm 2: "The issuer used a service organization for payroll services, and the Firm placed reliance on the controls at the service organization with respect to vacation expense and accrual testing. The Firm, however, had not obtained an understanding of the internal controls at the service organization through its own assessment, nor had it obtained an auditor's report on the service organization prepared in accordance with AU 324, *Service Organizations*. Thus, the Firm should not have relied on the controls at the service organization."

Audit Firm 3: "PCAOB standards require the auditor to test internal controls before relying on them for the purpose of designing and performing the substantive audit procedures. In 13 instances involving the audits of 10 issuers, the Firm failed to test, or failed to perform sufficient tests of, controls that the Firm relied on in designing and performing its substantive audit procedures. The instances included the following:

- The Firm relied on information technology ('IT') application controls that had not been tested for several years.
- The Firm did not sufficiently address the effects of deficiencies in IT program access controls, change-management controls, or application controls.
- The Firm relied on change-management controls that had been tested only for the first half of the year without performing appropriate updating procedures.
- The Firm relied on IT system-generated data without testing the IT general computer and/or application controls.
- The Firm tested controls using samples that were smaller than necessary to support reliance on the types of controls being tested."

Required

a. Comment on the PCAOB's inspection process, focusing on (1) why it is considered important to audit quality and (2) how it may improve audit quality.

b. Review the comments from the inspection reports. What common problems did the PCAOB detect during the inspections?

c. Considering the problems detected by the PCAOB, why do you think they were concerned about those particular issues? How could the problems in the audit procedures have affected the nature of the audit opinion rendered on those engagements?

d. For two of the audit firms described earlier, the PCAOB detected problems involving information technology controls. Why are these controls so important to the proper functioning of an organization's financial reporting system? Why might auditors have particular difficulty in assessing these controls? What procedures could audit firms put into place to ensure that auditor difficulty in this regard is minimized?
e. Visit the PCAOB's web site and review two inspection reports of your choosing. Be prepared to discuss your findings during class.

Cases

7-52 **(General Motors, Accounting Controls)** General Motors is in the process of restructuring its operations. In recent years, it has spun off its major parts supplier, its financing arm, and is restructuring most of its operations. In March of 2006, it announced that it needed to restate its prior year's financial statements. Excepts from *The Wall Street Journal* describing the restatements include the following:

> GM, which already faces an SEC probe into its accounting practices, also disclosed that its 10-K report, when filed, will outline a series of accounting mistakes that will force the car maker to restate its earnings from 2000 to the first quarter of 2005. GM also said it was widening by $2 billion the loss it reported for 2005.
>
> Many of the other GM problems relate to rebates, or credits, from suppliers. Typically, suppliers offer an upfront payment in exchange for a promise by the customer to buy certain quantities of products over time. Under accounting rules, such rebates can't be recorded until after the promised purchases are made.
>
> GM said it concluded it had mistakenly recorded some of these payments prematurely. The biggest impact was in 2001, when the company said it overstated pretax income by $405 million as a result of prematurely recording supplier credits.
>
> Because the credits are being moved to later years, the impact in those years was less, and GM said it would have a deferred credit of $548 million that will help reduce costs in future periods. The issue of how to book rebates and other credits from suppliers is a thorny one that has tripped up other companies, ranging from supermarket chain Royal Ahold NV to Kmart Corp.
>
> GM also said it had wrongly recorded a $27 million pretax gain from disposing of precious-metals inventory in 2000, which it was obliged to buy back the following year.
>
> GM on Thursday told investors not to rely on its previously reported results for the first quarter of 2005, saying it had underreported its loss by $149 million. GM said it had "prematurely" boosted the value it ascribed to cars it was leasing to rental-car companies, assuming they would be worth more after the car-rental companies are done with them. GM previously had reported a loss of $1.1 billion, or $1.95 a share, for the first quarter. (March 18, 2006)

You may assume the amounts are material.

Required

a. Without assuming that the errors in accounting judgment were intentional or non-intentional, discuss how the nature of the errors affects the auditor's judgment of the control environment and whether the auditor should conclude there are material weaknesses in internal control. What would your judgment be if the accounting treatment were deemed "acceptable, but aggressive" by the company's CFO and CEO? How would those judgments affect the auditor's assessment of the control environment?
b. Describe the nature of the accounting judgment made by the company regarding the residual value of the cars it leases? What information and communication system should exist regarding the residual value of the cars returned from leasing? What controls should be in place? What evidence would the auditor need to evaluate the reasonableness of the change made by the company?

c. Explain the rebates, or up-front rebates, from the company's suppliers. Why would the suppliers pay the up-front credits? What is the proper accounting for the up-front credits? Is there an acceptable alternative to the accounting that you have identified? What controls should be in place to account for the up-front credits? How would the auditor audit (i) the controls over the accounting for the up-front credits, and (ii) the expense-offset account, or the liability account?

Group Activity

7-53 General Motors has generally been considered to be an ethical company that was hit hard by current economic events and the culmination of bad management decisions leading up to the current environment.

Required

a. General Motors received an audit opinion that its internal controls were effective in its 2004 annual report. Yet, there appears to have been problems in the control environment. The fundamental question is: Short of finding misstatements, is the external auditor capable of objectively assessing the control environment? For example, consider that the chair of the audit committee at the time the misstatements were revealed was Phil Laskaway, the former managing partner of Ernst & Young. Be prepared to support your answer.

b. If the reports on internal control failed to identify the control problems at General Motors, many cynics might state that the additional cost of the controls are not worth the benefit derived from them.
   1. Explain how an integrated audit should have detected the control deficiencies and the accounting misstatements. Be explicit in the procedures that should have been used.
   2. Respond positively or negatively to the cynic's statement: "Reports on internal control are not a good investment by users of financial statements because they cost too much and deliver too little."

c. Identify the implications of General Motors' restatements on what the large public accounting firms should be doing to better prepare you to perform the integrated audits. In other words, what training would you recommend specifically for the auditors of General Motors?

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CHAPTER

8 Computerized Systems: Risks, Controls, and Opportunities

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Identify the key components of computerized data processing.
- Identify and evaluate important computerized controls.
- Distinguish between application and general controls and the approaches to testing each type of control.
- Identify important access controls and audit approaches to test those controls.
- Identify approaches to understand, evaluate, and test controls.
- Identify computer-based approaches to testing application controls and correctness of processing.
- Describe audit software as a primary tool for accessing and testing computerized data.
- Describe e-commerce and approaches to auditing e-commerce-based transactions.

CHAPTER OVERVIEW

Auditors must understand the risks associated with rapidly changing computer technology—and how those risks apply to a particular client. In this chapter, we present an overview of basic computer systems and identify approaches to gaining an understanding of the risks and applicable controls associated with client computer systems. The auditor must understand these systems in order to evaluate (a) the availability of evidence, (b) the competence of evidence, and (c) the risks associated with the system. Computer controls are an important element of the integrated audit.

We also discuss audit tools that have been designed to (1) test the effectiveness of computer processing and computer controls and (2) analyze the correctness of details contained in recorded account balances. We also discuss computer-aided methods of gathering evidence for companies with a significant amount of e-commerce.

Generalized audit software, e.g., ACL that has come packaged with this text, is one of the essential tools for auditing client data. We introduce generalized audit software in this chapter and illustrate how it may be used to improve both the efficiency and effectiveness of audits.

Introduction

Many organizations have failed because of poorly designed and poorly controlled computerized information systems. Computer systems are increasingly connected with other organizations—allowing greater efficiency, but also adding to risk.

Computer systems interact with other companies to order products, make sales, and maintain inventory. These interactions often require opening up the client's database to access by trading partners. For example, Wal-Mart has a merchandising approach with its major suppliers whereby many suppliers control inventory at Wal-Mart stores in exchange for the supplier holding title to the goods until they are sold to the consumer.

Auditors are increasingly planning audits that are systems-based. The auditor must be able to identify the risks associated with those systems, determine whether the client has implemented a satisfactory level of controls to mitigate those risks, determine that such controls are operating effectively, and utilize computer-assisted audit techniques.

Understanding Audit Concepts and Tools

Internal Control
Audit Evidence
Sampling
Financial Statement Assertions
Information Technology

Overview of Computerized Accounting Systems

The computing environment includes hardware, software, networking, data, and people who manage the computing environment and support end users. The systems are integrated across functional lines. For example, entering the completion of a production process into the system may update accounting records such as inventory and payroll; it may also update the production management system.

The auditor needs to understand this environment and the security features designed to ensure that only authorized users access the system for approved purposes. Most computing systems are highly integrated, utilizing enterprise resource planning systems (ERP systems) to ensure consistency of processing. Companies become dependent on the security and integrity of computerized systems. If the systems fail, it is quite possible that the company itself may fail. If a company does not have a comprehensive ERP system that incorporates computer risks, the company has vulnerabilities that must be explicitly addressed in each audit. Some of these risks are as follows:

Computer Processing Area	Risks
Computer Operations	Sabotage, natural disaster, viruses, threats that impair the ability to operate
Computer Programs	Fraudulent programming, incomplete or incorrect data processing, or processing fraudulent data
Data Files	Unauthorized access leading to destruction or manipulation of data for reporting, analysis, or running the business; contamination through addition of unauthorized data
Data Communications	Data intercepted, modified, deleted, or replaced with fraudulent data
	Data ports providing access to hackers, denial-of-service attacks, or unauthorized access to data and programs

Identifying Types of Computer Software and Associated Risks

All computer systems are dependent on four types of software that an auditor must understand to evaluate controls:

- Operating systems
- Networking and communications

- Application programs
- Access control, including security over computer programs

Operating Systems Software A computer's **operating system** controls all aspects of a computer's internal operations. The operating system consists of a series of programs that acts as an intermediary between the user, the processor, and the applications software. In the business environment, the operating system controls the processing of user programs, determines the order in which individual programs are processed, and provides logs of transactions. It is the most complex software on most machines. Because the operating system can access any data file or program, it is important that access to the operating system be severely restricted. Common types of operating systems include Windows, UNIX, Linux, and Mac.

Consider the Risk

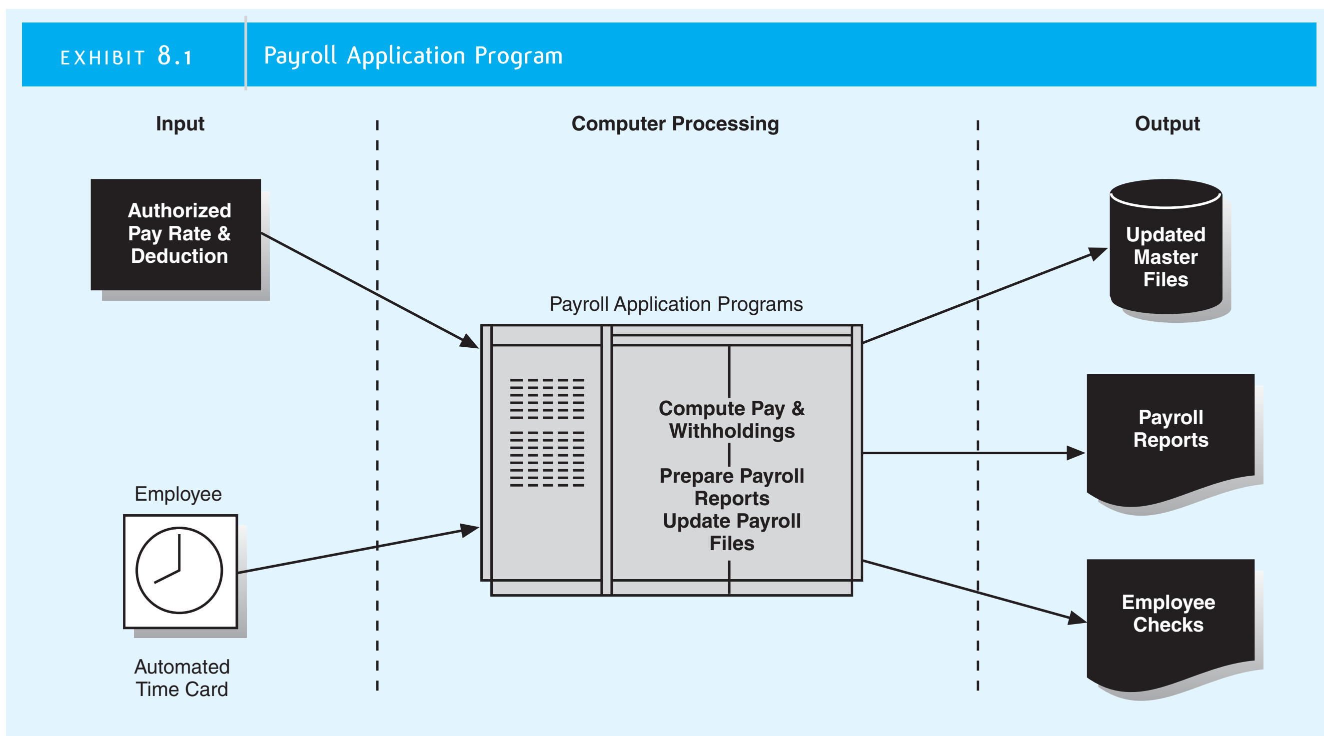
Information technology continues to change rapidly. The next generation of computing is committed to more applications run over the Internet, which may decrease cost, increase efficiency, but present more risks to the company.

Networking and Communications Software The software that controls the system's communications with parties both within and outside the organization is called **networking and communications software.** The software is designed to ensure the completeness of the message communication. For some communications, the software may include encryption procedures to assure the identity of the sender and receiver and also to protect the communication process and data from hackers.

Application Program Software Accounting **application programs** are written to accomplish specific data processing tasks such as processing sales and accounts receivable, updating inventory, computing payroll, or developing special management reports. Application programs develop the user interface and process the data that update general ledger account balances and the numbers flowing into financial statements.

Application programs have been traditionally viewed as input-process-output systems, even though many of these computing applications are becoming significantly more integrated. An example of a typical accounting application is the payroll system shown in Exhibit 8.1. In that process, an employee's time is electronically

EXHIBIT 8.1 Payroll Application Program



input and then processed by a payroll program to generate a payroll check and a job cost analysis (output); those data then update various payroll master files (electronic output). The employee's time is automatically transferred to the computer application through an electronic collection device when the employee logs in and out of a job. The computer application accesses a master pay rate file (table) that contains the authorized pay rate for the employee. The program computes and prepares payroll checks, payroll reports, and updated master files (such as year-to-date pay and withholdings).

Access Control Software Software that limits access to programs or data files to those authorized for such access is called **access control software.** Comprehensive access control software identifies users, data, and rules to access data or programs. For example, a bank teller might be authorized to read a customer's account balance, but might not be allowed to make a transfer to another account without supervisory approval. Some access control software controls the access to all items within the computing environment; other access control software is built into individual applications or databases. In addition, most organizations will have separate access programs to manage their applications and changes to the applications.

Interconnected Systems—The Virtual Private Network

The virtual private network (VPN) embraces all communications: fiber-optic to wireless; e-business (business to business); e-commerce (business to consumer); auctions (consumer to consumer); intranets (within business); personal digital assistant, such as the Blackberry connection to the Internet; and application and database processing. It is a virtual "anytime, anywhere" network environment; see Exhibit 8.2. This is the type of computerized environment that is evolving. The addition of communication via other means than secured lines, i.e., open airways,

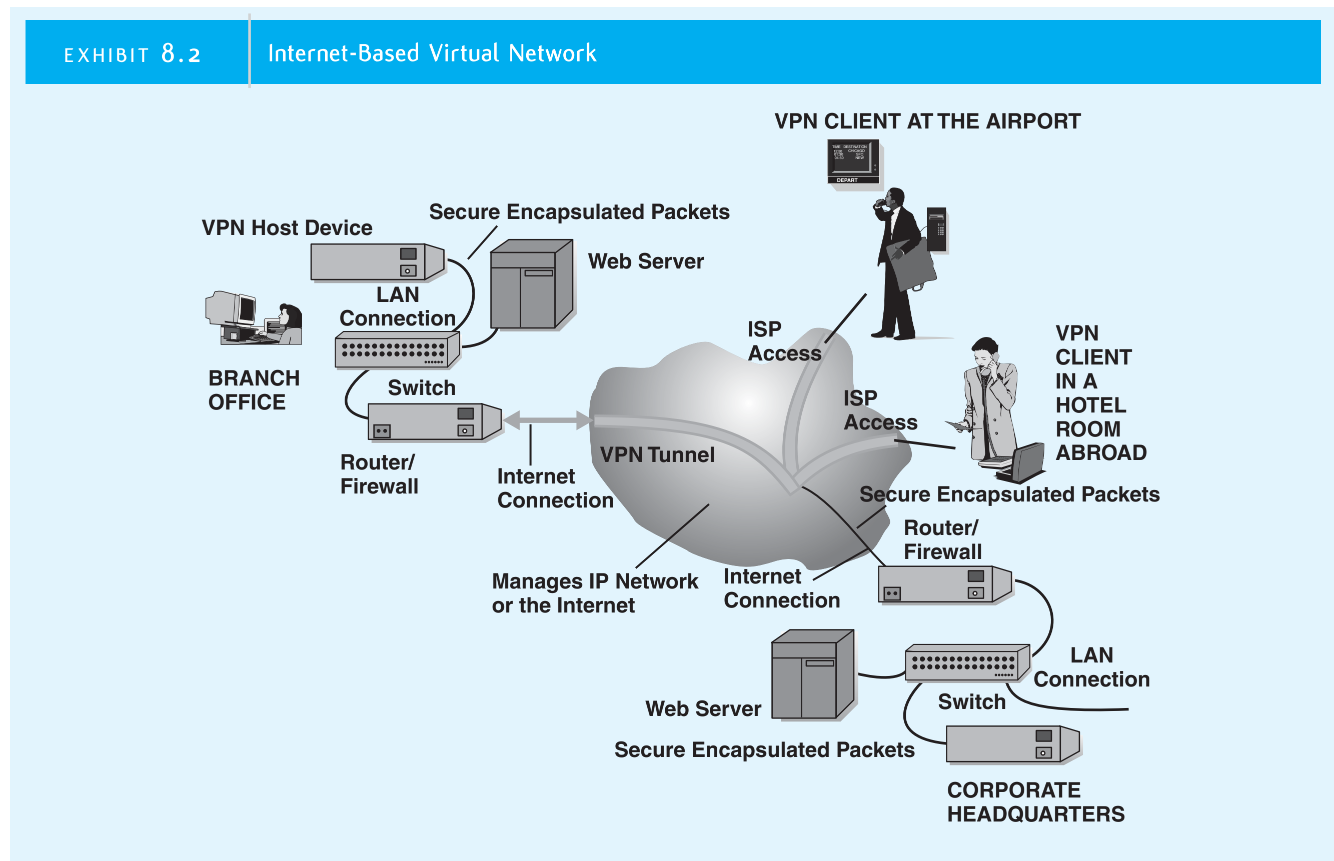


EXHIBIT 8.2 Internet-Based Virtual Network

creates security problems that must be addressed by every organization. There are a number of important items to note in this exhibit:

- VPN indicates a virtual private network. Users and companies are demanding anytime, anywhere service, and the computing and telecommunications industries are responding with wireless communication.
- **Firewalls** are located between the Internet and the company's private data processing resources.
- Organizations have both a **Web server** and a back-office computing structure.
- Data are transmitted over the VPN in data packets that may or may not be secured.
- Each unit connected to the Internet must have a unique ISP (Internet service provider).
- There must be a uniform transmission protocol if information is going to be transmitted over the Internet and then received and interpreted correctly.
- An organization has limited, or no, control over the Internet.

The environment shown in Exhibit 8.2 contains risks that both the internal and external auditors need to assess:

- Unauthorized penetration into the organization's system with subsequent destruction or copying of important information or computer applications.
- Loss of messages in transmission through the VPN or Internet.
- Interception and either destruction, modification, or copying of information transmitted over the network. This includes the possibility of using intercepted information for unauthorized purposes. Examples include using stolen credit card numbers, intercepting money transfers that are directed to other places, and modifying orders or delivery addresses.
- Mass attacks on the client's systems, often referred to as **denial-of-service attacks,** are designed to overload a company's system and then shut them down. Such attacks have the potential of putting an e-commerce retailer out of business.
- Loss of processing due to losing electrical power, or destruction by flooding, hurricanes, or fire.

The interconnected computing environment is a fact of commerce. The auditor is first concerned with management's ability to implement controls that reduce risk to an acceptable level. Once the controls are implemented, the audit firm will often use computer experts to determine that the controls are working.

General and Application Controls

Some computer controls are pervasive; that is, a weakness in such controls may create vulnerabilities for programs and data. Other controls may be more specific, such as a control affecting the integrity of recording a sale and account receivable. The profession has developed a model to help auditors evaluate complex computing systems by describing the pervasive data processing controls as **general controls** and the controls related to a particular program as **application controls.**

Risk Analysis at the General Control Level There are a number of risks at the general control level that the auditor might address. Some relate to the efficiency and effectiveness of operations, while others are more specific to the audit of a company's financial statements. The following are some risks that should be considered:

- *Unauthorized users* may run applications, or data may be accessed without authorization.
- The company may develop the *wrong programs,* or may develop the programs inefficiently, thereby jeopardizing the company's ability to compete.
- The company's *networking controls* may not safeguard the system from intruders or safeguard electronic transmissions.

- *Unauthorized personnel* may steal or modify company programs or data.
- The computer system may not be secured against unauthorized physical *intrusion or attacks*, or protected from natural disasters.

These risks are addressed by the general controls.

General Controls

General controls are pervasive control procedures that affect all computerized applications. These controls address the following:

- Planning and controlling the data processing functions
- Controlling applications development and changes to programs and/or data files and records
- Controlling access to equipment, data, and programs
- Maintaining hardware to ensure that failures do not affect data or programs
- Controlling electronic communications

Because general controls are pervasive, the auditor usually starts with the general controls in evaluating the potential control weaknesses.

Planning and Controlling the Data Processing Function There is no single best way to organize the data processing function. Some companies encourage more user development of applications; others centralize all development within a specific development group. Others purchase most of their software from outside vendors who customize the software to the company.

Practical Point

A client must have a risk management plan for information technology and a plan on how it is going to control those risks. The auditor should begin an audit of computerized processing by reviewing those plans.

The auditor should focus on seven fundamental control concepts in evaluating the organization of data processing:

1. *The authorization for all transactions should originate outside the data processing department.* This authorization includes the review and approval of program changes.
2. *The users, not data processing, are responsible for authorization, review, and testing of all application developments and changes in computer programs.* There is a fundamental segregation of duties between users and data processing. Users provide an independent check on the integrity of data processing.
3. *Access to data is provided only to authorized users* as determined by the owner of the data and consistent with organization policies and guidelines for information privacy.
4. *The data processing department is responsible for all custodial functions associated with data, data files, software, and related documentation.* This responsibility includes limiting access to authorized users, building integrity checks into programs and systems, and maintaining adequate backup and security of all applications, data files, and documentation.
5. *Users, jointly with data processing, are responsible for the adequacy of application controls built into computer applications or database systems.* Organizations should develop control guidelines that specify minimum control objectives for every application, alternative controls that could be implemented, and responsibility for the controls.
6. *Management should periodically evaluate the information systems function for operational efficiency, integrity, security, and consistency with organizational objectives for information technology.* The internal audit department may perform this evaluation.
7. *The internal audit staff should be adequately trained in computer auditing and should periodically audit applications and operations.*

Integrated Audit

The control concepts identified here constitute control objectives that should be tested as part of an integrated audit of internal control and financial statements.

Segregation of Duties within Data Processing Organizations need to protect themselves from unauthorized and undetected access to programs and/or data. Two important segregation concepts are as follows: (1) data processing personnel should not have access to programs or data except when authorized to make changes, and those changes follow authorized procedures; and (2) users should review and test all significant computer program changes. At first glance,

this principle may sound trite: How can changes be made if computer programmers are not allowed to make the change? The point is that data processing personnel cannot have unauthorized and unmitigated ability to make changes to programs or data without supervisory review and approval. Otherwise, all organizations would be at the mercy of the programmers and their honesty.

Other important duties that should be segregated include the following:

- *Computer operator and programming functions*—If not segregated, the operator (because of the access to system logs) could make both unauthorized and undetected changes to computer programs or data.
- *Computer program librarian and other functions*—Access to programs and data should be restricted to authorized users for specifically authorized purposes.
- *Database administrative and data input functions*—The database administrator should set up and maintain the integrity of the database, but users should be responsible for the completeness and integrity of data input into the database.

Program Development and Program Changes

Organizations run the risk that computer programs are not efficient, are not effective, or do not contain proper controls. Thus, every organization should have a process to determine that the right applications are developed or purchased, are built and installed within budget, and accomplish the objectives for which they were designed or purchased. Every organization should also have control standards specifying control concepts that should be considered in all applications.

Practical Point

Control over program changes is usually something that internal auditing addresses on a frequent basis. The external auditor will usually use "information systems specialists" to assist in the evaluation of program changes.

Program Changes In evaluating the structure of control over program changes, the auditor should determine that control procedures are sufficient to ensure that:

- Only authorized changes are made to computer applications.
- All authorized changes are made to computer applications.
- All changes are adequately tested, reviewed, and documented before being implemented.
- Only the authorized version of the computer program is run.

Controlling Access to Equipment, Data, and Programs

Restricting access to assets to authorized users for authorized purposes is a fundamental internal control concept. In traditional manual systems, access to confidential data was physically restricted by walls between offices, by security clearances, and by visual review. If employees tried to change their authorized wage rates, they would be prohibited from entering the room containing pay rate data. Even if they were able to enter the room, they would normally find that payroll data were safely locked in storage devices and accessible only by payroll personnel. If employees tried to break into the locked cabinets, they would be spotted by someone who would realize that unauthorized personnel were in the department. Finally, if the potential perpetrators tried to avoid all these control procedures and enter the office during the nighttime hours, a security alarm would sound to warn security personnel to apprehend any intruders. The smart criminal might still be able to overcome these control procedures, but most employees would not find the risk of detection and the consequent penalties worth their effort to change their pay rate. Thus, although the vulnerability existed, the access controls over manual systems tended to work well.

The same restriction concepts should be implemented in a computerized environment to limit access to assets. Further, it can be argued that access controls in a computerized system are even more important because access is not likely to be observed by others. First, information is highly concentrated in computer systems. Second, a perpetrator who gains unauthorized access to a computer system gains access and potential control of assets important to the organization.

With computerized systems, the perpetrator gains access to physical assets such as cash or inventory because those programs control access to actual physical assets.

The auditor should determine the extent to which the client has instituted a data access program based on the following principles:

- Access to any data item is limited to those *with a need to know*.
- The ability to change, modify, or delete a data item is restricted to those *with the authorization to make such changes*.
- The access control system has the ability to identify and verify any potential users as authorized or unauthorized for the data item and function requested.
- *A security department should actively monitor* attempts to compromise the system and prepare periodic reports to those responsible for the integrity of data and access to the data.

These four principles require a comprehensive access control program that identifies all data items, users, user functions, and the authorized functions that users may perform on each data item. An access control system must restrict access to data to authorized users for authorized purposes. Access is controlled by developing a detailed matrix in which users are assigned to groups. The three-dimensional matrix then matches user groups to data and authorized functions such as an ability to read an item, change an item, or input a new item.

An example of an authorization table is shown in Exhibit 8.3. In order to implement access controls, the organization must first identify every data asset or program and then map users and allowable accesses. Once a security system is implemented, the organization must implement an authentication procedure to ensure that an individual is who he or she claims to be. A good access control system also monitors threats to the system and develops reports to address potential threats and vulnerabilities. Fortunately, some excellent software products provide the ability to restrict access according to the principles just specified.

Authentication Once the system has been implemented and individuals are given the authority to access data or make changes, a system must be put in place to verify that users are indeed authorized to make changes or access data. That system is referred to as **authentication,** which is verifying to the system that the

EXHIBIT 8.3 Data Authorization Table

person is who she or he claims to be. Three primary methods are used to authenticate users:

- *Something they know,* such as a password or something that should be known only to them
- *Something they possess,* such as a card with a magnetic strip
- *Something about themselves,* such as a fingerprint, a voiceprint, or some other type of physical identification

The method used should depend on the criticality of the program or data being protected. In many cases, a password to log onto a personal computer is sufficient. In other situations, a more sophisticated approach or a combination of approaches should be used. A password system is most widely used, but it is subject to problems associated with lost, stolen, or easily guessed passwords. To be effective, passwords must be changed frequently and should be difficult to guess. Something possessed is most often implemented in the form of a plastic card with a magnetic strip to identify the user to the system. The card is often combined with passwords to provide a higher level of security than can be obtained if only one of the methods is used by itself. For example, an individual wishing to use an automated teller machine (ATM) must identify himself or herself to the computer terminal by something possessed (the ATM or bank card) and by a password. The user is allowed access to the ATM network only if the two agree with a list of authorized users.

Identification of users on the basis of physical characteristics continues to be the least widely used because of cost and reliability concerns. However, the cost effectiveness is changing and their use is expected to increase. The major risk associated with physical identification is that the physical scan must be matched with the secured scan that is stored within the system. If someone were able to break into a system and steal or copy the physical scans of authorized users, those individuals could masquerade as the authorized personnel by submitting their profiles when logging onto the system. If a system administrator were aware of the compromise, he or she would have to revoke the privilege of the authorized user. Then the individual who appropriately tries to log onto the system with his or her retina scan or fingerprint would be denied access to the system.

Business Continuity Each information system should have a security and backup plan to protect both physical assets (hardware and computer documentation) and programs and data files. If an audit client does not have adequate backup and recovery procedures, the auditor needs to discuss the risks with management and the audit committee to determine whether any disclosure of the risks is required. Minimum elements in a backup and recovery plan include the following:

1. *Standardized procedures for backup and disaster recovery*—Master files and transaction files should be backed up on a daily basis. Other items such as documentation manuals should be backed up as changes are made, and duplicates of source code and documentation should be stored offsite.
2. *Plans for reconstruction* in the event of a full or partial destruction of the data processing center, including the following:
   a Agreements with vendors to replace hardware and telecommunication capabilities
   b Agreements with independent companies or provisions within the organization for facilities to which hardware, employees, and support could be moved to continue operations
   c Formal plans in divisions or departments to continue operations in the event of a loss of current computing facilities
3. *Periodic review and testing* of the backup and recovery plans and procedures by the data processing department and internal audit.

Data Transmission Controls

Communications controls are those specific controls to ensure the completeness and correctness of data transmitted between a computer application and another device such as a terminal or another computer system. There are specific hardware controls that are beyond the scope of this text. The major control over Internet data transmission is encryption**.** Messages can be encrypted such that they are virtually impossible to decipher without having the proper code to decipher the message.

Application Controls

Application controls are specific control procedures (manual and computerized) designed into and around the computer program to ensure that processing objectives are attained. The application control procedures should match the complexity of the applications. The control procedures are often referred to as *input, processing,* and *output control procedures.* In addition, other control procedures are put in place to ensure that all the transactions are recorded; these are often referred to as batch controls—a subset of input controls.

Batch Controls Controls designed to ensure that all items that were submitted for processing were actually processed are called **batch controls.** Transactions are viewed as belonging to a batch—either a physical batch of transactions, or a logical batch, such as all transactions received at one port during a specific period of time. Three types of batch controls are typically calculated:

- *Record count*—A count of the number of transactions included in the batch.
- *Financial total*—The total of some financial amount field that has some significance, such as the total amount of cash receipts submitted for processing.
- *Hash totals*—The sum of a field that will be processed, the summation of which does not have any accounting significance, such as the summation of customer account numbers. Hash totals complement financial totals and record counts and are most useful in identifying a specific transaction that has not been processed.

After the items are entered for processing, the computer calculates similar totals for the batch. By reconciling the batch totals for items entered with the same batch totals calculated by the system, users gain assurance that all transactions are processed and no fictitious or duplicate transactions were entered into the system.

Input Controls The control procedures designed to ensure that the organization fully captures all the transactions between itself and another entity, and to properly record those transactions, are referred to as **input controls.** Input controls to ensure the capture of transactions include the use of (and accounting for) prenumbered documents (either paper-based or electronic) and the following:

- *A unique transaction identifier established by the computer,* along with all the audit trail information
- *Batch control* and *batch control totals*
- *Procedures to limit access* to transactions in accordance with management's specific policies
- *Formation of an audit trail*

An overview of an electronic **audit trail** is shown in Exhibit 8.4. If there are significant deficiencies in controls designed to ensure that all transactions are captured, the auditor may be forced to conclude that an entity cannot be audited.

Practical Point

Every organization must be able to answer customer or supplier questions on a regular basis. Thus, an audit trail is really a management efficiency tool.

EXHIBIT 8.4 Electronic Audit Trail

Unique identification of transaction. Examples include the assignment of a unique number by the computer. The unique identifier could be assigned sequentially or could consist of a location identifier and unique number within a location. Sales invoices, for example, are sequentially numbered by the computer application.

Date and time of transaction. These could be assigned automatically by the computer application.

Individual responsible for the transaction. The log onto the computer terminal provides evidence of the party authorizing or initiating the transaction.

Location from which the transaction originated. The log onto the computer can identify the source of the transaction.

Details of the transaction. These should be noted in a computer log. Essentially, all the details normally found in a paper document, such as the quantities ordered, back-order provisions, and so forth, should also be captured and saved for the electronic audit trail.

Cross-reference to other transactions. When applicable, all cross-referencing to other transactions should be captured. For example, if a payment cross-references a specific invoice, the information needed to complete the cross-reference should be captured.

Authorization or approval of the transaction. If the transaction requires authorization by a party other than the one initiating the transaction, the proper electronic authorization should be captured.

Other information. As required, other information should also be recorded as part of the electronic audit trail.

The organization should make provisions to retain the electronic audit trail for a period of time as would be required for a paper audit trail.

Input controls are designed to ensure that authorized transactions are correct, complete, and recorded in a timely fashion, and that only authorized transactions exist. They include the following:

- Computerized input validation procedures
- Batch control procedures
- Self-checking digits
- Use of stored data reference items to eliminate input of frequently required data
- On-screen input verification techniques

Input validation tests are often referred to as *edit tests* because they are control tests built into the application to examine input data for obvious errors. Edit tests are designed to review transactions much like experienced personnel do in manual systems in which an employee would know, for example, that no one worked more than 55 hours in the past week. The following types of edit tests are found in most computer applications:

- Alphanumeric field
- Reasonableness of data (within prespecified ranges or in relationship to other data)
- Limits (data must be within specified limits)
- Validity (data must take on valid values)
- Missing data
- Sequence (items are in sequence and are not duplicated)
- Invalid combinations of items
- Other relations expected to exist in the data

Exhibit 8.5 contains a detailed description of each of these edit tests. If an item entered online does not meet the edit criteria, the user is notified and a correction is made, or a decision is made about whether the transaction should be processed or reviewed further before processing.

Patterns of data input errors are common. For example, individuals often transpose (reverse the order of) two numbers, such as recording the digits on a

EXHIBIT 8.5 Examples of Input Validation Tests

Alphanumeric	Each data field is compared with a prespecified type to determine whether the field contains appropriate alpha or numeric characters.
Reasonableness	Reasonable ranges for an item are prespecified based on past history and current expectations. For example, a company that trades commodities on the Chicago Mercantile Exchange can develop a reasonableness range for an exchange price because the exchange prohibits trades that differ by more than a specific percentage from the previous day's closing price.
Limits	Limit tests are specified for items that require supervisory review before processing. A limit test, for example, might be placed on the number of hours factory personnel work during a one-week period. If it is highly unlikely that anyone would work more than 55 hours in a week, a limit test of 55 hours could be incorporated into the edit test.
Validity	A specific set of values could be programmed into the application and the identified fields could be tested to determine whether they contain one of the valid values. For example, a company may have only five jobs in progress during a particular time period. The validity test could determine whether a job accounting entry contains one of the job classifications currently in progress.
Missing Data	Fields could be reviewed to see whether data were missing. If fields crucial to processing were incomplete, the edit tests would reject the transaction.
Sequence	If some transactions should be processed in a specific sequence, that sequence could be programmed as a validation test. Further, the system may be programmed to determine whether any items in a specified sequence are missing, such as prenumbered documents, or to search for potential duplicates. An example of the latter would be a retailer's accounts payable program that searches to determine whether a vendor had previously been paid for an invoice that has been submitted for processing.
Invalid Combinations of Items	If data items must logically be consistent, the computer application should test for that consistency. For example, if it is not possible for an employee to have a job code as janitor and machinist during the same time period, the program should test for the invalid combination.
Other	The designer of the computer application should build into the application any other test that would have been manually reviewed before the application was automated and that has the ability to be computerized.

MasterCard account number as 52494807 instead of the valid number of 52944807. Many computer applications are designed to process transactions according to their account number because numbers are more likely than names to be unique. Examples of numeric identification for processing include credit card, bank account, inventory, customer, or employee.

Self-checking digit algorithms have been developed to test for transposition errors associated with identification numbers. Self-checking digits operate by computing an extra digit, or several digits, that are added (or inserted) into a numeric identifier. The algorithms are designed to detect the common types of mistakes. Whenever the identifier is entered into the system, the application recalculates the self-checking digit to determine whether the identifier is correct. An example of the use of a self-checking digit using a simple algorithm is shown in Exhibit 8.6.

Most organizations have much more sophisticated algorithms, and some can even diagnose and identify the most probable cause of the error. As shown in Exhibit 8.6, the identifier was input incorrectly. Rather than paying the wrong employee, the self-checking digit detects the error and signals the supervisor that a correction must be made.

Online Processing Controls Most data are commonly entered online; therefore, the computer application should be developed to facilitate correct and complete input into the system. One solution is to develop screen validation techniques that

EXHIBIT 8.6 Example of Self-Checking Digit (Modulus 11)

1. Original new employee number: 516
2. Calculation of a self-checking digit:
   a. Multiply each digit in the number by a predetermined algorithm and sum the products. The algorithm used below multiplies each digit by an ascending number beginning with 1:

      5 1 6
      x x x
      1 2 3
      5 + 2 + 18 = 25

   b. Divide the sum by 11. The remainder is the check digit:

      25 / 11 = 2 with a remainder of 3

   In this illustration, the check digit (3) becomes the last digit of the account number, but could be added anywhere in the number.
3. Detection of a transposition error:

   Correct employee number: 5163
   Transposed number: 5613

   The computer calculates a self-checking digit on the transposed number:

   5 6 1
   x x x
   1 2 3
   5 + 12 + 3 = 20

   20 / 11 = 1 with a remainder of 9

   The computed check digit is 9, but the self-checking digit keyed into the system is 3. Therefore, there must be either a transposition error or the check digit was keyed in incorrectly.

combine good screen design with procedures such as oral confirmation with customers to verify the data input. Onscreen validation concepts include the following:

- *Stored data are used to minimize data input*—For example, a customer calling a catalog retailer may be asked for information such as phone number and zip code. Upon entering the data, the system automatically generates a complete name, shipping and billing addresses, and phone number. These data can be verified orally with the customer.
- *Screen layout logically follows the order in which data are gathered*—The screen format should be uncluttered and request data in a form that is consistent with the way they are normally gathered.
- *Edit errors are noted automatically so that the data can be immediately investigated and corrected*—Timely identification of errors allows the data-entry person or user to investigate the potential error while all the data are available and information can be easily verified with a third party (when applicable).
- *Authorization for the input is noted and verified*—The specific individual entering the data and any other authorizations should be clearly noted on the screen and captured on a transaction log.
- *Unique identifiers are automatically added to the transaction*—For example, the data should be entered automatically by the system, and a unique sequential identifier should be calculated by the application and added to the transaction to help ensure that all transactions are recorded.

ACL software can be used to test all the stored data by comparing the data with parameters that would indicate invalid data.

Processing Controls Processing controls are designed to ensure that the correct program is used for processing, all transactions are processed, and the correct

transactions update multiple files. The most important processing controls come before the program is put into operation. Users should use comprehensive test data to ensure that the program does all computations correctly before the program is authorized for production.

Output Controls Output controls are designed to ensure that all data are completely processed and that output is distributed only to authorized recipients. Typical controls include reconciliation of control totals, output distribution schedules and procedures, and output reviews. For critical data, the user may perform a detailed review of the output contents with input to determine the completeness of a crucial process. The organization should also develop policies for protecting privacy and retaining records.

Overview of Computer Controls Risk Assessment

The approach for assessing control begins by identifying critical accounting applications. Many public accounting firms have developed computer audit specialists to deal with the most complex situations, but the firms expect all their auditors to be able to assess control risk in all but the most complex environments.

Gaining an Understanding of the Control Structure An understanding of internal controls is gained through inquiry and observation. Client documentation should be examined to obtain an understanding of the nature of processing and the file layout of important computer records. The process of assessing control risk in a computerized environment is as follows:

1. Identify important accounting applications and the extent of computerization within those applications.
2. Develop an understanding of the general controls, such as program change control and access controls, to determine how those controls may affect the integrity of important applications.
3. Develop an understanding of the flow of transactions in important accounting applications, and identify and document controls that address important processing objectives.
4. Develop a preliminary assessment of the control risk for the application, including the types of misstatements that are likely to occur and how those misstatements might occur.
5. If preliminary control risk is assessed other than high, develop an audit approach to determine the effectiveness of the controls in operation.
6. Develop an updated assessment of control risk based on a complete understanding of the application design and the tests of controls in operation.

Testing Effectiveness of Controls The audit firm must decide on the most efficient approach to test the integration of general and application controls. Some firms choose to test general controls as a whole, because these controls affect all accounting applications. Other firms may test the general control procedures *only as they affect the important applications;* for example, they may test control over program changes only as the program change control affects a financial reporting application, but not over other applications. Computerized audit approaches to test the effectiveness of controls are described in the latter half of this chapter.

Documentary Evidence of Controls Some control procedures result in the creation of documentary evidence of their operation. That evidence will serve as a basis for developing specific audit procedures to test the effectiveness of the controls. For example, if the auditor wanted to test control procedures over program changes, he or she would look for evidence of a change request form, a feasibility proposal, test results, documentation of a review and sign-off by a user,

updated program documentation, a data processing supervisor review, and evidence of a new program loaded into the production library. An auditor could test controls over program changes by taking a random sample of change request forms and examining them to determine whether the changes followed prescribed procedures and were implemented as authorized.

Other controls with documentary evidence (including electronic documentary evidence) include the following:

- Batch control totals
- Exception reports and how they are handled
- Computer logs of transactions (e.g., receiving slips that are time and date stamped)

Exhibit 8.7 presents an example of an audit approach to test the operation of access control procedures. Note that a formal process is in place, starting with gaining and understanding of procedures, performing a preliminary risk assessment, and then testing the effectiveness of controls.

EXHIBIT 8.7 Testing the Operation of Access Controls

A large client processes most of its data online. The auditor is interested in the overall operation of data access control procedures and the specific access control procedures over payroll, including the abilities to

- Change authorized pay rates for each job classification or individual
- Add or delete an employee from the authorized employee list

All hourly employees check in using automated time cards that record employee time in and time out and transmit the data electronically to the company's main computer for processing. Each employee is identified to the system through the use of a plastic card with a magnetic strip.

GAINING AN UNDERSTANDING

The auditor determines that an understanding of the control procedures must be gained at two levels: (1) the overall implementation of access control procedures and (2) the specific control procedures implemented by the personnel and payroll function to ensure that control procedures are working properly. The auditor uses interviews and reviews documentation to determine the following related to the *overall access control procedures*:

- The company uses an access control software product that allows data items to be identified at the field level (such as an address within an individual's payroll record) and allows the company to specify individual access by specific functions (such as READ ONLY, NO ACCESS, CHANGE). The access system has been implemented for all important applications.
- Access is controlled through passwords. An individual can choose his or her own password (up to eight digits or alphabetic characters), which must be changed quarterly. Although there is a software feature that will test for ease of guessing the passwords, the feature has not been implemented.
- The company has a data security office that has developed policies for adding or deleting employees on a timely basis. Based on an interview with personnel in that office, it appears that employees are added on a timely basis, but processing the changes to terminate employees may not be done on a timely basis.

The auditor supplements the overall understanding through interviews with the personnel and payroll department and documents the following understanding of *specific procedures affecting payroll processing*:

- Only the personnel department has the ability to add or delete employees or change wage rates.
- Access to the table (file) of authorized wage rates is limited to a senior person in the personnel department. When a change is made, the computer generates a report showing previous and current wage rates. The report goes to the individual making the change and to the manager of the department, who reviews the changes one by one to ensure that only authorized changes were made.
- Each employee has an identification number. When employees are added or deleted, the computer generates a hash total of the employee file based on employee identification numbers. The personnel department reconciles the computer hash total with its independently compiled hash total of employee identification numbers.
- The access control software develops a weekly report of all accesses (successful and unsuccessful) made to the wage-rate file. The report goes to the personnel director for review and follow-up. There have been no reported discrepancies, and the manager indicates that he would seriously follow up any discrepancies.

EXHIBIT 8.7 Testing the Operation of Access Controls (*continued*)

- Division management monitors labor costs by department. Variance reports are prepared on a weekly and monthly basis for management analysis.
- The computer prepares a departmental report of all employees and hours worked on a daily basis that is sent to the applicable departmental supervisor for review and approval. The supervisors must sign off indicating approval and that all employees were working during the logged-in time.
- All paychecks are directly deposited in a financial institution designated by the employee.

PRELIMINARY RISK ASSESSMENT

The auditor has identified some strengths and weaknesses in the access control procedures. Potential *weaknesses* include the following:

- Passwords may be easy to guess because the software to detect easily compromised ones is not implemented, and the employee can choose the passwords.
- Passwords are not frequently changed.
- The data security department may be slow in deleting terminated employees. This is considered very important because a disgruntled terminated employee could seriously compromise the system.
- The access control system has not been fully implemented across all applications.
- Employees log in using only plastic cards. This is considered a weakness, because the plastic cards can be easily loaned to other individuals.

The auditor has also noted some compensating controls that are considered to be *strengths* in the access control over payroll, including the following:

- There is separation of duties among payroll, personnel, and factory supervisors.
- There is a reconciliation of all changes made to the wage-rate file by both the supervisor submitting the changes and the personnel department manager.
- Access to the wage-rate file is limited, and a report is generated on all unauthorized attempts to access the file. There is supervisory follow-up.
- The number of hours worked daily is verified by the supervisors, thus limiting the opportunities for employees to pass their identification cards among each other.
- All payroll deposits go directly to a designated financial institution. This, coupled with personnel department authority to add individuals, prevents the generation of fictitious employee paychecks.
- There is timely management review of labor costs.

Based on the strength of compensating controls, the auditor assesses the control risk for payroll access to be low.

TESTING THE EFFECTIVENESS OF CONTROL PROCEDURES

The auditor chooses to test the effectiveness of control procedures because (1) the payroll application is a primary interest and (2) the control procedures leave documentary evidence of their performance.

The auditor chooses the following procedures to test the effectiveness of access control procedures:

1. Review a selected number of wage-rate changes. Verify the wage-rate changes by comparing the rates to authorized approval, such as labor contracts. Determine that a reconciliation of all changes was performed by the supervisor and the personnel department manager.
2. Review procedures with the personnel department manager for following up discrepancies. Obtain a list of changes to the wage-rate file, and determine that the manager performed a reconciliation for each change.
3. Select the list of the number of hours worked from the computer file, and determine whether a report was generated and signed by the supervisor.
4. Observe the activities and conscientiousness of employees. Determine whether software exists to shut down a terminal or a networked personal computer that is left idle.
5. Determine that labor cost reports are prepared on a timely basis and reviewed by management. This can be done in conjunction with other work with management through an interview and a review of selected reports.

CONTROL RISK ASSESSMENT

Assuming that no problems in performing the audit procedures were identified, the auditor can assess control risk as low. The assessment implies the auditor has confidence that employees are paid at correct wage rates for actual hours worked. The control risk assessment indicates it is unlikely that the payroll expense will be misstated. Thus, the auditor's direct tests of the account balance enable the auditor to gain satisfaction of the correctness of the account through analytical procedures.

Monitoring Controls The auditor should determine whether the company develops monitoring controls, such as exception reports, and whether the controls are effectively implemented and include follow-up to determine the cause of problems and the potential solutions. Following are some monitoring controls that should be prevalent in most computerized systems:

- *Computer logs and reports* of attempts at illegal penetration into the systems and actions taken to diagnose the source and prevent the penetration
- *Reports of approved program changes,* status of changes, and sign-off by users indicating they have tested the changes
- *Internal audit reports* of program changes, including procedures to identify whether unauthorized changes to programs had taken place
- *Reports of unusual activities*—Examples might include unusual numbers of transactions, unusual sources of transactions, or vendor sales from vendors that have not been approved as a certified supplier
- *Internal audit reports on the effectiveness of access controls*—Internal auditors should analyze that access principles have been implemented consistently with authorization principles
- *Reports on production discrepancies*—For companies that utilize just-in-time inventory, any production delays that are caused because of problems with vendor suppliers should be documented and investigated

The evaluation of monitoring controls provides insight on the operation of other controls and the unmitigated risk associated with computer operations.

Electronic Commerce

Electronic commerce involves communication through the Internet. An Internet service provider may be an intermediary with a potential worldwide scope of connections.

E-commerce can be used to link trading partners. For example, Ford Motor has an e-commerce system that links Ford with a larger number of potential suppliers as well as potential customers. Companies involved in electronic commerce need the following controls:

- *Firewalls* to intercept unwanted traffic and to protect both the Web server and the back-office server from unwanted traffic, or traffic designed to destroy the web site
- *Encryption* that transforms the data into a form that cannot be read if intercepted by a non-authorized user
- *Monitoring reports* to ensure that there are no unusual penetration attacks or unusual volumes or types of business
- *Electronic transmission protocols* that identify partially lost or missing transaction data; messages received should be reconciled with messages sent by the trading partner
- *Denial-of-service software* to identify attacks and to stop the flow of messages from the source of the attack
- *Integrated systems, such as ERP systems,* that work with the e-commerce environment to enhance the efficiency of processing and production
- *Web site security* to ensure that unauthorized or outside parties do not modify postings on the web site
- *Systems security and backup*—The big change in Web-based systems is that they need to be available 24 hours a day, 7 days per week. Well-designed computer systems will have built-in redundancy to ensure operations if one part of the system breaks down. The system should be able to shift network traffic to another server if one of the servers fail

EXHIBIT 8.8 E-Commerce: Large Retailer and Manufacturing Integration

EXAMPLE OF E-COMMERCE

A large retailer with stores in many cities and towns across the country has adopted a strategy to be a large-scale discounting operation selling brand-name consumer products by dealing directly with manufacturers. The retailer obtains large discounts by dealing directly with the manufacturers. The retailer signs contracts with manufacturers to establish advantageous pricing structures, smooth logistics, and responsibilities. Electronic communication and bar coding are an integral part of the arrangement. The parties agree to communicate transactions through a closed Electronic Data Interchange system through an agreed-upon Value Added Network provider.

To achieve even greater efficiency, the agreement allows the manufacturer to manage much of the process. For example, a manufacturer making paper products (such as paper towels, facial products, and toilet paper) will make decisions regarding product mix, prices, quantities, shipping schedules, stores to ship to, and shipping points. The manufacturer is essentially managing shelf space, as agreed upon in the trading agreement with the retailer. The retailer establishes criteria for evaluating manufacturer performance through the trading partner agreement. The agreement will also establish when title for the goods changes hands. For example, if the manufacturer is heavily involved in making decisions regarding inventory, the retailer may not want to take title to the inventory until it is sold to the consumer.

When goods are received, the receiving staff captures accounting information using electronic scanners, reading the bar codes directly from the pallets' wrapped bar-code labels or on carton case labels. The bar-code reading is transmitted directly to the computer by radio frequency transmission and processed into the job stream as inventory (or consignment inventory). In some cases the information contained on the bar code represents the invoice, and no further steps are needed to validate or complete the transaction other than payment. The agreement will specify payment terms, such as whether due within ten days after shipment or five days after sale to the consumer.

A customer checks out the product at a point of sale (POS) terminal, which looks like a cash register to the customer. The POS captures pertinent information from the bar codes including data for crediting sales by product, by department, and by store, as well as reducing inventory, debiting cash or credit card receivables, and generating management statistics for control and reporting purposes. The POS information may or may not be transmitted directly to the manufacturer depending on the trade agreement. Each transaction is tagged by date, time, store number, and POS operator code.

Several significant events are taking place behind this scene. First, the retailer is sharing its data and information with the manufacturer, which has access to the retailer's computing environment through the communications network. The sharing allows for joint marketing management decisions, such as what products are selling. For example, Levi-Strauss incorporates data on current purchases to alter its manufacturing mix, allowing it to respond more quickly to changes in market tastes. Second, the manufacturer must commit to and guarantee fail-safe bar coding. Third, logistics are controlled through a web of mechanical data capture and computerized procedures that not only support operation of the business, but also significantly affect strategic development of the business. These electronic files are the equivalent of original score documents in manual systems and should be retained for defined periods of time sufficient to satisfy audit, legal, and tax requirements.

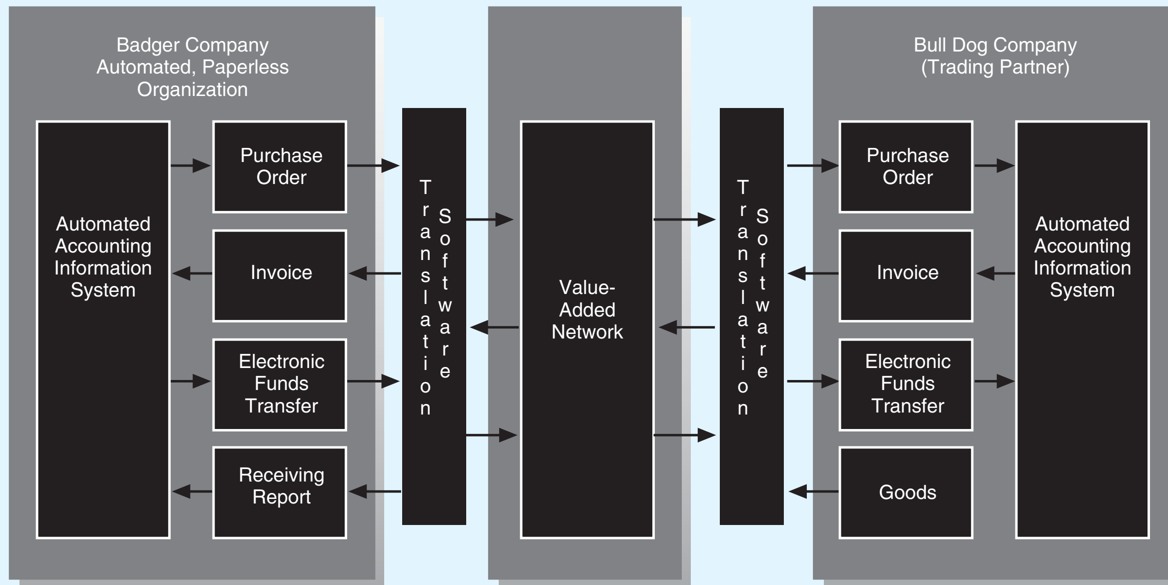
An example of integrated commerce is shown in Exhibit 8.8. The exhibit illustrates a large retailer that has allowed full access to its system to major suppliers. To remain viable, the system integration described in Exhibit 8.8 must incorporate the control concepts noted above, as well as all the application controls described earlier.

EDI: A Popular Type of E-Commerce

In its simplest form, **electronic data interchange (EDI)** can be defined as an exchange of business documents between economic trading partners, computer to computer, in a standard format. The documents are received, validated, and accepted into the job stream of the receiving computer, and immediately processed if so desired. EDI has grown rapidly; some predict that virtually all companies of medium size or larger will be using EDI within the next few years. EDI has the potential to fundamentally alter the nature of internal controls within an organization and the way the audit is conducted. EDI can be utilized in almost any area in which organizations conduct business with each other. However, it is primarily used for ordering goods, invoicing, and paying for the goods.

An overview of EDI is shown in Exhibit 8.9. Because EDI is computer-to-computer communication, organizations must decide if they should have direct linkages with specific trading partners, or if they will be linked by an intermediary.

EXHIBIT 8.9 Electronic Data Interchange



The intermediary, which serves as an electronic mail service, is referred to as a **VAN (value-added network)** and is depicted in Exhibit 8.9. The process requires a standard format for communication.

As illustrated in the exhibit, Badger Company wishes to place an order with the Bull Dog Company. Badger Company generates a purchase order, but it must be translated into a format that can be read by every other company that uses EDI. In the United States, the agreed-upon format is referred to as ANSI.X12. It is a standard agreed upon by the American National Standards Institute (ANSI). The standard format is crucial to the success of EDI because it facilitates effective communication.

Once the purchase order is in the standard format, it is communicated to the VAN, which stores the message in a mailbox. The vendor periodically polls the VAN to determine if it has any messages. It reads the purchase order from Badger Company, determines if it can meet the order at the requested time, price, and location, and sends an electronic acknowledgment back to Badger's mailbox. Badger then reads the acknowledgment when it polls the VAN for its messages.

Full implementation of EDI will result in the goods being shipped to Badger, electronic invoicing, and payment to Bull Dog Company—all without generating paper documents. When Badger receives goods, most likely they will contain a bar code that is read by an electronic scanner and transmitted directly into Badger's accounts payable system. In some cases, the receipt will generate a payment to Bull Dog. In other cases, Badger will store the receipts information and wait for an electronic invoice. At that point, software will match the purchase order, receipt information, and invoice. If there are no exceptions, it will generate an order to electronically transfer the appropriate amount of funds to Bull Dog. If there are exceptions, an exception report is generated and sent to a supervisor for investigation and disposition.

The auditor should review several components that are necessary to a successful EDI system. These components include the following:

- A *formal trading partner agreement* that specifies the responsibilities of each party in the agreement; this may be the only formal piece of paper generated in the whole process.

- *Bar coding* to facilitate the electronic receipt of goods; bar codes must be agreed upon and follow industry standards. Bar codes will indicate both the vendor and the product.
- *A formal contract with the VAN* specifying the VAN's responsibilities, confidentiality, the right to audit, and so forth
- *A formal communication system* that specifies a standard format for all communication between the parties
- *A formal process for communication that specifies* a protocol for receiving orders, including acknowledging receipt of orders, acknowledging receipt of products, determining when title passes to the goods, the process for generating an invoice or payment from the receipt of goods, and an agreed-upon method of electronically transferring payment
- *A need for an automated control structure* that ensures the completeness of the messages communicated and an identification of goods received and billed, and that protects the parties from manipulation of the messages by either party or an outsider
- *A need to identify authorized electronic signatures* to commit the organization to the transactions generated through EDI
- EDI represents not only an automated way of achieving efficiency, but also a totally different way of doing business.

Computer-Aided Audit Techniques

Many of the concepts that were applicable to manual systems remain true with computerized systems. The auditor will want to:

- Gain assurance that the processes and computer programs are working correctly
- Trace transactions through the processing system to determine that transactions have been fully and correctly processed
- Select transactions from detailed ledgers for more detailed testing and analysis

There are many approaches to testing computerized controls, but most of the approaches are variants of the three just described. Three computerized audit techniques that follow these objectives are more commonly known as:

1. Integrated Test Facility
2. Tagging and Tracing
3. Generalized Audit Software

Integrated Test Facility: Testing Correctness of Processing

The integrated test facility (ITF) is most often used by internal auditors. It is built on the concepts of the test data approach that is used by data processing and users to test the correctness of processes and the effectiveness of controls. Thus, an auditor must understand the concepts underlying the test data approach in order to implement the integrated test facility. The **test data approach** involves developing and submitting fictitious transactions to be processed by computer applications. Test data are developed to determine whether:

1. *Control procedures* that are built into the application are functioning as documented and can be considered effective.
2. The computer application is *processing transactions correctly*.
3. *All transaction and master files are fully and correctly updated*.

The test data approach covers only the controls that are built into the computer application. It does not test whether the company has adequate control procedures in place to prevent the submission of unauthorized data or data from unauthorized sources. Those controls must be evaluated separately.

Practical Point

Test data considers only the processing of data and the controls built into a computer program. It does not separately test unauthorized data entered into the program.

Example: Using Test Data to Test Controls The auditor considers using the test data approach for applications that process high volumes of transactions throughout the year and in which computerized edit controls are considered important. A typical application meeting such criteria is payroll. Often the payroll system contains numerous edit tests and processes relatively noncomplex transactions that update a number of important files.

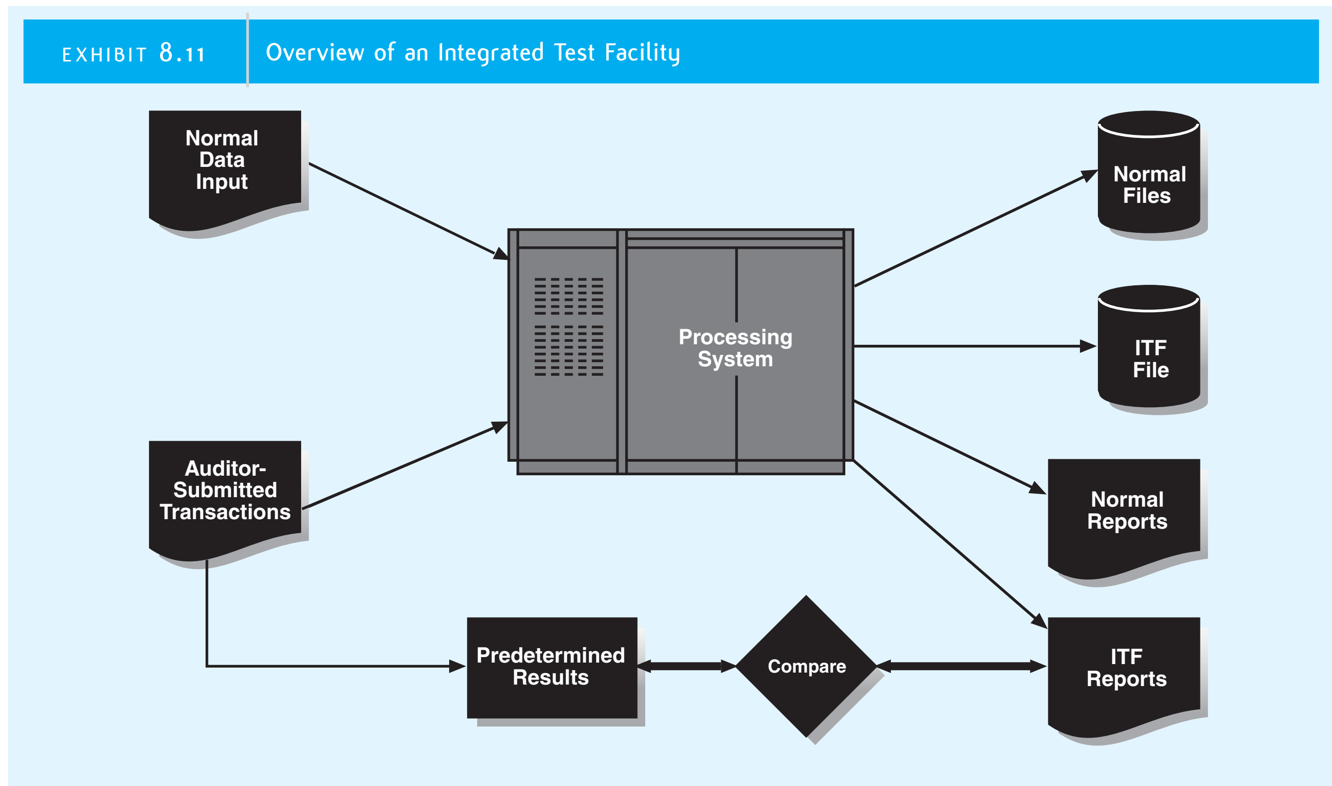
The test data approach begins with the identification of control procedures affecting the integrity of the application. Examples of control procedures and potential test data are shown in Exhibit 8.10. For each control or calculation identified, the auditor designs specific tests by submitting test data to the application for processing. The auditor compares the actual results from the processing with the predicted audit results. For example, a limit test, as previously noted, prevents employees from being paid for more than a reasonable number of hours (such as 55 hours per week). The auditor can input a test transaction of more than 55 hours to determine whether it will appear on an edit report and not be processed any further.

Operation of an ITF An **ITF** is an audit approach whereby the auditor (usually an internal auditor) develops a "dummy company" against which test transactions are submitted for processing concurrently with normal processing of other transactions by the application. The testing is transparent; that is, data processing does not know when the computer application is being tested. An ITF also has the ability to detect misstatements that might have been caused by changes made to the program during the year.

EXHIBIT 8.10 Using Test Data in a Payroll Application

Type of Control	Example of Control	Potential Test Data
Limit test	Weekly hourly payroll for an individual employee should not exceed 55 hours.	Input transactions for hours less than 55 and greater than 55 to determine if processed correctly.
Logical relationships	Social security withholding to date should not exceed gross pay to date times the rate (up to the maximum amount of withholding).	Input errors in the master file and current payroll that would cause the relationship to be in error and determine whether controls detect the errors.
	Gross pay to date does not exceed the maximum hours worked to date times the employee's wage rate for the employee's job class.	Submit data both above and below the stated amounts to determine correctness of control operation.
Validity tests	All time data must be numeric, and all employee name and address fields etc. must be alpha numeric characters.	Develop test data that input alpha characters for numeric fields and vice-versa.
	All employee numbers are valid and include appropriate check digits.	Develop set of data to test company's criteria for valid employee numbers and test correct calculation of check digits.
	Wage rate applied in calculating pay is consistent with employee job category.	Submit test data for employees with diverse labor categories and determine whether the correct wage rate is applied.
Calculations	All calculations are made correctly including gross pay, authorized deductions, and net pay.	Develop test data that cover a wide variety of job classifications, wage rates (e.g., labor contracts), various withholding provisions, etc., and determine that calculations are correct.

EXHIBIT 8.11 Overview of an Integrated Test Facility



An overview of an ITF is shown in Exhibit 8.11. The auditor develops a "dummy company" and submits processing that is processed with normal data to determine the completeness and correctness of processing.

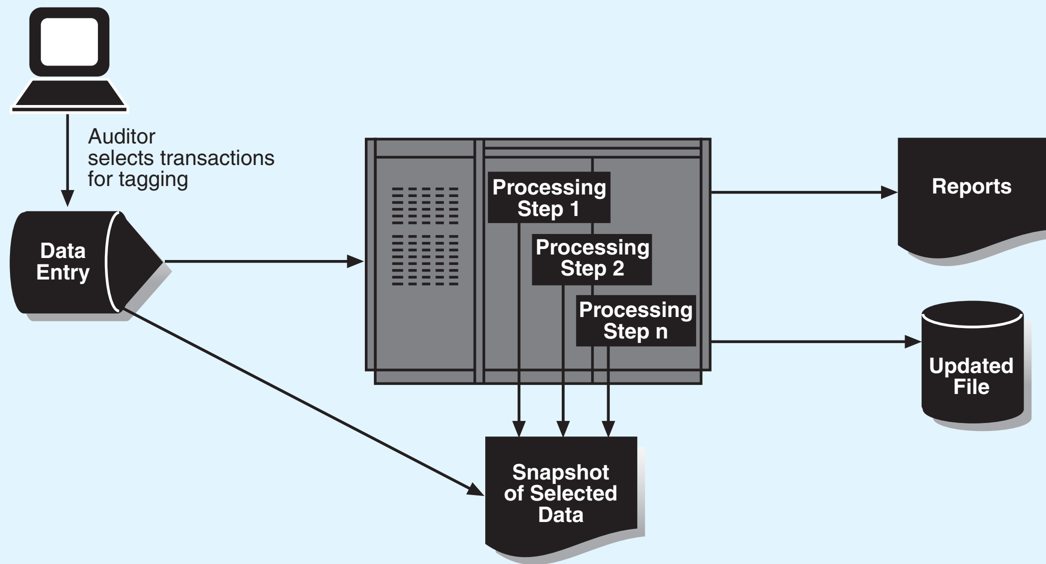
ITFs are particularly well suited to environments in which computer applications process data for numerous departments or divisions at the same time. For example, the payroll application for a major insurance company may do the processing for over 100 departments. The auditor can utilize the ITF by establishing a division against which the test transaction data can be processed.

Tracing Transactions through the System: The Tagging and Testing Approach

The **tagging and tracing approach** (sometimes referred to as the *snapshot* approach) facilitates the electronic tracing of transactions through a system. The approach works by selecting a transaction, either randomly or according to specific criteria, at the input stage. The selection criteria can be programmed into the client's program and monitored and/or adjusted by the auditor. The selected transaction is electronically marked by putting a digit in a specific field, thus "tagging" the transaction. For example, there might be a field at the beginning of each record that could be marked with a 1 if the transaction is selected or a 0 if the transaction is not selected.

The auditor works with data processing personnel to develop program code that detects the marked transaction as it is processed. Once the marked transaction has been identified, the program captures important information that allows the auditor to determine if the transaction is fully and correctly recorded, and that proper master files have been updated. For example, data such as the value of the transaction, the date, the transaction identification number, the point in time, and the value of the applicable master account field before and after transaction processing are captured for audit review. Tagging and tracing is a powerful technique that, with proper planning, can be used to trace transactions through processing across the country. For example, a transaction initiated in Denver can be traced through to

EXHIBIT 8.12 Overview of Tagging and Tracing Approach



the update of the master file in Chicago. Exhibit 8.12 is an overview of the tagging and tracing approach.

An important advantage of the tagging and tracing approach is that it works concurrently with the client's processing of regular transactions. The transactions can be randomly selected at various input points or judgmentally selected by using specific criteria (e.g., dollar size of the transaction) that would be programmed into the application. This approach allows the auditor to effectively trace transactions through complex computer systems and ensure the correctness and completeness of their processing.

Selecting Recorded Data for Testing: Generalized Audit Software

Much of an auditor's work involves gathering evidence on the correctness of an account balance by examining the details making up the balance. For example, the auditor tests accounts receivable by gathering evidence on the existence and accuracy of accounts receivables using procedures such as those shown in Exhibit 8.13. Fortunately, the auditor can use computer audit tools to increase the efficiency of many audit procedures.

Most of the procedures identified can be performed using ACL.

Visualize an auditor sitting in a chair with a 4-foot-thick printout of the year-end accounts receivable list. Then note the general nature of the procedures performed in Exhibit 8.13:

- Foot the individual accounts making up the total of accounts receivables
- Age the accounts
- Select individual items for further audit tests
- Print confirmations
- Statistically evaluate the results
- Make a judgment on the need for an audit adjustment

Now visualize how long it would take to perform those procedures accurately while working with the paper document (printout) and a calculator.

EXHIBIT 8.13 Selected Audit Procedures Performed on Detailed Accounts Receivable Records

1. *Obtain* an aged trial balance of individual customer balances from the client.
2. *Foot* the trial balance and check to see if it agrees with the general ledger year-end balance.
3. *Test* the client's aging of the customer balances to determine that individual account balances are correctly classified as current, 1 to 30 days overdue, etc. This test can be done by (1) *selecting* individual account balances and tracing the balances to the subsidiary ledger to determine their appropriate aging, or (2) *recomputing* the client's aging process for selected transactions.
4. *Confirm* individual account balances directly with customers by selecting:
   a. All customer balances in excess of $50,000
   b. All customer balances that are overdue and higher than $25,000
   c. A random statistical sample of the remaining customer balances
5. *Print* the confirmation requests and send to the customers selected in step 4.
6. *Investigate* all nonresponses to the confirmations and those indicating a disagreement with the client balance by examining underlying supporting documents such as contracts, shipping notices, correspondence with the customer, and by searching for evidence of subsequent payments by the customer.
7. Statistically *evaluate* the sample and make a projection of the potential misstatement in the account balance. *Combine* the statistical projection with the known misstatements found through other audit procedures.
8. *Evaluate* the sample results and make a judgment on whether the account balance needs to be adjusted.

Note: These steps represent only selected procedures that would be performed and should not be viewed as a full audit program.

Fortunately, software companies have developed generalized audit software programs to aid in performing direct tests of account balances maintained on computer files. Most of these programs, such as ACL that is included in your text, can be run on a personal computer with data that are downloaded from the client's files for testing. The ACL software interacts with data files that were created on almost any computer.

Generalized Audit Software Software packages such as ACL are referred to a **generalized audit software (GAS)**. They are designed to perform common audit tasks on a variety of data files. They have become so powerful and versatile that most firms no longer need mainframe or specialized audit software. The need for specialized software is usually restricted to very complex data structures or unique processing such as selecting information about phone calls from automated files during an audit of AT&T.

Tasks Performed by GAS Generalized audit software—such as ACL—can be used to read existing computer files and perform such functions as:

- Footing a file
- Selecting a sample—either statistically or judgmentally
- Extracting, sorting, and summarizing data
- Obtaining file statistics (totals, minimum/maximum/average values)
- Evaluating statistical sample results
- Performing analytical review techniques, such as identifying slow moving inventory and extracting those items for further audit review
- Finding how many transactions or population items meet specified criteria
- Checking for gaps in processing sequences
- Checking for duplicates (e.g., paying the same vendor twice)
- Doing arithmetic calculations
- Preparing custom reports

- Analyzing data for file validity, e.g., missing data and fields with inappropriate values
- Analyzing data files for unusual patterns of numbers

GAS is the most widely used of all computerized audit techniques. We have included the most widely used audit software package, ACL, with this text. ACL is user friendly, fast, and specifically designed for audit work. The audit software is valuable not only when performing year-end audits, but also when searching for fraud (such as searching for duplicate payments made to vendors). The software is relatively easy to use and follows the graphical interface expected in a Windows environment.

The designers of GAS anticipated auditors' needs to select items from accounts, scan accounts for unusual entries, project errors based on samples, conduct basic mechanical tests such as testing extensions and footings, and perform basic and advanced mathematical functions. GAS can be used to examine files, select records, and create reports specified by the auditor. Most auditors will utilize at least the following modules in performing audits. The approaches to using these and other capabilities of ACL are described in the ACL Appendix at the end of this textbook under "ACL Basics."

Analyze a File Before performing detailed testing, the auditor often wants to gain an understanding of the composition of items making up a population. For example, the auditor might want a graphical analysis of the dollar amounts of individual account balances, such as those that are above or below a certain dollar amount. Alternatively, the auditor might want the audit software to develop a graph of the account balance by deciles. In many cases, the auditor wants to know some combination such as the number of items past due profiled by dollar amount. GAS is user oriented and can be used to develop profiles of the data for audit analysis.

Select Transactions Based on Logical Identifiers Auditors often need to review transactions or the details that make up account balances. The auditor may be interested in transactions or account details that meet *specific criteria*. For example, the auditor may want to confirm all customer balances above a specific dollar limit and all those that are past due by a specific period of time. Audit software enables the auditor to select transactions based on the Boolean operators of the logical IF, GREATER THAN, LESS THAN, EQUAL TO, NOT EQUAL TO, OR, and AND. This combination of operatives gives the auditor great flexibility in selecting transactions. For example, the auditor could extract unpaid invoices greater than $50,000 or greater than 30 days overdue by using the equation:

AMOUNT > 50000 **OR** *INVDATE* < '20071201'

This would result in the selection of all transactions that (a) are over $50,000 in value and (b) were billed before December 1, 2007. On the other hand, the following equation using the logical AND would result in the selection of only items that met both conditions:

AMOUNT > 50000 **AND** *INVDATE* < '20071201'

The preceding extraction would extract only account balances over 30 days old that exceeded $50,000.

Select Statistical Samples On virtually every audit, the auditor selects samples for further testing. ACL can be used to select monetary unit samples, simple random samples, and judgmental samples.

Evaluate Samples ACL saves the selected sample to facilitate statistical evaluation. The auditor needs only to input the exceptions for statistical evaluation and projection. The audited data can be statistically evaluated at the risk levels and tolerable error limits prespecified by the auditor.

Print Confirmations ACL is used to select account balances for independent confirmation by outsiders, such as customers. ACL can interface with a word processing program to print confirmation requests that can be attached to monthly statements and sent to selected customers.

Analyze Overall File Validity Most computer applications contain edit controls to detect and prevent transactions from being recorded in error. Although the auditor can test the correct functioning of these controls by other means, audit software can assist in evaluating the effectiveness of the controls by reading the computer file and comparing individual items with control parameters to determine whether edit controls were overridden. For example, assume the auditor has tested a control procedure that limits credit to individual customers in accordance with the credit department's rating of the customer. The credit department rates each customer on a 1-to-5 scale with a 5 representing the least credit risk. A rating of 1 might indicate that shipments can be made only on a prepayment basis, and a rating of 2 might indicate total credit cannot exceed $5,000. The auditor uses the software to compare customers' account balances with the maximum specified by the credit policy and generates a printout of each account balance that exceeds the specified credit limit.

Generate Control Totals The auditor needs assurance that the correct client file is being used. For example, assume that the auditor wishes to query the accounts receivable file containing 13,000 individual records and a balance of $75,482,919. ACL automatically generates control totals such as a record count, the number of debit and credit balances, the largest and smallest balances, and a total of the balance to verify the integrity of the population.

Numerical Analysis One of the more interesting features in audit software is the ability to perform numerical analyses. A mathematician named Benford studied the nature of numerical patterns and observed that the patterns of numbers across many different applications are about the same. For example, if sales invoices or payroll checks have five digit numbers, Benford's law would predict that the first digit would be the number 1 about 30% of the time. His analysis also predicts the expected frequency of specific numbers occurring as the second number, and so forth in a 5-digit number. His results are remarkable and the predictive ability of Benford's law is extremely high.

Interestingly, most people conducting fraud go to great lengths in perpetrating and covering up the fraud. However, they usually have to assign numbers to documents and, not surprisingly, those numbers often do not follow the patterns of numbers naturally occurring in practice. It is not surprising because the person who is perpetrating the fraud makes up the numbers, and it is extremely difficult to anticipate the occurrence of every digit in a 5-, 8-, or even 10-digit number.

ACL is often used to examine account files, e.g., invoice numbers and dates, to identify unusual patterns in the data that may be indicative of fraud.

Refer to "ACL Basics" in the ACL Appendix at the end of the textbook for a more detailed overview of the ACL functions.

Implementing GAS The auditor begins the implementation process by meeting with the client's data processing personnel to understand file layout and structure, gain access to the system, obtain copies of the data files at the testing date, or arrange processing. Once arrangements have been made to facilitate audit software use, the auditor performs the following steps:

1. Identifies the client's computerized files to be read by audit software or to be downloaded to a microcomputer to be read by the audit software and develops a description of the file characteristics to facilitate audit software use, including the following:
   a. File type (such as dBase, ASCII, EBCDIC, Access, or Excel)
   b. File description, including specification of each field:

i. Length of records and individual data fields

ii. Type of field, such as alpha, numeric, or date

2. Determines the computer configuration and operating system on which the file is contained. Develops an understanding of the client's database structure
3. Determines whether to run the software on the client's computer system or to download the data to a personal computer; as noted earlier, the processing and data storage capabilities of personal computers are such that all but the very largest of a corporate client's data files can be downloaded
4. Extracts the data from the client's computer system
5. Runs the software

Audit Approaches for E-Commerce

Approaching an audit of an entity using e-commerce follows the basic approach developed throughout this text. The auditor first must understand the business processes, the important applications, the control environment, and the risks.

Risk Analysis

The risks associated with e-commerce systems are no different than those associated with traditional information systems. These risks include unauthorized access, unauthorized changes to programs or data files, misstatements caused by processing or logic errors, and lack of physical security. Other risks may, however, be unique to e-commerce systems. Following are some potentially unique risks:

- *Security of system and protection against malicious intrusion or penetration by outsiders*—The intrusion may be to disrupt the system or to steal, modify, or otherwise put the company at a competitive disadvantage.
- *Integrity and completeness of processing*—This risk differs from similar risks only in that different paths can be taken that might threaten processing integrity. The Internet opens the systems up to penetration from many different sources.
- *Integrity of data communications*—Computer viruses are a large and costly problem. An organization faces additional risks if communications are intercepted, modified, sent to the wrong party, replicated and delivered to many customers, or lost in process. A company dependent on electronic communications is essentially "betting the company" if it does not control the risks associated with data communications.
- *Trading partner agreements*—Many systems are designed with a group of trading partners in mind. Trading partners usually make contracts that all parties must agree to. Penalties are often severe if the contracts, including the protection of data, are not met.
- *Systems interdependencies*—The economic advantages associated with these systems create interdependencies that did not exist in any previous business arrangement. As noted earlier, the Vendor Managed Inventory program at Wal-Mart creates system interdependencies between Wal-Mart and its major suppliers. Compromises anywhere along these interdependencies could seriously jeopardize either trading partner.
- *Paperless systems coupled with "soft controls"*—The movement to e-commerce is just one part of reengineering a system. These changes are often coupled with just-in-time inventory systems in which the purchasing company specifies (a) quality criteria that must be met, (b) availability requirements, and (c) shipping requirements. The shipments are loaded directly into production with no inspection or counting. The trading partner agreements specify payment terms, penalties, and so forth. The company must adapt not only to a paperless system, but also to a system in which a record of incoming items is not established at its source.

Each client may have other unique risks peculiar to that client. The auditor should identify all these unique risks as a basis for assessing the controls needed—and the effectiveness of these controls. However, the auditor will also

use GAS in the audit of e-commerce. For example, they will use GAS to statistically select inventory items to establish existence and pricing, or to analyze inventory levels under a vendor-managed inventory system to determine locations that appear to be out of line with expectations and previous sales.

As an example, the audit of Amazon.com, one of the largest e-commerce companies, will show that Amazon has some inventory of books because it does own some of the books it ships out; that is, not all books come directly from the manufacturer. Further, Amazon.com will have receivables from its "shopping center" companies that it has opened as part of its services. Audit software can be useful in such cases to select detailed items for investigation to determine existence and proper valuation of the assets.

Summary

As organizations become increasingly computerized—and paperless—auditors will need to reevaluate their computer audit approaches. The most likely effect of such a reassessment will be the increasing emergence of the computer audit tools discussed in this chapter. Reports on internal control must address whether or not the companies have adequate controls over their computer information systems. For most companies, risks associated with computerized processing and the dependence on computer processing must be addressed in control reports. Auditors will be required to both identify and test general and application controls.

Many of the sophisticated computer audit tools will be developed and implemented by internal audit departments. Audit approaches should be designed at the same time that systems are designed. In other words, the challenges of auditing during the next decade will be to design auditability into the application.

Generalized audit software will continue to be the dominant computerized audit tool for the foreseeable future.

Significant Terms

access control software Software designed to limit access to programs or data files to those authorized for such access; comprehensive access control software identifies all users and rules for accessing data or programs.

application controls Specific control procedures designed into computer applications. Most are designed into computer applications and are often referred to as *edit tests.*

application programs Computer programs written to accomplish specific data processing tasks such as processing sales and accounts receivable, updating inventory, computing payroll, or developing special management reports.

audit trail Term used to describe the documents and records that allow a user or auditor to trace a transaction from its origination through to its final disposition, or vice versa; must cross-reference documents or other computer records; may be electronic or paper based.

authentication A means developed for a computer application to determine that the individual requesting the access privilege is who he or she claims to be; popular methods include use of passwords and plastic cards with magnetic strips.

batch controls A set of application controls designed to ensure that all transactions submitted for processing are processed or identified as missing.

denial-of-service attack An attack on a computer system by a hacker; designed to flood the system with so much traffic that the system will not be able to serve the organization's normal customers. In essence, the denial-of-service attack shuts down operations of companies that are Web-based retailers.

electronic data interchange (EDI) An exchange of business documents between economic trading partners, computer to computer, in a standard format. The documents are received, validated, and accepted into the job stream of the receiving computer; they are immediately processed if desired.

firewalls Computer software that is designed to filter and prevent messages from penetrating into the client's

mainframe computing system. A firewall should be able to filter out and reject traffic carrying specific attributes that are not desired.

general controls Term describing computer control procedures that affect more than one application. Examples include control procedures over program changes, access control methods, and application development methodologies.

generalized audit software (GAS) A computer program that contains general modules to read existing computer files and perform manipulations of data contained on the files to accomplish audit tasks; designed to build an easy user interface that then translates user instructions into program code to carry out desired audit tests by reading the client's file and performing the necessary program steps.

input controls Edit tests and application controls designed to test the validity and completeness of data submitted for computer processing.

integrated test facility (ITF) A concurrent audit technique by which auditor-submitted transactions are processed concurrently with regular processing to determine whether controls are working properly and processing is correct.

networking and communications software Software that controls the paths and completeness of all data communications between a computer system, terminals, or other data processing locations; designed to ensure that all data are properly transmitted through authorized media to correct parties and completely received.

operating system A complex computer program that controls and coordinates the running of the computer and its many functions.

self-checking digits An input edit control designed to detect common transportation errors in data submitted for processing. Most often used for critical data such as account numbers or product identifiers.

tagging and tracing approach A concurrent audit technique in which transactions are selected and "tagged" for future identification by the client's application program. When tagged transactions are processed, specific output is generated to describe the processing to date for the transactions and the files, computations, and so on that have been made as a function of these data being processed by the application.

test data approach A static testing approach in which the auditor develops fictitious transactions to submit for processing by an application of interest to the auditor, the objectives of which are to determine whether (1) computerized controls are operating effectively and (2) computer processing is carried out correctly and completely.

VAN (value-added network) The intermediary that serves as an electronic mail service for electronic data interchange transactions.

Web server A computer system designed to serve transactions that are submitted on the Web. Keeping the transactions on the Web server reduces the risk that the main computing system will be compromised by outside attacks, viruses, or users masquerading as authorized users.

Review Questions

8-1 Describe the following types of computer software and their importance to processing and controls:
- Operating systems software
- Communications software
- Application program software
- Access control software

8-2 What is a virtual private network (VPN)? What are the primary characteristics of such networks? What major risks are associated with VPNs?

8-3 What are general controls? Do the general controls directly affect computer applications? How does the auditor determine whether general control procedures should be tested?

8-4 Explain why there should be a segregation of duties between data processing and users. Should data processing be allowed to initiate transactions (for example, automatically initiating a purchase order when inventory falls to a prespecified level)?

8-5 Identify the seven fundamental concepts important to evaluating the organization's data processing control structure, and briefly indicate the importance of each to the auditor's risk assessment process.

8-6 Briefly describe the purposes of the following control procedures and how each works: (1) financial total, (2) hash total, and (3) record count.

8-7 What are the major elements of an audit trail? How does an audit trail in a computerized environment differ conceptually from an audit trail in a manual environment?

8-8 What is a self-checking digit? Why is its use such an important control procedure? What happens to a transaction if it is rejected from processing because it fails the self-checking digit test?

8-9 Briefly describe how each of the following edit controls works and the types of errors each is designed to detect. Give one example of each for a retail organization.
a. Limit test
b. Reasonableness test
c. Validity test
d. Missing data test
e. Invalid combination of items

8-10 What major principles should guide the development of a comprehensive access control program for a data processing center? Assume that the organization uses automated access control software to implement the principles.

8-11 Identify the three primary methods for authenticating a user attempting to gain access to a restricted program or file. Briefly identify the major advantages and disadvantages of each method.

8-12 What is the potential danger of using a physical attribute, such as a retina scan or a fingerprint, to authenticate a user?

8-13 Briefly describe encryption and why it is important to controlling validity of transactions sent over a public network.

8-14 During a discussion between two staff auditors, one remarks: "The only way computer control procedures can be adequately tested for operation is to actually process test data through the computer application. Otherwise, there is no effective way to know that the designed control procedures are actually working." Do you agree or disagree with the staff auditor? Explain your rationale.

8-15 What is a monitoring control? Identify a monitoring control that might be used to inform a company whether its access controls are working effectively. How would the auditor evaluate the effectiveness of the monitoring control?

8-16 What are the major objectives of the ITF approach? Would an ITF be well suited to monitoring an organization for fraud? Explain.

8-17 Compare and contrast the tagging and tracing technique with an ITF. In your comparison, specifically address:
- Differences in audit approach
- Assurances that can be gathered from each approach
- Mechanics of implementation

8-18 Assume the auditor wants to implement a tagging and tracing approach for a highly integrated system that accepts orders from customers, ships the orders, and bills the orders. What audit objectives would the tagging and tracing approach address?

8-19 What is generalized audit software (GAS)? What are the major audit tasks for which an auditor would use it? What are its major advantages?

8-20 How might an auditor perform an "overall file validity analysis" using GAS? What does the auditor expect to learn from such an analysis? How would such information be utilized in conducting the audit?

8-21 Why might some CPA firms develop customized audit software rather than using GAS? Compare and contrast the relative advantages of GAS and customized audit software. Indicate the type of client environment in which each type of software may have a competitive advantage.

8-22 What risks are unique to auditing a client who engages in electronic commerce that might not be present in other clients?

Multiple-Choice Questions

8-23 In an automated payroll system, all employees in the finishing department were paid at the rate of $7.45 per hour when the authorized rate was $7.15 per hour. Which of the following controls would have been most effective in preventing such an error?

a. Access controls that would restrict access to the payroll wage rate file to the personnel department
b. A review of all authorized pay rate changes by the foreman in charge of the department
c. The use of batch control totals by department
d. A limit test that compares the pay rates per department with the maximum rate for all employees

8-24 A deposit for Julie A. Smith at the local bank was inadvertently recorded as a deposit in the account of June A. Smith. The control that would most likely have detected the error in depositing the amount to the wrong account would be:

a. The use of self-checking digits on account numbers
b. Range tests on accounts in which the deposit is related to the size of the account
c. Limit tests
d. Validity tests to determine whether Julie Smith is a valid customer

8-25 Which of the following independent errors would not be detected by batch controls?

a. The computer operator added a fictitious employee to the processing of the weekly time cards.
b. An employee who worked only 5 hours in the week was paid for 50 hours.
c. The time card for one employee was not processed because it was lost in transit between the payroll department and the data entry function.
d. All of the above.

8-26 A mail-order retail organization sells complex electronic equipment through its catalogs. Orders are taken over phone lines and transmitted via terminal to the company's main warehouse for processing, shipping, and invoicing. Which of the following would be the most effective control procedure to ensure that proper inventory items are identified and shipped?

a. Require use of self-checking digits on the customer's account number.
b. Require oral verification of part description and price with the customer over the phone.
c. Require sales order personnel to verify that inventory items are on hand by referring to current inventory quantities before processing the order.
d. Require use of batch control totals to reconcile total amount ordered by terminal with total amount recorded in the inventory file for the same period.

8-27 Which of the following statements are correct regarding access controls:

I. Proper implementation of access controls requires the firm to identify all users and the access they should have to data.

II. Retinal scans cannot be duplicated and thus are the best method to authenticate users.
III. Passwords are the most widely used method of authentication.
a. I
b. I and III
c. II and III
d. I, II, and III

8-28 Which of the following would not be an appropriate use of GAS?
a. Developing an aging report of accounts receivable
b. Reading a complete master file for an overall integrity review
c. Reading a file to select accounts receivable transactions over $5,000 and over 30 days past due for subsequent audit analysis
d. Generating transactions for submission to an integrated test facility

8-29 Tagging and tracing would be effective in addressing all of the following audit objectives except:
a. Ensuring that submitted transactions have been fully processed
b. Ensuring that all valid transactions have been submitted for processing
c. Determining that appropriate account balances have been updated
d. Determining that calculations have been made correctly

8-30 Which of the following procedures is least likely to be performed by an auditor using GAS?
a. Selection and printing of accounts receivable confirmations from a client's master file
b. Evaluation of the audit results based on a statistical sample of inventory
c. Identification and selection of inventory items that have characteristics that the auditor believes indicate obsolete inventory
d. Creation of a detailed printout of a file so that an auditor can read the complete file and select items for audit verification

8-31 Detailed testing of controls in a computer system through the use of an ITF:
a. Can be performed using simulated transactions
b. Is not convincing because many of the computer controls leave no visible evidence of operation
c. Is likely to contaminate the client's master files and thus should be used only as a last resort
d. Is insufficient unless all controls and elements of processing are identified and tested

8-32 Which of the following statements is correct regarding the use of computer audit tools in the audit of a company that utilizes e-commerce extensively?
a. Generalized audit software is not likely to be used because it is oriented to testing account balances, not processes.
b. Tagging and tracing can be used but it can only record information about the client's processing.
c. Integrated test facility is ideally suited for e-commerce.
d. All of the above.

Discussion and Research Questions

8-33 **(Evaluation of Computer Operations)** You have been assigned to the audit of Mid-State Electronics Corporation, a medium-size distributor of electronics equipment serving a geographic area within a radius of 150 miles. Mid-State has installed a client-server computer and provides remote access to its sales people on the road. Salespeople can enter sales orders via remote dial-in at any time. This expedites the order taking and delivery of goods.

The client uses computerized processing for inventory control and accounting functions, such as billing, sales, accounts receivable, inventory, and payroll. All of the software has been purchased from a major software vendor and has not been modified for Mid-State. The software has the ability to implement password controls.

During the audit planning process, the auditor has identified the accounting applications as important. The partner has asked you to assess control risk in the computer environment and expects you to recommend the type of substantive testing that might be required.

Required

a. Develop a control questionnaire that might be used to capture information about general controls and application controls in the computer environment at Mid-State Electronics.
b. What is the relationship between general and application controls? Why is it important that the auditor begin the computer control evaluation with the general controls?
c. What are the implications of weaknesses in general controls? For example, assume there is not adequate segregation between data processing and users over submitting transactions for processing or approving changes to computer programs.
d. Assume that during the course of your inquiry, you discover that the client does not have a systematic process to back up data or programs. The client does not see the need to back up programs, because they can be replaced by directly contacting the software vendor and are available in a very short time. Data files are backed up, but not on a scheduled basis, and are stored in a file cabinet maintained in the controller's office. What are the implications of these findings to the conduct of the audit?

8-34 **(Application Controls)** Bass Pro Shops is a catalog retailer concentrating on fishing and hunting equipment. It prints an annual catalog containing over 200 pages of products, as well as approximately six special sale catalogs during the year. Products range from fishing lures retailing for $1.29 to boat packages for over $15,000. Purchases can be paid for by personal check, MasterCard, or VISA. Customers can mail in their order (with check or credit card information included) or may place an order by calling the company's toll-free number.

The company has implemented an online order entry system by which computer operators take the customer order, check the availability of items for shipment, and confirm the invoice amount with the customer. Once an order is taken, the system generates a shipping-and-packing document, places a hold on the inventory, and prepares an invoice (and recording of sales) when items are shipped.

Required

a. Identify the application control procedures (including edit controls) you would recommend to control the online order-taking process.
b. Briefly indicate how control procedures might differ for the orders that are sent in by the customer compared with those placed directly over the phone.
c. For each control procedure identified, briefly indicate the implication to the audit if a deficiency in the control procedure is found,
    1. Indicate the potential types of errors or irregularities that could occur because the control is not operative.
    2. Identify the audit steps the auditor might take to test the year-end account balances.

8-35 **(Application Controls)** The following represent errors that could occur in a computerized environment.

Required

For each error, identify a control procedure that would have been effective in either preventing or detecting the error.

Errors Found

a. The selling price for all products handled by company salespersons was consistently reduced by 25 to 40% by a salesperson who was paid commission on gross sales made. The marketing department did not authorize the salesperson (or any other salesperson) to discount price from authorized price lists unless the marketing manager or the district sales manager provided specific approval.
b. Duplicate paychecks were prepared for all employees in the company's warehouse for the week ended July 31. This occurred because the data processing department processed employee time cards twice.
c. An employee in the sales order department who was upset about an inadequate pay raise copied the client's product master file and sold it to a competitor. The master file contained information on the cost and sales price of each product as well as special discounts given to customers.
d. An individual in the customer relations department gained access to the product master file and, in an attempt to change prices for a customer, inadvertently changed prices for the products identified for all customers.
e. A nonexistent part number was included in the description of goods on a shipping document. Fortunately, the individual packing the item for shipment was able to identify the product by its description and included it in the order. The item was not billed, however, because it was not correctly identified in the system.
f. A customer number was transposed during the order-taking process. Consequently, the shipment was billed to another customer. By the time the error was identified, the original customer was out of business.
g. The accounts receivable clerk, who also operated the company's personal computer, took cash remittances and recorded the credit to the customer's account as discounts.
h. An employee consistently misstated his time card by returning at night and punching out then, rather than when his shift was over at 3:30. Instead of being paid for 40 hours per week, he was paid, on average, for over 60 hours per week for almost one year. When accused of the error, he denied any wrongdoing and quit.
i. A customer order was filled and shipped to a former customer, who had already declared bankruptcy. The company's standard billing terms are 2%, 10 days, or net 30.

8-36 **(Access Control Policies)** A comprehensive program for controlling access to the computer equipment, computer programs, and data is an important control. In evaluating the comprehensiveness of an access policy, the auditor considers both physical and data access (that is, access to data by gaining access to computer files through the computer).

Required

a. Identify questions the auditor might ask regarding the physical controls over access to the equipment and computer documentation.
b. Identify the three main ways an access control program can authenticate a user. What are the advantages and disadvantages of each approach?
c. What are the risks in using a physical identifier such as a retinal scan or a fingerprint as the major approach to authenticating users? What are the implications to the user if the authentication is compromised?

d. Assume that a client has software that does a good job in authenticating users. Explain how an access matrix works and the importance of developing an access matrix for security. Explain how users and access should be matched on a matrix.

8-37 **(Testing Access Controls)** Assume that the client has an adequate access control plan and, based on your interviews, the access policies are operating as described. The control procedures identified by the auditor include restricted use of passwords, frequent changes in passwords to keep pace with job changes, and monitoring of repeated attempts at accessing the system by unauthorized users.

Required

Write an audit program that would gather evidence to determine the effectiveness of the control procedures in operation.

8-38 **(Control Procedure Analysis)** Ajax, Inc., an audit client, recently installed a new computer system to more efficiently process its shipping, billing, and accounts receivable records. During interim work, an assistant reviewed the accounting system and the internal controls. The assistant determined the following information concerning the new computer system and the processing and control of shipping notices and customer invoices.

Each major computerized function (i.e., shipping, billing, accounts receivable, etc.) is permanently assigned to a specific computer operator, who is responsible for making program changes, running the program, and reconciling the computer log.

Responsibility for the custody of and control over the magnetic tapes and system documentation is randomly rotated among the computer operators on a monthly basis to prevent one person from having access to the tapes and documentation at all times. Each computer programmer and computer operator has access to the computer room through a magnetic card and a digital code that is different for each card. The systems analyst and the supervisor of the computer operators do not have access to the computer room.

The computer system documentation consists of the following items: program listing, error listing, logs, and record layout. To increase efficiency, although batch totals are prepared, they are not reconciled.

Ajax ships its products directly from two warehouses that forward shipping notices to general accounting, where the billing clerk enters the price of the item and accounts for the numerical sequence of the shipping notices. The billing clerk also prepares daily adding-machine tapes of the units shipped and the sales amount.

Shipping notices are forwarded to the computer department for processing. The computer output consists of (1) a three-copy invoice that is forwarded to the billing clerk and (2) a daily sales register showing the aggregate totals of units shipped and sales amounts that the computer operator compares to the adding machine tapes. The billing clerk mails two copies of each invoice to the customer and retains the third copy in an open invoice file that serves as a detail accounts receivable record.

Required

Make one specific recommendation to correct each condition in which internal control procedures are not considered adequate in the new computer system and are not efficient for processing and control.

8-39 **(Evidence Concepts—E-Commerce)** Paper-based documentation might not exist in an e-commerce environment, with the exception of the trading partner agreement and a separate agreement with an intermediate processor describing the confidentiality of data, control procedures by the processor, and the right to audit by the client. In paper-based

systems, the paper document in the form of an invoice, receiving report, or purchase order often serves as evidence of the transaction.

Required

a. Identify the major attributes of a paper document that would provide documentary evidence of the existence of a transaction. Consider a purchase order and a receiving document: (1) identify important fields in the document that would be of interest to the auditor; (2) examine how the auditor would determine that the document was authentic, that is, not altered by the client.
b. Perform the same analysis described in part (a) above, but with an electronic document.
c. Describe all the elements of an audit trail (log of transactions) that should be kept of transactions that are processed through e-commerce. Describe how the auditor could determine that the log of electronic transactions would contain the same validity of evidence that was formerly contained in the paper documents.
d. Assume the auditor wants to determine if an invoice was paid for the proper amount for the actual quantity of goods received. Identify the information required in order to accomplish this objective.

8-40 (Computer Fraud)

Required

For each of the following situations involving computer fraud, briefly describe the following:

a. A control procedure that would have been effective in preventing or detecting the fraud.
b. An audit procedure that would have detected the fraud.

Computer Frauds

a. A computer programmer added a module to the payroll program that started with an "IF" statement to identify his employee number. If it were his record, the program was instructed to multiply computed pay by 1.5, thus increasing the programmer's pay by 50%.
b. A state health and social services department made support payments to needy residents. A resident could be input into the system only on the recommendation of a supervising caseworker. Some caseworkers entered fictitious residents on the system and had support payments sent to authorized addresses. The caseworkers then cashed the support payments and eventually transferred the cash to their own accounts.
c. A student posed as a newspaper reporter doing a story on a phone company's data processing center. After leaving the center, he noticed a data processing manual that had been discarded. He took the manual home and learned the access code to the company's parts-repair system. He could then log on and have repair parts delivered to a specific location. Later he picked up the parts, which he sold back to the company and to other customers.
d. A manufacturing company required all its hourly workers to sign in by passing their personal identification cards across an automated time clock that captured the data and transmitted it to the computer for subsequent processing. An employee who worked the first shift arranged with her brother, who worked the second shift, to use her card to sign out when he completed his work shift. The employee thus generated pay for 16 hours per day, one-half at overtime rates. The employee and her brother split the additional pay.
e. A disgruntled programmer often came to the office in the evenings to copy confidential client data such as customer lists, discounts, and so forth onto magnetic tapes, which he sold to competitors at handsome prices.

8-41 **(Electronic Commerce)** Saris manufactures bicycle racks and wants to market on the Web. It also wants to cut production cost by manufacturing various bicycle racks that are custom designed for cars by manufacturing them after an order is received and shipping the bicycle rack to the customer within 48 hours of receipt. Customers must pay for the merchandise by credit card before an order is accepted.

Required

a. Management wants to know how well the system is working. Identify one or two monitoring reports (controls) that would provide evidence on how well the move to electronic commerce is working.
b. What kind of edit checks should be built into the order system? Explain the rationale for each edit test suggested.
c. Who should be allowed to change the terms of an order if the client is not satisfied with the order? Explain.

8-42 **(Online Controls and Audit Procedures)** Hastings Manufacturing Company makes special-order equipment to be used by other manufacturers. The company has three major product lines and approximately 10 variations of each product line. The company uses a job cost accounting system in which all labor and materials are directly charged to the cost of building each stamping machine. (Each machine retails, on average, for about $500,000.)

All direct-labor hours are captured by automated time-capture machines when each employee punches in the job order number and the start and finish times worked on the job each day. All raw materials are also assigned the same job order number and are entered into the system based on work-order requisitions received by inventory control.

Required

a. Identify the controls the company should implement to ensure that only authorized employees are paid, that they are paid at the authorized rate for hours actually worked, and that the labor cost is recorded to the correct job.
b. Develop an audit program to test the labor part of the system identified in part (a).

8-43 **(Audit Techniques Concurrent with Processing)** The Integrated Test Facility (ITF) and the Tagging and Tracing approach have been identified as audit approaches designed to test accuracy of computer processing of transactions.

Required

a. Explain how the ITF and Tagging and Tracing audit approaches work, including an identification of:
   (i) How each approach works
   (ii) The audit objectives addressed by each audit approach
   (iii) The advantages of the each audit approach
   (iv) The disadvantages of each audit approach
b. Explain how the ITF would work in audits of a service bureau that performs payroll processing for other companies.
c. Explain how a tagging and tracing approach would work in a sales order and sales processing computer application.

8-44 **(Use of Advanced Audit Techniques)** IDS Corporation processes mortgage payments and updates for itself, as well as for a number of other mortgage service companies. The program tables are updated frequently for changes in interest rates for variable mortgages, but not for the fixed rate mortgages. Because there are a number of mortgage divisions as well as outside companies for which it provides processing, the applicable edit tests for a particular division or department are stored in a

table utilized as part of a general validation routine before transactions are processed. Authorized interest rates are kept in another table and are called by the application program according to identified job codes.

Required

a. Explain how the auditor might use the ITF in auditing the mortgage processing application described above.
b. What are the major limitations of using the ITF in this situation?
c. Assume that the auditor is concerned with the operation of the edit controls and is especially concerned that the control procedures either are not functioning effectively or are overridden by management. Would the ITF identify the problem?
d. Would the ITF be useful in identifying whether or not fictitious data had been added to the system? Explain.

8-45 **(Testing the Operation of Controls)** The auditor has identified each of the following control procedures as important in reducing control risk in major accounting applications.

Required

For each control procedure identified, indicate how the auditor would test the control. Assume that all controls pertain to the input, processing, and maintenance of file data over sales transactions.

Control Procedures

a. All sales orders are received by the order department from the sales staff. Each order is prenumbered. The orders are opened, visually reviewed for completeness and authorization, and then are batched for data input and processing. Control totals are established for record count, number of items purchased, and a hash total of number of product numbers. The control totals per batch are reconciled with the control totals developed by the computer processing.
b. Self-checking digits are used for all product numbers.
c. The master price file (table) is accessible only by two people in the marketing department (the manager and a clerk). Access is controlled by password. The manager receives a detailed printout of all authorized price changes and compares the input changes with the authorized changes for completeness and accuracy of the input.
d. Passwords are issued to authorized users only after the user department (supervisor) has submitted a document listing all authorized users. Passwords are changed every six weeks. They must not be easily guessable (a computer program tests each one for ease of use).
e. Only authorized sales orders are entered. Authorization is indicated by the salesperson's signature on a sales order form and the salesperson's ID number, which is tested against a master file of valid ID numbers.
f. The sales price on the sales order is equal to the master sales price unless the marketing manager explicitly approves the change. The approval is on a document authorizing the change.
g. Same as part (f) except that the authorization is done online to a field in the salesperson's record that is accessible only by the marketing manager or the manager's designee.
h. The credit department establishes authorized credit limits. The limit is entered into a credit file and is updated two ways: (1) an automatic update based on the volume of transactions and the customer's credit history (allowed to increase to only 150% of the original credit limit set by the credit department) and (2) authorized update submitted to data processing by the credit department. The credit department reviews all changes.
i. On three competitive products (accounting for 20% of the company's sales), the salesperson is allowed to discount the master

sales price by up to 10% without any additional approval. The discount price is allowed only if the order of the product exceeds $35,000. The salesperson's commission on discounted sales is changed from 5% to 4%.

8-46 **(Generalized Audit Software)** A CPA's client, Boos & Baumkirchner, Inc., is a medium-size manufacturer of products for the leisure-time activities market (camping equipment, scuba gear, bows and arrows, and so forth). During the past year, a computer system was installed, and inventory records of finished goods and parts were converted to computer processing. The inventory master file is maintained on a disk. Each record of the file contains the following information:

- Item or part number
- Description
- Location
- Size
- Unit-of-measure code
- Quantity on hand
- Cost per unit
- Total value of inventory on hand at cost
- Date of last sale or use
- Quantity used or sold this year
- Economic order quantity
- Code number of major vendor
- Code number of secondary vendor

In preparation for year-end inventory, the client has two identical sets of preprinted inventory count cards. One set is for the client's inventory counts and the other is for the auditor to use in making audit test counts. The following information has been keyed into the client's system:

- Item or part number
- Description
- Location
- Size
- Unit-of-measure code

When all counts are complete, the counted quantity will be entered into the system. The data will be processed against the disk file and quantity-on-hand figures will be adjusted to reflect the actual count. A computer list will be prepared to show any missing inventory count cards and all quantity adjustments of more than $100 in value. Client personnel will investigate these items and all required adjustments will be made. When adjustments have been completed, the final year-end balances will be computed and posted to the general ledger.

The CPA has generalized audit software available that will run on the client's computer and can process the inventory disk files.

Required

a. In general and without regard to the facts in this case, discuss the nature of GAS and list the various types and uses.

b. List and describe at least five ways GAS can be used to assist in the audit of the inventory of Boos & Baumkirchner, Inc. (For example, the software can be used to read the disk inventory master file and list items and parts with a high unit cost or total value. Such items can be included in the test counts to increase the dollar coverage of the audit verification.)

8-47 **(Automated Cash Registers—Retailer)** Woodman's Grocery is a small chain of grocery retailers with four megasize stores. Each store has a networked computer that runs the automated cash registers. The merchandising manager, on the recommendation of the section managers, approves all price changes. The authorized prices are maintained

in a sales price table (file) on the central computer and downloaded to the store's computers on a daily basis. No other applications are run on the store's computers.

The auditor has identified the following control procedures in ensuring the correct prices:

- Only the merchandising manager and one assistant have authority to change the prices.
- Access to the sales price table is limited by passwords.
- The system creates a printout of all changes that is sent to the merchandising manager for review and reconciliation.

Required

a. Explain how the auditor might use reports from access control software in performing an audit related to the valuation of revenue for the grocery chain.
b. Would this situation be a good place to implement an ITF? Explain.
c. What other methods might an auditor use to test the accuracy of controls in operation?
d. The store should have some type of monitoring controls that might tell them whether or not prices are incorrect. Identify the types of monitoring controls that auditor might find in this type of organization and how the auditor might utilize the monitoring controls.

8-48 **(Electronic Data Interchange)** Big Mart is one of the largest retail organizations in the country. It has implemented POS to record sales, bar codes, and EDI. Some vendors are given the authority to manage store space, for example, making decisions about the style and size of jeans to stock in the store. Other vendors fill requests ordered by the purchasing agent. Most EDI communications with small vendors are routed through VANs. For the vendors that manage store shelf space, title to the goods does not pass until the goods are sold to the consumer and the POS equipment records the sale. For all other vendors, title passes when the goods are received and scanned into the system. Electronic invoices are not sent. Rather, the goods are set up for electronic fund payment at the time title changes hands. The terms of the payment are set by the trading agreement.

Required

a. Explain how the client can utilize edit controls, reconciliations, and exception reports to control the EDI operations. Focus on the completeness, existence, and valuation assertions.
b. Identify the control procedures that should be in place to determine that the company pays the right price for goods that were received (valuation). Identify audit procedures that might be utilized to determine that the controls are working properly.
c. It was suggested that one approach to auditing complex computer systems would be to utilize tagging and tracing to determine if controls are working properly and processing is correct. Would an EDI application be a good application for the use of tagging and tracing approach? Explain how tagging and tracing could be used within an EDI application.

8-49 **(ACL Tutorial)** To help you learn some of the basic features of ACL, study the "ACL Basics" and work the ACL tutorial in the ACL Appendix at the end of the textbook.

Cases

8-50 **(Automated System Controls)** Dreyfet Department Store maintains online prices on minicomputers in stores connected to the automatic cash registers. For most products, the product and price are read into

the cash register by scanning devices that read the bar codes on the merchandise. The product name (abbreviated) and the prices are printed on the customer's cash receipt and captured internally as part of the sales recording process. The process also updates the perpetual inventory record at the store.

Prices for all products are set by the buyers and are entered onto the client's mainframe computer system and downloaded to the stores. Only the store manager can override the price on the store's minicomputer. All overrides are supposed to be reported to the buyer and the general merchandise manager for the department store division. The dollar amounts of sales of products for which price changes were made are used to develop a special report showing sales volume by product, average retail price, product cost, and profit (loss) per product.

Required

a. Identify the key control procedures the auditor would expect to find in the environment described.
b. Develop an audit program to determine whether the control procedures are working as described.
c. What are the implications to the audit if the control procedures are not working as described, especially if the store manager is making a wide variety of product price markdowns, but the price changes are not generating any exception reports?
d. What are the implications to the audit if the auditor tests prices in 8 of 42 stores and finds that on 10% of the items tested, the price in the store's cash register differs from the price on the master sales file? Assume for now that most of the changes result in a lower price being charged.

8-51 **(EDI)** The Saginaw Steering Gear Company makes automotive steering gears that it supplies to automobile manufacturers. The company, in turn, purchases a number of its component parts from other suppliers. The company requires all its suppliers to utilize EDI and has established trading agreements with all of its vendors. The process utilized is fairly typical of the industry in the following manner:

- A VAN is used to communicate to all suppliers.
- The trading agreement specifies each party's responsibilities.
- Shipments are made upon acknowledgment by the Steering Gear Company of the receipt confirmation.
- Goods are scanned into Steering Gear by reading bar codes on pallets of goods.
- Suppliers are responsible for quality inspection and meeting specified quality criteria.
- Inventory is updated at the time goods are received.
- Invoices are received from vendors electronically.
- A computer application compares orders, receipts, and invoices. The same application transmits funds electronically to the vendor according to the discount terms contained in the trading partner agreement.
- A report detailing disagreements between goods received and invoiced amount is given to accounts payable for reconciliation.
- A computer log detailing all the information normally contained in an audit trail is stored online for one month, and is stored on optical disk for a period of three years afterward.
- The company uses standard edit tests in all its applications.
- Batch control totals are used to identify and log transactions to and from the VAN.

Required

a. Identify the manual-based audit procedures the auditor would utilize to test the correctness of processing and to gather information about the adequacy of controls.

b. Explain how the auditor might use generalized audit software to perform audit procedures related to the proper payment of goods received from vendors.
c. Explain how the auditor might use generalized audit software to test assertions related to the existence and valuation of inventory.

8-52 **(E-Commerce)** You have been assigned to the audit of Ford Motor Co. Ford is quite complex. In preparing for the audit, the partner describes the following characteristics about the audit client:

- Ford is moving into e-business via the Web. It will allow vendors to bid on supplying products to Ford. However, all vendors must first be certified as Ford Certified vendors so it is not quite like the open auction-type bids. The vendors must meet quality and delivery requirements.
- Ford currently uses EDI extensively.
- Ford's use of EDI currently means that suppliers must deliver products directly to the assembly line ready to be assembled. Payment is made based on a trading agreement between the parties specifying penalties for lack of delivery, poor quality, etc. It also specifies payment based on items produced during a week with the electronic transfer to the supplier at the end of the week.
- Ford will be developing an e-commerce alternative to purchasing vehicles. They have already developed an agreement with UPS to utilize UPS's tracking facility to ship their cars, trace their cars during shipment, and authenticate delivery.
- The E-Commerce is a movement to be more like Dell Computer, i.e., Ford will eventually be more of an assembler of cars, rather than a manufacturer of cars.

Required

Develop a comprehensive approach to (a) audit the computerized processing of Ford Motor Co. and (b) institute computer audit techniques, where applicable, to conduct an annual audit of Ford Motor Company.

In preparing your answer, focus only on the unique risks that are associated with computer processing caused by the company's involvement in e-business, e-commerce, and its use of EDI. Formulate your answer using the following headings:

a. Unique risks due to the E-Commerce, E-Business, and EDI Environment
b. Major controls that should be in place to address those risks:
   - Identification of controls that need to be tested
   - Identification of approach used to test the controls
c. Other audit tests, other than computer audit tests, that ought to be performed to satisfy the auditor that major e-business and e-commerce transactions are handled properly
d. Identification of computerized audit approaches, if any, that would be helpful in auditing the electronic transactions and resulting account balances described above for Ford Motor Company

Module II: Assessment of Control Risk

In this module, you will be asked to assess control risk after obtaining a basic understanding of Biltrite's financial controls, including the control environment, the accounting information system, and the control procedures.

Control Environment, Accounting Information System, and Control Procedures

Biltrite's real-time accounting system has been in operation since the beginning of 2005. By early 2006, the system had been debugged adequately, permitting discontinuation of the old manual system. All computer-based information systems (CBIS) and accounting functions are centralized at the Texas home office. Some of the more significant features of the system are discussed in the following paragraphs.

Computerized Ledger The general ledger software package, revised as part of the 2005 upgrade project, contains the following integrated modules: accounts receivable, accounts payable, inventories, plant assets, payroll, and general ledger.

Sales Processing Customer sales orders received by salespersons are input directly into the system via terminals from each of the regional locations. The regional sales manager is responsible for entering the orders after checking for proper credit approval and determining the maximum credit limit. A transaction log is maintained at each remote terminal; the log shows date of order entry, identification number of the salesperson receiving the order, customer number, stock number, and quantity ordered. After determining stock availability, the computer prepares a consecutively numbered, three-part sales invoice. As part of the sales processing, the computer inserts the customer's name and address, product descriptions and prices, and extensions and footings. Terms of payment and discount availability also are determined by the computer and included on the invoice. For each order processed, the computer records the transaction, including costing the sale, and updates the accounts receivable and inventory modules. The original invoice is mailed to the customer, the first copy is faxed to the warehouse as shipping authorization, and the second copy is retained awaiting a signed bill of lading evidencing shipment. Upon its receipt from the regional unit, the bill of lading is attached to the second invoice copy and placed in a numeric file. The flowchart in Exhibit BR.7 describes the sales processing function.

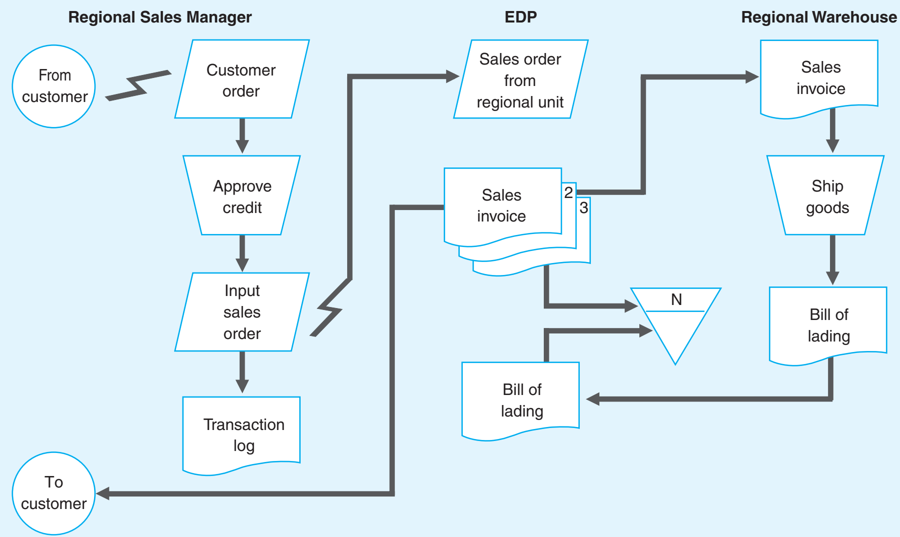
Cash Receipts All mail is centrally received in the mailroom, opened, and distributed.

Checks from customers are forwarded to CBIS, where the customer number, invoice numbers paid, discount taken, and net amount remitted are entered into the system based on the remittance advice information. The computer then updates the customer accounts, as well as the accounts receivable control and cash in bank accounts. At the end of the day, the computer produces a printout of detail and totals by customer, as well as a grand total.

The checks and remittance advices are then separated and the checks are forwarded to Mark Wilkins, cashier. Wilkins prepares the deposit and deposits each day's remittances intact. Receipted deposit tickets are forwarded by the bank to the controller's office where a comparison is made with the daily printout of cash receipts.

Miscellaneous cash receipts are processed in a fashion similar to that accorded customer remittances, except that a recording form is prepared by the general ledger section and forwarded daily to CBIS for entry into the computer. Prepared from the remittance advice, the recording form contains the date, amount remitted, account

EXHIBIT BR.7 Sales Processing Flowchart

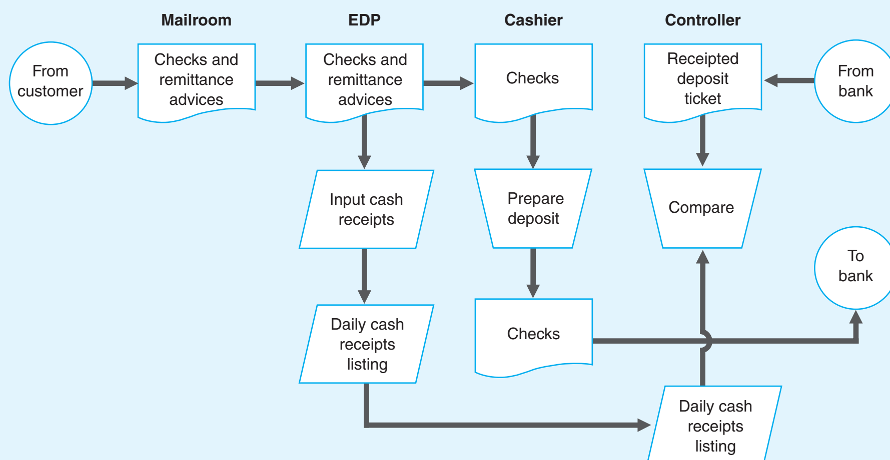


number(s), and amount(s) to be credited. Exhibit BR.8 is a flowchart describing processing of customer cash receipts.

Purchases and Accounts Payable Biltrite buys its derailleurs and other bicycle parts from three unrelated vendors; steel and paint are purchased from selected vendors, based on a bidding process. Supplies are purchased from various vendors. All parts, materials, and supplies are ordered as reorder points are reached on the basis of a three-part purchase order generated by the computer.

Emil Ransbottom, director of purchasing, reports to Elmer Fennig, production vice president. Prices, as agreed upon by Ransbottom and the respective vendors, also appear on the purchase order, which is mailed to the vendor after being reviewed and approved by Fennig. A copy of the purchase order is sent to accounts payable and another goes to the purchasing department for later comparison with the incoming goods.

EXHIBIT BR.8 Processing Flowchart: Cash Receipts from Customers



When goods are received, they are counted and inspected by employees in the receiving department and a two-part receiving report is prepared. The original accompanies the goods to stores, where quantities and types of goods are compared with the receiving report, and the copy is filed numerically in the receiving department. The store's manager then signs the receiving report and forwards it to the director of purchasing for comparison with the purchase order for type, quantity, price, and discount terms. After signing for agreement, the director of purchasing forwards the receiving report to accounts payable, where it is filed by vendor, along with the purchase order copy, awaiting receipt of a vendor's invoice.

When the vendor's invoice is received, an accounts payable clerk compares it with the purchase order and receiving report, and then prepares a voucher for processing the invoice. The voucher contains the vendor number, vendor invoice number, stock number, quantities, price, and terms. Voucher copies are forwarded to CBIS for daily processing of vendors' invoices. A daily control tape of dollar totals appearing on the invoices is retained by accounts payable for later comparison with computer output. During the input of vouchers, the accounts payable software module of the general ledger package edits for the following characteristics: valid vendor number, valid stock number, price in agreement with vendor price, and agreement with discount and payment terms stored in the computer. During the processing run, the computer updates the accounts payable ledger, the manufacturing overhead detail, the operating expense detail, and the perpetual inventory records for purchased parts, materials, and supplies. The computer also performs a record count and compares output with input at the end of the processing run. Last, the due date of the invoice is stored in the computer for purposes of generating daily disbursement checks for invoices to be paid on that date.

Computer output consists of a purchase summary that is forwarded to accounts payable for review and comparison with the control tape. Accounts payable also files alphabetically the voucher, along with the attached purchase order, receiving report, and vendor's invoice in an unpaid vouchers file. All of these documents are prenumbered. Exhibit BR.9 is a flowchart depicting the documents and procedures just described.

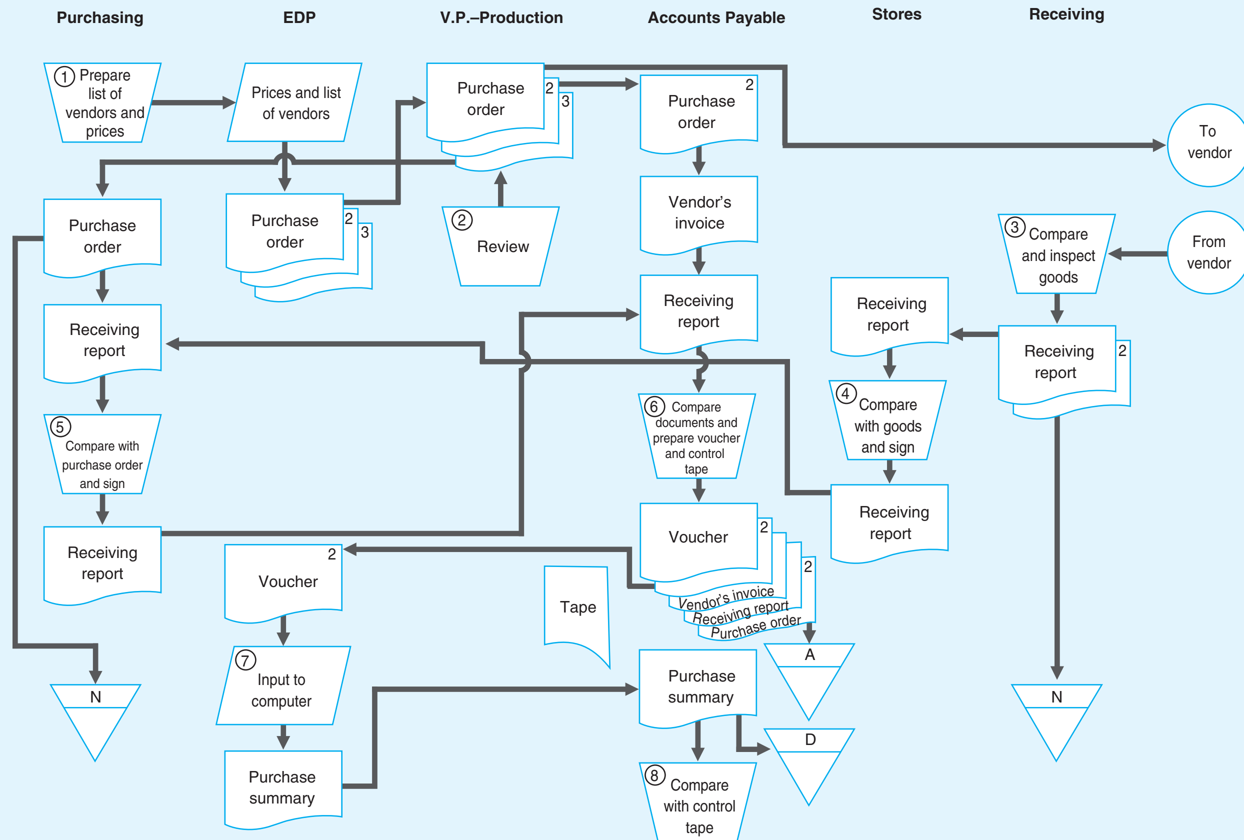
Payments to Vendors The daily computer check-writing process produces a two-part check/remittance advice set. The remittance advice, indicating invoice number(s) being paid, gross amount, discount, and net amount of the check, constitutes the lower part of the set. The check/remittance advice set is sent to accounts payable for comparison with the documents contained in the alphabetic vendors' invoice file. If the amounts appearing on the remittance advice agree with the vendor's invoice, an accounts payable clerk initials the voucher, attaches the purchase order, vendor's invoice, and receiving report, and forwards the documents to the treasurer. The treasurer examines the documentation received from accounts payable for agreement among the invoice, purchase order, and receiving report as to type, quantities, and prices. If everything is in agreement and the documents include initials evidencing proper approvals, the check is approved for signature. The checks are then signed by a check-signing machine and mailed directly to the vendor by the treasurer's office. The documents are effectively canceled to prevent reuse and are returned to accounts payable for filing in the paid vouchers file.

Responsibility for operating the check-signing machine is assigned to one individual. The machine is locked at all times when not being used to sign checks and the key is in the custody of the check signer. Exhibit BR.10 is a flowchart describing the payment process.

Payroll Hourly production employees are paid weekly. Non-production employees are salaried and are paid biweekly. Salespersons also are paid biweekly, on a combination salary and commission compensation basis.

The total time worked is accumulated for hourly employees by a time clock located at the factory entrance. The employee's name, social security number, and

EXHIBIT BR.9 Purchases and Accounts Payable Processing Flowchart



department number appear on the clock card. Factory supervisors approve the clock cards at the end of each week for employees working in their respective departments before submitting them to payroll.

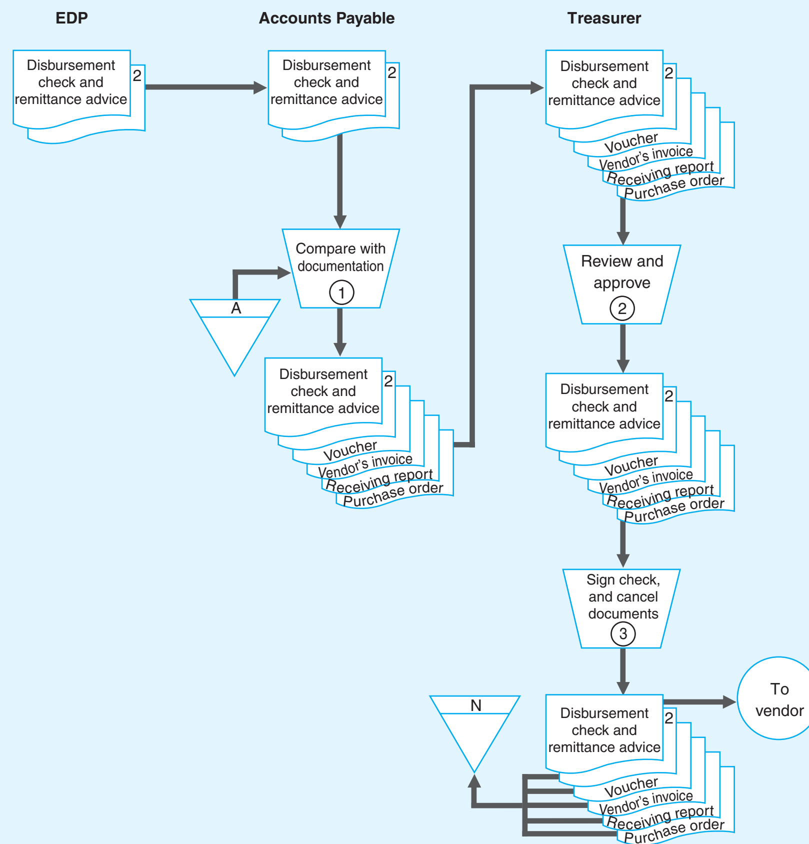
Each Monday morning the timekeepers summarize and assemble the clock cards by department number and forward the packets to payroll. The clock cards are examined in payroll for proper approval, a tape is run of total hours by department, and then the cards and tape are forwarded to CBIS for processing.

A data entry clerk enters via a terminal the employee number, the department number, and the hours worked. Input editing consists of checking for valid employee number, valid department, and reasonableness of hours worked. The employee computer file contains current pay rates, employee and department numbers.

Adjustments to the employee database for any rate changes, additions of new employees, and deletions of terminated employees are made only on the basis of authorization slips obtained from Laura Schroeder, director of human resources. Withholding information is also included in the database and is updated on the basis of authorization received from the human resources division.

The computer calculates gross pay, withholdings, and net pay. The employer's taxes (e.g., FICA, unemployment, and workers' compensation premium) also are calculated by the payroll module of the accounting software package. A record count is performed by the computer and compared with employee records updated at the end of the run. A register also accumulates hours by department for comparison with total hours at the end of the run.

EXHIBIT BR.10 Payment Processing Flowchart

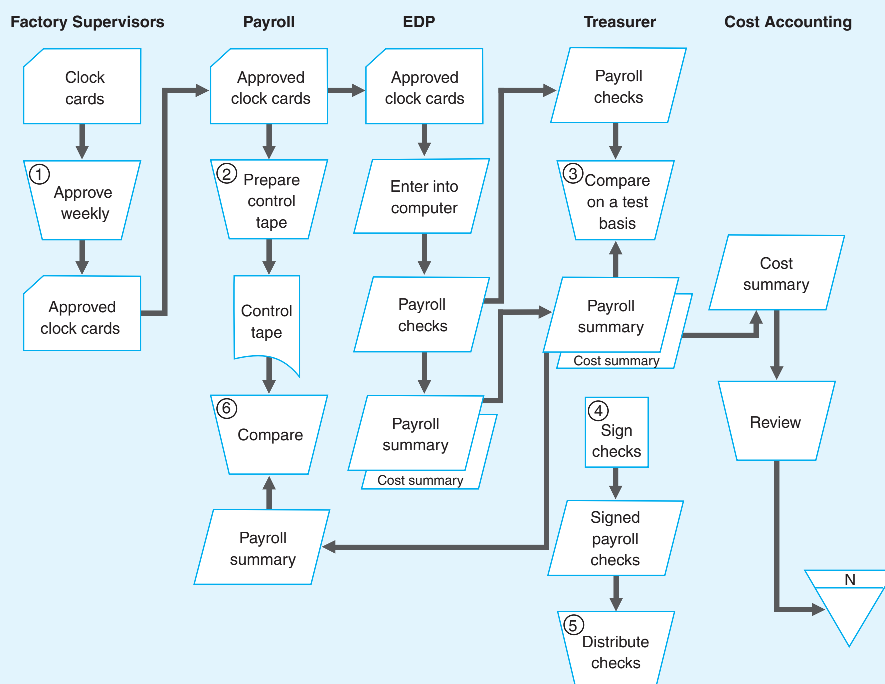


Output consists of prenumbered payroll checks, a payroll summary, and a cost distribution summary. The control group is responsible for distributing the output. The checks, along with the summaries, are forwarded to the treasurer for signature and distribution. A check for the total amount of net pay is first drawn upon the general account for deposit in the payroll account; the treasurer signs this check and forwards it to the cashier for deposit.

After being compared with the payroll summary on a test basis, the individual payroll checks are signed with the aid of a check-signing machine and distributed by treasury personnel. Unclaimed checks are retained in safekeeping by the treasurer's office. The payroll summary and the control tape are forwarded to the payroll department as a basis for comparing total hours by department and for completing the various payroll tax returns and reports. The cost summary is sent to Oliver Perna, director of cost accounting, for review and filing. Exhibit BR.11 is a flowchart describing the production payroll process.

As part of the integrated software package, the payroll data serves as input for updating the goods-in-process inventory accounts. To complete the updating of goods-in-process and finished goods inventory, production reports and material requisitions are entered into the system on a weekly basis. In addition to the perpetual inventory ledgers, the database includes a manufacturing overhead detail and an operating expense ledger. Current standard costs are also incorporated into the database. This enables the computer to calculate and print daily, weekly, and monthly variance reports for analysis by Perna and Malissa Rust, director of information systems and data processing.

EXHIBIT BR.11 Production Payroll Processing Flowchart



The salaried payroll is prepared in a similar fashion. CBIS updates the employee database as written authorizations are received from human resources. As with production employees, the authorizations relate to changes in employee salaries, new employees, and terminated employees. Any overtime for salaried employees must be approved in writing by the respective department heads and routed to CBIS through payroll; the payroll department reviews the overtime for proper authorization and for reasonableness before transmitting the information to CBIS.

Other Accounting System Features Monthly financial statements consist of a balance sheet, an income statement, and a statement of cash flows and are generated automatically by the computer. Month-end adjustments for accruals (payroll, taxes, warranty, commissions, pension, profit sharing, interest, and fringe benefits) and apportionments (depreciation, insurance, bad debts, and amortization) are determined by John Mesarvey, Biltrite's chief accountant, and submitted to CBIS on standard recording forms. CBIS enters the data and invokes the command for printing the financial statements. In addition to the financial statements, the adjusting entries are printed and forwarded by the control group to Mesarvey for comparison with his copy of the adjustments as originally submitted to CBIS. Exhibit BR.12 contains the December 31, 2007, adjustments for inventories (perpetual records adjusted to year-end physical inventory) and unrecorded liabilities. Exhibits BR.13–BR.16 contain beginning and ending entries in the December 2007 transaction registers.

Sales invoices, purchase orders, disbursement checks, and payroll checks are prenumbered and generated by computer, as described previously. All manually prepared documents, such as vouchers and receiving reports, are also prenumbered. They are safeguarded and under the responsibility of designated individuals. Used documents are canceled to prevent reuse. Bills of lading are not prenumbered or otherwise accounted for. The internal auditing department regularly accounts for the numeric sequence of used documents. All voided documents are retained until the annual independent audit has been completed.

EXHIBIT BR.12 Biltrite Bicycles, Inc., Selected Client Adjusting Entries, December 31, 2007

UNRECORDED INVOICES			
7210	Real Estate Taxes	$ 468,000	
7241	Utilities Expense	1,322,400	
7234	Health Insurance Premiums—Factory	240,980	
9435	Health Insurance Premiums—Administrative	47,560	
1320	Derailleurs Inventory	788,300	
1390	Repair Parts Inventory	177,650	
7220	Manufacturing Supplies	977,500	
9450	Accounting Fees	150,000	
9451	Legal Fees	212,000	
2020	Accounts Payable—Trade		$4,384,390
Client's entry to adjust for unrecorded invoices at 12/31/06			
INVENTORY ADJUSTMENT			
5100	Cost of Goods Sold—Grand Prix Touring Bike	$ 456,000	
5200	Cost of Goods Sold—Phoenix Touring Bike	244,300	
5300	Cost of Goods Sold—Pike's Peak Mountain Bike	455,690	
5400	Cost of Goods Sold—Himalaya Mountain Bike	88,700	
5500	Cost of Goods Sold—Waistliner Stationary Bike	22,300	
1310	Raw Materials Inventory	33,560	
1330	Purchased Parts Inventory	333,670	
1376	Finished Goods—Himalaya Mountain Bike	66,340	
1385	Indirect Materials	33,500	
1390	Repair Parts Inventory	61,140	
1320	Derailleurs Inventory		$ 222,600
1371	Finished Goods—Grand Prix Touring Bike		625,700
1372	Finished Goods—Phoenix Touring Bike		366,800
1373	Finished Goods—Pike's Peak Mountain Bike		557,800
1379	Finished Goods—Waistliner Stationary Bike		22,300

Client's entry to adjust perpetual inventory records to physical inventory taken as of 12/31/06. (Adjustments to materials and parts inventories were allocated proportionately to the five cost-of-goods-sold accounts.)

Within the CBIS department, duties are separated among the following functions:

1. Systems analysis and programming
2. Data entry
3. Data processing
4. Control

Systems analysts and programmers provide extensive documentation of all programs and systems, as well as program changes. Complete instructions are provided for the computer operators who enter data as part of the various processing modules. All program changes must be approved in writing by Rust, director of information systems and data processing, as well as by affected user departments. Current backup programs and data files are maintained in a location outside data processing. The internal auditors presumably have current copies of the programs, but rarely test transaction processing on an unannounced basis.

All computer output is distributed by the control group to authorized recipients.

Any misstatements occurring during processing runs are logged into the console and are accessible only by the control group. The control group then monitors the reprocessing of the misstatements after satisfying themselves that the

EXHIBIT BR.13 | **Biltrite Bicycles, Inc., Voucher Register, December 2007**

Date	Voucher No.	Vendor	Accounts Payable Credit	Raw Materials Debit	Derailleurs Debit	Purchased Parts Debit	Indirect Materials Debit	Repair Parts Debit	Other: Account Number	Other: Debit
Dec. 1	12222	LaPrix Derailleurs, Ltd.	$ 415,000		$ 415,000					
Dec. 1	12223	Kryolock Steel Supply	212,480	$ 212,480						
Dec. 1	12224	Crown Manufacturing	122,169			$ 78,000	$ 44,169			
- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Dec. 30	12448	Crystal Manufacturing, Inc.	589,600		589,600					
Dec. 30	12449	Kryolock Steel Supply	266,800	266,800						
Dec. 31	12450	Crown Manufacturing	318,600			215,000	93,000	$ 10,600		
Dec. 31	12451	Palmer & Nile Advertising	112,800						8340	$ 112,800
Dec. 31	12452	MedCare HMO, Inc.	41,600						9435	41,600
Dec. 31	12453	Denise Vaughan & Co., CPAs	122,500						9450	122,500
Dec. 31	12454	Joelson & Wicks, Attorneys at Law	233,000						9451	233,000
Dec. 31	12455	Zebra Cleaning Supplies	7,865						9460	7,865
Dec. 31	12456	Crew Brothers Manufacturing	1,445,900			1,445,900				
Dec. 31	12457	LaPrix Derailleurs, Ltd.	962,200		962,200					
			$25,774,213	$3,822,900	$4,376,000	$12,430,975	$883,411	$776,500		$3,484,427

EXHIBIT BR.14 Biltrite Bicycles, Inc., Sales Summary, December 2007

Date	Invoice No.	Customer	Accounts Receivable Debit	Sales—Credit				
				Grand Prix	Phoenix	Pike's Peak	Himalaya	Waistliner
Dec. 1	31662	Bikes and Parts	$ 67,000	$ 21,750	$ 12,600	$ 27,100	$ 5,550	$ 0
Dec. 1	31663	L Mart Department Stores	325,600	185,200	0	89,600	21,500	29,300
Dec. 30	33002	Texas Bike Emporium	266,800	55,300	42,800	92,300	44,600	31,800
Dec. 30	33003	Rear and Sawbuck	881,870	322,550	23,400	466,740	32,500	36,680
Dec. 30	33004	Southwest Spokes, Inc.	443,760	77,200	55,900	223,060	87,600	0
Dec. 31	33005	Great Lakes Fitness Centers	144,600	0	0	0	0	144,600
Dec. 31	33006	Big Mart Discount Centers	773,200	288,700	0	410,650	22,300	51,550
Dec. 31	33007	Leisure Time	338,700	44,860	62,375	122,400	88,500	20,565
Dec. 31	33008	Truly Bikes	122,900	15,600	31,600	35,500	40,200	0
Dec. 31	33009	L Mart Department Stores	1,322,800	497,310	88,760	714,580	22,150	0
			$21,656,900	$2,356,700	$9,234,500	$1,329,800	$7,988,600	$747,300

EXHIBIT BR.15 Biltrite Bicycles, Inc., Cash Summary, December 2007

Date	Received From	Cash Debit	Sales Discounts Debit	Accounts Receivable Credit	Miscellaneous Account Number	Miscellaneous Debit	Miscellaneous Credit	Deposits
Dec. 1	Rear and Sawbuck	$ 662,461	$ 3,329	$ 665,790				
Dec. 1	Texas Bike Emporium	187,398	942	188,340				
Dec. 1	Florida Bike World	759,583	3,817	763,400				$ 1,609,442
...								
Dec. 30	Major Acres Discount Centers	684,162	3,438	687,600				
Dec. 30	New England Bike Shops	88,177	443	88,620				
Dec. 30	Exercise World	43,979	221	44,200				
Dec. 30	Kaiser and Peabody Brokerage	24,223			4902		$ 24,223	
Dec. 30	West Coast Distributors	729,624	3,666	733,290				1,570,165
Dec. 31	L Mart Department Stores	287,207	1,443	288,650				
Dec. 31	Bikes and Parts	75,864	336	76,200				
Dec. 31	T. Lawton	3,000,000			1203		3,000,000	
Dec. 31	Dollar Discount Stores	335,017	1,683	336,700				
Dec. 31	Jimbob's Recreation & Leisure	86,230	0	86,230				
Dec. 31	Big Mart Discount Centers	887,640	4,460	892,100				4,641,958
		$20,006,675	$152,654	$15,988,652		$63,546	$4,234,223	$20,006,675

EXHIBIT BR.16 Biltrite Bicycles, Inc., Check Register, December 2007

Date	Payee	Voucher Number	Bank Two Check Number	Dollar Bank Check Number	Accounts Payable Debit	Purchases Discounts Credit	Bank Two Credit	Dollar Bank Credit
Dec. 1	Kryolock Steel Supply	12188		44263	$ 388,700	$ 2,444		$ 386,256
Dec. 1	Crystal Manufacturing	12193		44264	654,980	3,228		651,752
Dec. 1	MedCare HMO, Inc.	12179	126880		46,400		$ 46,400	
Dec. 30	Crew Brothers Manufacturing	12378		44678	1,890,000	9,450		1,880,550
Dec. 30	Crown Manufacturing	12382		44679	422,300	2,112		420,188
Dec. 30	East Texas Power Company	12390	127329		455,380		455,380	
Dec. 31	Bell Southwest	12391	127330		75,688		75,688	
Dec. 31	LaPrix Derailleurs, Ltd.	12383		44680	1,340,000	6,700		1,333,300
Dec. 31	Zebra Cleaning Supplies	12344		44681	12,460	125		12,335
Dec. 31	Internal Revenue Service	12277		44682	3,600,000			3,600,000
Dec. 31	Jones Equipment	12198	127331		896,000	4,498		891,502
Dec. 31	Jolly Roger Paints	12264		44683	326,000	1,630		324,370
Dec. 31	Rolla Deal Tires, Inc.	12234		44684	667,500	3,338		664,162
					$24,521,003	$87,665	$1,780,000	$22,653,338

misstatements were unintentional. Data processing personnel have no access to the misstatement log and must contact the control group, inasmuch as processing cannot continue until an misstatement is corrected.

An accounts receivable aging analysis is produced monthly by the computer. This analysis is used by Lawrence White, credit manager, and John Mesarvey, chief accountant, for determining the monthly adjustment to the allowance for doubtful accounts; White also performs extensive follow-up of customers whose accounts are past due.

Other Controls In addition to the control environment and the accounting information system, other policies and procedures support Biltrite's financial control system:

1. Laura Schroeder, director of human resources, instituted a program for completely updating job descriptions after the data processing system was converted to real time in 2005. This program is now finished, and training programs have been developed for data processing, as well as for new and existing employees in other functional areas.
2. Inventories of materials, purchased parts, and finished goods are secured, and inventory managers have been assigned responsibility for their safekeeping. The internal audit staff, however, performs only infrequent test counts and comparisons with the perpetual records. Moreover, when they do plan for these counts, the auditors notify the inventory managers weeks in advance.
3. Directors and department heads are responsible for making hiring recommendations. The human resources division, however, screens and investigates all applicants for proper background and required education, training, and experience for the positions. In addition, final hiring and termination authority rests with the human resources director.

Requirements

1. Given the description of the company, the industry, the control environment, the accounting information system, and control procedures, identify strengths and weaknesses in the financial controls. Relate the strengths and weaknesses to management's assertions contained in the financial statements.
2. Based on your review of the accounting information system and existing control procedures, in what specific transaction areas are you willing to assess control risk less than high? For purposes of this requirement, consider the probability of material financial statement misstatements caused by control weaknesses.

CHAPTER 9

Auditing for Fraud

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to develop efficient and effective audits that meet professional responsibilities. Through studying this chapter, you will be able to:

- Describe the magnitude of frauds that have occurred in organizations and the effect of the frauds on the economy.
- Define the various types of fraud that affect organizations.
- Describe the expectations of the users of financial statements regarding the auditor's responsibility to detect fraud.
- Describe the auditor's responsibility for fraud detection.
- Describe and implement the "fraud model" to understand the risk of fraud and to design audit procedures to detect fraud.
- Identify and analyze significant fraud indicator risk factors.
- Determine specific links to audit tests from fraud indicators.
- Describe the auditor's responsibility to report on fraud once it is discovered.
- Describe some of the major frauds in accounting and identify how the auditor would have discovered the frauds.
- Describe how audit software and other computerized audit tools can assist the auditor in identifying fraud.
- Describe forensic accounting and distinguish it from auditing.

CHAPTER OVERVIEW

Fraud is a major problem. It is estimated that fraud costs American business up to 6% of revenue. Fraudulent financial reporting has robbed the business community and accounting profession of much of its credibility. Users expect more; they expect auditors to detect and report material fraud. If auditors fail to detect and communicate fraud, there will continue to be an "expectations gap" between user's expectations and auditor's performance. The profession is working diligently to narrow this gap and has developed new approaches to make each auditor much more aware of the possibility of fraud existing at an audit client.

This chapter presents an overview of fraud, describes some of the major frauds that have taken place, identifies fraud risk indicators, and identifies audit procedures that are effective in discovering most frauds. Audit procedures alone are not the answer. An auditor must exercise professional skepticism and approach an audit with an attitude that fraud could be occurring.

Fraud and Auditor Responsibilities: A Historical Evolution

The AICPA auditing standards historically have recognized that it is not reasonable for auditors to detect all frauds because frauds can be cleverly manipulated by management. The Public Company Accounting Oversight Board does not share that view:

> The mission of the PCAOB is to restore the confidence of investors, and society generally, in the independent auditors of companies. There is no doubt that repeated revelations of accounting scandals and audit failures have seriously damaged public confidence. . . .
> The detection of material fraud is a reasonable expectation of users of audited financial statements. Society needs and expects assurance that financial information has not been materially misstated because of fraud. *Unless an independent audit can provide this assurance, it has little if any value to society*. (*emphasis added*)[1]

The message is clear: auditors must assume a greater responsibility for detecting fraud and assuring users that the financial statements are free of material fraud. Further, unless auditors can provide that assurance, then there is little justification for the function.

However, fraud is both intentional and deceitful. Is it reasonable to hold auditors accountable for detecting all frauds that might be material to the financial statements? Further, what is materiality for fraud, i.e., is something material because it is fraudulent even if the dollar amount is significantly less than the auditor would normally consider to be material? We explore audit techniques and tools that will assist auditors in their quest to identify material fraud in a company's financial statements.

Magnitude of Fraud

At one time or another, we have all seen headlines similar to the following:

> Parmalat Inquiry Finds Basic Ruses at Heart of the Scandal
> How Three Unlikely Sleuths Exposed Fraud at WorldCom
> Did HealthSouth Auditor Miss Key Clues on Fraud Risk
> The Fall of Enron

These headlines are just a small sample. Fraud is not confined to large companies; nor is it confined to top executives. It includes fraud perpetrated by all employees within an organization. One study estimated that 85% of the worst frauds were conducted by insiders on the payroll.[2] Further, fraud is not confined to U.S. businesses where management is strongly motivated by stock options. Frauds at Ahold (The Netherlands), Parmalat (Italy), and Addeco (Switzerland) reveal that fraud is an international phenomenon.

A 2006 study by the Association of Certified Fraud Examiners (ACFE) looked at the broad nature of frauds in the United States. Their estimate is that companies have historically lost up to 6% of revenue as a result of fraud. Those numbers do not include the losses that investors incurred on major financial reporting frauds such as Enron (estimated to be near $90 Billion) or WorldCom.

One problem with fraud data is that frauds are often not reported. One estimate is that 40% of the frauds have been discovered, but not prosecuted, and an additional 40% of frauds have not been discovered.

The ACFE reports that smaller businesses are the most vulnerable to frauds involving misappropriation of assets (e.g., theft of cash). The average fraud scheme in a small business causes $127,500 in losses. The average scheme in the largest companies costs $97,000. This point was further verified by a COSO study of fraud during the 1990s that was based on cases that were brought to the attention of the SEC.

Practical Point

Fraud is widespread in small businesses and it is not confined to employees stealing from the company.

[1] Douglas R. Carmichael, *The PCAOB and the Social Responsibility of the Independent Auditor,* Chief Auditor, Public Accounting Oversight Board, speech given to Mid-Year Auditing Section meeting of the American Accounting Association, January 16, 2004.

[2] Ernst & Young, *Fraud: The Unmanaged Risk; 8th Global Survey,* 2002.

Fraud Defined

Fraud has traditionally been defined into two broad categories: *defalcations* and *financial reporting fraud*. A common denominator in all fraud is the intent to deceive for personal benefit. Fraud is differentiated from errors by the *intent* to deceive.

Defalcations A **defalcation (misappropriation of assets)** is defined as a type of fraud in which an employee takes assets from an organization for personal gain. Examples include theft (embezzlement) of assets such as cash and inventory, or the manipulation of money transfers. The Association of Certified Fraud Auditors further divides defalcations into frauds due to corruption and those due to asset misappropriation.

Frauds Due to Corruption Fraud due to **corruption** is defined as fraud in which fraudsters wrongfully use their influence in a business transaction in order to procure some benefit for themselves or another person, contrary to their duty to their employer or the rights of another. Common examples include accepting kickbacks and engaging in conflicts of interest. For example, Halliburton Corporation reported that in early 2004, two of its employees had received kickbacks of $6 million to place orders with a Kuwaiti oil company as part of its efforts in rebuilding the oil infrastructure in Iraq.

Asset Misappropriations The theft or misuse of an organization's assets is called **asset misappropriation.** Common examples include skimming revenues, stealing inventory, and payroll fraud. Asset misappropriations have been the dominant scheme used in small businesses to steal assets from a company. A common misappropriation is taking checks or cash from a customer and diverting it into a personal account and covering it up by writing off accounts receivable.

Financial Reporting Fraud The intentional manipulation of reported financial results to portray a misstated economic picture of the firm is called **financial reporting** *fraud*. The perpetrator of such a fraud seeks gain through the rise in stock price and the commensurate increase in personal wealth. SAS 99 indicates at least three ways in which financial reporting fraud can take place:

- Manipulation, falsification, or alteration of accounting records or supporting documents
- Misrepresentation or omission of events, transactions, or other significant information
- Intentional misapplication of accounting principles

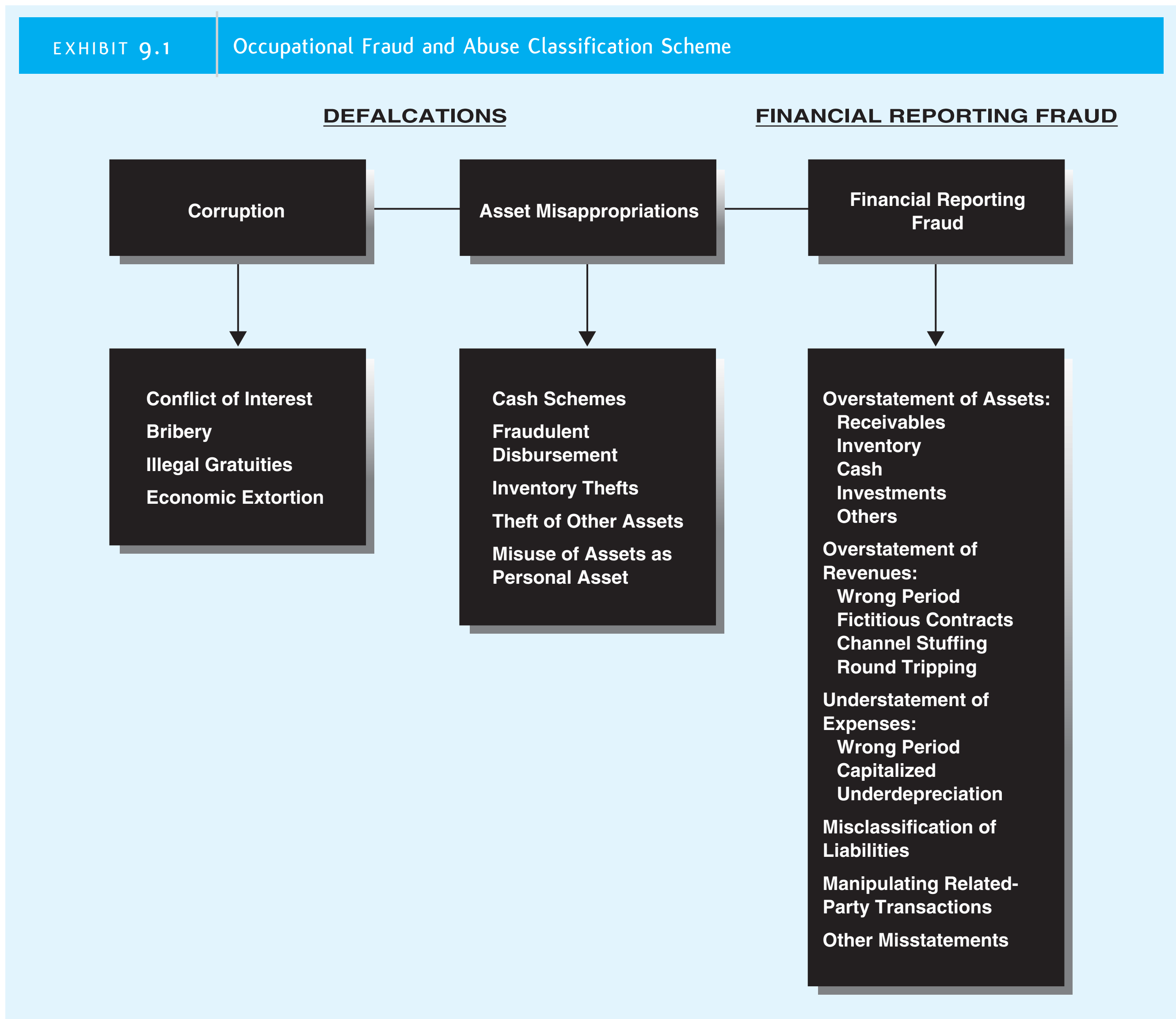
Common examples of fraudulent financial reporting include overstating revenues, understating expenses, or misclassifying liabilities. There are many examples, but perhaps the simplest is WorldCom where the firm increased reported income by capitalizing expenses.

An overview of types of fraud is shown in Exhibit 9.1. There is no "one correct" classification of frauds. The overview was developed by the ACFE. The classification presents a guide for viewing fraud. Corruption occurs because there are:

- Conflicts of interest in certain positions
- Situations where bribery can influence actions
- Situations were illegal gratuities influence action
- Situations where economic extortion can be used

Misappropriation of assets can occur in many ways. The three major ways are through employees:

- Gaining access to cash and manipulating accounts to cover up cash thefts
- Manipulating cash disbursement through fake companies or employees to gain access to cash



- Stealing inventory or other assets and manipulating the financial records to cover up the fraud

Financial reporting fraud can also occur in a number of ways. Recall that financial reporting fraud does not involve the theft of assets or even the misuse of assets for personal benefit. Rather, it involves the manipulation of financial statements to portray a better picture of financial results than are the actual results. The most common types of financial reporting fraud are:

- Overstatement of assets and understatement of expenses
- Overstatement of revenue and corresponding overstatement of assets
- Understatement of liabilities

Financial reporting fraud can also involve financial-related reports that are not a formal part of the financial statements. As an example, publicly traded oil companies are required to report changes in their proved reserves each year. A "proved reserve" is the discovery of an oil field in which the company has determined it is economically feasible to extract the oil from the field at current oil prices. The amount of proved reserve is a best estimate of the millions (billions) of barrels of crude oil that can economically be extracted from the field. During 2004, the SEC brought action against Shell Oil Company alleging that the company had falsely

EXHIBIT 9.2 Financial Reporting Fraud—A Small Business Example

COMPANY BACKGROUND

Braggart Apparel Company was acquired by two young entrepreneurs in 1994. The company was primarily in the business of developing products with sporting logos, e.g., major league baseball, NCAA (Notre Dame, University of Michigan, etc.), or NASCAR, that could be sold through department stores. The company had two lines of business: infant wear and adult wear. The company started with about $4 million of sales in 1994 and grew sales to approximately $19 million by the end of 1998. In order to support the growth in sales, the company borrowed approximately $10 million from a local bank and was able to justify the loan because: (a) the loan was secured by receivables and inventory; and (b) the company had a stable product that was experiencing a high rate of growth.

The company failed in 1999. The bank lost all of the value of its loans. Management did not develop a better model for the business, but was able to use the funds to develop a new Internet business that it subsequently sold to another company for over $100 million. Management had carefully constructed a financial reporting fraud that covered up real business problems. The company used most of the schemes identified in Exhibit 9.1 to carry out the fraud.

THE FINANCIAL REPORTING FRAUD SCHEME

The loan covenants of the bank had numerous provisions to protect the bank. Included in these provisions were:

- The company was to maintain a debt/equity ratio that did not exceed 3.5 to 1.
- The company had to maintain tangible net worth of at least $1,500,000.
- The company had to furnish audited financial statements prepared in accordance with GAAP.
- The loan was secured by both accounts receivable and inventory.

The company was in violation of each of these provisions. However, they covered up the fraud in the following way:

Inflated Reporting Revenue. Braggart had licensed all of its rights for adult wear products to another company that manufactured and sold the product. In turn, the other company would submit 17.5% of their net revenue to Braggart as royalties. Braggart decided to record the gross sales made by the other company as their sales and the difference between that amount and the royalties of 17.5% as cost of goods sold. This allowed the company to show continuing double digit growth in sales when revenue was actually declining. The false increase in sales also masked a problem the company was having with its other products whose return rate had jumped from 3% to over 8%.

Capitalized Expenses. Braggart took the position that 75% of its SG&A expenses related to inventory and capitalized the SG&A as part of inventory. The effect was to overstate inventory by about $1.8 million and to overstate income by about the same amount thus showing a profit and meeting the tangible net worth covenant.

Misclassified Liabilities. Braggart had a $1 million note payable to the original owners of the company for the purchase made in 1994. In 1998 it decided that some of the assets that were recorded in 1994 were incorrect. The company initiated a lawsuit against the original owners claiming it had the right to "offset" the amount of the overstated assets against the note. Although the lawsuit was still pending, the company treated the liability as a "contra liability" thus reducing total liabilities in anticipation of a positive outcome (gain) on the lawsuit. The lawsuit was subsequently decided in favor of the defendants.

LESSONS LEARNED

Financial reporting fraud is based on the motivation of the parties most likely to benefit from the fraud. Eventually, such a fraud always involves manipulation of account balances to present a financial picture that is different than reality. Although company management can often present arguments as to why the financial adjustments met GAAP (right of offset on the note, all expenses relate to getting goods in place to sell, etc.), the auditor must approach the audit with professional skepticism and examine transactions to ensure they comply with the economic substance of the transactions.

reported its proved reserves in an effort to make the company look more successful and thus prop up its stock price.

There is a tendency to view financial reporting fraud as just the large companies where the executives are concerned about stock options and their stock prices. Exhibit 9.2 is an example of a small business where the owners were trying to "buy time" for an otherwise failing business to either succeed or develop an off-shoot product they could sell to a prospective buyer.

Evolution of Fraud and Auditor Responsibility

Interestingly, auditing began with a major mission to detect fraud. As early as the 1600s, ships from England sailed across the then-known world to engage in trading.

EXHIBIT 9.3 Early Financial Reporting Fraud

THE GREAT SALAD OIL SWINDLE

The Great Salad Oil Swindle represented one of the first large-scale financial reporting frauds. The concept was simple: the company could overstate its financial position by claiming that it had more inventory than it actually had. Overstated assets provide the company the opportunity to understate expenses and to overstate income.

The financial scam was fairly simple: the company stored salad oil in large tanks. It issued numerous receipts all showing a large amount of inventory on hand. The auditor did observe part of the inventory, but did so by checking the various tanks one after another. The company did two things to fool the auditor:

- First, it filled the tanks with a large inside bladder that contained water.
- Second, it created an outer layer with salad oil, so if the auditor checked the oil from an opening on top located near the edge, the auditor would find oil.
- Third, the company pumped the oil underground from one tank to another in anticipation of the auditor's planned inspection route.

The fraud was eventually discovered.

There were numerous threats to the integrity of the ships and the trade, including keeping of the books. Thus, auditors were first employed by the owners of the ships to audit the books to see if there was fraud against the company. The emphasis on fraud as the primary focus of the auditor continued through to the early 1900s when the financial markets began to develop in the United States. As the markets developed, publicly-traded companies began the initial foray into "cooking the books." Probably the most prominent case of the time was the Great Salad Oil Swindle as described in Exhibit 9.3. That fraud was conducted by a company secretly moving inventory (liquid oil) through underground pipes to a series of tanks so the auditor would perceive the company owned more inventory than was actually on hand.

Early Focus on Defalcations The early focus on audits involved frauds against the company, i.e., defalcations, rather than financial reporting fraud. Various types of schemes evolved, but most of them involved gaining access to cash and covering the cash misappropriation through various kinds of accounting entries. One common fraud was known as *lapping.* This occurred when someone took cash that was paid on an account. However, the perpetrator knew that the customer would eventually complain, so the person who took the cash would take another incoming payment from another customer and apply it to the first customer's account.

More sophisticated accounts receivable frauds involved other ways to reduce the account balances of the company whose receipts were stolen. These involved various approaches that included (a) recording large discounts for the clients, and (b) using journal entries to write off accounts against the allowance for uncollectible accounts.

Practical Point

Confirming accounts receivable all at the same time would detect lapping because there would always be some accounts that were not recorded correctly.

Practical Point

The auditor must be able to recognize unusual relationships in accounts, e.g., large write-offs or discounts that might signal the likelihood of fraud.

Equity Funding: The Scandal That Changed the Nature of Fraud Forever

In 1973, the Equity Funding fraud happened and the financial world was permanently changed. Equity Funding had an interesting concept: it would sell an insurance policy coupled with a mutual fund investment. As the mutual fund increased in value, it would provide sufficient earnings to pay for the insurance policy. Thus, a policy holder would have the lowest cost insurance policy offered anywhere. The growth of Equity Funding was remarkable and its stock price had one of the highest multiples on Wall Street. Unfortunately, very little of it was true. When the fraud was discovered, the investigators found that over 2/3 of the policies did not exist. The fraud was discovered only when an informant tipped off a stock broker. When the fraud became apparent, the first reaction by the profession was that it was very sophisticated and auditors did not have a chance in detecting such frauds. However, upon further investigation, it showed deficiencies in audit approaches and professional skepticism that the profession had to address. We examine the nature of the fraud in more detail here because of its historical significance in relation to audit standards and expectations.

Practical Point

The more things change, the more they are the same. Many of the motivations for fraud and the approaches used in Equity Funding were repeated at Enron. Some of the facilitating tools changed, but the nature of the fraud and the motivation of management remained the same.

How the Fraud Was Perpetrated The company issued fictitious policies and through a ponzi-type scheme, the company used the cash flow from other policies to cover the fictitious policies. The objective was not to grow the company; rather the objective was to grow the stock valuation of the company. The company reported increased revenue and profits and looked to be very attractive to investors. How did they do it all? They engaged in some deceptive practices including the following:

- Recording all the fictitious policies on the computer system, but omitting the first three digits. Any sample would show numerous duplicate numbers that could be quickly explained away by a computer logic error.
- Making simple transactions complex. To record a simple transaction to recognize a policy reserve, the company made over 30 journal entries across the books of four different subsidiaries.
- The company had different auditors audit the subsidiaries than audited the parent company.
- The company was the largest single client of a local CPA firm.
- Whenever the auditor would ask for documentation of insurance policies, the company would indicate they would "pull" all the policies from the company files and have them the next day. Then, selected people in the company would have a "policy party" where they would make up the policies to be delivered to the auditor the next day.

Lessons Learned from Equity Funding There were a number of important lessons learned from Equity Funding:

- Auditors take unnecessary risks whenever they do not audit the whole company.[3]
- Auditors need to look at economic assumptions underlying a company's growth. For example, a mutual fund in a declining market will not generate the gains needed to pay the investor's insurance premiums.
- Auditors need to assess risk factors and when the risk of fraud is high, they must demand stronger audit evidence, including looking for the policies themselves instead of waiting a day for the company to produce them.
- Computer errors should not be viewed as an excuse, but rather an indication of a problem that should require higher skepticism.
- Dominant clients can be a problem. A firm cannot afford to have a client from which it believes it cannot walk away.
- Auditors need to know what motivates management actions. In Equity Funding, much of management's wealth was tied to stock or stock options.
- Auditors should not assume that all people are honest. In Equity Funding, there were many parties involved in the fraud (as there were with Enron).
- Most importantly, there were fraud risk indicators that the auditor should have examined.

Practical Point

The Parmalat fraud was allowed to run as long as it did because the primary audit firm (Deloitte), at the request of the client, allowed the client to retain Grant Thornton for a substantial portion of the audit. Deloitte relied on the work performed by Grant Thornton. Unfortunately for Deloitte, the fraud was conducted in the areas audited by Grant Thornton. In other words, the Italian firm did not learn the lessons from Equity Funding.

The profession reacted in a measured way to the fraud. Most large public accounting firms require that they audit all of a company—the parent and subsidiaries. Accounting firms upgraded their computer audit skills. More importantly, firms recognized that financial reporting frauds will continue and they should develop risk files for all audit clients—large and small.

Financial Reporting Frauds—The Second COSO Report

The Committee of Sponsoring Organizations (COSO) of the Treadway Commission has conducted two major studies on the incidence of fraud. The

[3] Note this same problem, however, occurred again in 2003 when the auditor for Parmalat, an Italian Company, let approximately 45% of the company be audited by another audit firm (non Big-4 firm).

most recent study was of firms that were cited by the SEC during the 1990s for financial reporting fraud.[4] That study identified the major characteristics of companies that had perpetrated fraud. Those companies:

- Were smaller (under $200 million in revenues) than most SEC registrants
- Had a board that was dominated by management
- Either had no audit committees, or if audit committees existed, they very rarely met (and when they did meet, it was usually for less than an hour once a year)
- Overstated revenues and corresponding assets in over half of the frauds involved (Most of the revenue frauds involved premature recognition or fictitious recognition of revenue.)
- Did not have internal audit departments
- Perpetrated most frauds over relatively long terms, extending two or more fiscal periods; the average fraud approached 24 months
- Were in loss situations, or nearing break-even, before committing the frauds
- Had the CEO and/or the CFO involved with the fraud in 83% of the cases, thereby reinforcing the notion that it is unlikely that the auditor will receive reliable internal evidence in situations where fraud is a high risk

This report, as well as others that have studied frauds, have led auditors to realize that more is expected in detecting fraud. Further, it has led to recognition that there are signs that fraud might be taking place. Many of those signs point to the top of the organization, and the auditor needs to examine those signs on every audit engagement.

Auditing Standards—More Responsibility

The Auditing Standards Board (ASB) of the AICPA has responded to the increased demand to detect frauds by issuing SAS 99 entitled "Fraud in a Financial Statement Audit." The standard asserts that an auditor has an active responsibility to determine the likelihood that fraud might exist and needs to adjust audit procedures where fraud risk factors exist. **Fraud risk factors** are company or individual manager characteristics that have most often been associated with the perpetration of fraud. The audit should be designed to provide reasonable assurance that material fraud will be detected.

The standard identifies high fraud risk factors that the auditor should search for on every engagement. If those high risk factors are present, the auditor needs to modify the audit to (a) actively search for the existence of fraud, (b) require more substantive audit evidence, and (c) in some cases, assign forensic (fraud) auditors to analyze the accounts that may contain fraudulent activities. The standard further reemphasizes the need for professional skepticism on every audit engagement—even those in which the auditor has great familiarity with the client and its management.

A Proactive Approach to Fraud Detection

The public expects a proactive approach to fraud detection. That approach must start with planning the engagement with a proper consideration of the likelihood that fraud exists within the company. The planning process alerts auditors to "red flags" or potential fraud indicators that must be addressed on every engagement.

Planning the Audit The fraud approach is consistent with the overall risk-based approach to an audit engagement. The auditor must:

- Understand the business and the risks it faces
- Understand changes in the economy and how changes in the economy might affect the business

[4] Mark Beasley, Joe Carcello, Dana Hermanson, *Fraudulent Financial Reporting—1987–1997: An Analysis of U.S. Publicly-Traded Companies,* COSO, Copyright 1999.

- Understand potential management motivation to perpetrate a fraud
- Identify opportunities for other employees to conduct a defalcation
- Analyze current changes in the company's financial results to determine if the results look reasonable
- Identify areas that might be indicative of fraud, or fraud potential

The audit must be planned to detect material misstatements in the financial statements—whether the misstatements are due to errors or fraud. However, because fraud reflects on organizational leadership and the quality of controls, the threshold of materiality for some kinds of fraud (qualitative factors) may be lower than for simple errors. The bottom line for the auditor is that materiality must be based on the nature of the act and the nature of the deficiency in the company that allowed the intentional act. No outside user expects the auditor to search for a $50 misstatement of petty cash. However, there is a magnitude of fraud that is smaller than most materiality guidelines—and depending on who committed the fraud, it may be important to users. Because of this smaller magnitude of materiality, auditors will be performing more audit work than had been done prior to the corporate failures of the past decade.

Conducting the Financial Statement Audit—Fraud Awareness

Practical Point

The approach described below applies to all fraud, i.e., both defalcations and financial reporting fraud.

An overview of the process to integrate fraud risk assessment and fraud procedures into the audit of financial statements is shown in Exhibit 9.4. The overview is detailed and outlines ten major steps that should be implemented by the auditor in every audit engagement:

1. Understand the nature of fraud, the motivations to commit fraud, and the manner in which fraud may be perpetrated.
2. Develop and implement an approach based on "professional skepticism."
3. "Brainstorm" and share knowledge with other audit team members.
4. Obtain information useful in identifying and assessing fraud risk.
5. Identify the specific fraud risks, including potential magnitude, and areas likely to be affected by a fraud.
6. Evaluate the quality of the company's controls and potential effectiveness in mitigating the risk of fraud.
7. Respond, i.e., adjust audit procedures to assure that the audit adequately addresses the risk of fraud and provides evidence specifically related to the possibility of fraud.
8. Evaluate findings. If evidence signals that a fraud might exist, determine whether or not forensic or specialist auditors are needed to complete the investigation.
9. Communicate the possibility that fraud exists to management, or to the audit committee or the full board if the fraud is material and/or involves members of management.
10. Document the audit approach starting with step 1 through the completion of all of the steps identified above.

Practical Point

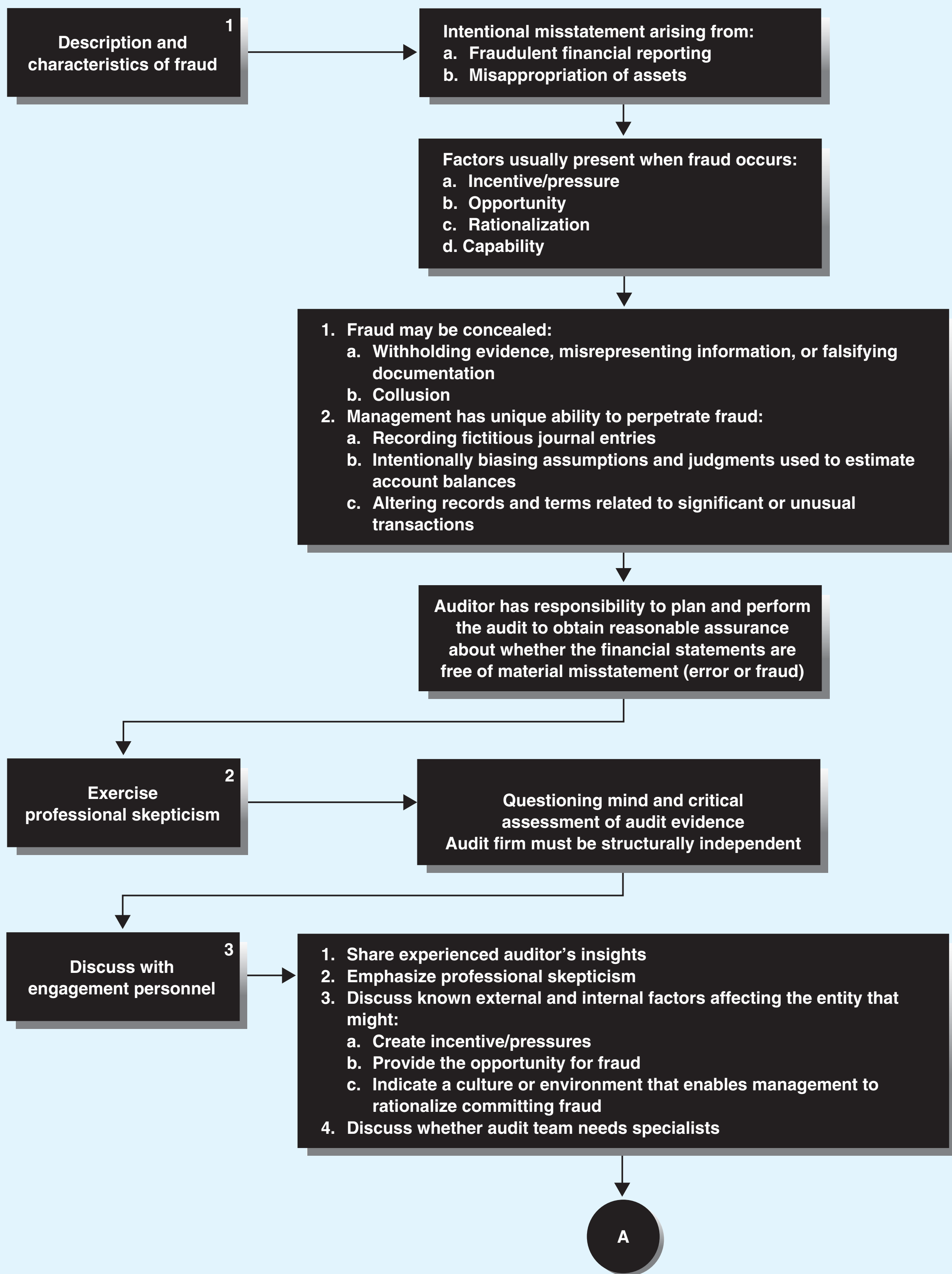
Auditing for fraud is not an "add-on" to the financial statement audit. It must be an integral part of every financial statement audit.

Note that the exhibit contains a number of decision points. Even though ten steps are identified, the auditor makes decisions and takes different pathways through the process depending on the nature of the risks present, the evidence obtained, and whether the evidence indicates a high probability of fraud. The approach outlined in Exhibit 9.4 is an ongoing process throughout the audit. The auditor constantly integrates new information into the overall fraud risk model and adjusts audit procedures based on those findings.

Motivations to Commit Fraud (Step 1) Research consistently shows that there are four factors associated with most fraud:

- Incentives or pressures to commit fraud
- Opportunities to commit fraud

EXHIBIT 9.4 Overview of Fraud Risk Process



(continued)

EXHIBIT 9.4 Overview of Fraud Risk Process (*continued*)

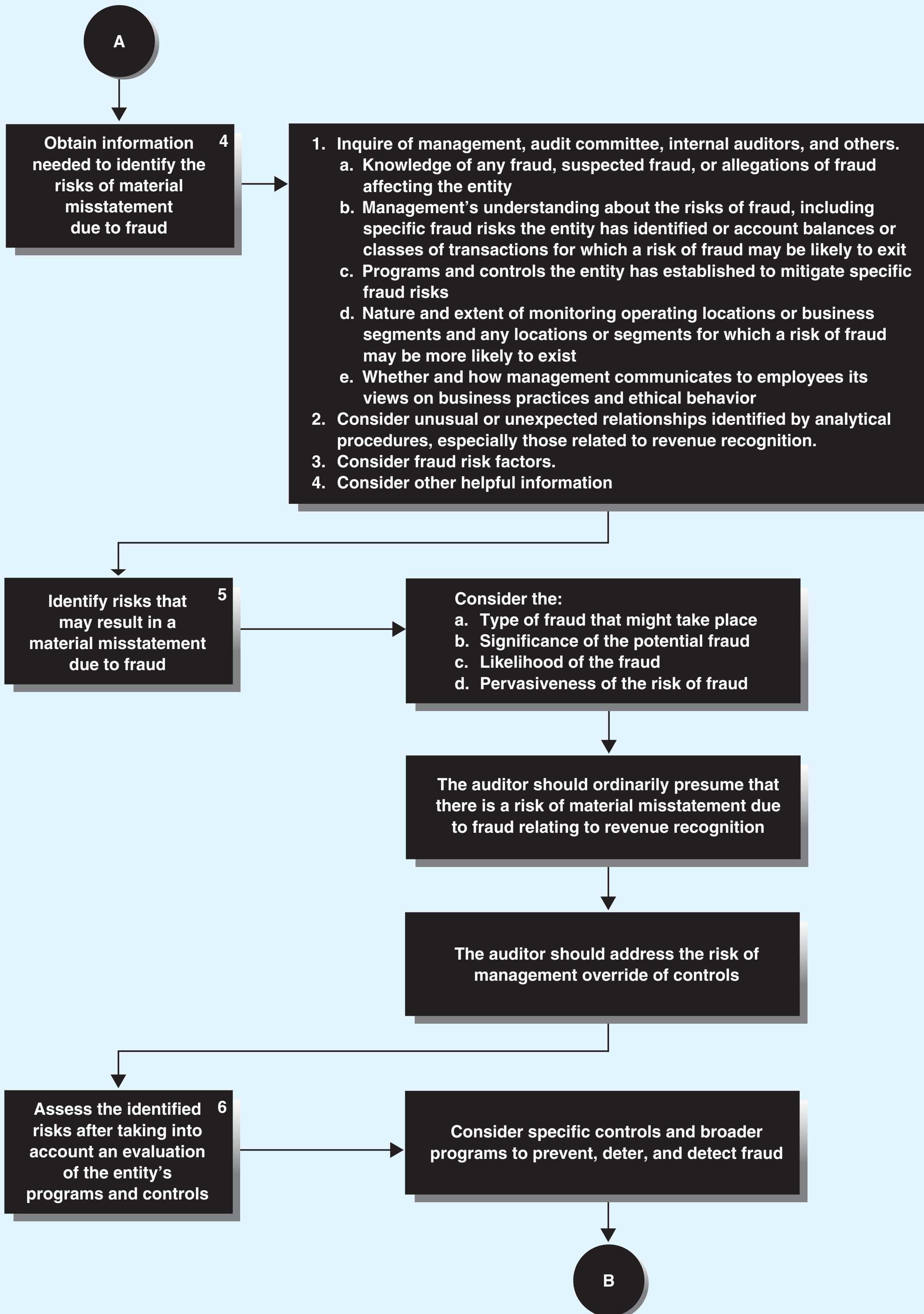


EXHIBIT 9.4 Overview of Fraud Risk Process (*continued*)

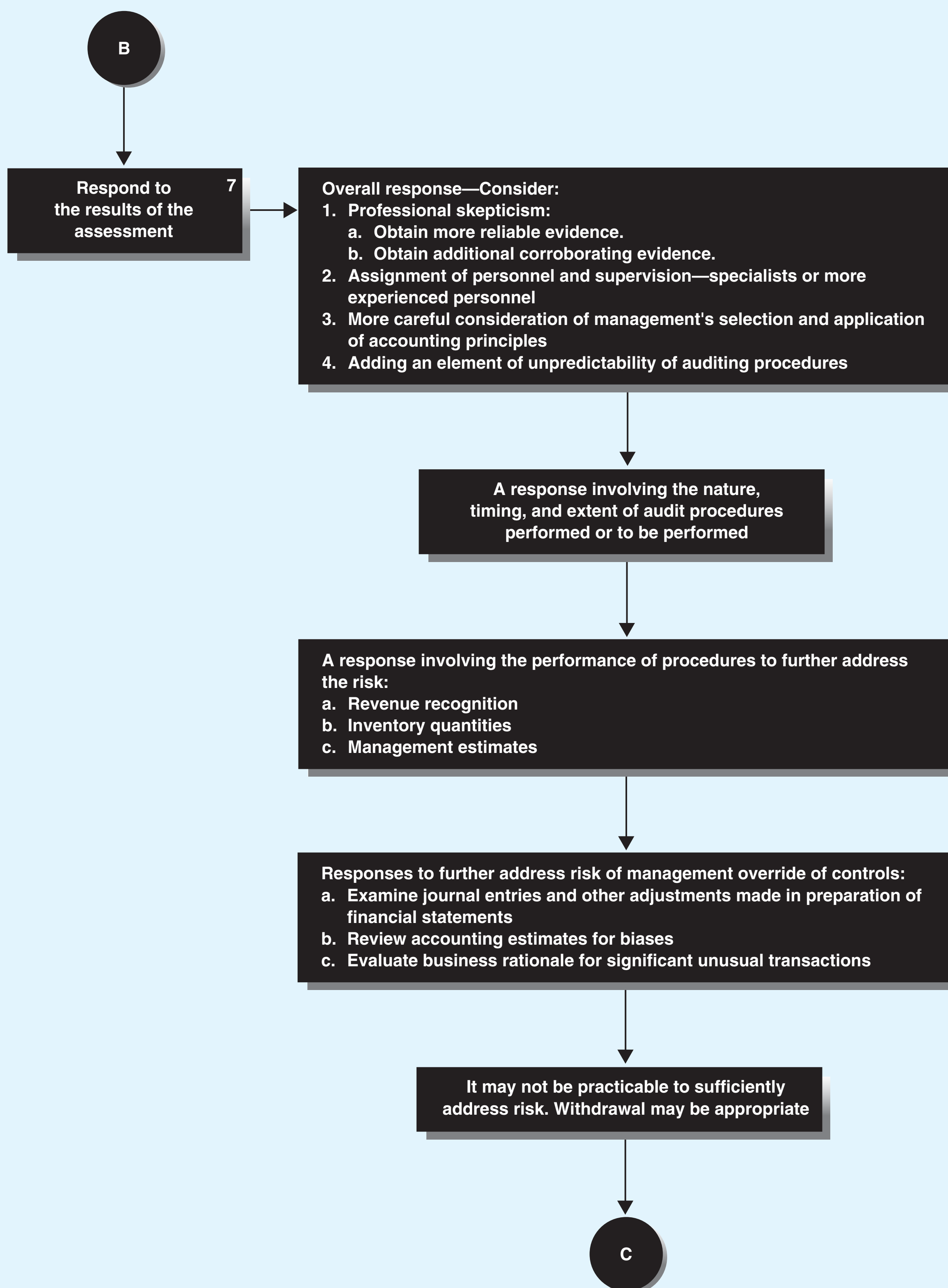


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EXHIBIT 9.4 Overview of Fraud Risk Process (*continued*)

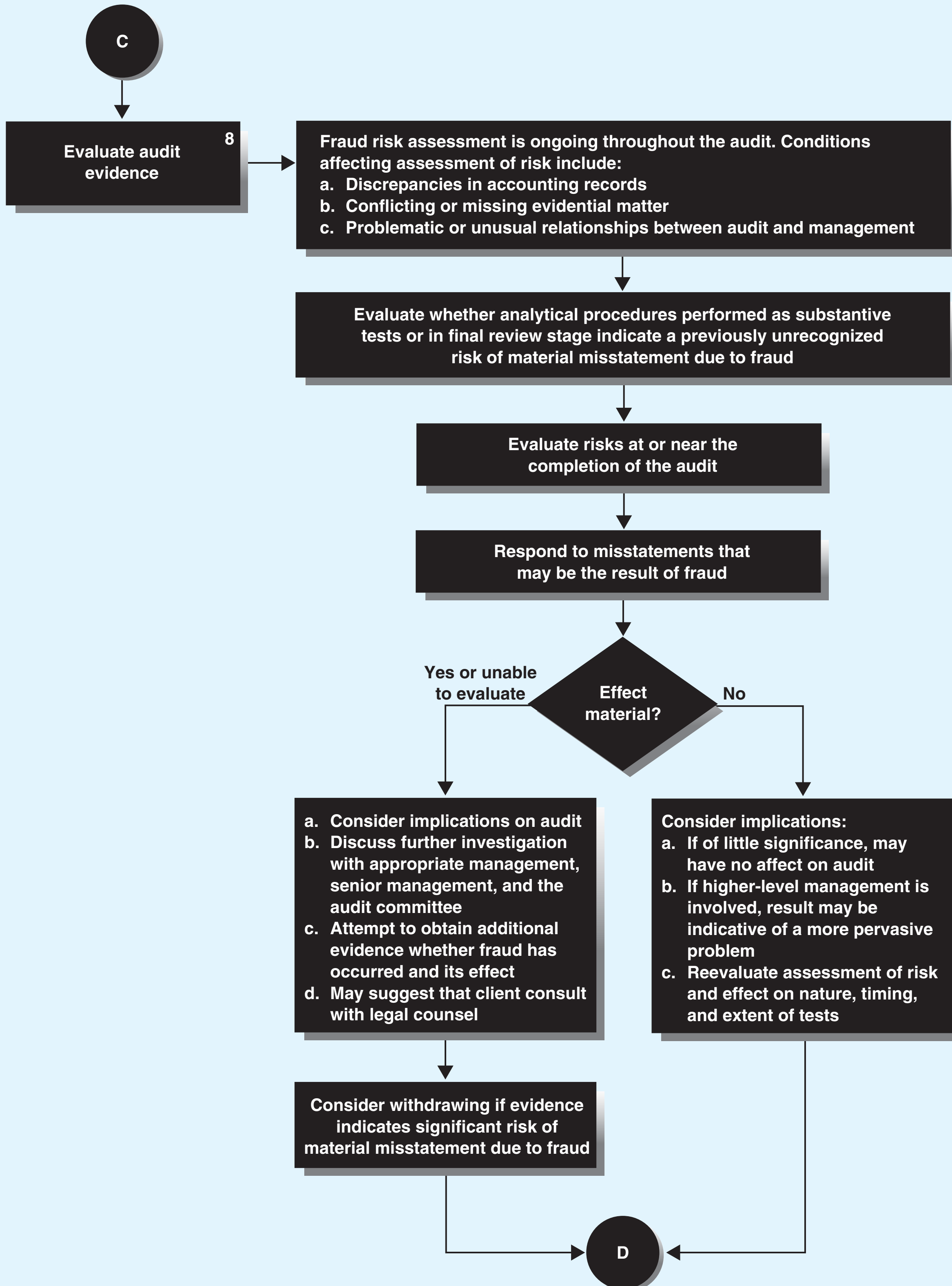
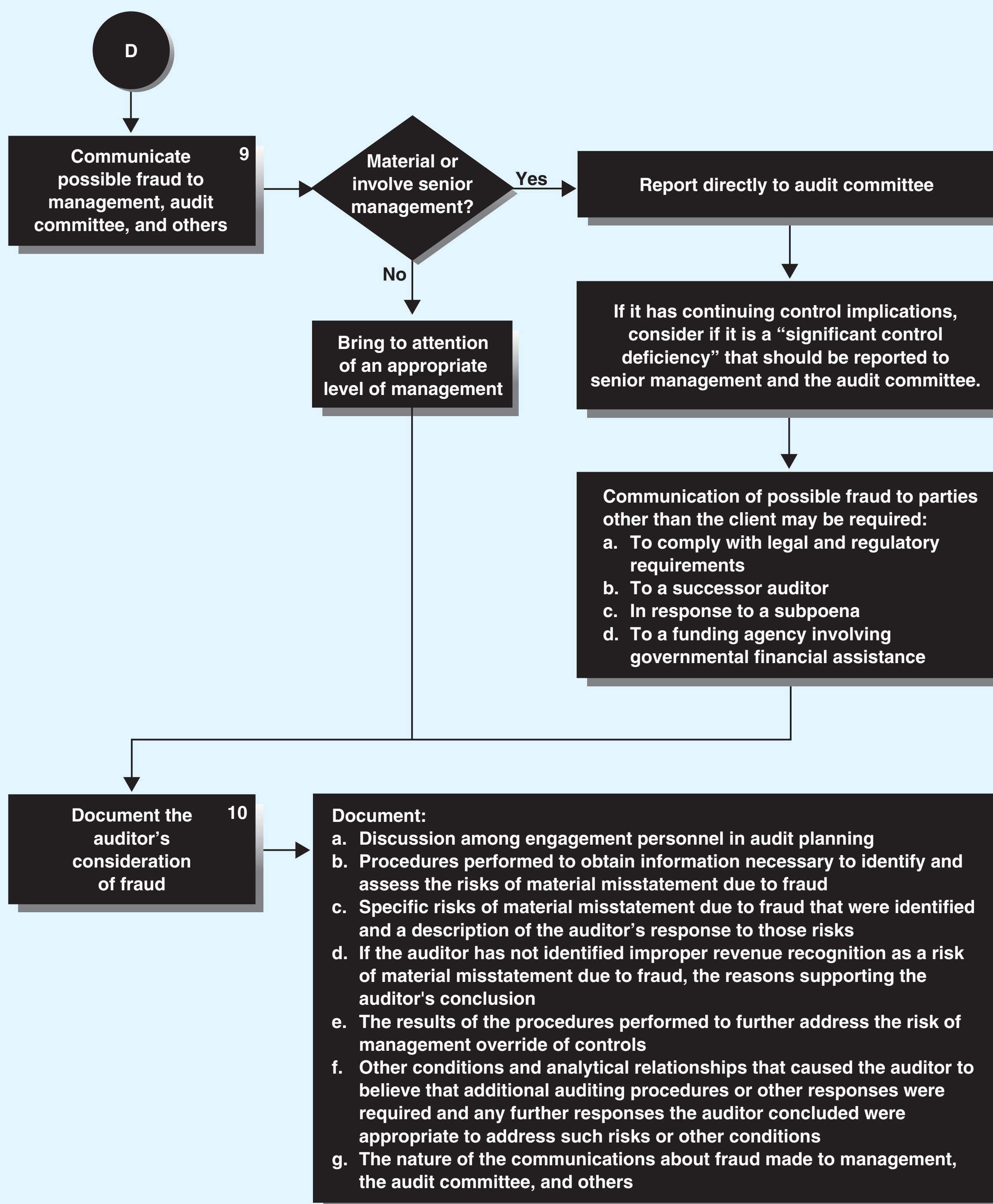


EXHIBIT 9.4 Overview of Fraud Risk Process (*continued*)



- Attitudes or ability to rationalize the fraud
- Capability consisting of ego, brains, and confidence to carry out the fraud

Motivations include incentives that range from personal incentives related to the stock price, personal crises such as medical expenses, or a lifestyle that cannot be supported without the fraudulent income. The AICPA has committed to maintaining a database on fraud and factors associated with fraud.

More Information

Updated information can be found at: http://www.aicpa.org/antifraud.

Incentives or Pressures to Commit Fraud The audit team should consider the incentives or pressures to commit fraud on each engagement, including the most likely areas in which fraud might take place. The pressures include the following:

- Management compensation schemes
- Other financial pressures for either improved earnings or improved balance sheet
- Personal factors, including the personal need for assets
- Debt covenants
- Personal wealth tied to either financial results or survival of the company

Personal Factors include various forms of management greed. Often that greed is tied to compensation schemes that involve stock options and manipulation of reported earnings to improve a company's stock price. These types of incentives most often lead to fraudulent financial reporting.

Debt covenants are contained in agreements between an entity and its lender that place limitations on the organization; usually associated with debentures or large credit lines. Common limitations include restrictions on dividend payments, requirements for a specified working capital or debt/equity ratio, and annual audits of company's financial statements to be furnished to the lender. Failure to satisfy these covenants may result in loans or bonds becoming immediately due and payable or redeemable.

Fraud in Action

One manifestation of management greed was the back-dating of stock options that took place for almost a decade before being uncovered in 2006. This scandal led to the resignation of a number of CEOs as well as corporate directors. Essentially, management backdated their own stock options to recognize a grant date that corresponded to the lowest price of the company's stock during the grant period.

Opportunities to Commit Fraud One of the most fundamental and consistent findings in fraud research is that there must be an opportunity for fraud to be committed. While this may sound trite, i.e., "everyone has an opportunity to commit fraud," it really conveys much more. It is not only that an opportunity exists, but there is either a (1) lack of controls or (2) complexity associated with a transaction such that the perpetrator assesses the risk of being caught as low. For example, a lack of segregation of duties may encourage a perpetrator to think he or she can take cash payments and cover the defalcation through adjustments to the accounts receivable. Alternatively, the size and complexity of Special Purpose Entities at Enron, or the sheer size of capital investments (as well as knowledge of audit procedures used by the external auditor) at WorldCom may have led the perpetrators to assess the likelihood of being detected as small. Some of the opportunities that the auditor should consider include the following:

- Significant related-party transactions
- Industry dominance, including an ability to dictate terms or conditions to suppliers or customers
- Management makes a number of subjective judgments regarding assets or developing estimates
- Simple transactions that are made complex through a disjointed recording process
- Complex or difficulty to understand transactions such as financial derivatives or special purpose entities
- Ineffective monitoring of management, either because the board of directors is not independent or effective, or there is a domineering manager
- Complex or unstable organizational structure
- Weak or non-existent internal controls

Attitude or Ability to Rationalize the Fraud Is it acceptable to push accounting to the limits as long as a standard does not prohibit a particular accounting treatment? Unfortunately, many auditors during the late 1990s and early part of 2000s felt that they were adding value by finding ways to "dress up the financial statements," even when the financial statements did not accurately portray real economic events.

The accounting profession unwittingly contributed to the ability of those motivated to commit a financial reporting fraud. The accounting profession contributed to the environment that let fraud occur by:

- Allowing accounting rules to become more permissive, i.e., management would ask to "show them why the accounting was not allowed"
- Thinking they were adding value by using their accounting skills to achieve management's objectives
- Compensating audit partners mostly on sales ability and profitability
- Letting management choose the auditors
- Letting consulting revenues overpower audit judgments

Practical Point

Some smaller, privately-held businesses will explicitly request the auditor to consider the possibility of defalcations that may be below the auditor's planned materiality level because the audit may also function as a control in these companies.

Capability Capability refers to the nature of the individual and the confidence that he or she can carry out the fraud. These are often referred to as ego, confidence, ability to coerce, and ability to handle stress. It also must include position. For example, only the CEO, CFO, or directors have the ability to back-date stock options. A person at a different level may be in a position to manipulate company assets for his or her own purpose. It is becoming more apparent that capability is one of the factors that must be considered in analyzing the fraud risk at any organization.

Enron: An Example of the Fraud Diamond Coming Together The fraud at Enron was not just due to the accounting profession. Many stock analysts did not do detailed analysis of companies and instead substituted "management guidance" as a basis for predicting future earnings. Management found they could borrow from the future to recognize current earnings, and did so when incentive contracts were heavily oriented to the current period. Furthermore, management possessed the *capability* component of the fraud diamond. As corroborated by the popular book, *The Smartest Men in the Room*, the leaders at Enron carried out the fraud with such bravado because they clearly believed that they were the smartest people in the room. If someone, including the *Wall Street Journal,* chose to disagree, they portrayed it simply as ignorance on their part. See Exhibit 9.5 for a description of how these factors all came together to create the Enron fraud—one of the largest frauds in business history. The exhibit shows failures in many different professions that contributed to the corporate downfall.

The nature of the fraud rationalization will often differ as to whether the fraud is a defalcation or a financial statement fraud. For defalcations, the personal

EXHIBIT 9.5 Enron: Where Everything Bad Came Together

THE COMPANY

Enron is the fraud of the late 1990's and early 2000's, representing of almost everything that was wrong with corporate governance, accounting, financial analysts, banking, and the accounting profession. How did it happen?

Enron was a utility company that developed a new concept and rode the new concept to unbelievable stock market highs. Just prior to its collapse, it had a stock value of $90 per share which eventually became worthless. The concept: it would increase market efficiency by developing the most sophisticated system in the world to trade electricity, natural gas, and related resources. It would divorce the production of energy—a capital intensive process—from the trading and use of the resources. It would improve market efficiency by increasing the scope of energy production and expanding the output of the local utility to the nation—and the world. Energy would flow where the highest market bid for it—a fundamental concept of economics. Enron hired MBA traders who were provided lucrative bonuses for meeting profit objectives. Competition among the traders was encouraged; risks were encouraged; but most of all reported profits were rewarded.

However, much of the company, at its heart, remained a utility. It needed heavy amounts of cash to support its trading position and it needed to continually report higher profits to sustain stock market valuations. Most of the top executives of the company were compensated primarily through stock.

(continued)

EXHIBIT 9.5 Enron: Where Everything Bad Came Together (*continued*)

THE FRAUD

The nature of fraud that took place was widespread. Most of the frauds involved Special Purpose Entities (SPEs) that were partnerships that often involved substantial loans from banks to be secured by assets transferred to the SPE, partners dominated by Enron executives, and a small outside interest (exceeding 3% per the accounting rule). The company transferred devalued assets to the SPEs and recognized gains on the books. It kept borrowing off the books by having the SPEs borrow from banks and purchase Enron assets. It even recognized over $100 million on anticipated sales that they hoped would occur with a joint venture with Blockbuster on rental movies over the Internet. The SPEs were used such that Enron's balance sheet looked healthy because it minimized the debt on the balance sheet; the SPEs also increased reported income by hiding all losses in the SPEs.

FAILURES IN ACCOUNTING AND GOVERNANCE

Why did Enron happen? What were the failures that allowed it to occur? Unfortunately, the answer is that the failures were widespread.

Management Accountability: Management was virtually not accountable to anyone as long as the company showed dramatic stock increases justified by earnings growth. Company management had a "good story" and anyone who questioned them was looked at as being stupid.[5] Compensation was based on stock price. And, apparently stock price was based on a good story and numbers.

Governance: Although the board appeared to be independent, most of the board members had close ties to management of the company through philanthropic organizations. Some board members hardly ever attended a meeting and they certainly did not ask hard questions. Finally, the board waived a "conflict of interest" provision in their code of ethics that allowed Andy Fastow, the treasurer of the company, to profit handsomely from related-party transactions.

Accounting: Accounting became more rule-oriented and complex. Accounting allowed practitioners to take obscure pronouncements, such as those dealing with Special Purpose Entities that were designed for leasing transactions and allowed the accounting concept to be applied to other entities for which such accounting was never intended. Accounting was looked at as a tool, not as a mechanism to portray economic reality.

The Financial Analyst Community: The stock market was following the bubble of the dot-com economy and concluded they did not have tools to appropriately value many of the emerging companies. Rather than analyze the underlying fundamentals, the analysts insisted on "earnings guidance" by management. Those that achieved the projected guidance were rewarded; those who did not were severely punished. Analysts came to accept "pro forma accounting statements," more aptly described as what results would have been if nothing bad happened.

Banking and Investment Banking: Many large financial institutions were willing participants in the process because they were rewarded with large underwriting fees for other Enron work. Enron management was smart enough to know that the investment bankers were also rewarded on the amount of fees they brought in the door.

The Accounting Profession: At the time of Enron, none of the largest five public accounting firms referred to themselves as public accounting firms; rather they were professional service firms with diverse lines of business. All of the firms had large consulting practices. Arthur Andersen performed internal audit work for Enron in addition to performing the external audit. The consulting fees of many clients exceeded the audit fees. Partners were compensated on revenue and profitability. Worse, they were hired by the management teams whom they had to please.

There were plenty of parties at fault.

rationalizations often revolve around mistreatment by the company or a sense of entitlement (i.e., the company owes me!) by the individual perpetrating the fraud.

Exercise Professional Skepticism (Step 2) Audits must be performed with professional skepticism that involves such things as questioning and corroborating management responses to inquiries and determining the authenticity of documents.

Audit Team Brainstorming (Step 3) The audit team should **brainstorm** about the possibility of fraud and the manner in which fraud might be committed prior to

[5] A great description of the culture and arrogance of Enron management is detailed in the book, *"The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron,"* by Bethany McLean and Peter Elkind, New York, Portfolio: A Division of Penguin Books, 2003. The authors were both editors at *Fortune Magazine.*

the start of the audit. This brainstorming exercise should include all members of the audit team and be both thorough and systematic. The audit team should consider factors that might affect management motivation to misstate the financial statements. The initial analysis is followed up with a consideration of weaknesses in internal control that would allow a fraud to take place. When preliminary financial information is available, the audit team should then consider whether any account balances seem to be out of line with expectations. The brainstorming session is designed to develop a list of most likely places that fraud could occur and how it could occur. SAS 99 identifies the following specific brainstorming recommendations:

- *Consider how fraud can be perpetrated and covered up.* Consider the risk of fraud, including the risk that the fraud could be cleverly covered up in false documents or supporting evidence the auditor normally examines.
- *Presume fraud in revenue recognition.* The auditor should presume that fraud takes place in revenue recognition and overstatement of certain assets that are susceptible to manipulation and cover-up.
- *Consider incentives, opportunities, and rationalization for fraud.* The auditor should specifically consider all the elements that may make fraud more likely, including the nature of executive compensation and pressure to meet earnings targets.
- *Consider industry conditions.* The auditor must understand what is going on in the industry and how it might affect the company. Changing technology is important, as is declining customer demand for the company's products.
- *Consider operating characteristics and financial stability.* The audit team should consider the existence of significant, complex, or convoluted transactions as well as significant changes in financial condition.

Brainstorming is not just an audit team exercise. It must be an integral part of the audit approach. An example of how brainstorming would have changed the audit approach and would have discovered a fraud that the auditors did not discover is shown in Exhibit 9.6. In reading the exhibit, it is important to understand that there is a systematic approach to brainstorming. There are potential implications for each part of the analysis of company operations, i.e., its background, including competitors, ownership, and management motivation; the comparison of industry growth with company growth; weaknesses in the client's internal controls; and the process used by the company to make adjustments to sales and accounts receivable. The audit team brainstorms and generates a number of hypotheses as to what might have caused the changes in the client's financial data. The key point is to then challenge each other to determine if there is one hypothesis that more likely explains the changes in account balances than all others. Brainstorming is enhanced when the audit team simultaneously considers all related changes in the financial data.

Fraud Skepticism: Changing Audit Procedures (Steps 2 and 3) As a result of the brainstorming analysis, the auditor should adopt audit procedures as shown in Exhibit 9.6 to determine if fraud is present. Because there is a possibility of fraud, the auditor should recognize that evidence might not be quite what it seems to be. SAS 99 suggests the auditor consider the following in performing audit procedures:

- *Greater susceptibility of evidence manipulation.* Management or others will work hard to cover up a fraud. The auditor needs to consider the alternatives management might have to cover up a fraud.
- *Journal entries are important.* Many frauds are covered up through non-supported journal entries or accounting estimates. A prime example is the fraud at WorldCom where expenses were reduced through write-downs of reserves as well as by capitalization of expenses.
- *Great skepticism of management responses.* Greater skepticism to be given to management responses coupled with an increase in the amount and persuasiveness of evidence required to corroborate management responses to auditor inquiries.

EXHIBIT 9.6 Using Brainstorming to Change the Audit Approach

COMPANY BACKGROUND

ABC Wholesaling is a wholesaler located in Milwaukee, Wisconsin. It operates in a very competitive industry, selling products such as STP Brand products and Ortho Grow products to companies such as Kmart, ShopKo, and regional retail discount chains. The company is privately owned and experienced financial difficulty last year. Continued financial difficulty would lead to its major line of credit being called. The company is under pressure to show profits this year.

Brainstorming Analysis:

- Industry is very competitive. Wholesalers are being replaced with direct purchase from a fewer number of suppliers.
- Company is privately owned. Management's wealth ego or existence is tied into the success of the company.
- The company must be profitable or its major loan will be called. If it is called, it will most likely put the company out of business.
- Company is relatively small; it is likely that internal controls are not strong.

Implications:

There is strong motivation to misstate the financial statements. Economic conditions do not favor the client. If there are poor controls, the auditor must consider where the weaknesses will facilitate misstatement. Following SAS 99, it is reasonable to presume that fraud might exist in revenue.

INDUSTRY AND ANALYTICAL ANALYSIS

The auditor has preliminary (unaudited) data for the year as well as a comparison with the previous year:

	Current Year (000) omitted	Previous Year (000) omitted
Sales	$60,000	$59,000
Accounts Receivable	$11,000	$7,200
Percent of Accounts Receivable Current	72%	65%
No. of Days' Sales in Accounts Receivable	64	42
Gross Margin	18.7%	15.9%
Industry Gross Margin	16.3%	16.3%
Increase in Nov.–Dec. Sales over Prior Year	12.0%	3.1%

Brainstorming Analysis:

- Sales have only gone up marginally, but accounts receivable has increased dramatically.
- No. of days in Accounts Receivable has increased, although more are current suggesting that sales were recorded at or near the end of the year—possibly to meet profit objectives.
- Gross margin has increased over the past year and is much higher than the industry average.

Implications

It appears that an unusual amount of revenue was recorded near the end of the year. In a highly competitive industry, it is not reasonable to assume that the company would have dramatically increased gross margin above the industry average. The presumption of misstatement in revenue appears to be proper.

MANAGEMENT INFORMATION AND CONTROLS

Management explains that the change is due to two things: (1) a new computer system that has increased productivity; and (2) a new policy of re-billing items previously sold to customers, thereby extending the due dates from October to April. The re-billing is explained as follows: many of the client's products are seasonal, for example, lawn care products. To provide better service to ABC's customers, management instituted a new policy whereby management negotiated with a customer to determine the approximate amount of seasonal goods on hand at the end of the selling season (October). If the customer would continue to purchase from the client, management would re-bill the existing inventory, thereby extending the due date from October until the following April, essentially giving an interest free loan to the customer. The customer, in turn, agreed to keep the existing purchases and store them on their site for next year's retail sales. Most of the re-billed items occurred with very large customers.

Supplemental Brainstorming Analysis:

- Increased productivity is probably needed to stay even.
- Most sales of this type do not have a return guarantee to a wholesaler.
- The new invoices are all going to companies that normally do not return accounts receivable confirmations.
- The invoice re-billings should not cause sales to increase because the previous sales should have been reversed.

Implications:

The rationale does not explain the large increase in gross margin, nor does it explain the increase in sales.

EXHIBIT 9.6 Using Brainstorming to Change the Audit Approach (*continued*)

ADJUSTING THE AUDIT APPROACH

The auditor must consider that fraud has taken place and has been used to inflate revenue for the amount of the "re-billed invoices." Inflated revenue is one of the few explanations that (a) would explain all the changes in the ratios identified above and (b) be consistent with management motivations and opportunity to keep the company alive. Based on this presumption, the auditor modifies the audit procedures as follows:

1. Develop a list of all re-billed invoices to determine magnitude.
2. For every re-billed invoice, trace billing amounts to credit memos that are issued against the original invoices and to the general ledger.
3. Since many of the clients will not respond to account balance confirmations, consider sending confirmations based on individual invoices, including a high percentage that contain the re-billed amounts.
4. Examine all customer balances that contain re-billed items and examine cash receipts after year end to see that they are credited to the proper customers.
5. For companies that show a large amount of re-billings, contact the company via phone or some other personal method to verify the existence of the extended credit process.
6. Continue to examine industry information to determine if similar arrangements exist.

POSTSCRIPT

All of the re-billed invoices were fictitious and accounted for the large increase in sales and profitability of the company. The fraud was not found by the auditor, but it would have been easily identified if the auditor followed the six audit procedures described above. The second procedure, tracing the invoices to credit memos and then to the general ledger, would have led to the discovery of the fraud. The company did generate "fake" credit memos, but they were never recorded in the general ledger. Because the auditor was not skeptical, the auditor never bothered to trace the credit memos to the general ledger (it was viewed as a mundane task).

- *New technology facilitates new methods to perpetrate fraud*. New types of organizational structures, new entities, or complex financial instruments provide opportunities to cover up fraud through either unnecessary complexity or even by side agreements among entities. Computerized information systems provide new opportunities to change documentation and methods of committing fraud.
- *Recognition that collusion may be likely*. The collusion may be among entity employees, but could also occur between management and third parties.
- *Predictability of audit procedures*. The audit team should work to eliminate predictability in audit procedures, such as rotating tests of particular assets over a period of time or conducting surprise audits, to reduce the opportunities for a perpetrator to effectively cover up a fraud.
- *Analytical procedures should tie to operational or industry data*. The auditor should not look just at relationships within the financial statements. Rather, the auditor should analyze financial data in relationship to other operational data such as production capacity or purchased supplies and to industry information.

Auditors need to conduct audits with a mindset that the possibility of material misstatement due to fraud exists even if all the past experiences with a company have been positive. More to the point, *the auditor should not be satisfied with less-than-persuasive evidence because of a belief that management is honest*.

Responses by management to auditor inquires must be corroborated by factual information and additional analysis.

Obtaining Information about Fraud Risk (Step 4) The auditor's responsibility for planning the audit has not changed. However, the auditor should identify specific procedures that could signal the possibility of fraud. Some of the procedures that may be considered by the auditor include the following:

- Making inquiries of management and others, e.g., audit committee chairs, to obtain their views about risk of fraud and controls set up to address those risks
- Performing analytical procedures and considering any unusual or unexpected relationships

- Reviewing the risk factors identified earlier (incentive, opportunity, rationalization, and capability)
- Reviewing management responses to recommendations for control improvements and internal audit reports

Analytical Indicators of Risk Fraud risk indicators are easily identified through analytical comparisons such as trend analysis or ratio analysis. As noted earlier, the auditor cannot be effective by evaluating each ratio or trend by itself; rather the auditor needs to analyze the effect of all the changes in key financial components to determine interrelationships. Some of the key analytical factors the auditor should develop are shown in Exhibit 9.7

Identifying Risks of Fraud (Step 5) The auditor should examine each of the four fraud risk conditions (incentive, opportunity, rationalization, and capability) to determine the likelihood of fraud. All four need not be present. The auditor

EXHIBIT 9.7 Analytical Indicators of Fraud Risk

Financial Indicator	Potential Fraud Risk
Large Revenue Increase at End of Quarter	Revenue is often manipulated at end of period to meet earnings targets. Fraudulent transactions include · Channel stuffing · Holding books open and recording revenue of subsequent period · Fictitious sales · Round tripping
Sales Increase Larger Than Industry That Doesn't Seem to be justified by Product	The auditor must consider the competitive advantage of the company and its products. If sales are increasing while all of the competitors are experiencing a downturn in sales, the auditor's suspicion of fraudulent or misstated transactions should be heightened.
Unusually Large Increase in Gross Margin and Net Profit	Unusual increases in the gross margin may be due to productivity gains or changes in product lines. However, they are often due to: · Failure to record all costs of goods sold and expenses · Double billing of invoices · Fictitious sales · Decrease in the quality of product
Increase in Returns after End of Year	Unusual increases in returns after the end of the year usually indicate either (a) quality problems, (b) side agreements on the sale, or (c) channel stuffing.
Increase in No. of Days Sales in Receivables	Companies cannot collect cash from fictitious customers, or customers who have side agreements to defer payment or return goods. Significant increases in # days sales in receivables, or ratios that are significantly higher than industry averages, should be a signal of high fraud risk.
Increase in No. of Days Sales in Inventory	Inventory is often used to hide problems. More frauds have been hidden in fictitious inventory than just about any account other than revenue.
Significant Change in Debt/Equity Ratio	Companies that are financially distressed will often be motivated to keep a debt/equity ratio under loan covenant agreements. Financial stress is a strong fraud risk indicator.
Cash Flow or Liquidity Problems	Companies eventually need cash to pay employees, vendors, debt holders, and owners. A company that shows strong sales and profitability, but low or negative cash flow from operations, indicates high fraud risk.
Significant Changes in Non-Financial Performance Measures	Each industry has its key performance indicators; for example, manufacturing backlog. The auditor should monitor these key performance indicators for significant changes that are not consistent with financial results.

should be aware that certain classes of transactions are highly susceptible to fraud, such as estimates, those that involve complex accounting principles, or those that are complex in structure. The auditor must consider the following:

- The *type* of fraud that might occur
- The *potential significance* of the fraud, both in quantitative and qualitative terms
- The *likelihood* of an occurrence of fraud
- The *pervasiveness* of the risk that fraud might occur

The auditor should always presume there are risks associated with revenue recognition, and management override of controls.

Internal Control and Fraud Risk (Step 6) Internal control weaknesses are a strong indication of fraud risk. The analysis of internal control and the potential for fraud should be made at all levels of the model. Although the traditional emphasis is on the recording of transactions, the analysis must include the "tone at the top" component. An overview of questions that should be addressed in assessing the fraud risk related to internal controls is shown in Exhibit 9.8.

EXHIBIT 9.8 Assessing Fraud Risk—The Tone at the Top

Control Area	Questions/Evidence
Corporate Governance	Is the board truly independent and knowledgeable? Does the board meet often enough to understand the company and potential problems? How is the board compensated? Are the directors dominated by management?
Management Control and Influence	Does management have the ability to unduly influence actions by subordinates that seem to instill unusual loyalty to management? For example, using loans to key people who are subsequently forgiven.
Audit Committee	Is the audit committee both independent and financially literate? How active is the audit committee? Does the audit committee follow up to both internal and external audit findings? Does the audit committee understand internal control? Does the audit committee meet with auditors without management present?
Corporate Culture	What is the nature of the organization's corporate culture? How are employees rewarded? How is performance monitored? What pressures are there to make sales or earnings goals? Do employees understand their individual responsibilities for controls? What is the quality of leadership? How is wrongdoing dealt with?
Internal Auditing	Does the company have an internal audit department? Is the internal audit charter consistent with "Best Practices"? How is the budget for the internal audit department developed and approved? How is the scope of internal audit determined? Does internal audit perform primarily control audits or operational audits? Are internal audit recommendations followed up and implemented? How competent is the internal audit activity? Does the internal audit group, or some other group, regularly monitor compliance with the company's Code of Ethics?

(continued)

EXHIBIT 9.8 Assessing Fraud Risk—The Tone at the Top (*continued*)

Control Area	Questions/Evidence
Monitoring Controls	Does the organization have effective monitoring controls? Do monitoring controls signal control failures in a timely fashion so that corrective action can be taken?
Whistleblowing	Does the organization have an effective whistleblowing function? Is the whistleblowing function sufficiently independent of management and does the organization have the resources to follow up on problems? Are summaries of items reported to the whistleblowing function summarized and provided to management and the audit committee?
Code of Ethics	Does the company have a code of ethics? Is there evidence that the code of ethics is complied with? Do employees exhibit "buy in" to the code of ethics? Is there evidence encountered during the audit that exhibits non-compliance with the Code? Do employees or managers regularly "pad" their expense accounts? Is there any evidence that corporate assets are misused?
Related Party Transactions	Does the company have a policy regarding related party transactions? Is the policy effective? Does the company regularly engage in related party transactions? Are related party transactions regularly disclosed to the auditor and the board? Are there significant economic motivations for the related party transactions that justify their existence?

Developing the Revised Audit Plan (Step 7) The "brainstorming process" should lead the audit team to a point where they can identify the likelihood of fraud and how the fraud might happen. Given the audit team's knowledge of industry, management motivations, and the entity's control structure, the audit team should develop hypotheses about how fraud could be conducted and covered up. These hypotheses should be prioritized based on:

- Analytical review results that indicate unusual relationships
- Current economic conditions and their impact on the entity
- Quality of the company's controls

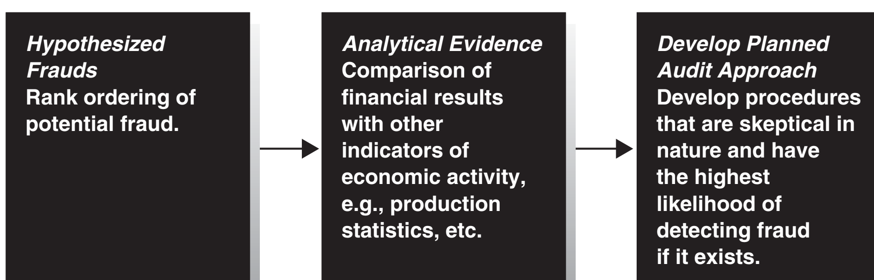
> ***Practical* Point**
>
> The audit team should generate its hypotheses before soliciting management's explanations. Management's views might otherwise narrow the auditor's hypotheses.

The audit team should design specific audit tests based on the ranking of the most likely format of a fraud, and then move down the list. The audit team should always obtain additional corroboration of management's explanations or representations. For example, in Exhibit 9.6, the most likely explanation is that the client was re-billing previous bills to customers, but not sending the invoice to the customer, and not recording credit memos to the customers. The auditor had traditionally not confirmed accounts receivable because many customers did not respond to the confirmations. However, there is a high risk that accounts receivable is misstated based only on the analysis of the fraud components. The auditor must consider alternative ways to gain satisfaction as to the correct balance of receivables.

Preliminary Fraud Risk Assessment Is High When a high risk of material fraud exists, the auditor must:

- Consider assigning more experienced personnel or specialists to the engagement team.
- Pay close attention to accounting areas that are highly subjective or those that are complex.
- Decrease the predictability of audit procedures. Surprise visits, observation of assets, and performing more procedures at year end are all examples of procedures that would decrease predictability.

Adjusting Audit Procedures to Fraud Risk The audit approach leads from brainstorming to a rank ordering of hypothesized fraudulent activity that might take place. Next, the auditor identifies the type of evidence, such as results of analytical procedures, that could provide insight on the existence of a potential fraud. The auditor then develops and implements audit procedures that are directly responsive to the fraud risks.



The *nature* of audit procedures may be changed to obtain additional corroborative evidence, or to obtain more direct evidence. For example, the auditor may extend confirmation procedures to include direct correspondence with customers, or may confirm major attributes of a sales contract. Or the auditor may choose to observe the counting of inventory at all locations rather than at selected locations.

The *timing* of the gathering of evidence may also change. For an example, more of the substantive testing, such as the observation of inventory or direct tests of accounts receivable, may take place at year end. Cutoff tests for both sales and inventory may be extended and conducted at year end.

The *extent* of procedures should be directly related to the audit team's assessment of the likelihood of risk. The audit team may be encouraged to do more analysis by utilizing generalized audit software to examine a larger percentage or all of a population.

Examples of extended audit procedures include the following:

- Performing procedures at locations on a surprise or unannounced basis
- Requiring that inventories be counted and observed at year end
- Making oral inquiries of major customers and suppliers
- Performing analytical procedures using disaggregated data that would show more unusual fluctuations
- Examining details of major sales contracts
- Examining financial viability of customers
- Examining in detail, all reciprocal transactions or similar transactions between two entities, e.g., sales of similar assets to each other, to determine the economic viability and the correspondence with similar transactions in the marketplace
- Making a detailed examination of journal entries, particularly those at year end

Evaluating Audit Evidence (Step 8) The auditor's skepticism should be heightened whenever:

- *There are discrepancies in the accounting records.* These include transactions not recorded in a timely fashion, unsupported transactions, last-minute adjustments, or situations in which the auditor has tips or complaints about alleged fraud.
- *The auditor finds conflicting or missing evidential matter.* Examples include missing documents, altered documents, significant unexplained reconciliations, missing inventory, unavailable or missing electronic evidence, or the inability to produce evidence related to the design and operation of the entity's computerized information system.
- *The relationship with management seems strained.* Examples of such problems might include: denial of access to records, undue time pressures, unusual delays in providing

Practical Point

The Equity Funding fraud, among many others, was covered up because the auditor provided management with time to "manufacture" documents to meet the auditor's request.

requested information, unwillingness to provide electronic data or access to electronic systems, or an unwillingness to revise disclosures in response to an auditor request to make such disclosures more transparent and informative.

The auditor should always be alert to an unusual amount of revenue being recorded near year end, or at the end of quarterly reporting time frames. Similarly, the auditor should examine all accruals or changes in estimates that occur in a similar time frame. The audit team should always consider the relationship of reported financial results with underlying economic factors. For example, the auditor should ask whether:

- Reported net income mirrors cash inflows over a period of time.
- There is consistency between operating accounts, most especially those of inventory, accounts receivable, accounts payable, sales, and cost of goods sold.
- The entity's profitability trends differ significantly from the industry's trends. For example, why would a bank have loan loss rates that are one-half of that of the rest of the industry when its loan portfolio mirrors that of the rest of the industry?
- There is a viable relationship between sales and production data.

Practical Point

If the auditor cannot gather sufficient independent and objective evidence, the auditor cannot rely on just management representations. Rather, the auditor should conclude that the entity is unauditable and withdraw from the engagement.

The bottom line is this: auditors need to exercise judgment. They need to understand the business and they need to have a strong knowledge base to both ask questions and to analyze responses they receive. When discrepancies exist, the audit team must follow up with further information and evidence that either corroborates management's view or indicates there is a real problem that is going to require financial statement adjustment.

Communicating the Existence of Fraud (Step 9) All fraud should be communicated to a level at which effective action can be taken to ensure that the fraud will be dealt with and the likelihood of similar fraud in the future will be decreased. Whenever fraud involves senior management, or involves misstatements that are material to the financial statements, the existence and nature of the fraud should be reported to the audit committee and through them to the board. In some cases, the auditor may be required to report the fraud to outside parties, such as to meet regulatory requirements. Finally, the existence of fraud, by definition, implies that the company has weaknesses in internal control because the fraud was not prevented nor detected by the internal controls. Depending on the materiality of the fraud, the auditor may need to report on the material weaknesses in internal control.

Public/Non-Public Clients

Non-public companies are not required to publicly report on internal control; thus weaknesses that allowed fraud to occur are not communicated to outside parties.

Defalcations and Required Communication If the financial statements are materially misstated, they obviously must be corrected in order for the auditor to give an unqualified opinion. The question that remains is whether the auditor needs to communicate that a material fraud occurred in order for the financial statements to be fairly presented. In answer to that question, consider the following two examples: (1) Wal-Mart and other retailers are susceptible to shoplifting as a normal part of running their businesses; (2) a manufacturing company that has an employee steal a material amount of cash receipts does not view the defalcation as a normal part of business.

The profession has responded that GAAP does not require that the shoplifting loss incurred by a retail firm is a separate line-item on the financial statements even though many users believe it should be reported as part of management's governance requirements or control reporting. On the other hand, the defalcation in the manufacturing company is not an ordinary business expense, i.e., it should not be viewed as a cost of doing business. More descriptive, it is a loss that was due to poor or nonexistent internal controls. GAAP would normally require that a material loss due to defalcations be separately classified from other operating expenses. For public companies, a material defalcation reflects a weakness in internal control and should be reported as such. The defalcations should be reported to the audit committee and board of directors. It is the board's and management's responsibility to communicate with regulatory authorities if the nature of the fraud is

such that regulatory authorities would require such communication. If the required communication does not take place, the auditor may (a) consider withdrawing from the engagement, (b) consider the potential contingent loss and see that it is disclosed on the financial statements, or (c) modify the audit report to communicate the needed disclosure.

Financial Statement Fraud: Required Communication The auditor must first determine that the financial statements have been corrected. The auditor then must communicate the existence of fraud to management, the Board, and to the audit committee. If the fraud involves top management, the auditor must assess the actions taken by the Board to rectify the problem. If sufficient actions are not taken, the auditor must consider the overall control environment and the possible need to resign from the audit engagement. If the financial statements are not corrected then the auditor should issue a qualified or an adverse opinion on the financial statements. The financial statements should reflect the losses due to the fraud.

Audit Documentation (Step 10) The audit team should document the procedures that have taken place to search for fraud and the rationale for those procedures. That documentation must include the nature of the discussion among audit team members and the team's assessment of fraud risk, as well as how a hypothesized fraud might take place. Finally, the documentation should include a discussion of the factors that affected the risk assessment, the procedures performed, the need for corroborating evidence, the effect on the audit, and finally, the evaluation of audit evidence and communication to required parties.

Audit Procedures When Fraud Risk Is High

Characteristics of Financial Reporting Frauds

The financial reporting frauds of the past decade have been carried out at times with very low levels of sophistication. An overview of the some of the major frauds and the nature of the frauds are shown in Exhibit 9.9.

EXHIBIT 9.9 Summary of Major Financial Reporting Frauds

Company	Nature of the Fraud
Enron	Covered up financial problems by: • Shifting debt to off-balance sheet special entities • Recognizing revenue on impaired assets by selling them to special-purpose entities that they controlled • Engaging in round-tripping trades, i.e., trades that eventually found the assets returning to Enron after initially recognizing sales and profits • Numerous other related party transactions
WorldCom	Decreased expenses and increased revenues through the following: • Recorded bartered transactions as sales, e.g., trading the right to use lines in one part of the world to similar rights to another part of the world • Used restructuring reserves established through acquisitions to decrease expenses, i.e., over accrued reserves upon acquiring a company and later "releasing" those reserves to decrease expenses of future periods • Capitalizing line costs (rentals paid to other phone companies)
Lucent	Enhanced quarterly revenues by "channel stuffing"; i.e., increasing sales at the end of the quarter at amounts greater than customers could actually take. Customers were informally given a very large "grace" period in which they could pay for the goods, or return the goods.

(continued)

EXHIBIT 9.9 Summary of Major Financial Reporting Frauds (*continued*)

Company	Nature of the Fraud
Parmalat	Company siphoned cash off of subsidiaries through a complex scheme that: • Overstated cash and included the false recording of cash ostensibly held at major banks • Understated debt by entering into complex transactions with off-shore subsidiaries in tax-haven places such as the Caribbean
HealthSouth	Recorded fictitious revenue across its 250 clinics and hospitals. Some of the billings actually went to the government for Medicare reimbursement. A wide variety of schemes were used including: • Billing group psychiatric sessions as individual sessions, i.e., with ten people in a group the company billed for ten individual sessions instead of one group session • Using adjusting journal entries to both reduce expenses and enhance revenues
Addeco	Overstated revenue by holding the books open for 20–35 days after the end of the year to record sales from the subsequent period as current period sales

Some of these frauds involve complex revenue recognition schemes; others involve incorrect billings to the government; others involved old-fashioned "holding the books open" to record next year's sales; while still another simply involved capitalizing expenses. The pattern of frauds also implies the following for the design of audit procedures:

- The auditor should not be pressured by the client's desire to release annual earnings at an early date. If there are potential problems with revenue, the audit cannot be completed until there is sufficient time to examine major year-end transactions.
- The auditor must dissect complex transactions to determine their economic substance and the parties that have economic obligations.
- Auditors must use "basic" audit procedures, i.e., a risk-based approach to the audit has to be more than just performing analytical procedures. These include: (a) testing additions to capital assets by examining underlying documentation, (b) performing cutoff tests at the end of the period to ensure that revenue is recorded in the correct period, and (c) examining the support for billings.
- The auditor may need to go beyond standard confirmations to determine existence of assets that are dependent on other parties, e.g., cash assets or accounts receivable.

Practical Point

When fraud risks are present, the auditor must perform basic tests and cannot assume that accounts like fixed assets are not risky.

Characteristics of Defalcations

In their 2006 Report to the Nation, the ACFE reported that about 90% of the defalcations dealt with the theft of cash. The remaining 10% dealt with inventory thefts and other miscellaneous assets such as tools. The cash misappropriation schemes can be categorized as:

- *Cash larceny:* stealing cash after it had been recorded
- *Skimming:* intercepting and taking cash before it is recorded on the books
- *Fraudulent disbursements:* funds disbursed fraudulently to an entity that is controlled by the fraud perpetrator

The fraudulent disbursements approach is by far the largest defalcation scheme accounting for about 70% of the schemes identified by the Association. The defalcation schemes included the following:

- *Billing schemes:* usually setting up false vendors and paying the vendors for fictitious goods
- *Payroll schemes:* usually putting fictitious employees on the payroll

- *Expense reimbursement schemes:* overstating expense reimbursement requests
- *Check tampering:* a scheme in which checks are altered, e.g., changing the payee or changing the payment amount

Most of these frauds occur because the company has poor or non-existent controls over cash disbursements.

Audit Procedure and Evidence Considerations

There are two basic rules the auditor should follow in considering audit procedures.

Rule One: Internal Control Weaknesses. When weaknesses in internal control are found, the auditor should develop audit procedures to explicitly test for the existence of the type of fraud or misstatement that could occur because of the weakness.

Rule Two: Fraud Risk Indicators. When the auditor's analysis indicates a high incidence of fraud risk indicators, the auditor must develop specific independent tests to verify the existence, ownership, and valuation of the underlying assets.

Linking Audit Procedures to Control Deficiencies A deficiency or weakness in internal control means that a misstatement could occur and not be detected or corrected in the ordinary course of processing. Thus, the auditor needs to develop an audit approach that links the weaknesses in internal control to specific audit procedures. Exhibit 9.10 provides such a linkage for internal control deficiencies often associated with defalcations.

Exhibit 9.10 is only a guide. The specific procedures chosen by an auditor will depend on the nature of the deficiencies in the company. For example, a bank teller has access to cash more readily than do other employees, so if there is a control deficiency over the teller process, the auditor has to consider specific ways in which a fraud could be committed.

EXHIBIT 9.10 Linking Internal Deficiencies to Audit Procedures

Internal Control Deficiency	Suggested Audit Procedures to Detect Possible Defalcations
Inadequate Segregation of Duties over Disbursements	• Take a statistical sample of all disbursements. Trace those selected to independent receiving reports and other independent evidence of the receipt of goods. Trace to purchase orders issued by someone other than the person disbursing the funds. • Use audit software to identify all disbursements that are sent to P.O. Box numbers rather than street addresses. Examine all of the items selected to: (a) determine the existence of the company by looking into a listing of businesses (Yellow Pages, Better Business Bureau, etc.); and (b) examine underlying support for the disbursement.
Inadequate Segregation of Duties over Cash Receipts	• Confirm accounts receivable with a large statistical sample. • Consider contacting customers directly. • Perform analytical review to determine whether there are (a) an abnormal amount of discounts or (b) unusually large write-offs. • If heightened fraud risk, perform a cash trace by selecting daily receipts and tracing them to cash deposits and account receivable postings.
Inadequate Security over Inventory	• Have the client perform a complete physical inventory, i.e., count the inventory at year end. Observe the inventory counting process, take test counts, and follow up on any differences.
Inadequate Segregation of Duties over Cash	• Perform an independent four-column bank reconciliation that reconciles beginning of the month, receipts with deposits, disbursements with withdrawals, and month-end balances. • Obtain an independent bank statement from the bank. • Perform a cash trace by selecting receipts and tracing them to the cash account.

The linkage process from control deficiencies to audit procedures always involves the following thought process to identify potential changes to the audit program:

1. What types of misstatements could occur because of the control deficiencies?
2. What account balances would be affected and how would they be affected?
3. What audit procedures would provide evidence on whether the account balance contains misstatements?
4. Do the planned audit procedures emphasize objective evidence that is outside the purview of the parties that have access to the assets?

The auditor has to consider what could go wrong and then decide on the audit evidence that is needed to determine if fraud has occurred. Even if the procedures do not find fraud, it is important that the procedures be performed because the public expects auditors to look for fraud in conducting a GAAS audit.

Linking Audit Procedures to Fraud Risk Indicators As with control deficiencies, the audit procedures will depend on the nature of the fraud risk indicators and the auditor's preliminary analytical review of the account balances. Exhibit 9.11 provides a brief overview of audit responses to various fraud risk indicators.

EXHIBIT 9.11 Linking Audit Procedures to Fraud Risk Indicators

Fraud Risk Indicator	Audit Procedures to Address Risks
Pressure to meet earnings objectives: unusual year-end spike in sales	• Identify unusual fluctuation in sales. • Use audit software (computer analysis) to identify the parties involved in the unusual sales (customers, etc). • Review all large sales contracts to determine (a) actual shipment of the goods; (b) the existence of unusual terms; and (c) payment date. • Verify that the customer is a real business. • Confirm, usually orally, the terms of major contracts with the customer. • Examine cash receipts after year end to determine if receipts were collected from the customer.
Financial distress: potential violation of debt covenants	• Perform analytical review of revenue and cost of goods sold and note any unusual changes. • Perform a detailed test of inventory, including observation of inventory and valuation (for manufacturing firms, this is the account most likely to be overstated). • Review debt covenants to determine potential motivation. • Review all changes in classification of liabilities. • Review all changes to equity and investigate any unusual entries.
Company is not yet profitable, but under pressure to show sales growth	• Analytically review for unusual sales spikes near the end of the year and investigate all such sales. • Select sales and note: (a) whether actual shipment took place or service was performed; (b) whether there were unusual terms or unusual relationship with customer (bartering, round tripping, etc.), and determine if cash was collected from customer. • Obtain a list of all related parties and search files for any sales made to related parties.
Pressure to meet the street's projected earnings target	• Review financial statements for unusual ratios, particularly comparison with industry averages. • Test all unusually large capitalization of assets to determine if expenses are being capitalized. Take a sample of debits to capital assets and examine underlying supporting documents. If still suspicious, visit the location and physically examine the asset. • Review all unusual journal entries, including those that involve the decreases in previously established "reserves" accounts. • Carefully evaluate the reasonableness of estimates.

The specific linkages to audit procedures will depend on the fraud risk indicators. The heightened fraud risk awareness causes the auditor to:

1. Expand audit testing to include more detailed sampling.
2. Review all major sales transactions, particularly those with unusual terms or near the end of the reporting period.
3. Place more emphasis on independent outside evidence.
4. Perform more procedures as of year end rather than at an interim date.

An illustration of how all these concepts come together is shown in Exhibit 9.12. That exhibit shows a very successful company that was a division of a larger company. The division was headquartered in a small town. Over a period of time the CFO was able to defraud the company of millions of dollars, which were hidden by overstating

EXHIBIT 9.12 Fraud Detection—Common Sense and Business Knowledge Work

The CFO of Chalmers Outdoors, a manufacturer of all-terrain outdoor vehicles, embezzled $20 million over a period of several years. The auditors never detected the embezzlement. The embezzlements were disguised by inflating inventory and accounts receivable. In fact, about half of the book value of inventory and accounts receivable in the year 2006 was fictitious.

A summary of the relevant accounts is contained in the following table ($mil):

	2006	2005	2004	2003
Sales	181	152	110	91
% Growth	19%	38%	21%	
Inventory	22	21	18	13
% Growth	5%	17%	38%	
# Days Sales	44.4	50.4	59.7	35.2
Accounts Receivable	17	18	15	9
% Growth	–6%	20%	67%	
# Days Sales	34.3	43.2	49.8	36.1

Chalmers Outdoors is a subsidiary of Becker Industries, a conglomerate with approximately $1.1 billion in sales each year. The external auditors did not use risk-based approach to auditing, but relied heavily on the one-person internal audit staff to perform many of the audit procedures.

Chalmers' ATVs are sold to dealers on a floor plan arrangement with finance companies that typically pay Chalmers within 3 to 5 days of the sale. This is typical for this industry and others like it such as the automotive industry, watercraft industry, and so forth. The dealer is responsible for handling all the financing for the products.

ANALYTICAL REVIEW

Had the auditors performed an industry comparison, they would have found the following:

	# Days Sales in Receivables	# Days Sales in Inventory
Chalmers	34.3	44.4
Key Competitor	12.0	26.7
Industry Average	17.0	31.2

Lesson to be Learned: It is easy to get overwhelmed by both the sales and profit growth of a company. Sales, inventory, and accounts receivable growth are volatile, and inventory and accounts receivable are growing slower than sales. Thus, a superficial review would not indicate a problem. But, analytical review is not just numbers, it also includes application of *industry knowledge*. Even though there is strong growth in sales, accounts receivable should not be growing because of the floor plan financing, nor should inventory be growing significantly because most sales are "made to order," that is, a dealer must order early in the fall for spring delivery; there is no good reason for inventory to continue to increase in the number of days sales on hand. **Is there a problem that is evident here?** Yes, the analytical review, coupled with industry knowledge, indicates the likelihood of problems—either operational or fraudulent. The auditor must now link the risk to specific audit procedures, such as procedures to verify the existence and valuation of inventory and the existence and valuation of valid accounts receivable.

(continued)

EXHIBIT 9.12 Fraud Detection—Common Sense and Business Knowledge Work (*continued*)

HOW THE FRAUD WAS COVERED UP

The CFO would have checks made out to an account at another bank, but would override the computer system and make unusual journal entries such as debiting inventory and crediting cash. What was unusual? The answer is that virtually all clients would have computerized processing for these transactions and it would be very unusual to see manual journal entries.

THE FRAUD COULD HAVE BEEN DETECTED ANY TIME DURING THE PAST FIVE YEARS

The business risk approach requires that the auditor utilize the knowledge of the industry to perform various analytical tests to identify items that appear to be abnormal. In this case, $20 million was embezzled from a high growth profitable company. However, had the auditor paid attention to the company relative to knowledge about floor plan financing, the rest of the industry, and the quality of internal controls (the CFO was overriding the system), the fraud would have been detected early and saved the company $20 million. The linkage to audit procedures would have included any of the following procedures that were not performed:

- A detailed review and investigation of all manual journal entries, particularly those involving cash, receivables, or inventory
- Testing the existence and valuation of both inventory and accounts receivable by requiring and observing a complete year-end physical count of inventory and confirming accounts receivable with customers
- Adding the amounts in the detailed subsidiary records and agreeing to the control account balances

LESSONS LEARNED

A risk approach to auditing requires thorough understanding of the business, its relationship with suppliers and customers, and ability to link questionable results to specific detailed audit tests.

assets. The audit firm failed to detect the fraud. The case describes how the procedures discussed in this section would have been effective in detecting the fraud.

Using the Computer to Analyze the Possibility of Fraud

ACL has powerful features that are very useful in identifying the possibility of fraud in account balances.

Most audit firms use Generalized Audit Software (GAS) to read and analyze a client's data files. Most audit firms will use GAS to analyze key files for possible indications of fraud.

The audit software can read a file and perform the following types of procedures.

Mechanical accuracy. The software can be used to test the footing of the file, test mathematical extensions, and test logical relationships.

Statistical selection. Software will statistically or judgmentally select items for more detailed audit testing. It can combine a statistical sample with judgment criteria, e.g., select all large dollar balances and a sample of others, or select all items for a given company.

Search for duplicates. Many frauds often result in duplicate entries into accounts. However, these entries are often cleverly disguised, e.g., with a different name but same address. Software can be used to identify all duplicates in a file with the auditor specifying the field on which to test for duplicates (address, name, dollar amount of invoices, etc.).

Analyze unusual patterns in the data. Benford's law has proven very effective in predicting the frequency with which digits appear in numbers of various size digits; for example, the first digit of a five-digit number will be 1 about 30% of the time. Most frauds involve the creation of false entries into the accounts. The software can analyze the pattern of digits to determine if it is unusual and can signal items for more detailed testing.

Analysis of logical relationships. There is a logical relationship among many data sets; for example, gross pay and federal income tax withholding are logically related. Once an auditor identifies logical relationships between fields in an account, audit software can search for all items in which the relationship does not meet the criteria.

Identify unusual sources of entries to an account. Most accounts are affected by transactions that are recorded in a subsidiary journal; for example, most credits to accounts receivable should come from a receipts journal and most debits should come from a sales journal. Audit software can be used to identify all entries into

the account that came from other than these two sources (including unusual journal entries), which the auditor can then investigate.

Missing data. Many fraudsters make the mistake of leaving some fields out of files. Audit software can identify all accounts with missing data that can be further investigated by the auditor.

Audit software is a powerful tool and will be increasingly used by most audit firms to search for fraud. ACL applications are built into the remainder of the text.

Responsibilities for Detecting and Reporting Illegal Acts

Illegal acts are defined as "violations of laws or governmental regulations . . . by management or employees acting on behalf of the entity" (AU 317.02). A company that violates tax laws or pays bribes to government officials (foreign or domestic), for example, would be committing an illegal act. Some illegal activities may result in fines against the company as well as the individuals involved; others may not carry fines but still need to be disclosed. Illegal acts often have direct financial statement ramifications. The auditor must therefore design the audit to identify illegal acts that have a direct, material effect on the financial statements.

A number of procedures provide information that could lead to the discovery of such acts if they exist. These procedures include reading corporate minutes, making inquiries of management and legal counsel, and performing various tests of details to support specific transactions or balances. In reviewing such information, the auditor should be especially alert to large payments for unspecified services to consultants or employees, excessively large sales commissions, unexplained governmental payments, and unauthorized or unnecessarily complex transactions.

If such acts are discovered, the auditor is advised to consult the client's legal counsel about the application of relevant laws because determining whether something is indeed illegal is generally beyond an auditor's professional competence. If illegal acts do affect the financial statements, the auditor should take steps to ensure fair presentation, including both necessary account adjustments and proper disclosure. Finally, the auditor should communicate the nature of these acts to the audit committee of the board of directors or its equivalent and in some cases to the SEC.

Forensic Accounting

Forensic accounting is an extension of auditing that focuses on detailed investigation of situations where fraud has already been identified, or where fraud is highly suspected. Forensic accounting focuses on identifying the person who has perpetrated the fraud and hopefully having that person confess to the fraud. Forensic accounting builds support for a court case against the person committing the fraud by identifying the fraud, calculating the damages caused by the fraud, and building both factual and testimonial evidence of the fraud. While forensic accounting builds on the evidence concepts in auditing and uses the evidence found during an audit (forged source documents, file details showing duplicate items, etc.), the emphasis of forensic accounting is more on interviewing with a focus on the perpetrator. Forensic accounting will examine 100% of fraud-related documents to accurately measure the cost of the fraud. Auditing, on the other hand, usually relies on sampling to determine whether or not material misstatements or illegal acts might occur. Importantly, conducting a financial statement audit is a separate engagement from conducting a forensic accounting investigation. While the audit of financial statements includes serious consideration of the possibility of fraud, the sole purpose of a forensic engagement is on the detection, investigation, and documentation of a situation in which fraud is almost certain to exist.

Forensic accountants are often asked to provide litigation support where they are called on to give expert testimony about financial data and accounting activities. Interestingly, the emphasis on court cases is more on testimonial evidence that is built on other evidence. Thus, interviewing is one of the most important forensic accounting skills.

EXHIBIT 9.13 Differences between Forensic Accounting and Auditing

Area	Forensic Accounting	Auditing
Focus	Known frauds or areas where fraud is suspected Getting the perpetrator to confess	Fairness of financial statements Quality of controls
Approach	Interviews Reconstruction of damages 100% examination of targeted files	Sampling, analytical review based on materiality
Scope	Can range from financial reporting frauds in companies to hidden assets for divorce cases to court testimony	Usually audits of financial statements
End Product	Summary of evidence gathered with special emphasis on testimonial evidence Expert witness work in court case	Opinion on audited financial statements and internal control
Underlying Skills	Interviewing—listening Reconstruction of account balances Cyber reconstruction (computer cases) Presentation—expert witnessing work	Objectivity Data gathering and analysis Basic accounting and auditing knowledge Non-confrontational interviewing skills Computer auditing

Forensic accountants also work on reconstructing account balances, i.e., they will go back to source documents and attempt to determine what an account balance should be or determine the amount of fraud that was directly related to a perpetrator. Forensic accounting also is broader and deals with "messy" courtroom subjects, such as hiding assets in divorce cases or determining the exact amount of money lost through a money laundering scheme.

Exhibit 9.13 summarizes some of the major differences between forensic accounting and auditing.

Often, a forensic engagement is initiated by management when they suspect that a fraud is occurring within their organization. In that case, management may alert the auditor to their concerns and request a separate forensic engagement. Alternatively, the audit of financial statements may uncover hints of fraud. In that case, the external auditor may recommend to management that the audit firm conduct a separate forensic engagement.

SAS 99 indicates that an audit team may want to employ forensic accounting techniques in situations where there are strong indicators of fraud. The rationale for the forensic audit is that the forensic auditor is accustomed to finding fraud and has a built-in expectation of finding fraud. The experience in finding frauds and following clues, may be important to the external audit when there are signs of fraud risk and the auditor has difficulty in locating sufficient audit evidence to substantiate account balances.

Summary

Fraud is a widespread international problem. Users expect auditors to detect and report on fraud. The auditing profession has recognized that it cannot retain its status and credibility without enhancing its ability to detect fraud. Thus, the auditing standards have evolved to the presumption that auditors should search for the existence of fraud on every engagement.

There are two major classifications of fraud: financial reporting fraud (involving misstatement of financial statements) and defalcations (theft of assets). The auditor's

responsibility is the same for each type of fraud: plan and execute the audit to provide reasonable assurance that material misstatements due to fraud will be discovered. Financial reporting frauds are less frequent but the magnitude of dollar loss is more significant.

There are common patterns in most frauds. The auditor can utilize these patterns, along with an analysis of control deficiencies and financial trends, to identify fraud risk and types of audit procedures that would be most effective in detecting fraud.

Significant Terms

asset misappropriations A fraud that involves the theft or misuse of an organization's assets. Common examples include skimming cash, stealing inventory, and payroll fraud. It is one type of defalcation.

brainstorming A required part of every financial statement audit. Conducted at the beginning of the audit whereby the audit team considers changes in account balances, deficiencies in controls, and motivations to commit fraud to identify areas where fraud is more likely to occur and how it will occur.

corruption A fraud in which fraudsters wrongfully use their influence in a business transaction in order to procure some benefit for themselves or another person, contrary to their duty to their employer or the rights of another. It is another type of defalcation.

debt covenants An agreement between an entity and its lender that places limitations on the organization; usually associated with debentures or large credit lines. Common limitations include restrictions on dividend payments, requirements for a specified working capital or debt/equity ratio, and annual audits of company's financial statements to be furnished to the lender. Failure to satisfy may result in loans or bonds becoming immediately due and payable or redeemable.

defalcation (misappropriation of assets) The theft or embezzlement of funds or other assets from an organization. The theft is usually covered up through fictitious accounting entries.

financial reporting fraud (fraudulent financial reporting) The intentional misstatement of account balances to portray a misstated economic picture of the firm. The person perpetrating this type of fraud stands to gain from inflated stock prices or bonuses based on reported profits.

forensic accounting An investigatory approach to building evidence of a suspected fraud in preparation for a court trial. Often includes reconstructing accounts to determine damages caused by the fraud. The emphasis is often on testimonial evidence that can be introduced in court.

fraud An intentional embezzlement or theft of funds from a company, or the intentional misstatement of account balances in order to achieve a perception that a company is doing better than it really is doing. The first type of fraud is often referred to as a *defalcation,* while the second type is referred to as *fraudulent financial reporting.*

fraud risk factors Company or individual manager characteristics that have most often been associated with the perpetration of fraud.

illegal acts Violations of laws or governmental regulations by management or employees acting on behalf of the entity.

Review Questions

9-1 How prevalent is fraud? What is the effect of fraud on the profitability of U.S. business?

9-2 Define the following types of fraud:
- Defalcation
- Asset misappropriation
- Corruption
- Financial reporting fraud

Does the auditor's responsibility for detecting a fraud differ by the type of fraud that is perpetrated? Explain.

9-3 What are the most common approaches taken to commit financial reporting fraud?

9-4 You are asked to be interviewed by a student newspaper regarding the nature of accounting fraud. The reporter says, "As I understand it,

defalcations are more likely to be found in small businesses, but not in larger businesses. On the other hand, financial reporting fraud is more likely to be found in larger businesses." How would you respond to the reporter's observation?

9-5 Define the term "materiality" as it applies to the concept of the auditor's responsibility for detecting material fraud. What are the factors that would cause the materiality threshold in dollars to be lower than might have otherwise been used in a financial statement audit?

9-6 Why has financial reporting fraud become more prevalent as the financial markets have expanded? What is the motivation for privately-owned businesses to commit financial reporting fraud; aren't the owners just fooling themselves?

9-7 What was the nature of the fraud at Equity Funding? How was the fraud covered up? What type of business analysis would have revealed the fraud?

9-8 What are the major lessons for the accounting profession that have been learned (or should have been learned) from Equity Funding?

9-9 What were the major findings of the second COSO Report on fraudulent financial reporting?

9-10 How has the responsibility of auditors for planning and conducting the audit to detect fraud changed over the past 30 years?

9-11 In what ways is the auditor required to increase the amount of fraud skepticism on every financial statement audit engagement?

9-12 Why is it important that the auditor review all major journal entries?

9-13 Does the auditor presume that there is a fraud in some specific accounts? Which accounts? How does this presumption change the nature of audit procedures?

9-14 What are the ten major steps that are included in the fraud risk model?

9-15 The fraud risk model identifies motivations, incentives, opportunities, and capabilities as being the major components of the fraud diamond. Define what is meant by each of these four factors and explain how they work together to build a fraud risk profile.

9-16 Identify five factors that would be strong indicators of opportunities to commit fraud.

9-17 Is the "ability to rationalize" the fraud an important aspect of a fraud profile? What are some of the common rationales used by fraud perpetrators?

9-18 What major groups failed in the Enron case? How did each group fail? What were the motivations that influenced each group that partially led to the failure? To what extent did Sarbanes-Oxley address many of the factors that caused the failures?

9-19 Explain how "brainstorming" is supposed to work as part of the audit planning process. What are the advantages of using a "brainstorming" approach to identify the possible existence of fraud?

9-20 Explain why the auditor needs to examine the "tone at the top" in evaluating fraud risk. Identify the key information the auditor should gather on each of the following areas:
- Corporate governance
- Management
- Audit committee
- Corporate culture

- Internal auditing
- Top level monitoring controls
- Whistleblowing
- Codes of ethics
- Related party transactions

9-21 Explain the important role analytical procedures play in identifying fraud risk. Identify three examples of analytical analysis that would increase the auditor's assessment of fraud risk.

9-22 How should the audit be adjusted when the auditor has identified a high risk of fraud occurring?

9-23 Why is it important for the auditor to develop a list of "hypothesized frauds" as opposed to first seeking management's explanations of differences in account balances?

9-24 An auditor may have to perform "extended audit procedures" if the auditor identifies fraud risk as high. Identify five examples of extended audit procedures that might be performed if the auditor suspects there may be fraud in the revenue account.

9-25 What is the auditor's primary responsibility for reporting a fraud that has been detected and corrected?

9-26 Explain the auditor's responsibility for reporting the following:
- A defalcation that the client is willing to correct and portray in the financial statements
- A defalcation that is material, but the client wishes to bury in an "other expense" category
- A financial reporting fraud that the client wishes to include in an "other expense" category

9-27 In your opinion, should auditors be required to report a material fraud that was detected during the audit to:
- Users of the company's financial statements?
- Regulatory agencies, such as the SEC?
- Law enforcement officials?
- The audit committee?
- The public press?

9-28 Although each fraud is unique, there are commonalities among many of the major financial reporting frauds that have taken place in the past decade. What are the major commonalities and lessons that can be learned through an examination of the frauds at Enron, HealthSouth, WorldCom, Addeco, Lucent, and Parmalat?

9-29 Explain how a fraud perpetrator could use a disbursement scheme to misappropriate assets from the company.

9-30 Explain how an auditor should link control deficiencies to the design of audit tests. Identify the logic process utilized by the auditor to make the linkage.

9-31 Explain how audit procedures should be linked to the identification of fraud risk indicators.

9-32 Audit software can be very useful in reading a computer file and identifying potential fraud. Identify the major fraud-related procedures that can be performed using audit software.

9-33 What are illegal acts? What is the auditor's responsibility for detecting illegal acts? Does this responsibility differ from the auditor's responsibility for detecting fraud?

9-34 What is forensic accounting? How does it differ from auditing?

Multiple-Choice Questions

9-35 Which of the following statements regarding the incidence of fraud is *incorrect?*

a. Fraud is estimated to costs U.S. businesses less than 1 cent of every dollar of sales.
b. Defalcations occur more often than financial reporting fraud.
c. Financial reporting frauds are generally larger in dollar amounts.
d. Research shows that only about 1/5 of all frauds are discovered and prosecuted.

9-36 Which of the following best describes the auditor's responsibility for detecting financial reporting fraud vs. detecting a defalcation?

a. There is more responsibility for detecting financial reporting fraud because audits are designed to look for financial misstatements.
b. The auditor is responsible for detecting financial reporting fraud only if it is material, but is responsible for detecting all defalcations caused by a known deficiency in the client's internal control.
c. The auditor is responsible for detecting material misstatements in the financial statements; thus there is no difference in the responsibility of detecting financial reporting fraud or a defalcation as long as it is material.
d. The auditor is responsible for detecting financial reporting fraud of any amount if collusion and red flags were present.

9-37 Fraudulent financial reporting includes all of the following *except*:

a. Misappropriation of assets for personal use
b. Manipulation, falsification, or alteration of accounting records or supporting documents
c. Misrepresentation or omission of events, transactions, or other significant information
d. Intentional misapplication of accounting principles

9-38 Which of the following statement(s) is/are *correct* regarding the auditor's use of materiality as it applies to a financial statement audit:

a. The auditor is required to report all incidences of material fraud to the audit committee.
b. The discovery of a material fraud indicates a company has a material deficiency in internal control.
c. There is no difference in the dollar amount of planning materiality when searching for a defalcation vs. searching for financial reporting fraud.
d. The auditor must consider qualitative factors such as whether or not senior management is involved in determining the materiality of fraud.
e. All of the above.

9-39 An auditor discovers a material defalcation involving the theft of $500,000 of inventory. Restitution will not be made. Which of the following statements is not correct regarding the auditor's responsibility for reporting the defalcation?

a. Because theft was involved, the auditor must report it to the client's legal counsel with a follow-up to see that it had been reported to the proper legal enforcement group.
b. The theft, because it is material, should be separately reported as a line item in the financial statements because it is unusual, nonrecurring, and there will be no restitution.
c. The theft must be reported to the audit committee.
d. The theft must be reported to top management.

9-40 Which of the following is not a correct statement regarding the use of brainstorming as part of a financial statement audit?

a. It is required as a normal part of every engagement.
b. It should include all members of the audit team.

c. It should include an analysis of known internal control deficiencies.
d. It should be performed jointly with the internal audit department.

9-41 The auditor notes the following changes in ratios:

	Current	Last Year
Inventory Turnover	7.3	4.2
Accounts Receivable Turnover	2.8	7.3
Revenue Growth	15%	8%

From just this information, the auditor should conclude all of the following about fraud risk *except*:

a. Inventory has declined in quality because of the emphasis on increased sales.
b. Accounts receivable growth may be caused by increased sales.
c. Accounts receivable is older and may be less collectible.
d. Revenue growth likely includes contracts that have deferred payment terms.
e. The data would support a hypothesis of fictitious sales near year end.

9-42 Which of the following would not be considered a motivation to commit fraud:

a. Personal financial problems
b. Stock compensation programs
c. Poor internal controls
d. Tight debt covenants

9-43 The accounting profession may have contributed to the downfall of Enron and the large public losses in all of the following ways *except:*

a. Accounting became very rule-oriented and created a group of auditors who perceived value in finding the limits of the rules.
b. Auditors were hired and fired by management.
c. Audit committees were ineffective.
d. The accounting firm earned more from Enron in non-audit fees than it earned in audit fees.

9-44 The largest form of defalcation (both in dollars and frequency) is:

a. Theft of cash directly from the company
b. Theft of cash through disbursement schemes
c. Theft of inventory and small tools
d. Theft of cash by taking customer receipts and writing off accounts receivable

Discussion and Research Questions

9-45 **(Classification of Frauds)** The auditing literature had traditionally classified fraud as either "defalcations" or "financial reporting fraud."

Required

a. What is the difference between the two types of fraud?
b. Does the auditor's responsibility for detecting fraud vary with the nature of the fraud committed?
c. Is a defalcation or financial reporting fraud more difficult to detect? Explain and give an example to support your conclusion.
d. Explain how the personnel committing each type of fraud may differ and how the motivations to commit the fraud might differ. Use the following format in formulating your answer:

	Defalcation	Financial Reporting Fraud
Personnel Most Likely to Commit the Fraud		
Most Likely Motivation to Commit the Fraud		
Process Used to Rationalize the Fraud		

9-46 **(Audit Responsibility for Fraud Detection)** The responsibility of auditors for detecting fraud has increased as users have made it clear that they expect auditors to detect material fraud.

Required

a. In addition to dollar amounts, what other factors should an auditor consider in determining materiality for planning an engagement to detect fraud? How would these other factors affect the planning for the audit?
b. What are the key procedures the auditor should use in planning the audit to detect fraud?
c. Explain how the auditor should use analytical procedures and knowledge of internal control deficiencies to "brainstorm" and plan the audit to detect fraud.

9-47 **(Equity Funding)** The Equity Funding fraud was the first major financial reporting fraud. It was a fraud that people believed would change auditing forever. However, the profession has taken a while to learn the lessons from Equity Funding.

Required

a. The following describes some of the major mechanisms used in conducting the fraud. For each item listed, identify audit procedures or changes in the structure of accounting that would have prevented the failure on the part of the audit firm to detect the Equity Funding Fraud. Organize your answer as follows:

Scheme Used by Equity Funding	Auditing Procedures or Changes Suggested

   i. Incomplete computer file.
   ii. Recording all the fictitious policies on the computer system, but omitting the first three digits.
   iii. Making simple transactions complex. To record a simple transaction to recognize a policy reserve, the company made over 30 journal entries across the books of four different subsidiaries.
   iv. The company had different auditors audit the subsidiaries than audited the parent company.
   v. The company was the largest single client of the CPA firm, and was the dominant client for the office.
   vi. Whenever the auditor would ask for documentation of insurance policies, the company would indicate they would "pull" all the policies from the company files and have them the next day.

b. Explain why auditors generally prefer to have clients "pull" supporting documents that have been identified for audit testing.
c. What would be the additional cost if the auditor insisted on having the documents produced within the same day?
d. Are there circumstances in which the auditor should insist the documents be presented during the same day they were selected by the auditor for testing? Explain.

9-48 **(Brainstorming and Fraud)** The auditor is to presume that there is fraud in revenue. Consider a company that manufactures high-tech fiber-optic gear. Assume that the Wall Street analysts believe the industry has good growth prospects. The audit client is predicting a 20% increase in sales and a 27% increase in profits for the year under audit. The auditor is planning the audit and knows the following:

- 65% of all sales are made to just five customers.
- There are three companies with very similar products. One has a moderately larger market share and the other has a significantly smaller market share.

- There are indications that the economy is slowing down and it is expected that a slowdown would affect the market for high-tech products that the company sells.

Required

a. Indicate the types of analytical analysis of the company's preliminary financial results that the auditor should perform to facilitate the "brainstorming" and planning of the audit. In your answer, identify key factors that would indicate higher fraud risk. Organize your answer as follows:

Analytical Analysis	Indicators of High Fraud Risk
Example: Analysis of revenue recorded by quarter and increases near the end of the quarter or year end.	

b. What additional information should the auditor gather about the strength of the industry in which the client operates?

c. Identify four ways in which the client might overstate revenue. For each approach identified, indicate (i) internal control procedures that would have to fail for the fraud to take place; and (ii) audit procedures to test for the potential revenue overstatement. Organize your answer as follows:

Fraud	Key Controls That Would Fail	Audit Procedures Needed
1		
2		
3		
4		

9-49 **(Brainstorming and Planning the Audit)** The following scenario and analytical information describe a company.

Group Activity

Three sets of facts are presented about this company. At the end of each set, perform a brainstorming analysis identifying all the factors that will affect the planning and conduct of the audit.

a. *Company Background.* Brandon Apparel group is a manufacturer and wholesaler of apparel. The company was purchased five years ago by two young entrepreneurs and is heavily leveraged. The owners put up $400,000 of their own money and borrowed approximately $6 million to acquire the company from the previous owner. The owners tried to sell the company, but a due diligence review by the potential buyer indicated that some of the assets acquired in previous years did not exist. The company's debt is now over $10 million and Equity is about $1.2 million (unaudited). The company has approximately $1.8 million in short-term payables. The company is relatively small with total sales last year of $13 million. Many of its customers are large, e.g., J. C. Penney, SportMart, MC Sporting Goods, and Kohl's. The industry is competitive. The loan covenants require a debt-to-equity ratio not exceeding 3.5 to 1.0 and a tangible net worth above $1.5 million. Management fired the previous auditor and has asked you in to perform the audit because you are local and know the city better. During the year, the company moved to licensing more of its goods rather than manufacturing them.

b. *Industry and Analytical Analysis.* There is sketchy industry information available. The following reflects Brandon vs. the industry:

	Brandon	Industry
Revenue increase %	12%	5%
Returns as % of revenue	3.4%	2.8%
Gross margin %	28.5%	43.2%

	Brandon	Industry
Inventory—% of assets	58.4%	32.7%
Accounts receivable—% of assets	22.8%	18.2%
Cash—% of assets	0.0%	4.3%
Intangibles—% of assets	9.4%	7.4%

Other Financial Information:
Although the company has shown revenue and profit growth, cash flow from operations has been negative for the past three years.

c. *Management Information and Controls.* Management has determined that they need to outsource most of the manufacturing to other companies under a licensing agreement. However, for this year, they will continue to record the total amount outsourced as sales until the conversion to all licensing income is completed. Most of the large customers do not confirm accounts receivable. The company is implementing a more automated bar-coded inventory system at the end of the year. The new system is more accurate. The company will move the inventory to the new location after the end of the year where it will be counted on January 8 as it is unloaded and scanned into the new inventory system.

Management has sued the former owners of the company for the $1 million note that is still due to them. The suit alleges that assets that were originally sold to the owners five years ago did not exist and according to the contract, the owners have the right to offset the discovery of the non-existent assets against the notes payable. Accordingly, the company has set up a contra liability account to show the offset with a corresponding increase in retained earnings.

Required

a. Perform a brainstorming exercise within your group to determine the following:
   i. Motivations to conduct a fraud
   ii. Potential problems with existing accounting principles within the company
   iii. How a financial fraud might be conducted
   iv. The likely ways in which a fraud might take place
   v. Expected effects of the fraud on the financial statements
b. Prioritize the hypotheses as to how a fraud might occur.
c. For the three highest rated hypotheses as to how a fraud might occur, identify the audit procedures that should be implemented to address the possibility of a fraud.

9-50 **(Fraud Audit Process)** The ten step audit process is a systematic approach to ensure that every audit engagement considers the possibility of fraud and how fraud might occur.

Required

a. Identify the ten steps in the process and the decisions the auditor makes at the end of each step. Identify the key pieces of information the auditor needs to gather for each step in the process.
b. If fraud risk is high, the audit needs to be conducted with increased "skepticism." How does the auditor introduce great skepticism into the audit?
c. It is suggested that the auditor review all major journal entries. Why does the auditor need to perform such a review? Are journal entries unusual?

9-51 **(Opportunities to Commit Fraud)** There are a number of factors that an auditor may consider when identifying opportunities to commit fraud. The following represent areas that have often been associated with frauds.

Situations often Associated with Fraud

1. Related-party transactions
2. Industry dominance
3. Numerous subjective accounting judgments
4. Ineffective monitoring mechanisms
5. Complex organizational structure
6. Simple transactions made complex
7. Complex transactions
8. Significant deficiencies in internal control

Required

For each of the situations listed above, indicate

a. How the item presents an opportunity to commit fraud
b. Whether the fraud is more likely to be a defalcation or financial reporting fraud
c. The nature of the fraud that is likely to occur
d. Audit procedures that would detect the fraud if it occurred

9-52 **(Research: Enron, WorldCom, Parmalat)**

Internet Activity

Required

Perform an Internet search and report on the current status of litigation concerning these companies and the extent to which any of the fraud perpetrators served jail time.

9-53 **(Fraud Risk Indicators and Audit Approaches)** Approximately a decade ago, the following comments appeared in the *The Wall Street Journal*. In the article, the participants were talking about users expecting the auditors to do a better job of finding fraud.

Comment 1: (An accounting professor at Dartmouth College): "The very time an auditor should be the most cynical about a company is when his client is applying the most pressure."

*Comment 2: (*An attorney representing shareholders): "Auditors can close their eyes to danger signs." I have found that lower-level accountants had discovered signs of fraud or impropriety but were ignored by their superiors. The higher-ups at the accounting firms usually seem to be willing to give management a chance to get its house in order.

*Comment 3: (*An attorney for a large national CPA firm): "Accounting firms check out suspicions of lower level staffers even if the partner in charge of the audit doesn't agree. "But more often than not, these suspicions don't prove to be true. In one instance, we even spent $40,000 of our own money for a second review, and no problem was found."

Comment 4: (Same attorney at CPA firm): "I concede that auditors sometimes can be guiled if they don't take that extra step needed when they suspect fraud. For example, the chief executive of one company insisted that he paid for spare parts in cash—practice apparently common in his industry. In reality, the cash was used to bribe the buying agents of several large customers. But the auditor didn't check to see whether the spare part inventory was increasing during that period."

Required

a. How does a public accounting firm in a competitive environment walk the fine line between developing a skeptical attitude toward the possibility of fraud and working with the client's management to help the firm grow—and as it grows, help the CPA firm's fees grow? Support your answer.
b. What kinds of pressure might management apply to a CPA firm to lead the auditors to be less skeptical?

c. How does an auditor decide that a situation merits special investigation? Many additional investigations are dead ends, but in some cases enough is not done.

Research Activity

9-54 The existence of fraudulent financial reporting has been of great concern to both the accounting profession and regulatory agencies such as the SEC. It has been asserted that companies in trouble frequently go bankrupt shortly after receiving unqualified opinions from auditors. The auditing profession has historically argued that such cases are rare, and that the cases appearing in the press give the impression that the profession is doing a poorer job than it actually is.

Required

a. Distinguish between an "audit failure" and a "business failure." Explain why the press may have difficulty in distinguishing between the two.
b. Identify a recent fraud that has been reported in the press. For the fraud identified:
   - Identify the motivations for the fraud.
   - Describe how the fraud took place.
   - Identify the internal control failures that would have allowed the fraud to take place.
   - Identify the audit procedures that should have found the fraud, or if the procedures would not have found the fraud, explain why not.

Group Activity

9-55 **(Audits of Non-Public Companies)** Most of the legislation has dealt with financial reporting fraud that has taken place in publicly-traded companies. However, there has not been such legislation for non-public companies or for audits of non-public companies.

Required

a. Is the auditor's responsibility for detecting fraud any different for audits of non-public companies vs. audits of public companies? If yes, how does that responsibility differ?
b. Are auditors in smaller companies more likely to find defalcations or financial reporting fraud? Explain.
c. Most small non-public companies have inadequate segregation of duties and poor internal control systems. What are the implications of the control deficiencies on the conduct of the audit?
d. Why do smaller non-public companies get audits?
e. What are the implications of the fraud standard for the cost of audits of non-public companies? Can society evaluate the cost/benefit of the trade-off in costs and the heightened responsibility to detect fraud? How could the trade-off be measured?
f. Who hires the auditor in most non-public firms?

9-56 **(Fraud and Skepticism)** Kent, CPA, is the engagement partner on the financial statement audit of Super Computer Services Co. (SCS) for the year ended April 30, 2007. On May 6, 2007, Smith, the senior auditor assigned to the engagement, had the following conversation with Kent concerning the planning phase of the audit:

Kent: Do you have all the audit programs updated yet for the SCS engagement?

Smith: Mostly. I still have work to do on the fraud risk assessment.

Kent: Why? Our "errors and irregularities" program from last year is still OK. It's passed peer review several times. Besides, we don't have specific duties regarding fraud. If we find it, we'll deal with it then.

Smith: I don't think so. That new CEO, Mint, has almost no salary, mostly bonuses and stock options. Doesn't that concern you?

Kent: No. The board of directors approved Mint's employment contract just three months ago. It was passed unanimously.

Smith: I guess so, but Mint told those stock analysts that SCS's earnings would increase 30% next year. Can Mint deliver numbers like that?

Kent: Who knows? We're auditing the 2006 financial statements, not 2007. Mint will probably amend that forecast every month between now and next May.

Smith: Sure, but all this may change our other audit programs.

Kent: No, it won't. The programs are fine as is. If you find fraud in any of your tests, just let me know. Maybe we'll have to extend the tests. Or maybe we'll just report it to the audit committee.

Smith: What would they do? Green is the audit committee's chair, and remember, Green hired Mint. They've been best friends for years. Besides, Mint is calling all the shots now. Brown, the old CEO, is still on the Board, but Brown's never around. Brown's even been skipping the board meetings. Nobody in management or on the Board would stand up to Mint.

Kent: That's nothing new. Brown was like that years ago. Brown caused frequent disputes with Jones, CPA, the predecessor auditor. Three years ago, Jones told Brown how ineffective the internal audit department was then. Next thing you know, Jones is out and I'm in. Why bother? I'm just as happy that those understaffed internal auditors don't get in our way. Just remember, the bottom line is. . . are the financial statements fairly presented? And they always have been. We don't provide any assurances about fraud. That's management's job.

Smith: But what about the lack of segregation of duties in the cash disbursements department? That clerk could write a check for anything.

Kent: Sure. That's a reportable internal control deficiency every year and probably will be again this year. But we're talking cost-effectiveness here, not fraud. We just have to do lots of testing on cash disbursements and report it again.

Smith: What about the big layoffs coming up next month? It's more than a rumor. Even the employees know it's going to happen, and they're real uptight about it.

Kent: I know; it's the worst-kept secret at SCS, but we don't have to consider that now. Even if it happens, it will only improve next year's financial results. Brown should have let these people go years ago. Let's face it, how else can Mint even come close to the 30% earnings increase next year?

Required

a. Describe the fraud risk factors that are indicated in the dialogue.
b. Describe Kent's misconceptions regarding the consideration of fraud in the audit of SCS's financial statements that is mentioned in the dialogue. Explain why each is a misconception.
c. If you were performing "brainstorming" as part of the audit plan for SCS, what would be the biggest factors you would identify for audit consideration?

9-57 **(Control Deficiencies and Fraud)** The auditor should consider known internal control deficiencies as part of the process of planning the audit.

Required

a. The following is a list of internal control deficiencies that were found at a small manufacturing business. For each deficiency identify the fraud risk, and identify the extended audit procedures that should be performed.

b. Is the analysis of control deficiencies described below a normal part of every financial statement audit or is it only a requirement when fraud is suspected? Explain.

Internal Control Deficiency	Suggested Audit Extension
1. The individual collecting cash also reconciles the bank account.	
2. The person who approves cash disbursements has access to receiving reports.	
3. There is no locked security or security cameras over inventory held in a warehouse. The warehouse manager assumes responsibility for the items.	
4. Maintenance people use numerous small tools on the job. The company changed its policy from charging the maintenance personnel for the tools to expensing the tools.	
5. Payroll is handled by one person, but is reviewed by the CEO when he signs the checks.	
6. Expense reimbursements for the CEO and CFO are only reviewed by themselves for approval.	

9-58 **(Audit Software)** Most CPA firms have responded to SAS 99 by performing detailed file validity analysis using audit software.

Required

a. Identify the ways in which audit software might be used to perform file validity analysis.
b. Why is the file validity analysis an effective audit approach to search for the possibility of fraud?
c. Should a company regularly perform file validity analysis? If they perform such a task, would it be viewed as an internal control procedure or an audit procedure? How would this affect the auditor's analysis of fraud risk and controls?

9-59 **(Illegal Acts)** An audit client of the Peninsula CPA firm is extensively involved in defense contracting. During the past year, the Defense Department has conducted an ongoing investigation of the client for possible overbillings on governmental contracts.

Most of these overbillings would be considered illegal. After an extensive investigation, it is determined that some of the billings were illegal. The client reached an agreement with the Defense Department whereby the client did not admit guilt but agreed to make restitution to the government of $7.2 million, to pay a fine of $600,000, and to establish procedures to ensure that the government will not be overbilled in the future.

The client cooperates with the auditor and discloses the details of the investigation and settlement during the course of the audit. The auditor verifies the nature of the act and is convinced that the client's characterization is correct. The auditor discusses the need to disclose the nature of these transactions—the restitution and the fine—either as a line item or in a footnote to the financial statements. Management replies that it has adequately dealt with the situation by classifying the transactions as part of the cost of doing business with the government, that is, as marketing and administrative costs associated with governmental clients. Besides, management states, "The agreement reached with the Defense Department does not require the admission of guilt on our part. Therefore, classifying the costs as losses from illegal acts would be totally improper because there is no allegation or proof of illegality."

Required

a. How should the auditor respond to the client? Indicate explicitly your opinion on the necessary disclosure, if any, in the company's financial statements.
b. Should the situation be discussed with the auditor's attorney or the client's legal counsel (or both) before determining whether an illegal act that should be disclosed has occurred?
c. Should the settlement be discussed with the audit committee before determining the proper treatment on the financial statements? What should your response be if the audit committee believes these transactions do not require separate disclosure because the client did not admit guilt?
d. Would any of your answers change if the client admitted guilt and paid a smaller fine?

Cases

9-60 **(Analytical Procedures and Fraud Detection)** The facts below represent the audited financial statements of a public company for 2005 and 2006, along with management's representation regarding the unaudited amounts (i.e., the UNAUDITED column) and the auditors' projected amounts for 2007 (i.e., the PROJECTED column, which represents their expectations based on industry trends and information that they know about this company's likely financial performance). In addition, financial ratios are presented that summarize the relationships among the various financial statement line items reported in the Balance Sheet and Income statements.

The company is in the telecommunications industry, has been in existence for ten years, and has had unqualified audit opinions throughout that time. The company has generally been successful in maintaining a competitive advantage in the industry, but there is always intense competition and maintaining that advantage (and associated profitability etc.) continues to be a significant challenge. Assume that you are the audit senior who is considering the planning for this year's audit engagement.

Required

Part 1. Review the financial statements and document the financial trends that seem most important for this company.
Part 2. Describe the patterns in the data that concern you, and explain why those particular patterns cause you concern.
Part 3. Brainstorm to consider possible errors in the financial data that might be consistent with the patterns you identified in Part 2.
Part 4. Considering the results of Part 3, discuss the specific financial statement line items that should receive heightened scrutiny during your audit of this company.
Part 5. Consider the PROJECTED column. Why would it be helpful for auditors to make projections of unaudited data based on industry tends and analysis? How would an auditor actually make such a projection? What could be a downside risk in making such projections?

Balance Sheet (in thousands)

	PROJECTED 12/31/07	UNAUDITED 12/31/07	12/31/06	12/31/05
ASSETS				
Cash	1,046	1,146	1,956	1,339
Receivables	4,200	4,147	3,053	2,154

	PROJECTED 12/31/07	UNAUDITED 12/31/07	12/31/06	12/31/05
Less: Allowance	241	240	213	211
Net Receivables	3,959	3,907	2,840	1,943
Inventories	2,787	3,065	2,592	2,657
Other Current Assets	656	635	826	801
Total Current Assets	8,448	8,753	8,214	6,740
PP & E (Net)	27,116	26,869	25,877	23,850
Other Assets	2,400	2,413	2,690	2,556
Total Assets	37,964	38,035	36,781	33,146
LIABILITIES AND OWNER'S EQUITY				
Accounts Payable	3,710	3,750	4,093	2,882
Crnt. Portion L.T. Debt	1,637	1,624	1,534	1,355
Income Taxes	277	383	296	300
Tot. Crnt. Liabilities	5,624	5,757	5,923	4,537
Long-Term Debt	17,773	17,773	16,817	15,080
Total Liabilities	23,397	23,530	22,740	19,617
Common Stock	1,624	1,624	1,624	1,624
Retained Earnings	12,943	12,881	12,417	11,905
Total Liabilities and Stockholder's Equity	37,964	38,035	36,781	33,146

Income Statement (in thousands)

	PROJECTED 31/12/07	UNAUDITED 31/12/07	31/12/06	31/12/05
Net Sales	9,643	9,644	9,630	9,649
Cost of Goods Sold	6,875	6,963	6,828	6,851
Gross Profit	2,768	2,681	2,802	2,798
R & D Expenditures	212	163	150	128
S G & A	904	624	882	862
Profit from Operations	1,652	1,894	1,770	1,808
Other Income	6	6	5	5
Interest Expense	925	925	916	913
Other Expenses	9	9	11	8
Income before Inc. Taxes	724	966	848	892
Provision for Inc. Taxes	289	386	382	384
Net Income	435	580	466	508

Selected Financial Ratios

	PROJECTED 12/31/07	UNAUDITED 12/31/07	12/31/06	12/31/05
Current Ratio (Current Assets/Current Liab.)	1.50	1.52	1.39	1.48
Quick Ratio (Current Assets Less Inventory/ Current Liab.)	1.01	.99	.95	.90
Gross Margin %	.287	.278	.291	.290
Income before Taxes as a % of Sales	.075	.100	.088	.092
Net Income as a % of Sales	.045	.060	.048	.052
Inventory Turnover (Cost of Good Sold/ Ending Inventory)	2.47	2.27	2.63	2.58
Receivable Turnover (Sales/Net Receivables)	2.44	2.47	3.39	4.96

9-61 **(Quality of Accounting)** Dot-com companies grew rapidly in the late 1990s. Many opened up "shopping malls" through which they serve as a portal into several different companies. The SEC has expressed concerns about revenue recognition at a variety of dot-com companies. Explicitly, the SEC is concerned that some companies:

- Inflated their total revenue by "including in their revenue figures the total revenues for product sales when they merely are distributing products on behalf of other companies." The SEC felt the companies should recognize only the commission received on distributing the goods as revenue.
- Were booking revenue for "free services" provided to customers.
- Recognized revenue on bartered transactions in which they swapped advertising with other companies.

Required

a. Assuming that some of the items would not increase net income, what is the motivation for the accounting treatment? What is the management incentive to inflate revenues?
b. If the auditor believed the accounting treatments met GAAP, but did not personally concur that they were the best GAAP alternative, what is the auditor's responsibility to communicate that judgment to other parties?
c. Would analytical review procedures have been effective in identifying the risks associated with revenue recognition as identified above? Explain.
d. Are the transactions described fraudulent financial reporting? Explain.

9-62 **(Fraud and Defalcations)** The following is a list of defalcations that have occurred within various organizations. You may assume that the amounts involved are material.

Required

For each defalcation, briefly indicate:

a. How the auditor would have identified the risk that led to the defalcation; that is, would the auditor have identified the risk primarily through (1) analysis of financial results, (2) review of industry trends, or (3) review of operational procedures?
b. How the defalcation would likely have been detected. Assuming the amounts are material, should most auditors have detected the defalcation? Explain.
c. What types of control procedures would have been effective in preventing or detecting the defalcation?

Defalcations

1. The treasurer of a small city also managed the city's pension fund. Over a period of a few years, the treasurer diverted a substantial amount of the fund's earnings to his personal use. Most of the funds were invested in money market funds and certificates of deposit. To cover the diversion, the treasurer systematically underrecorded income earned on the funds.
2. The purchasing agent of a company set up a fictitious vendor and periodically prepared purchase orders to the fictitious vendor. The agent then created bogus receiving reports and sent the receiving reports, vendor invoices, and purchase orders to accounts payable for processing. The fraud amounted to $125,000 a year for a company with approximately $12,000,000 in annual sales.
3. The social services workers of a state agency set up fictitious files for welfare recipients and paid them monthly support. Because the recipients were fictitious, the social services workers collected the checks and deposited them into a bank account and then transferred

the amount to the accounts of the fraud perpetrators. All of the records are kept on computerized files.

4. A purchasing agent systematically paid higher-than-market prices for goods received from an important vendor. In turn, the purchasing agent received various perks from the vendor and kickbacks that amounted to more than half of the purchasing agent's regular annual salary.
5. The supervisor of a small manufacturing company and the payroll clerk colluded to add an extra person to the payroll. Time cards were approved by the supervisor, who split the non-employee paychecks with the payroll clerk.
6. The branch manager of a bank manipulated the dormant accounts (of inactive depositors) and transferred amounts from those accounts to a fictitious account, from which he eventually withdrew the cash. All of the accounts were computerized. Monthly statements were sent to the customers, but all bank personnel were instructed to refer questions about account balances directly to the manager so he could show personal interest in the customers. He would then correct the accounts of any customers who complained.
7. The accounts receivable bookkeeper opens the mail and makes the cash deposit. Over a period of time, she has diverted significant funds to herself, covering up the diversion either by misstating the accounts receivable totals by improperly footing of the accounts, recording fictitious discounts or returns for the amount of money diverted, or writing off as uncollectible the accounts of customers whose payments have been diverted.

ACL Case

9-63 **(ACL Fraud Case)** Do ACL Case 1—Fraud Case in the ACL Appendix

9-64 **(Benford's Law Case)** Do ACL Case 2—Benford's Law Case in the ACL Appendix.

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CHAPTER 10

Audit Sampling

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Identify the appropriate places to use audit sampling.
- Explain and assess the risks associated with all sampling procedures.
- Discuss the differences between nonstatistical and statistical sampling as a basis to determine the appropriate sampling methodology.
- Describe how attribute estimation sampling can be used to test controls.
- Discuss the considerations for planning tests of account balances.
- Determine the most appropriate sampling method to test account balances.
- Describe how to use nonstatistical sampling to test account balances.
- Describe how to use probability proportional to size sampling to test account balances.
- Analyze sampling results and choose effective follow-up procedures.

CHAPTER OVERVIEW

Sampling is a useful tool to gain objective evidence about the correctness of an account balance or the correctness of processing. Statistical sampling increases both the efficiency and effectiveness of audit procedures designed to directly test account balances, controls, compliance, or processing. Sampling is widely used in audits to gather evidence to reach conclusions about the correctness of account balances or the operation of controls. Since the auditor usually cannot examine 100% of a given population, it is important that samples taken are representative of the underlying population and that projections of the results to the underlying characteristics of the full population will be accurate.

Sampling is often used when confirming accounts receivable, performing price tests on inventory, testing fixed asset additions, and many other instances in which the auditor wants to reach a conclusion regarding the underlying population by examining only a few items. Most audit firms have computerized tools to assist the auditor in (a) determining the appropriate sample size, (b) selecting a sample of items for audit examination, and (c) statistically evaluating the audit results derived from testing the sampled items.

This chapter provides an introduction to audit sampling and discusses the various sampling methods appropriate for testing controls and testing the accuracy of account balances.

Introduction

All audits involve sampling because the auditor cannot examine 100% of the transactions during a period; yet the auditor must reach conclusions about the accuracy of the underlying populations that make up an account balance. In some cases, the auditor may gather information by testing computerized processing via other means, e.g., embedded testing of controls built into a program.

However, every audit will contain some form of audit sampling to test the operation of controls and/or directly test account balances.

Why sample? The answer is that an auditor needs an efficient and effective way to reach a judgment about a population that is too large to examine 100%. Here is an example: When buying a basket of apples, you want to be sure that the number of rotten apples does not exceed some tolerable limit. You may know that the produce manager at the store checks the apples before putting them on the fruit counter (throwing away any that are rotten), places the new apples at the back of the counter so that the older ones are sold first, and checks the old stock to be sure that any that have rotted while on the counter are thrown away. Therefore, you feel safe in buying a basket of apples without spending much time checking for rotten apples because the controls are good. If you are unfamiliar with the store or are aware that the produce manager is careless or does not bother to check the apples, you will want to obtain more assurance that there are not too many rotten apples in the basket. If it is a small basket, you may look at all of the apples. If it is a large basket, you may not have time to check all of them, so you can look at only a few apples to determine whether to buy the basket. But, when you look, you don't want to examine only the apples at the top of the basket, you want a sample that is indicative of all the apples in the basket. Sampling is designed to reduce your risk, i.e., the likelihood that you will conclude that most of the apples are good when in fact many are not.

Audit sampling follows these same concepts. The objective of sampling is to estimate the amount of misstatement in an underlying population such as an account balance. If there is a large number of errors, the auditor wants to know about them so the account balance can be corrected. But, sampling always contains some risk, i.e., the auditor might not look at enough items (such as only three apples out of a bushel), or the sample might not be representative (such as looking only at the apples on the top of the basket). Thus, we must consider how to take samples that minimize the likelihood that we will reach an incorrect conclusion about what we are testing. Statistically-based sampling allows us to control the risk that we might reach an incorrect conclusion about the population being tested.

There are many types of sampling methods available for audit use, ranging from pure judgmental samples (the auditor judgmentally chooses which items to look at as well as how many to look at) to various types of statistical sampling techniques that have been formulated explicitly for audit objectives. There is not "one best" sampling method for every situation. However, there is usually "one best" sampling procedure for a specific audit objective. This chapter identifies those alternative sampling methods and the situations in which each might be most appropriate.

Statistical sampling has become more important in light of recent audit failures. Auditors are increasingly recognizing the need to perform detailed tests of account balances in lieu of over-reliance on analytical procedures. Similarly, the auditor must test the operation of controls in order to attest to the effectiveness of a company's internal controls. It is difficult to design a judgment sample that could be considered more effective or more efficient than a well-designed statistical sample. It is important that auditors understand the power and the judgments required to use statistical sampling procedures effectively.

Overview of Audit Sampling

The auditor constantly faces the challenge of gathering sufficient competent evidence as efficiently as possible. Samples must be representative; they must be of sufficient size and they must be selected from the appropriate underlying population if the auditor is going to minimize the risk of making the wrong conclusion about

the population. There are a few fundamental concepts that, if understood, will assist you in reaching correct conclusions from sampling.

Audit sampling is defined as applying audit procedures to less than 100% of a population in order to estimate some characteristic about that population. Said another way, it is learning a lot by doing a little. Auditors use sampling to gather evidence to:

- Test controls for the purpose of expressing an opinion on the client's internal controls
- Test controls for the purpose of assessing control risk
- Test for compliance with company policies, governmental regulations, or other criteria
- Test individual items in account balances as a basis for determining whether material misstatements exist in the account balance

When assessing the effectiveness of control procedures, the challenge is to gather sufficient reliable evidence on the degree to which the client's internal controls are effective in preventing misstatements. Sampling terminology refers to the individual items to be tested as **sampling units.** The sampling units make up the **population.** An example of sampling units might be the sales orders processed during the year that relate to the recognition of revenue. The sampling units selected for testing *must be representative* of the underlying population. The auditor needs to make four important decisions to ensure that the sample is representative and to control against making an incorrect inference:

1. Which population should be tested and for what characteristics *(population)*?
2. How many items should be selected for audit testing *(sample size)*?
3. Which items should be included in the sample *(selection)*?
4. What inferences can be made about the overall population from the sample *(evaluation)*?

Non-Sampling and Sampling Risk

The auditor could make an error about the characteristics of the underlying population because either (a) the auditor did not appropriately carry out the audit procedures or inappropriately diagnosed problems (human error or non-sampling risk) or (b) the auditor made an incorrect inference from a sample that was not representative of the population (sampling risk). Fortunately, audit firms can control for both of these risks.

Non-Sampling Risk It is assumed that auditors *carefully* examine all items in the sample and choose the correct procedures in gathering evidence to evaluate the correctness of a transaction. But, there may be cases when the auditor is not careful. Errors in assumptions about the correctness of a population that are due to carelessness in the performance of the audit are referred to as non-sampling risks. The audit firm controls the possibility of such errors through proper training, adequate supervision, and carefully designed audit programs. **Non-sampling risk** therefore includes all the aspects of audit risk that are not due to sampling. It cannot be quantified but it can be minimized by the quality control procedures of the audit firm.

Sampling Risk There is always a risk that any inferences made from a sample might not be correct, unless auditors examine 100% of a population (referred to as a census, i.e., no sampling). There is uncertainty about the results because the results are based on only a small part of the population: the smaller the sample, the more the uncertainty; the larger the sample, the less the uncertainty. **Sampling risk** is defined as the risk that a statistical inference drawn from a sample will be incorrect because the sample is too small or otherwise not representative of the characteristics that exist in the underlying population. By using statistical sampling,

the auditor can control—and measure—how much risk he or she is willing to take that the sample taken might not be representative of the population. Sampling risk can be measured using statistical sampling, but cannot be quantified or measured when the auditor uses non-statistical sampling.

The auditor must make a number of judgments that determine the size of the sample taken and the amount of audit work that must be performed. The auditor is influenced by two major factors in determining sample size: (a) how big a misstatement would make a difference to the auditor's overall assessment of the account balance or the correctness of processing (**tolerable misstatement**); and (b) the confidence level desired when making inferences about the correctness of the population values or rate of error in the population, e.g., percentage of time that a critical control fails to work.

Sampling Risks Related to Tests of Control Procedures The auditor uses sampling to gather evidence to assess the effectiveness of controls as part of an integrated audit. For the most part, the auditor uses sampling when gathering evidence to test controls over transaction processing. The auditor wants an accurate estimate of the likelihood that a control fails. However, the worst possible case is that the auditor would inappropriately conclude that controls are better than what they really are, i.e., the controls fail more often than the rate of control failures found in the sample. The auditor is always challenged to manage the risks of making incorrect inferences from small sample sizes. These sampling risks are presented in Exhibit 10.1.

Sampling Risks Related to Substantive Testing *Sampling* can also be used to estimate the amount of misstatement in an account balance. The auditor can, for example, select a sample of inventory items and perform a price test. If the sample contains pricing errors, the auditor projects these errors to the population to determine whether the population may be materially misstated because inventory is priced incorrectly. Whenever sampling is used, there is always a risk that the sample may not accurately reflect the population. The auditor must consider two potential risks (see Exhibit 10.2): (1) concluding that the book value is correct when it actually is materially misstated (**risk of incorrect acceptance**) and (2) concluding that the book value is materially misstated when it is not (**risk of incorrect rejection**).

The auditor's main concern is controlling the risk of incorrect acceptance. With incorrect acceptance, the account balance contains a material misstatement,

EXHIBIT 10.1 Sampling Risks for Tests of Control Procedures

Auditor's Assessment of Control Risk	Actual State of Controls: Effective	Actual State of Controls: Not Effective
Low	Correct conclusion	**Incorrect Acceptance of Internal Control Reliability** Control failures in the population are higher than the sample indicates (referred to as the risk of assessing control risk too low) (ineffectiveness)
High	**Incorrect Rejection of Control Reliability** Control failures in the population are lower than the sample indicates (referred to as the risk of assessing control risk too high) (inefficiency)	Correct conclusion

EXHIBIT 10.2 Sampling Risks for Direct Tests of Account Balances

Auditor's Conclusion Based on Sample Evidence	Condition of the Book Value: Does Not Contain a Material Misstatement	Condition of the Book Value: Contains a Material Misstatement
Book value **does not contain** a material misstatement	Correct conclusion	**Risk of incorrect acceptance** (leads to audit ineffectiveness)
Book value **may contain** a material misstatement	**Risk of incorrect rejection** (leads to audit inefficiency)	Correct conclusion

Practical Point

Samples should be planned to be as representative of the population as possible because the sample results will be projected to the population in order to draw a conclusion about the population.

but the auditor's sample results lead the auditor to believe the account does not contain a material misstatement. No additional audit work would be performed. On the other hand, if the auditor were to incorrectly reject a population that does not contain a material misstatement, the client will usually object and encourage the auditor to perform additional work. The additional audit work should lead to a correction of the inappropriate inference. The risk of incorrect rejection thus affects the *efficiency* of the audit; but it does not affect the overall fairness of the audited financial statements.

Selecting a Sampling Approach

Auditors use both nonstatistical and statistical sampling. When properly used, either sampling approach can be effective in providing sufficient audit evidence. Nonstatistical sampling, however, does not allow the auditor to statistically control for the risk of incorrect decision-making. **Statistical sampling** combines the theory of probability and statistical inference with audit judgment and experience. Both methods require significant audit judgment. The following is a comparison of nonstatistical and statistical sampling:

	Nonstatistical Sampling	Statistical Sampling
Sample Size	Determined by auditor judgment	Auditor judgment is quantified and aided by probability theory.
Sample Selection	Any method that the auditor believes is representative of the population; either haphazard or random-based selection can be used Judgment sampling can also be directed at a portion of the population, e.g., all transactions during the last 5 days of the year.	The sample must be randomly selected to give each item in the population an equal chance to be included in the sample. The population of interest can also be directed, e.g., the transactions during the last 10 days of the year can be statistically selected.
Evaluation	Based on auditor judgment	Statistical inference is used to assist auditor judgment.

Whether to use statistical or nonstatistical sampling is a cost/benefit decision based on the following:

	Cost	Benefit
Nonstatistical Sampling	• Requires audit judgment to determine an appropriate sample size and evaluate the results	• Does not require additional software

	Cost	Benefit
	• Does not provide an objective way to control and measure sampling risk	• Can be based on auditor's prior expectations about errors in the account • May take less time to plan, select, and evaluate the sample
Statistical Sampling	• Knowledge of statistical sampling methods and/or special computer sampling software is required and often involves training costs • Requires definitions of acceptable risk and sample objectives to be made in advance	Helps the auditor: • Design an *efficient* sample • Measure the *sufficiency* of the evidence • *Evaluate* the results by providing an objective measure of sampling risk • Gain efficiencies through computerized selection and statistical evaluation • Defend sample inferences because they are based on statistical theory

Statistical sampling techniques are especially *efficient* for testing large populations. Statistical sampling achieves most of its efficiencies because the validity of the sample is influenced mostly by the size of the sample rather than the percent of the population being examined. National samples predicting election results, for example, are quite accurate using samples of 600 to 3,000 of 80 million voters. This same kind of efficiency is applicable to auditing. Since both statistical and nonstatistical sample sizes are based on audit judgment, a rejection of statistical samples because the size is too large is difficult to justify.

Practical Point

Both statistical and nonstatistical sampling, when properly used, provide sufficient evidence. Statistical sampling allows the auditor to precisely control the risk of making an incorrect inference about the population from which the sample is taken.

Statistical sampling helps the auditor evaluate the sample by providing a quantitative measure of:

- The most likely and maximum failure rate of a control procedure that is being evaluated for effectiveness
- The most likely and maximum amount of misstatement in the recorded account balance or class of transactions
- The risk that the auditor may make an incorrect judgment about the state of controls or correctness of account balances

In addition to quantitatively evaluating the results of a sample, consideration should be given to the qualitative aspects of control failures and misstatements. The auditor should consider whether the sample results are caused by errors, or indicate the possibility of fraud, and how the control failures inpact other phases of the audit. The discovery of fraud ordinarily requires a broader consideration of possible implications than does the discovery of an error.

Combining statistical sampling with good audit judgment generally produces a higher-quality audit conclusion than using audit judgment alone.

Testing Control Effectiveness and Compliance

The auditor gathers evidence on the effectiveness of the client's internal control system by examining the significant controls over the financial reporting process. The auditor tests the controls only after the auditor has determined that the design of the controls are such that it would be effective in minimizing the likelihood of material misstatements in the account balances. The assessment of control effectiveness may be based on:

- A sample to test the effectiveness of controls in operation
- The auditor's observation of the significant business processes

- Tests of controls built into the client's computer system
- Inquiry and a review of monitoring reports

AS 5 requires both the public company and its external auditors to test the effectiveness of internal controls. That testing may include submitting test data through the computer system, examining documentation related to the operation of significant controls, performing a "walkthrough" of processes noting the effectiveness of controls in the process, and/or selecting a sample of transactions and testing for evidence of the effectiveness of control procedures. The sampling methods available for this purpose are attribute estimation sampling, discovery sampling, and nonstatistical sampling.

Attribute Estimation Sampling

The most commonly used statistical methods to test controls are **attribute estimation sampling** and discovery sampling, which is a special case of attribute estimation sampling. An **attribute** is defined as a characteristic of the population of interest to the auditor. Typically, the attribute the auditor wishes to examine is the effective operation of a control, for example, examining evidence that the client has matched vendor invoice details with the purchase order and receiving report before approval for payment, and noting that they match before authorizing a payment for the goods received.

In determining the appropriate sample size, the auditor needs to make judgments on the following items:

Sampling in Practice

Setting the risk of assessing control risk too low at 5% is akin to sampling with a 95% confidence level.

- *Sampling risk*—Sampling risk is the risk of concluding that the controls are effective when, in fact, they are not (often referred to as the **risk of assessing control risk too low**). This is usually related to the audit risk set for the audit. The judgment must be made in the context of other controls and processes. The auditor is testing the control only because it is a significant control. Thus, the auditor considers the potential effect of a control failure on financial account balances and must conclude that there is no more than a "remote chance" that the control failure would lead to a material misstatement in the financial statements.
- *Tolerable failure rate*—The auditor's **tolerable failure rate** is the level at which the control's failure to operate would change the auditor's planned assessment of control risk in performing tests of account balances, or at a rate that the auditor would conclude that the failure of the control to operate effectively would be considered a "significant deficiency." The tolerable failure rate must be set in advance in order to determine sample size. That judgment is based on the importance of the control in preventing financial statement misstatements.
- *Expected failure rate*—It is likely that there are times that a control may fail or be bypassed. Failures occur when personnel are in a hurry, or careless, are not competent, or are not properly trained. The auditor likely has evidence on the rate at which a particular control fails based on past experience as modified by any changes in the system or personnel. This is the **expected failure rate.**

Practical Point

Control failures do not automatically lead to account misstatements. The auditor must consider the likely effect of the failure on an account misstatement and the likelihood that numerous failures could allow material misstatements to occur.

The sample size needed may depend on whether the auditor is issuing a separate report on internal control, for example, for a public company, or whether the auditor is assessing control risk as a basis to determine the extent and nature of direct tests of account balances. In making judgments about the significance of a control, it is important to note that a control failure does not automatically mean that a misstatement has occurred. For example, a company may require a credit approval process for accounts receivable. When pressed for time, a marketing manager may approve a sale without obtaining proper credit approval. The control requiring credit approval has failed, but we do not know (a) whether the credit would have been granted if the process had been completed or (b) whether the customer is less likely to pay. Finally, the failure of this control does not affect the proper recording of the initial transaction. It may, however, affect the valuation of receivables at year end.

Audit Objective Control procedures should be in place to ensure that recorded transactions occurred, are complete, are accurate, are properly classified, and are recorded in the proper time period. Control procedures can be implemented in many different forms, and the nature of the implementation affects the auditor's approach to gathering evidence on the effectiveness of the procedure. Consider the credit approval procedure. The auditor may examine documentation to determine whether credit was properly approved before the goods were shipped (authorization) based on a sample of customer orders that should contain initials signifying an authorized credit approval. But in many computerized systems, credit authorization is embedded in the logic of the client's computer program. For example, the credit department may set a credit limit for each customer, and the computer calculates whether a customer's credit limit is higher than the customer's current balance plus the value of the new order. The organization may also build logic into the computer program to dynamically change credit limits based on such factors as volume of purchases, payment history, and current credit ratings. In such cases, the auditor cannot examine a sales order for credit approval but must consider instead how to audit the computer program.

Audit software can analyze a file and develop a printout of every customer that has a balance in excess of their credit limit.

Attribute estimation sampling is an especially useful technique in situations where the audit question can be answered with a yes or no. For example, it can be used to gather evidence to answer questions such as: "Was credit properly approved?" or "Was the customer's order shipped before it was billed?" or "Were the expenses claimed by the CEO consistent with company policies?"

When determining a sample size, the auditor considers: (a) the most likely control failure rate and (b) the possibility that the control failure rate exceeds some maximum (for example, a rate that the auditor would consider the failure to constitute a significant deficiency).

The steps to implement an attribute estimation sampling plan are as follows:

1. Define the attributes of interest and the failure(s).
2. Define the population in terms of the period to be covered by the test, the sampling unit, and the process of ensuring the completeness of the population.
3. Determine the sample size, considering tolerable and expected failure rates along with an acceptable sampling risk.
4. Determine an effective and efficient method of selecting the sample.
5. Select and audit the sample items.
6. Evaluate the sample results and reach a conclusion on the audit objectives.
7. Document all phases of the sampling plan.

Define the Attributes of Interest and Failures A number of attributes could be tested. However, the auditor tests only those likely to minimize the existence of misstatements in the accounting records. Control procedure failures should be precisely stated to ensure that the audit staff clearly understands what to look for, thereby reducing non-sampling risk.

Practical Point

The auditor defines an important control as one that should not allow the payment of a vendor's invoice until it is matched to, and agrees with, the purchase order and receiving record. The auditor then looks at a sample of cash disbursement transactions to see that the control is working by looking for evidence that someone in the accounts payable department has matched the three documents.

Define the Population The following factors need to be addressed in defining the population and selecting sampling procedures:

- The period to be covered by the test
- The sampling unit
- The process of assuring the completeness of the population

Period Covered by the Tests The period tested depends on the audit objective. In most instances, the *period* is the time period covered by the audited financial statements. As a practical matter, tests of controls are often performed prior to the balance sheet date and may cover the first ten or eleven months of the year. If the control procedures are found to be effective, the auditor should take additional steps to ensure that the controls continue to be effective during the

remainder of the year. The additional steps may include making inquiries, further testing of the controls, or gathering evidence of control effectiveness from substantive tests performed later in the audit.

In some situations, the audit objective and time period may be more limited. If the audit objective is to determine that the credit approval process is adequate, for example, the auditor might focus on credit approvals for the time period during which the unpaid receivables were billed. The auditor is not normally concerned with credit approval for sales that have already been collected by the balance sheet date.

Sampling Unit The sampling unit is the item identified in the population as the basis for testing. It could be a document, an authorized signature, an entry in the computer system, or a line item on a document. One company may require supervisory approval with initials to authorize payment of several invoices. The sampling unit would be the document authorizing the invoices. Another company may require written authorization for each invoice; the sampling unit would be the individual invoices processed for payment.

Ensuring the Population Is Complete The auditor must make sure that the population used in sampling is a complete representation of the total population of interest. The auditor normally performs some procedures, such as footing the file and reconciling the balance to the general ledger or reviewing the completeness of prenumbered documents, to ensure that the population is complete and consistent with the audit objective.

Determine the Sample Size An optimally determined sample size will minimize sampling risk and promote audit efficiency. The following audit judgments affect the determination of sample size: (1) sampling risk, (2) the tolerable (significant) failure rate, and (3) the expected failure rate. For most purposes, the population size is not a major factor. A discussion of the finite correction factor for very small populations is included in Appendix 10A.

The table in Exhibit 10.3 gives sample sizes for several combinations of these factors. The exhibit shows sample sizes for both 5% and 10% levels of sampling risk.

For the integrated audit, the auditor should start with an assessment of the failure rate that would lead the auditor to conclude that the control failure would constitute a significant deficiency or material weakness. For example, let's say a critical control is that all purchase orders must be approved by the purchasing manager, and that a summary of purchase orders must be reviewed and approved by the divisional manager. The auditor should consider the risk to the financial statements if this control is not working correctly. For example, if purchase orders are not issued and approved by the purchasing agent, they might be issued by either a staff person or someone in the factory who orders the goods but has them delivered to an alternative location. If that is the case, the auditor must consider the risk of (a) fraud and (b) the effect on cost of sales and inventory to determine what amount is material. If, let's say, 5% of the orders had this incorrect attribute, the auditor might conclude that amount is material and may want to set the tolerable failure rate at no more than 5%. For audits of non-public companies, a guideline used by many public accounting firms for setting the tolerable failure rate is to consider the preliminary assessment of control risk and relate that to tolerable failure rate as follows:

Preliminary Assessment of Control Risk	Tolerable Failure Rate
Low	<= 5%
Moderate	<= 10%
High	Do not test the control(s)

Note that if the preliminary assessment of control risk is high, the auditor believes the controls are not appropriately designed and, therefore, will place no reliance on them.

EXHIBIT 10.3 Attribute Sample Size Tables

TABLE 1: 5% SAMPLING RISK (RISK OF ASSESSING CONTROL RISK TOO LOW)

Expected Population Deviation Rate	Tolerable Rate										
	2%	3%	4%	5%	6%	7%	8%	9%	10%	15%	20%
0.00%	149(0)	99(0)	74(0)	59(0)	49(0)	42(0)	36(0)	32(0)	29(0)	19(0)	14(0)
0.25	236(1)	157(1)	117(1)	93(1)	78(1)	66(1)	58(1)	51(1)	46(1)	30(1)	22(1)
0.50	*	157(1)	117(1)	93(1)	78(1)	66(1)	58(1)	51(1)	46(1)	30(1)	22(1)
0.75	*	208(2)	117(1)	93(1)	78(1)	66(1)	58(1)	51(1)	46(1)	30(1)	22(1)
1.00	*	*	156(2)	93(1)	78(1)	66(1)	58(1)	51(1)	46(1)	30(1)	22(1)
1.25	*	*	156(2)	124(2)	78(1)	66(1)	58(1)	51(1)	46(1)	30(1)	22(1)
1.50	*	*	192(3)	124(2)	103(2)	66(1)	58(1)	51(1)	46(1)	30(1)	22(1)
1.75	*	*	227(4)	153(3)	103(2)	88(2)	77(2)	51(1)	46(1)	30(1)	22(1)
2.00	*	*	*	181(4)	127(3)	88(2)	77(2)	68(2)	46(1)	30(1)	22(1)
2.25	*	*	*	208(5)	127(3)	88(2)	77(2)	68(2)	61(2)	30(1)	22(1)
2.50	*	*	*	*	150(4)	109(3)	77(2)	68(2)	61(2)	30(1)	22(1)
2.75	*	*	*	*	173(5)	109(3)	95(3)	68(2)	61(2)	30(1)	22(1)
3.00	*	*	*	*	195(6)	129(4)	95(3)	84(3)	61(2)	30(1)	22(1)
3.25	*	*	*	*	*	148(5)	112(4)	84(3)	61(2)	30(1)	22(1)
3.50	*	*	*	*	*	167(7)	112(5)	84(4)	76(3)	40(2)	22(1)
3.75	*	*	*	*	*	185(7)	129(5)	100(4)	76(3)	40(2)	22(1)
4.00	*	*	*	*	*	*	146(6)	100(4)	89(4)	40(2)	22(1)
5.00	*	*	*	*	*	*	*	158(8)	116(6)	40(2)	30(2)
6.00	*	*	*	*	*	*	*	*	179(11)	50(3)	30(2)
7.00	*	*	*	*	*	*	*	*	*	68(5)	37(3)

TABLE 2: 10% SAMPLING RISK (RISK OF ASSESSING CONTROL RISK TOO LOW)

Expected Population Deviation Rate	2%	3%	4%	5%	6%	7%	8%	9%	10%	15%	20%
0.00%	114(0)	76(0)	57(0)	45(0)	38(0)	32(0)	28(0)	25(0)	22(0)	15(0)	11(0)
0.25	194(1)	129(1)	96(1)	77(1)	64(1)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
0.50	194(1)	129(1)	96(1)	77(1)	64(1)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
0.75	265(2)	129(1)	96(1)	77(1)	64(1)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
1.00	*	176(2)	96(1)	77(1)	64(1)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
1.25	*	221(3)	132(2)	77(1)	64(1)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
1.50	*	*	132(2)	105(2)	64(1)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
1.75	*	*	166(3)	105(2)	88(2)	55(1)	48(1)	42(1)	38(1)	25(1)	18(1)
2.00	*	*	198(4)	132(3)	88(2)	75(2)	48(2)	42(1)	38(1)	25(1)	18(1)
2.25	*	*	*	132(3)	88(2)	75(2)	65(2)	42(1)	38(1)	25(1)	18(1)
2.50	*	*	*	158(4)	110(3)	75(2)	65(2)	58(2)	38(1)	25(1)	18(1)
2.75	*	*	*	209(6)	132(4)	94(3)	65(2)	58(2)	52(2)	25(1)	18(1)
3.00	*	*	*	*	132(4)	94(3)	65(2)	58(2)	52(2)	25(1)	18(1)
3.25	*	*	*	*	153(5)	113(4)	82(3)	58(2)	52(2)	25(1)	18(1)
3.50	*	*	*	*	194(7)	113(4)	82(3)	73(3)	52(2)	25(1)	18(1)
3.75	*	*	*	*	*	131(5)	98(4)	73(3)	52(2)	25(1)	18(1)
4.00	*	*	*	*	*	149(6)	98(4)	73(3)	65(3)	25(1)	18(1)
5.00	*	*	*	*	*	*	160(8)	115(6)	78(4)	34(2)	18(1)
6.00	*	*	*	*	*	*	*	182(11)	116(70)	43(3)	25(2)
7.00	*	*	*	*	*	*	*	*	199(14)	52(4)	25(2)

Note: The number of expected misstatements appears in parentheses. These tables assume a large population.
* = Sample size is too large to be cost effective for most audit applications.
Source: *Audit Sampling* (New York: AICPA, 1999), 96–97. Reprinted with permission from AICPA; copyright © 1994 and 1999 by American Institute of Certified Public Accountants.

Practical Point

Larger samples will usually result in better estimates about the population than smaller samples, but will take more time to select and evaluate the audit evidence, thus resulting in more cost for the audit.

An example will clarify the use of these tables. The auditor plans to test the controls that ensure that sales are not billed and recorded before shipment. Assume the auditor sets sampling risk at 5%; i.e., there is only a 5% risk that the actual error rate in the population would exceed the upper limit based on the statistical inference from testing the sampled items. The auditor wants to test whether the control is working effectively and does not expect the actual failure rate in the population to exceed the expected failure rate. Timely billing control procedures are seen as important controls on which the auditor wishes to place significant reliance. If, during the year, sales are frequently billed before shipment, the financial statements will not be affected unless the next period's sales are recorded in the current year. If the control is not working, the auditor will need to expand cutoff testing of sales recorded prior to year end. The auditor has determined that the controls being tested have been well designed and has assessed control risk as low pending the results of the test of operating effectiveness. Therefore, a tolerable failure rate of 5% is chosen. Based on prior-year experience and knowledge of changes in personnel and the system, the auditor estimates that the failure rate will not exceed 1%. Using Exhibit 10.3, the auditor determines that the sample size should be at least 93 items. The number in parentheses next to each sample size is the maximum number of control failures the auditor expects in that sample if the population's failure rate is the same as the expected failure rate. For example, the auditor would expect to find no more than one failure in the sample of 93 items given that the expected failure rate is no more than 1%.

Multiple Attributes Auditors frequently test several control procedures or attributes using the same set of source documents. When doing so, the auditor should use the same sampling risk for all the tests. However, the tolerable and expected failure rates for these attributes are likely to be different, resulting in different sample sizes. For example, the auditor may want to test the classification, accuracy, and occurrence assertions concerning sales transactions using tolerable failure rates of 5%, 3%, and 3% and expected failure rates of 2%, 1%, and 0%, respectively. If the auditor sets sampling risk at 10%, the sample sizes range from a high of 176 for valuation to a low of 76 for occurrence:

Attribute	Tolerable Failure Rate	Expected Failure Rate	Sample Size
1. Evidence of independent review of account distribution (classification)	5%	2%	132
2. Evidence of comparison of description, quantity, and price between the customer's order and sales invoice (accuracy)	3%	1%	176
3. Evidence of proper review and approval for credit (occurrence and valuation)	3%	0%	76

There are three reasonable approaches to select the items for these tests:

1. The auditor could select 176 sales transactions (the largest sample size) and audit all of them for attribute 2, three of four for attribute 1, and every other one for attribute 3. This process, however, is quite cumbersome.
2. The auditor could examine the first 76 randomly selected documents for all three attributes and documents, sample items 77–132 for attributes 1 and 2, and the remainder only for attribute 2. This process is also quite cumbersome.
3. Often the most efficient approach is to test the 176 items for all three attributes. Attributes 1 and 3 will be in some sense "over-audited," but the over-auditing may take less time than keeping track of which sample items should be tested for which attribute. Testing for attributes 1 and 3 does not take very long once the auditor has selected the documents in the sample. The auditor's evaluation of the control is based on the 176 items examined and improves the effectiveness of the control risk assessment.

Determine the Method of Selecting the Sample Once the sample size has been determined, the auditor must decide how to select a representative sample. Random-based methods ensure that each item in the population has an equal chance to be included in the sample. Statistical sampling requires **random-based selection** because it eliminates the possibility of unintentional bias in the selection process and helps ensure that the sample is representative. For nonstatistical sampling, the auditor may use judgment to select a sample that will be representative. A flowchart for choosing among several selection methods is illustrated in Exhibit 10.4

Practical Point

Samples selected randomly are more likely to be representative of the population than a non-random selection which is often subject to unintended biases.

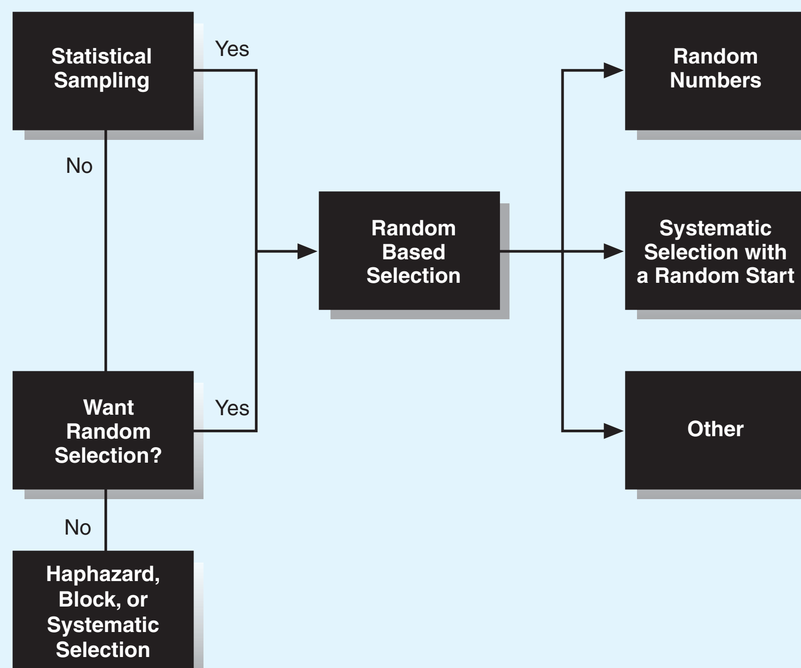
Random Numbers Random number selection is an efficient sample selection method if there is an easy way to relate the random numbers to the population. For example, a random selection of sales invoices could be based on sales invoice numbers. Most CPA firms and internal audit departments have computer programs that generate and sort random numbers and provide the necessary printout to document the random-number selection process.

Audit software can be used to select a random sample.

Systematic Selection Several systematic selection methods meet the requirement of randomness and improve audit efficiency when documents are not numbered in a pattern. In order to use systematic selection the auditor must (a) establish that the population is complete and (b) be sure that there is not a systematic pattern in the population.

Systematic selection involves the determination of an interval *(n)* and the selection of every *n*th item to be tested. The sampling interval is determined by dividing the population size by the desired sample size. A random start between 1 and *n* is chosen to identify the first sample item. As a result, every item in the population has an equal chance of being tested. Payroll transactions in a payroll journal, for example, may be listed in employee number order. These numbers are not in sequence because of employee turnover. There are 1,300 payroll transactions, and the auditor has determined a sample size of 26. Every 50th transaction

EXHIBIT 10.4 Sample Selection Methods



(1,300/26 = 50) should be selected for testing. To randomize the selection process, a random number from 1 to 50 should be used to identify the first sample item. This could be done, for example, by using the last two digits of a serial number on a dollar bill. If those digits were 87, subtract 50, leaving 37 as the first sample item. Every 50th transaction thereafter would also be included in the sample.

The validity of a systematic sample is based on the assumption that the items in the population are randomly distributed. The auditor must be knowledgeable about the nature of the population to be sure that no repeating or coinciding pattern in the population would cause the sample not to be representative. Many auditors try to ensure that the systematically selected samples are representative of the population by using multiple random starts.

Haphazard Selection Haphazard selection involves the arbitrary selection of sample items with no conscious bias, but without using a random base. It is often used in nonstatistical sampling applications. Because it is not random based, such a sample cannot be statistically evaluated.

Block Sampling Auditors may want to select a day, or a week, to look at transactions. There are many efficiencies to such an approach, but the danger is that the way the transactions were processed on these days may not be indicative of how they were processed the other 364 days. By making this judgmental decision, the auditor is subject to being second-guessed that such a sample could not be representative.

Select and Audit the Sample Items When selecting the sample, the auditor should decide how to handle inapplicable, voided, or unused documents. An example of an inapplicable document would be a telephone bill when testing for an error defined as "cash disbursement transactions not supported by a receiving report." If the inapplicable document does not represent a prescribed control procedure, it should be replaced by another randomly selected item. When a selected item cannot be located, the auditor should assume the worst—that the control procedure was not followed—and count it as a failure. The auditor may find so many failures before finishing the audit of a sample that he or she concludes that no reliance could be placed on the tested control procedure. In such a situation, the auditor should terminate the test to avoid wasting any more time and discuss with management and the audit committee.

Evaluate the Sample Results Evaluation of sample results requires the auditor to project those results to the population before drawing an audit conclusion. If the sample failure rate is no greater than the expected failure rate, the auditor can conclude that the control is at least as effective as expected and can assess the control risk according to the original audit plan.

Quantitative Evaluation If the sample failure rate exceeds the expected failure rate, the auditor should determine whether the projected maximum failure rate is likely to exceed the tolerable failure rate previously set. To make such an assessment, the auditor should use statistical evaluations. Tables such as those in Exhibit 10.5 help the auditor determine the upper limit of the potential failure rate in the population. If the **achieved upper limit** exceeds the tolerable rate, the auditor should (1) test a compensating control or (2) adjust the nature, timing, and/or the extent of the related substantive testing of the financial statement accounts, and conclude that the control is not working at a satisfactory level, i.e., there is a significant deficiency in the control and adjust the direct tests of the account balances accordingly.

In determining the change in subsequent audit procedures, the auditor should consider the nature of control procedure failures (pattern of error) and determine the effect of such failures on potential misstatement in the financial statements.

EXHIBIT 10.5 Attribute Estimation Sample Evaluation Tables

TABLE 1: 5% SAMPLING RISK (RISK OF ASSESSING CONTROL RISK TOO LOW)

Sample Size	Actual Number of Control Procedure Deviations Found										
	0	1	2	3	4	5	6	7	8	9	10
25	11.3	17.6	*	*	*	*	*	*	*	*	*
30	9.5	14.9	19.6	*	*	*	*	*	*	*	*
35	8.3	12.9	17.0	*	*	*	*	*	*	*	*
40	7.3	11.4	15.0	18.3	*	*	*	*	*	*	*
45	6.5	10.2	13.4	16.4	19.2	*	*	*	*	*	*
50	5.9	9.2	12.1	14.8	17.4	19.9	*	*	*	*	*
55	5.4	8.4	11.1	13.5	15.9	18.2	*	*	*	*	*
60	4.9	7.7	10.2	12.5	14.7	16.8	18.8	*	*	*	*
65	4.6	7.1	9.4	11.5	13.6	15.5	17.4	19.3	*	*	*
70	4.2	6.6	8.8	10.8	12.6	14.5	16.3	18.0	19.7	*	*
75	4.0	6.2	8.2	10.1	11.8	13.6	15.2	16.9	18.5	20.0	*
80	3.7	5.8	7.7	9.5	11.1	12.7	14.3	15.9	17.4	18.9	*
90	3.3	5.2	6.9	8.4	9.9	11.4	12.8	14.2	15.5	16.8	18.2
100	3.0	4.7	6.2	7.6	9.0	10.3	11.5	12.8	14.0	15.2	16.4
120	2.5	3.9	5.2	6.4	7.5	8.6	9.7	10.7	11.7	12.8	13.8
140	2.2	3.4	4.5	5.5	6.5	7.4	8.3	9.2	10.1	11.0	11.9
160	1.9	3.0	3.9	4.8	5.7	6.5	7.3	8.1	8.9	9.7	10.4
200	1.5	2.4	3.2	3.9	4.6	5.2	5.9	6.5	7.1	7.8	8.4

TABLE 2: 10% SAMPLING RISK (RISK OF ASSESSING CONTROL RISK TOO LOW)

Sample Size	0	1	2	3	4	5	6	7	8	9	10
25	8.8	14.7	19.9	*	*	*	*	*	*	*	*
30	7.4	12.4	16.8	*	*	*	*	*	*	*	*
35	6.4	10.7	14.5	18.1	*	*	*	*	*	*	*
40	5.6	9.4	12.8	16.0	19.0	*	*	*	*	*	*
45	5.0	8.4	11.4	14.3	17.0	19.7	*	*	*	*	*
50	4.6	7.6	10.3	12.9	15.4	17.8	*	*	*	*	*
55	4.1	6.9	9.4	11.8	14.1	16.3	18.4	*	*	*	*
60	3.8	6.4	8.7	10.8	12.9	15.0	16.9	18.9	*	*	*
70	3.3	5.5	7.5	9.3	11.1	12.9	14.6	16.3	17.9	19.6	*
80	2.9	4.8	6.6	8.2	9.8	11.3	12.8	14.3	15.8	17.2	18.6
90	2.6	4.3	5.9	7.3	8.7	10.1	11.5	12.8	14.1	15.4	16.6
100	2.3	3.9	5.3	6.6	7.9	9.1	10.3	11.5	12.7	13.9	15.0
120	2.0	3.3	4.4	5.5	6.6	7.6	8.7	9.7	10.7	11.6	12.6
140	1.7	2.8	3.8	4.8	5.7	6.6	7.4	8.3	9.2	10.0	10.8
160	1.5	2.5	3.3	4.2	5.0	5.8	6.5	7.3	8.0	8.8	9.5
200	1.2	2.0	2.7	3.4	4.0	4.6	5.3	5.9	6.5	7.1	7.6

Note: These tables present upper limits as percentages assuming a large population.
*Over 20%.
Source: *Audit Sampling* (New York: AICPA, 1999), 98–99. Reprinted with permission from AICPA; copyright © 1994 and 1999 by American Institute of Certified Public Accountants.

When the achieved upper limit exceeds the tolerable rate the auditor has to make a judgment as to whether the control failure, in conjunction with other control failures, leads to a decision that there are either significant deficiencies or material weaknesses regarding internal control over financial reporting.

Sample Evaluations—An Illustration To illustrate the use of the tables, assume that the auditor tested the controls designed to ensure sales were not billed

until shipped using a sampling risk of 5%, a tolerable failure rate of 6%, and an expected failure rate of 1%. Recall what these judgments mean:

- Sampling risk of 5% means the auditor wants to be 95% confident that the maximum rate of control failures will not exceed the tolerable failure rate of 6%.
- The maximum acceptable level of control failures is 6%; if there is more than a 5% chance that the actual error rate is greater than this amount, the auditor must conclude the control is not working at an acceptable level.
- The auditor does not expect many errors; based on past history the auditor expects the control to be not-operative only about 1% of the time because it is a "key" control and it should operate consistently throughout the period.

A sample of 80 was selected from a population of 100,000 sales transactions. If one control procedure failure was found in the sample, the sample failure rate of 1% equals the expected rate, and the auditor can assess the control risk as planned.

If, however, three control procedure failures were found, the auditor should not conclude that there are only three control procedure failures in the population. Rather, the sample results should be considered representative of the population. Because the sample failure rate is 3%, the auditor can project that there are approximately 3,000 of these failures in the population (3% × 100,000), but that is only an estimate; the auditor needs to determine how likely the error rate is greater than the 3%. Exhibit 10.5 shows that, using a 5% sampling risk and a sample size of 80, the upper limit is 9.5%. The auditor can be 95% confident that the failure rate is no greater than 9.5%. However, the auditor had previously set the tolerable rate at 6% because it is an important control that is not expected to fail. There is more than a remote chance that the failure rate is greater than 6%. This sample result is unexpected and indicates that internal control is not working as effectively as the auditor had planned and, therefore, the auditor should increase control risk from low to moderate or high, and consider the deficiency in determining how it affects the report on internal controls over financial reporting.

Qualitative Evaluation When control failures are found, they should be analyzed *qualitatively* as well as quantitatively. The auditor should try to determine whether the failures (1) were intentional or unintentional, (2) were random or systematic, (3) had a direct dollar effect, or (4) were of such magnitude that a material dollar amount of errors could occur and not be detected.

The auditor is much more concerned if the control failures appear to be *intentional* because intentional misstatements reflect on the integrity of the process and might cause the auditor to suspect fraud. If the failures are *systematic,* the auditor may be able to isolate the problem and reduce the need to change related substantive testing. For example, if all of the failures were caused by just 1 of the 50 clerks in the department, the auditor could more carefully review the financial records affected by that person's work to determine the extent of any associated dollar misstatements.

Practical Point

Control failures should be analyzed qualitatively to determine if they are random, unintended events, or are evidence of potential fraud.

Often, a failure in a control does not lead directly to dollar misstatements in the accounting records. Lack of proper approval for payment of a vendor's invoice, for example, does not necessarily mean that the invoice should not have been paid. If, however, the auditor determines that there are *dollar misstatements* caused by failures uncovered in the sample, the misstatements should not be ignored. Even if a misstatement were subsequently corrected, it could point to a potential problem of misstatements occurring near year end that have not been corrected.

Linkage to Substantive Testing In addition to issuing a report on internal controls, the tests of controls are used to determine whether the nature, timing, or extent of the planned substantive testing needs to be modified. For example, if tests of controls indicate that the client is not careful about ensuring that shipment has taken place before billing and recording a sale, the auditor may need to increase sales cutoff testing and/or concentrate on sales recorded just before the balance sheet date. If credit approval of sales is not working well, the auditor will have to take more time to determine whether the allowance for doubtful

accounts is reasonable. Additional testing of subsequent collections and follow-up on old uncollected balances may be needed.

Nonstatistical Sampling

If the auditor chooses to utilize nonstatistical sampling procedures to test the effectiveness of control procedures, the planning factors often are not quantified. Instead, the auditor addresses significant, tolerable, and expected failure rates through the more global concepts of none, few, and many. Sampling risk is often set as low, moderate, or high. Note, however, if the sampling is done as part of an audit of internal controls, the presumption is that sampling risk must be low. The effect of these factors on sample size follows:

	Condition Leading To	
Factor	**Smaller Sample**	**Larger Sample**
Tolerable failure rate	High	Low
Expected failure rate	Low	High
Sampling risk	High	Low
Population size	Small	Large (but should not increase proportionately with an increase in population size)

Practical Point

Many accounting firms use a defined sample size, such as 45 or 60, to randomly select sample items. However, if a control failure is found, the auditor concludes that the control is not working at a level that would allow the auditor to conclude that a significant deficiency does not exist.

Even by making these subjective judgments, the auditor cannot quantitatively assess the risk of making an incorrect inference based on the sample results. For this reason, many auditors who use nonstatistical sampling should review the factors and select a sample size consistent with a statistically determined sample.

Sampling to Test for Account Balance Misstatements

Substantive Sampling Considerations

An auditor chooses to perform direct tests of many account balances to gather sufficient evidence by directly examining the composition of account balances. The basic steps involved in using sampling for substantive tests of account balances are the same whether nonstatistical or statistical sampling approaches are used:

- Specify the *audit objective* of the test
- Define a *misstatement*
- Define the *population* from which the sample is to be taken
- Choose an appropriate *sampling method*
- Determine the *sample size*
- *Select* the sample
- *Audit* the selected items
- *Evaluate* the sample results, including the projection of misstatements to the population
- Determine if additional audit work is needed and *perform follow-up work as necessary*
- *Document* the sampling procedure and results obtained

These steps are discussed in the following sections.

Specify the Audit Objective of the Test The auditor will likely use a combination of sampling and other audit procedures to test account balances. For example, in testing the valuation assertion regarding inventory, the auditor may take a sample of inventory items to test inventory cost; but he or she will use analytical procedures, such as turnover analysis and aging, to help analyze the possibility of obsolete inventory. Thus, it is important to recognize that sampling usually relates

Practical Point

Sampling is a very important procedure in gathering evidence to evaluate account balances, but it is seldom the only audit procedure utilized.

to one specific procedure usually testing one specific assertion. One test or one sample is seldom sufficient to reach a conclusion on an account balance based just on the sample results because one audit procedure is rarely sufficient to reach an audit conclusion. Sample results are combined with other audit results before making a judgment about the correctness of the account balance.

Specifying the audit objective determines the population to test. For example, if the objective is to determine the existence of customer balances, the sample should be selected from the recorded balances. If the objective is to determine the completeness of accounts payable, the sample should be selected from a complementary population, such as cash disbursements made after the balance sheet date. The auditor looks for payments for goods and services received by the balance sheet date that should be payables at year end but were not recorded until after year end.

Sampling is used to audit account balances in two primary ways: (1) to determine the reasonableness of an account balance by performing detailed analysis of items making up the account balance and (2) to estimate some amount, such as the LIFO index, to estimate the LIFO value of inventory. In this chapter we focus on the first use.

Define Misstatements Auditors encounter many situations in which the audited value of an item differs from its recorded value. Misstatements should be defined before beginning the sampling application to (1) preclude the client or auditor rationalizing away misstatements as isolated events and (2) provide guidance to the audit team. A **misstatement** is usually defined as a difference that affects the correctness of the overall account balance. For example, if a cash payment were posted to the wrong customer's subsidiary account, the overall account balance would still be correct. This should not be considered a misstatement. Even so, the auditor should carefully follow up on this to be sure it is not evidence of the cover-up of an employee's misappropriation of cash (called *lapping*). If, however, the client inappropriately billed a customer before the end of the period, the premature billing would be considered a misstatement because the overall receivable balance would be overstated at the end of the period.

Practical Point

The population to test is directly related to the audit objective. Most sampling occurs on already recorded transactions or items making up an account balance.

Define the Population The population is that group of items in an account balance that the auditor wants to test. The population, as defined for sampling purposes, does not include any items that the auditor has decided to examine 100% or items that will be tested separately. Because sample results can be projected to only that group of items from which the sample is selected, it is extremely important to properly define the population. For example, a sample selected from the inventory at one location can be used only to estimate the amount of misstatement at that location, not at other locations.

Define the Sampling Unit Sampling units are the individual auditable elements, as defined by the auditor that constitute the population. A sampling unit for confirming accounts receivable could be the individual customer's balance, individual unpaid invoices, or a combination of these two. The choice depends on effectiveness and efficiency of the process, and the manner in which the client has recorded the individual items. Some customers are more likely to return a confirmation when asked to confirm one unpaid invoice rather than verifying the correctness of an entire account balance. If a customer does not return a positive confirmation, alternative procedures must be performed. These procedures include identifying subsequent payments and/or vouching the sales transactions to supporting documents. If customers typically pay by invoice, it will be more efficient to perform alternative procedures on individual invoices than on total balances.

Completeness of the Population A sample is selected from a physical representation of the population, such as a list of customer balances or a computer file. The auditor needs assurance that the list accurately represents the population. A common procedure is to foot the list and reconcile it with the general ledger.

Identify Individually Significant Items Many account balances are composed of a few relatively large items and many smaller items. A significant portion of the total value of many accounting populations is concentrated in a relatively few large-dollar items. Because of this, the auditor often will examine all the large-dollar items. The examination of these items represents a census of those items and is not considered a sample because all the items are examined. Those items are often referred to as the **top stratum.** The remaining items *(lower stratum)* are then sampled using one of the sampling methods described in this chapter. The audit results reflect the sum of the top-stratum items and the *projected misstatement* derived from the lower-stratum items.

The auditor often uses judgment to determine the cutoff point for top-stratum items. The division of the population into two or more subgroups is referred to as **stratification.** Stratification of the population into several homogeneous subpopulations generally creates audit efficiency. The stratification process can be enhanced with the use of audit software that has the capability of creating a profile of the population of book values. Note that the sampling method called probability proportional to size (discussed later in this chapter) automatically identifies top-stratum items.

Choose a Sampling Method There are a number of sampling methods from which the auditor may choose:

- Nonstatistical
- Probability proportional to size (PPS)
- Classical sampling methods[1] (beyond the scope of this textbook):
  - Mean-per-unit
  - Ratio estimation
  - Difference estimation

Audit Objective and Selection of Sampling Method The auditor is usually concerned that asset balances may be overstated. For an account to be *overstated,* the list of items making up the account balance, such as the list of customers' balances, must contain invalid and/or overstated items. If the sample is selected based on dollars, those items with larger balances are more likely to be included in the sample than those with smaller balances.

Understatements, on the other hand, are quite a different matter. For an account to be *understated* either some of the recorded balances are understated or, more likely, material items are not recorded. If the auditor is concerned with understatement, a sampling methodology that emphasizes selection based on items rather than on dollars should be used. No sampling method that samples from items already recorded, however, detects understatements caused by missing items. Thus, if the auditor suspects understatements, a complementary population should be tested. For example, the auditor could employ a cutoff test to detect missing sales and receivables, or examine cash disbursements after year-end for evidence of accounts payable that should have been recorded as of year-end.

Determine the Sample Size, Select the Sample, and Evaluate the Results Determining the sample size, the method of selecting the sample, and the approach to evaluating the sample results depend on the sampling method used. Whatever sampling method is chosen, however, consideration must be given to the risk of misstatement in the account, sampling risk, and the auditor's assessment of tolerable and expected misstatement. If a statistical sampling method is employed, the sample must be selected randomly to give each item in the population an equal

[1] Details of the classical statistical sampling methods are covered in Donald Roberts, *Statistical Auditing,* AICPA, 1978.

chance to be included in the sample. The auditor should perform appropriate follow-up work when the audit results indicate a more than expected likelihood of material misstatement.

Practical Point

Tolerable misstatement is related to materiality—how much of a misstatement can occur before the auditor gets concerned.

Tolerable misstatement represents the maximum amount of misstatement the auditor can accept in the population without requiring an audit adjustment or a qualified audit opinion. When planning a sample for a test of details, the auditor should identify the maximum monetary misstatement in the account balance, when combined with misstatements found in other tests that would cause the financial statements to be materially misstated. Tolerable misstatement is based on planning materiality for the account balance. Different firms have different approaches for determining tolerable misstatement. Some firms arbitrarily set tolerable misstatement at 75% of planning materiality. Other firms have a highly quantified approach.

Expected misstatement is based on projected misstatements in prior-year audits, results of other substantive tests, audit judgment, and knowledge of changes in personnel and the accounting system. It is usually desirable to be conservative and use a slightly larger expected misstatement than the auditor actually anticipates. This conservative approach may marginally increase the sample size, but it minimizes the risk of rejecting book value when book value is not materially misstated. If expected misstatement is greater than tolerable misstatement, sampling is not appropriate.

Document the Sampling Application All of the preceding steps and related decisions regarding the sampling process should be documented to allow for appropriate supervision and provide adequate support for the conclusions reached.

Nonstatistical Sampling

Nonstatistical samples should be based on the same audit considerations as those used for statistical sampling. There is no way to mathematically control for sampling risk in a nonstatistical sample; the auditor can only project the detected misstatements and make a judgment as to whether the account is likely to be materially misstated, and then decide whether more audit work is needed.

Determine Sample Size All significant items should be tested. The auditor should select all items over a specific dollar amount, and then, depending on audit objectives, select items with other characteristics, such as items billed in the last week or billed to specific parties. The sample size of the other items to be tested should be based on the same factors used in statistical sampling.

Select the Sample The auditor must select a sample that is representative of the population. One way to obtain a representative sample is to use a random-based method, either random dollars or random items, as in statistical sample selection. Another way is to choose items without any conscious bias (**haphazard selection**) other than intentionally selecting more of the large-dollar items.

Evaluate the Sample Results Misstatements found in a sample must be projected to the population. For example, the auditor is using nonstatistical sampling to confirm accounts receivable. All 21 customer balances equal to or greater than $50,000 were confirmed. A random sample of 19 balances less than $50,000 was confirmed. The details are presented in the following table:

	Population		Sample		
	Number	Amount	Number	Amount	Misstatement
> = $50,000	21	$2,000,000	21	$2,000,000	$1,500
< $50,000	190	$2,500,000	19	$310,000	$900
Total	211	$4,500,000	40	$2,310,000	$2,400

AUDITING IN PRACTICE

Consideration of Sampling Error in a Nonstatistical Sample

One research study simulated various characteristics of an accounting population, including total book value, the average dollar amount, and the number of items in the population, their variability, and misstatement conditions. One decision rule the researchers considered was if the projected misstatement was less than one-third tolerable misstatement, accept the accounting population; otherwise, reject the accounting population as materially misstated. They found that this decision rule was effective in minimizing the risk of incorrect acceptance.

Source: Lucia E. Peek, John Neter, and Carl Warren, "AICPA, Non-Statistical Audit Sampling Guidelines: A Simulation," *Auditing: A Journal of Practice & Theory* (Fall 1991), 33–48. American Accounting Association.

The misstatement of $1,500 in the top stratum needs no projection to the population because all of these items were tested. However, misstatements in the lower stratum should be projected to the rest of the lower stratum as follows:

$$\$900/\$310{,}000 \times \$2{,}500{,}000 = \$7{,}258$$

Therefore, the total projected misstatement is $8,758 ($1,500 + $7,258). The $8,758 is the auditor's best estimate, but there is some probability that the actual amount may be higher. Because of the possibility that the population could contain more misstatement than the projected misstatement, research suggests determining an upper limit of three times the projected error (see the *Auditing in Practice*—Consideration of Sampling Error in a Nonstatistical Sample feature). This upper limit should be compared to tolerable misstatement. The auditor may decide that the potential misstatement is not material, or may decide that additional work needs to be performed to develop a more precise estimate of the misstatement. Using the above illustration, the upper limit would be $26,274 ($8,758 × 3). If the tolerable misstatement is greater than $26,274, the auditor would conclude that there does not appear to be a material misstatement in the population.

Probability Proportional to Size Sampling

Probability proportional to size (PPS) sampling is an adaptation of attribute sampling to dollar value testing. It has been developed especially for use in auditing (see the *Auditing in Practice* feature). PPS sampling has been given various names over time, including dollar-unit sampling, cumulative monetary amount sampling,

AUDITING IN PRACTICE

The Development of PPS Sampling

In the 1960s, an auditor for a firm that is now part of Deloitte was applying one of the classical sampling methods to test an account balance. For classical sampling, the population is defined as the number of items that make up the account balance, such as customer balances or inventory items. It requires estimating the standard deviation of the population and stratifying the population to obtain a reasonable sample size. The statistical calculations were very complex and computer programs were not readily available for this purpose. He thought that it would make more sense to define the population as the number of dollars in the account balance and randomly select dollars for testing because he was ultimately expressing an opinion on the dollars in the financial statements.

This idea was explored by the firm. A paper written in 1961 by A. van Heerden described the use of a sampling method for testing accounting populations with low error rates.* Kenneth Stringer, a statistician and partner in the firm, used this idea and developed methods for determining sample size, selecting the sample, and evaluating the sample results. His technique was called cumulative monetary amount (CMA) sampling and was quite unique. Several others have developed modified versions of his basic results.†

*A. van Heerden, "Statistical Sampling as a Means of Auditing," Maandblad voor Accountancy en Bedrijfshuish oulkunde (1961).
†Donald Roberts, *Statistical Auditing* (New York: AICPA, 1978), 119.

monetary unit sampling, and combined attributes—variables sampling. PPS sampling was designed to be especially effective in testing for overstatements in situations when few or no misstatements are expected. Individual book values must be available for testing.

The population for PPS sampling is defined as the number of dollars in the population being tested. Each dollar in the population has an equal chance of being chosen, but each dollar chosen is associated with a tangible feature such as a customer's balance or an inventory item. Thus, a particular item's chance of being chosen is proportional to its size, hence the term *probability proportional to size sampling*. Research has shown that PPS sampling is very efficient in many auditing contexts and has become the most widely used statistical method for substantive audit testing when there are risks of account balance overstatements.

Overview of PPS Sample Design The design of a PPS sample requires the auditor to determine (1) the allowable risk of the sample failing to detect a material misstatement (called the risk of incorrect acceptance or **test of details [TD] risk**), (2) tolerable misstatement, and (3) expected misstatement in the account balance.

Test of Details Risk (Risk of Incorrect Acceptance) To this point, the term *detection risk* has been used to refer to the risk of substantive procedures failing to detect material misstatements. It is now useful to separate this risk into two parts: other substantive procedures risk (OSPR) and the test of details (TD) risk as follows:

$$AR = IR \times CR \times DR$$
$$AR = IR \times CR \times OSPR \times TD$$

Therefore:

$$TD = \frac{AR}{IR \times CR \times OSPR}$$

The auditor wants to control the risk of inferring that the account balance does not contain a material misstatement for the assertion being tested when, in fact, it does contain a material misstatement (risk of incorrect acceptance). PPS sampling is specifically designed to control this risk. *The risk of incorrect acceptance is also called the test of details (TD) risk*. The complement of TD risk is the confidence (reliability) level. For example, a 15% TD risk is the same as an 85% confidence level.

In determining the TD risk, the auditor needs to consider the effectiveness of the other substantive procedures that have been, or will be, performed. Examples of these other substantive procedures are analytical procedures, cutoff tests, subsequent collection of receivables, and substantive tests of other transactions. The risk of these other procedures failing to detect material misstatements is referred to as the **other substantive procedures risk (OSPR).**

Practical Point

The test of details risk (TD risk) relates to the PPS sample test of the population. The other substantive procedures risk (OSPR) relates to all of the other substantive tests of the relevant assertion for the account balance. Together they make up the detection risk planned for that population.

Audit Model Illustrated as a Formula If AR is 5%, IR is 80%, CR is 70%, and OSPR is 60%, the resulting TD risk is determined as follows:

$$TD = \frac{0.05}{0.8 \times 0.7 \times 0.6} = 15\%$$

A lower TD risk leads to a larger sample size. In other words, lower TD risk implies that the auditor is relying more on the sampling procedure; a high-risk level implies that the auditor is relying heavily on other sources of audit evidence and is using the sample as a basis for corroborating that evidence.

Audit Model Treated as a Functional Relationship A number of firms choose to treat the audit risk model as a functional model rather than a formula. A table like the one in Exhibit 10.6 can be used to assist the auditor in converting the

EXHIBIT 10.6 Test of Details (TD) Risk Table

	Low Audit Risk (5%)		
	Auditors' Assessment of OSPR		
Auditors' Assessment of Risk of Material* Misstatement	**Not Effective (High Risk)**	**Effective (Moderate Risk)**	**Very Effective (Low Risk)**
Low	TD risk = 50	No sampling is needed	No sampling is needed
Moderate	0.15	0.30	0.50
High	0.05	0.10	0.25

*Risk of material misstatement is the combination of inherent risk and control risk.

risk assessments into a choice of TD risk to be used in determining the sample size. If inherent and control risk are assessed as high and the other substantive procedures are not effective in detecting misstatements, the TD risk will be the same as the audit risk. If, however, inherent and control risks are assessed as low, detection risk will be high, meaning that less substantive evidence is needed. The substantive evidence can include a sampling test of the details of the account balance and/or other substantive procedures, such as cutoff tests and analytical procedures. If the other substantive procedures are believed to be effective, the OSPR may be set at moderate or low and no further testing is needed.

Sample Size and Selection A sampling unit with more dollars will have a higher probability of selection than will one with fewer dollars. The fixed interval approach involves the calculation of a sampling interval in dollars *(I)*:

$$I = \frac{TM - (EM \times EEF)}{RF}$$

where
- TM = Tolerable misstatement
- EM = Expected misstatement
- EEF = Error expansion factor
- RF = Reliability factor.

The error expansion factor and reliability factor are related to the TD risk and can be found in Exhibit 10.7. The **reliability factor** explicitly controls for the risk of incorrect acceptance of an account balance. It is derived from the test of details risk and is a very influential factor in determining sample size.

The **error expansion factor** is a term derived especially for PPS sampling, and it helps control the risk of incorrect acceptance by adjusting for additional sampling error introduced by the expected misstatements.

The number of sampling intervals in the population and, thus, the maximum sample size *(n)* can be derived by dividing the book value of the population by the sampling interval:

$$n = \frac{Population\ Book\ Value}{Sampling\ Interval}$$

The sample is often selected using the fixed-interval approach—every *I*th dollar—after a random start. A random start is required to give every dollar in the population an equal chance to be included in the sample. Each selected dollar acts as a "hook" for the entire physical unit in which it occurs, such as a customer's account balance or the extended cost of an inventory item. The whole physical unit is audited unless it can be divided into smaller auditable units, such

EXHIBIT 10.7 PPS Sample Design and Evaluation Factors

TD Risk	1%	5%	10%	15%	20%	25%	30%	50%
Error expansion factor	1.90	1.60	1.50	1.40	1.30	1.25	1.20	1.00
Reliability factor	4.61	3.00	2.31	1.90	1.61	1.39	1.21	0.70
Incremental allowance for sampling error:								
Ranked* overstatement errors								
1	1.03	0.75	0.58	0.48	0.39	0.31	0.23	0.00
2	0.77	0.55	0.44	0.34	0.28	0.23	0.18	0.00
3	0.64	0.46	0.36	0.30	0.24	0.18	0.15	0.00
4	0.56	0.40	0.31	0.25	0.21	0.17	0.13	0.00
5	0.50	0.36	0.28	0.23	0.18	0.15	0.11	0.00
6	0.46	0.33	0.26	0.21	0.17	0.13	0.11	0.00
7	0.43	0.30	0.24	0.19	0.16	0.13	0.10	0.00
8	0.41	0.29	0.22	0.18	0.14	0.12	0.09	0.00
9	0.38	0.27	0.21	0.17	0.14	0.11	0.08	0.00
10	0.36	0.26	0.20	0.17	0.14	0.10	0.08	0.00

*Misstatements should be ranked according to their tainting percentages. The largest tainting percentage is multiplied by the largest incremental allowance factor, the second largest tainting percentage is multiplied by the second largest incremental allowance factor, and so forth.

Source: A modification of the tables in the AICPA's *Audit Sampling, Auditing Practice Release*. Reprinted with permission from AICPA; copyright © 1994 and 1999 by American Institute of Certified Public Accountants.

as unpaid invoices making up a customer's balance, in which case the selected invoice(s) may be audited.

Illustration The auditor is planning to confirm accounts receivable to test the existence and valuation assertions. There are 450 customer balances totaling $807,906. Audit risk has been set as low (5%), detection risk has been determined to be moderate, and the other substantive procedures are not expected to be effective in detecting material misstatements. The test of details risk is set at 15%. Tolerable misstatement is set at $50,000. No misstatements were found in the past year. However, to be safe, the auditor uses an expected misstatement of $5,000. The sampling interval is calculated as follows:

$$I = \frac{\$50{,}000 - (\$5{,}000 \times 1.4)}{1.9} = \$22{,}632$$

The error expansion factor of 1.4 and reliability factor of 1.9 are obtained from Exhibit 10.8 for a 15% TD risk. The maximum sample size will be:

$$n = \frac{\$807{,}906}{\$22{,}632} = 36$$

If the sample is to be selected manually, it will be easier to select the sample if a rounded interval is used, such as $22,000. Rounding the interval down ensures that the sample size will be adequate. If computer assistance is available for selecting the sample, rounding the interval down is not necessary.

The random start should be between 1 and the sampling interval (1 to 22,000 in the illustration). This number can be obtained from a variety of sources, including the serial number of a dollar bill, a random number table, or a computer-generated random number.

An adding machine or audit software can be used to select the sample. If an adding machine is used, clear the machine, enter the random start, add each book value, and subtotal after each entry, giving a cumulative total for each item. This process is illustrated in Exhibit 10.8 using a random start of $20,000.

EXHIBIT 10.8 Fixed Interval Sample Selection

Customer	Book Value	Cumulative Amount	Selection Amount
	Random start	20,000	
1	220	20,220	
2	2,200	22,420	22,000
3	22,000	44,420	44,000
4	880	45,300	
5	6,128	51,428	
6	2,800	54,228	
7	45,023	99,251	66,000 & 88,000
8	10	99,261	
9	8,231	107,492	
10	16,894	124,386	110,000
.	.	.	
.	.	.	
.	.	.	
450	1,900	827,906	

The first sample item is the one that first causes the cumulative total to equal or exceed the sampling interval (customer 2 in Exhibit 10.8). Successive sample items are those first causing the cumulative total to equal or exceed multiples of the interval ($44,000, $66,000, $88,000, and so forth).

The probability of selecting any particular item is proportional to the number of dollars in it, thus the name probability proportional to size. For example, if the sampling interval is $22,000, a customer's balance of $220 would have a 1% chance (220/22,000) of being included in the sample. A customer with a book value of $2,200 has a 10% chance of being selected. But there is a 100% chance of including the balance of a customer who's book value is $22,000 or greater.

All items with a book value equal to or greater than the interval will be included in the sample. As noted, these items are sometimes referred to as *top stratum items.* The balance for customer 7 has two selection points, but it will be just one sample item resulting in an actual sample size less than that originally calculated. Another sample item does not need to be added in this case because there is adequate dollar coverage with the items identified by this selection process.

ACL can help design, select, and evaluate samples.

The population has effectively been divided into two groups: the top-stratum items, which are audited 100%, and the lower-stratum items, from which the sample is selected. The sample selection process used for PPS sampling results in almost infinite stratification because the probability of selecting a particular item from the lower stratum is proportional to the number of dollars in it. This selection method is intuitively appealing to auditors because it provides large dollar coverage with relatively small sample sizes.

This selection method also tests the mathematical accuracy of the population. Note in Exhibit 10.8 that the last cumulative amount is $827,906. This represents the population total of $807,906 plus the random start of $20,000.

Zero and Negative Balances Population items with zero balances have no chance of being selected using PPS sampling. If evaluation of sampling units with zero balances is necessary to achieve the audit objective of the test, they should be segregated and audited as a different population. Population items with negative balances require special consideration. For example, credit balances in customer accounts represent liabilities; the client owes money, merchandise, or service. Two approaches deal with negative items. One approach is to exclude them from the selection process and test them as a separate population; this

should be done when a significant number of such items is included in the population. The second approach is to include them in the selection process and ignore the negative sign associated with the recorded amount.

Sample Evaluation PPS sampling is designed to determine the likelihood that the account balance may exceed the auditor's tolerable misstatement limit. In other words, if the auditor designs the sample with a 15% TD risk level and a tolerable misstatement of $50,000, the auditor is testing the hypothesis that there is no more than a 15% probability that misstatements due to the assertion being tested can cause the account balance to be overstated by more than $50,000.

Error Evaluation Terminology

The upper misstatement limit is calculated to estimate the potential misstatements in an account balance and to determine whether additional audit work is needed. The **upper misstatement limit (UML)** is defined as the maximum dollar overstatement that might exist in the population given the misstatements detected in the sample, at the specified TD risk level. For example, if the auditor calculated a UML of $41,800 using a 15% TD risk, this would support a conclusion that there is only a 15% chance that the actual amount of overstatement in the population would be greater than $41,800. The UML is derived from the underlying statistical assumptions made about the population being tested. Fortunately, it is easy to calculate. The UML is computed by adding together three components:

- ***Basic precision***—The amount of uncertainty associated with testing only a part of the population (**sampling error**). It is equal to the UML if no errors are found in the sample.
- ***Most likely misstatement (MLM)***—The best estimate of the actual amount of dollar misstatements that exist in the account balance. This is also called *projected misstatement*.
- ***Incremental allowance for sampling error***—An increase in the upper misstatement estimate caused by the statistical properties of misstatements found.

The significance of these three factors depends on whether misstatements are found in the sample:

	No Misstatements	Misstatements
Basic Precision	Interval × R factor	Interval × R factor
+ Most Likely Misstatement	0	Calculate
+ Incremental Allowance for Sampling Error	0	Calculate
= Upper Misstatement Limit	= Basic Precision	Sum of the three

No Misstatements in the Sample

When no misstatements are found in the sample, the UML is the same as the basic precision, which is calculated as the sampling interval used times the reliability factor ($22,000 × 1.9 = $41,800 in the illustration). Basic precision is an **allowance for sampling error.** Recall that sampling error results from not auditing the entire population. The auditor's best estimate of the total misstatement in the population is zero if no misstatements are discovered in the sample; however, there may be some misstatement in the unaudited items. Basic precision is a measure of the maximum potential misstatement in the unaudited part of the population—at the level of risk specified for the conduct of this audit test. Because the basic precision of $41,800 is less than tolerable misstatement ($50,000), the auditor can conclude that there is less than a 15% probability that the book value is overstated by a material amount. Consequently, no additional audit work would be warranted.

Misstatements in the Sample

When misstatements are detected, the evaluation process is more involved. The auditor's task is to determine whether there is an unacceptable risk that the account balance is misstated in excess of tolerable misstatement. Thus it is not just the misstatements found in the sample that are important; it is what they represent about the population. The evaluation is separated into two parts: (1) identifying misstatements in the top stratum and (2) projecting misstatements found in the lower stratum:

Stratum	Extent Examined	Projection
Top stratum (book value ≥ sampling interval)	100%	No projection, because the total misstatement in the top stratum is known.
Lower stratum (book value < sampling interval)	Sampled	Misstatements are projected to the lower stratum part of the population.

The amount of misstatement in the top stratum is known with certainty; it does not have to be projected. Any misstatements found in the sample from the lower stratum must be projected to the entire lower stratum and combined with the top-stratum misstatements to estimate the most likely misstatement and the maximum potential misstatement in the account balance.

Misstatement analysis of lower-stratum items consists of identifying the percentage that the book value of each misstated sample item is overstated or understated (referred to as the **tainting percentage**). The tainting percentage found in each lower-stratum sample item is presumed to be representative of the interval from which it was selected. For each correct sample item, the tainting percentage is zero and the related interval is assumed to be correct. A 3% overstatement tainting of a sample item is presumed to represent a 3% overstatement of the interval. These projections are combined with the upper-stratum misstatements to calculate the most likely misstatement in the population.

Illustration Using the sample in Exhibit 10.8, assume the following misstatements were found:

Book Value	Audit Value	Misstatement	Tainting Percent
$45,023	$44,340	$683	NA
2,000	1,940	60	3%
8,300	8,217	83	1%

There was only one top-stratum misstatement. An item with a book value of $45,023 had an audited value of $44,340—resulting in a $683 top-stratum overstatement. There is no need to project top-stratum misstatements because all of the items in this stratum were audited. However, the amount is used in estimating total misstatement.

The lower stratum contained two misstatements. The tainting percentage is the misstatement divided by the book value. The first lower-stratum misstatement was the result of a book value of $2,000 that had an audited value of $1,940. It was overstated by $60 or 3% (tainting percentage). Because this item was selected from an interval of $22,000, it is assumed that the entire interval is overstated by 3%, or $660. Similarly, the second misstatement was $83 (book value of $8,300; audit value of $8,217), resulting in a 1% tainting, or $220 for the interval. The sum of the projected lower-stratum misstatements is therefore $880. This same result can be obtained by multiplying the sampling interval by the sum of the tainting percentages ($22,000 × 4% = $880). The sample evaluation calculations are summarized in Exhibit 10.9.

ACL will calculate all of the sample evaluation parameters illustrated here.

The most likely misstatement in the population is $1,563 ($683 + $880), the sum of the top-stratum misstatement and the most likely misstatement in the

EXHIBIT 10.9 Upper Misstatement Limit Calculations

	UML Factor*				Tainting Percent		Sampling Interval			Dollar Conclusion
Basic precision	1.9	×					22,000	=		41,800
Most likely misstatement:										
Top stratum									683	
Lower stratum										
First largest tainting %					3%					
Second largest tainting %					1%					
					4%	×	22,000	=	880	
Total most likely misstatement										1,563
Incremental allowance for sampling error										
First largest %	0.48	×	3%	=	1.44%					
Second largest %	0.34	×	1%	=	.34%					
					1.78%	×	22,000	=		392
Upper misstatement limit (UML)										43,755

*Upper misstatement limit (UML) factors come from the 15% column in Exhibit 10.7.

lower stratum. Additional allowance for sampling error is necessary because lower-stratum misstatements were discovered. It is calculated by multiplying the tainting percentages by the incremental allowance for sampling error factors in Exhibit 10.7 and ranking the *tainting percentages* from the largest to the smallest. The largest tainting percentage (3%) is multiplied by the factor in Exhibit 10.7 related to the ranked overstatement misstatement number 1 for a TD risk of 15%:

$$3\% \times 0.48 = 1.44\%$$

The second largest tainting percentage is multiplied by the factor related to misstatement number 2:

$$1\% \times 0.34 = 0.34\%$$

The products of these calculations are added, and the sum is multiplied by the sampling interval to obtain the incremental allowance for sampling error amount:

$$(1.44\% + 0.34\%) \times \$22{,}000 = \$392$$

The UML is:

$$\$43{,}755 = \$41{,}800 + \$1{,}563 + \$392$$

Practical Point

There is a tendency to focus on most likely error rather than upper misstatement limit (UML). Remember, it is the UML that is important because the auditor wanted to control the statistical likelihood that errors of more than that amount could be occurring. When UML is too high, the auditor should do additional audit work.

The statistical conclusion is that the auditor is 85% sure that this population is not overstated by more than $43,755. Because the UML is less than the tolerable misstatement ($50,000), the auditor can conclude that, at the desired level of risk, the population does not contain a material amount of overstatement. If the UML had exceeded the tolerable misstatement, additional audit analysis would have been required (see Unacceptable Sample Results, later in this section).

Understatements The preceding example assumes that only overstatements were found in the audit sample. However, the auditor may encounter situations in which the account balance may be understated. For example, the auditor might discover that an accounts receivable balance may be understated because the client did not include a freight charge on the invoice. The misstatement is systematic.

Assume, for example, that an account balance of $500 had omitted a $50 freight charge. This is a 10% understatement tainting.

When an understatement is encountered, the auditor has two possible courses of action. First, the understatement can be ignored for purposes of this sample evaluation and, if there are other audit tests for understatements, this understatement can be included in the other test. Second, the auditor can perform a separate analysis specifically for understatements, following the same format as was used for overstatements in Exhibit 10.10. The auditor would calculate a most likely misstatement of understatement:

$$\$2{,}200 = 10\% \times \$22{,}000$$

The basic precision level would remain the same ($41,800), the incremental allowance for sampling error would be:

$$\$1{,}056 = 0.48 \times 0.10 \times 22{,}000$$

and the upper misstatement limit for *understatements* would be

$$\$45{,}056 = \$41{,}800 + \$2{,}200 + \$1{,}056$$

When misstatements are found in both directions, the auditor considers the directional nature of the misstatements in reaching a conclusion about the most likely misstatement (MLM) and net overstatement misstatements. The MLM for the account balance is the net of the over- and understatement misstatements (see the following table). In this case, an MLM of overstatement is $1,563 and the MLM of understatement is $2,200, yielding an MLM (net) in the account of an understatement of $637. The upper misstatement limit in each direction is computed by taking the upper misstatement limit of one direction and subtracting the most likely misstatement in the other direction. In this example, the UML for overstatements would be $43,755 – $2,200, or $41,555. In a similar manner, the UML for understatements would be $45,056 – $1,563, or $43,493. The auditor would be 85% confident that the account balance is not overstated by more than $41,555 or understated by more than $43,493.

	Overstatement	Understatement	Net
Basic Precision	$41,800	$41,800	
Most Likely Misstatement	1,563	2,200	$637 understatement
Incremental Allowance for Sampling Error	392	1,089	
Total	43,755	45,056	
Most Likely Misstatement—Opposite Direction	–2,200	–1,563	
Upper Misstatement Limit	$41,555	$43,493	

Frequent Misstatements Found

When frequent misstatements are discovered in the sampled items, the PPS evaluation method described and illustrated often leads to a very conservative (high) estimate of the upper misstatement limit and may lead to an incorrect rejection of the book value tested. The auditor can evaluate such a sample using one of the classical sampling methods (not covered in this textbook).

Unacceptable Sample Results

When the upper misstatement limit exceeds the tolerable misstatement, the auditor has available several possible courses of action. The auditor can ask the client to correct the known misstatements, analyze the detected misstatements for some

common problem(s), and design an alternative audit strategy, expand the sample, or change the audit objective to estimating the correct value.

Correct the Known Misstatement The client should be asked to correct the known misstatement(s). If this is done, the most likely misstatement, and therefore the UML, can be adjusted for those corrections but not for the projection of misstatements associated with those items. In some cases, simply correcting the known misstatement can bring the UML below the auditor's tolerable misstatement level.

Analyze the Pattern of Misstatements and Design an Alternative Audit Strategy Whenever misstatements are discovered, the auditor should look beyond the quantitative aspects of the misstatements to understand the nature and cause of the misstatements. Is there evidence that the misstatements might be systematic? If a systematic pattern of misstatements is found, the client can be asked to investigate and make an estimate of the correction needed. The auditor can review and test this estimate. More important, the auditor can recommend improvements to prevent such errors in the future. For example, several confirmation replies indicate that merchandise was returned prior to year end, but credit was not recorded until the subsequent year. The auditor determined that the person who normally handles such credits was on temporary assignment in another department at year end. A careful review of receiving reports related to merchandise returned prior to year end and of credits recorded in the subsequent year will provide evidence regarding the extent of the needed correction.

The auditor should also determine whether the misstatements reflect errors or fraud; the latter may signal major audit problems. In addition, the auditor should consider the relationship of the misstatements to other phases of the audit. Problems in recording receivables may also reveal problems in the accuracy of recorded sales.

Discovering more misstatements than expected in the planning stage of the audit suggests that the planning assumptions may have been in error; perhaps the internal control procedures were not as effective as originally assessed, and the auditor should reconsider that assessment. For public companies, the auditor may have to express an adverse opinion on the effectiveness of the client's internal controls over financial reporting.

Increase the Sample Size The auditor can calculate the additional sample size needed by substituting the most likely misstatement from the sample evaluation for the original expected misstatement in the sample interval formula and determine a new interval and total sample size based on the new expectations. The number of additional sample items can then be determined by subtracting the original sample size from the new sample size. The new sampling interval can be used for selection. Items should be selected that are not already included in the sample.

Change Objective to Estimating the Correct Value In cases where a significant misstatement appears to exist, it may be necessary to change from an objective of testing details to the objective of helping the client estimate the correct population value. A lower TD risk and a smaller tolerable misstatement should be used because the auditor is no longer testing the balance but estimating the correct population value from the sample. The auditor will expect the client to adjust the book value to the estimated value. A larger sample size will normally be required. Because of the frequency of misstatements underlying the misstated balance, the auditor should use one of the classical statistical sampling methods to evaluate the results.

Comparison of Sample Evaluation—PPS and Nonstatistical Sampling

Just as the auditor must determine the most likely misstatement and the upper misstatement limit when using PPS sampling, a similar approach should be used for nonstatistical sampling:

PPS	Nonstatistical
Most likely misstatement	Projected misstatement
Upper misstatement limit	Upper limit (3 times projected misstatement)

In either case, the upper limit should be compared to tolerable misstatement when determining the possibility of a material misstatement in the account. Traditionally, when auditors use nonstatistical sampling, the evaluation process involved a comparison of the projected misstatement with tolerable misstatement without considering sampling error. It makes sense to compute an upper limit at some multiple of the projected misstatement. There is no statistical basis for using 3 times. It could be 2.5 times or 3.5 times. However, research so far shows this to be a reasonable approach.

Summary

The sampling methods available for audit testing are probability proportional to size (PPS) sampling, nonstatistical sampling, attribute sampling, discovery sampling, and three classical variables sampling methods (not covered in this textbook). In this chapter we emphasized PPS sampling, because it is the most widely used statistical method for testing account balances.

Whichever sampling method is used, it is important to select a sample that is representative of the population. Otherwise, the sample results may lead to the wrong conclusion about the existence of material misstatement in the population. When evaluating a sample, care must be taken to properly identify misstatements and to project them to the whole population before reaching a conclusion about the book value.

Auditors must look beyond the numbers and consider the qualitative aspects of the discovered misstatements and their impact on other aspects of the audit. The assessment of inherent or control risks may have been too optimistic, and the auditor should reassess the effect of this on all aspects of the audit. The auditor should analyze the causes of the misstatements uncovered in a sample: error or fraud, random or systematic occurrences, human or computer programming error. This analysis will help the auditor decide if and what additional audit work is required.

Sampling is a useful audit tool, but it is only a tool. The auditor must be sure to understand what the numbers and statistics mean, but must look beyond them and use good audit judgment to evaluate the audit findings and their implications on the assessment of internal controls and the fairness of the financial statements.

Significant Terms

achieved upper limit The maximum likely control procedure failure rate in the population based on an attribute estimation sample.

allowance for sampling error (also called **precision**) A factor used in planning statistical samples that represents the precision required in the sample to keep sampling risk at the desired level; provides "elbow room" for the difference between sample misstatement projections and the actual, but unknown, misstatement in the population.

attribute A characteristic of the population of interest to the auditor. Most often it is a control procedure, but it could also be an operational aspect, such as promptly responding to customer inquiries.

attribute estimation sampling A statistical sampling method used to estimate the most likely and maximum rate of control procedure failures based on selecting and auditing one sample.

audit sampling The application of an audit procedure to less than 100% of the items within an account

balance or class of transactions for the purpose of evaluating some characteristic of the balance or class.

basic precision The upper misstatement limit when no misstatements are detected in a PPS sample; computed by multiplying the sampling interval by the reliability factor.

error expansion factor A factor used in determining the sampling interval/size for PPS sampling to provide for additional sampling error when some misstatement is expected.

expected failure rate The auditor's best estimate of the percentage of transactions processed for which the examined control procedure is not operating effectively.

expected misstatement The amount of misstatement that the auditor estimates is in the population.

haphazard selection Selection of sample items with no conscious bias; not randomly based, and therefore cannot be used for statistical sampling.

incremental allowance for sampling error Provision for additional sampling error when misstatements are detected in a PPS sample. Factors are determined from tables derived from the underlying sampling distribution.

misstatement For substantive sampling purposes, the differences in recorded values and audited values that affects the account total.

most likely misstatement (MLM) In PPS sampling, the sum of the top-stratum misstatements and the projection of the lower-stratum misstatements. It is the auditor's best estimate of the total misstatement in the population and should be posted to the summary of possible adjustments.

non-sampling risk The risk of improperly auditing sampled items or misjudging inherent or control risk.

other substantive procedures risk (OSPR) The risk that all of the substantive tests, other than the planned sampling test, will fail to detect a material misstatement. Professional standards refer to OSPR as *analytical procedures (AP) risk*.

population The group of transactions or the items that make up an account balance for which the auditor wants to estimate some characteristic, such as the effectiveness of control procedures.

probability proportional to size (PPS) sampling A sampling method based on attribute estimation sampling but involving dollar misstatements rather than failure rates; each item in the population has a probability of being included in the sample proportionate to the dollar value of the item. PPS sampling is most effective when auditing for the overstatement of a population and when no or few misstatements are expected.

random-based selection Sample selection methods in which each item in the population has an equal chance of being selected; only random-based samples can be statistically evaluated.

reliability factors Factors related to the TD risk used to determine the sample interval/size for PPS sampling.

risk of assessing control risk too low The risk that the assessed level of control risk based on the sample is less than the true operating effectiveness of the controls.

risk of incorrect acceptance The risk of concluding from a sample that the book value is not materially misstated when in fact it is.

risk of incorrect rejection The risk of concluding from a sample that the book value is materially misstated when in fact it is not.

sampling error The possibility that the projected misstatement will differ from the actual, but unknown, misstatement in the population.

sampling risk The probability that a sample is not representative of the population, which can lead the auditor to the wrong conclusion about the population.

sampling units The individual auditable elements, as defined by the auditor, that constitute the population, such as customers' balances or individual unpaid invoices.

statistical sampling The application of probability theory and statistical inference in a sample application to assist the auditor in determining an appropriate sample size and in evaluating the sample results.

stratification Dividing the population into relatively homogeneous groups called *strata*. Stratification can be performed judgmentally by the auditor, but is most often performed with the assistance of generalized audit software to achieve optimum sampling efficiency.

tainting percentage In PPS sampling, the amount of misstatement as a percent of the sample item's book value. The tainting percentage is calculated individually for each sampled item.

test of details (TD) risk A synonym for the risk of incorrect acceptance. It is the part of detection risk related to a sampling application. The other part is the other substantive procedures risk (OSPR).

tolerable failure rate The auditor's assessment of the maximum rate of control procedure failure that

can occur and still allow the auditor to rely on the control.

tolerable misstatement The maximum amount of misstatement the auditor can accept in the population.

top stratum Population items whose book values exceed the sampling interval and are therefore all included in the test. The top stratum consists of all account balances exceeding a specific dollar amount.

upper misstatement limit (UML) The maximum dollar overstatement that might exist in a population, given the sample errors noted, at the specified level of TD risk.

Review Questions

10-1 When is sampling appropriate to use in an audit?

10-2 What are non-sampling and sampling risks? How can each be reduced?

10-3 Why is it so important that a sample be as representative of the population as possible?

10-4 What factors should be considered when determining whether to use nonstatistical or statistical sampling?

10-5 When using sampling to test control procedures, what factors should the auditor consider in setting the:
a. Tolerable deviation rate
b. Expected failure rate
c. Allowable risk of assessing control risk too low

10-6 What is the effect of increasing each of the following on an attribute estimation sample size?
a. The allowable risk of assessing control risk too low
b. The tolerable failure rate
c. The expected failure rate
d. Population size

10-7 How does random-number sample selection differ from systematic selection? What precaution(s) must the auditor take when using systematic selection?

10-8 What is meant by haphazard sample selection? Can it be used for statistical sampling? Explain why or why not.

10-9 An auditor audited a random sample of 60 cash disbursements and found one improperly authorized disbursement (error). The achieved upper limit of control failures is 7.7% at a 5% risk of assessing control risk too low. What does this achieved upper limit mean? How does the auditor decide whether this result indicates that the control is working as expected?

10-10 In any sampling application, why is it important to project the sample results to the population before drawing a conclusion about the population?

10-11 Why is it so important to specify the audit objective when planning a sample to test an account balance?

10-12 Describe the steps needed to plan a sample to test an account balance.

10-13 Define the following:
a. Misstatement
b. Population
c. Tolerable misstatement
d. Test of Details (TD) risk

10-14 Under what circumstances is it most appropriate to use PPS sampling?

10-15 Why is it important to project sample results to the population?

10-16 When using nonstatistical sampling, how does the auditor:
a. Determine the sample size
b. Select the sample
c. Evaluate the sample results

10-17 What information is needed to design a PPS sample? Where does the auditor gather such information?

10-18 Explain the relationship between planning materiality and tolerable misstatement when using PPS sampling.

10-19 Explain how the probability of selecting an item is proportional to its size in PPS sampling.

10-20 What is OSPR? How does the auditor measure or estimate it?

10-21 All else being equal, what is the effect on a PPS sample size of an increase in the:
a. Tolerable misstatement
b. Expected misstatement
c. Allowable TD risk
d. Population

10-22 What alternatives are available to the auditor when a population contains a few items with negative balances, such as credit balances in accounts receivable, and the auditor wishes to utilize PPS sampling?

10-23 Would an item with a zero balance be included in a PPS sample? If not, what is the effect of not including the item in the sample?

10-24 What is basic precision, and how is it determined?

10-25 What is the upper misstatement limit (UML), and how is it determined?

10-26 Why is it important to determine whether the difference between the customer's balance shown in the client's records and the amount confirmed by the customer is the client's error or fraud, the customer's error, or a timing difference? What are the implications of this determination on the conduct of the audit and further investigation of the account balance?

10-27 What alternative courses of actions might an auditor take if the UML exceeds tolerable misstatement in PPS sampling? Are these possible actions any different than those available when using nonstatistical sampling and the sample evaluation indicates a possible material misstatement in the population?

Multiple-Choice Questions

10-28 **Which of the following represents** sampling risk?
a. Improperly assessing the risk of material misstatement
b. Testing the wrong population to achieve the audit objective
c. Selecting a sample that is not representative of the population
d. Inaccurately identifying misstatements in a sample

*__10-29__ An advantage of using statistical sampling techniques is that such techniques:
a. Mathematically measure risk
b. Eliminate the need for judgmental decisions
c. Define the values of precision and reliability required to provide audit satisfaction
d. Have been established in the courts to be superior to judgmental sampling

*All problems marked with an asterisk are adopted from the Uniform CPA Examination.

[*]10-30 Which of the following combinations results in a decrease in an attribute estimation sample size?

	Risk of Assessing Control Risk Too Low	*Tolerable Rate*	*Expected Population Failure Rate*
a.	Increase	Decrease	Increase
b.	Decrease	Increase	Decrease
c.	Increase	Increase	Decrease
d.	Increase	Increase	Increase

[#]10-31 An internal auditor selects a statistical sample from a large inventory of replacement parts. Which of the following audit objectives would be most appropriate if the sampling method used is PPS?

a. The auditor plans to estimate the age of individual inventory items.
b. The auditor plans to make a statement concerning the total dollar amount of misstatement in the population from the recorded book value.
c. The auditor wishes to accept or reject the hypothesis that the proportion of defective parts in the population is less than 5%.
d. The auditor wishes to estimate the proportion of defective parts in the population.

[#]10-32 Which of the following best describes an inherent limitation of the PPS sampling method?

a. It can be used only for substantive testing of asset accounts.
b. It is complicated and always requires the use of a computer system to perform the calculations.
c. Error rates must be large and the misstatements must be overstatements.
d. Error rates must be small and the misstatements must be overstatements.

Discussion and Research Questions

10-33 (Attribute Sample Size Determination and Implementation)

Required

a. The risk of assessing control risk too low is 10%. Determine the sample size for each of the following controls:

Control	Tolerable Rate (%)	Expected Rate (%)	Sample Size	Number of Failures	Achieved Upper Limit
1	5	0		0	
2	5	1		3	
3	10	0		1	
4	5	0.5		1	
5	10	3		2	

b. Explain why the sample sizes for controls 2 and 3 are different from those for control 1.
c. What is the general effect on sample size of using a 10% risk of assessing control risk too low rather than 5%? Explain.
d. Would it be better to use the individual sample sizes in part (a) or to use the largest for all five controls? Explain.
e. Assume a sample size of 80 is used for all five controls. Determine the achieved upper limit of failures in the population for each control and complete the table in part (a).
f. Based on the answers to part (e), on which of the controls can the auditor place the planned degree of reliance? Why?

[#]All problems marked with a number sign are adopted from the Certified Internal Auditor Examination.

10-34 (Evaluation of Attribute Estimation Sample Results)

a. When evaluating an attribute estimation sample, why is the focus on the upper limit rather than on the failure rate in the sample?

b. If the achieved upper limit of control failures exceeds the tolerable rate in an attribute sampling application, what alternative courses of action are open to the auditor?

10-35 (Audit Evaluation of Attribute Sample Results) The auditor designed an audit procedure to test the following control procedures in the revenue cycle of a company that makes large factory equipment:

1. Credit approval
2. Sale price taken from authorized sales price list unless specifically approved by the division sales manager
3. A shipping document existing for each invoice

A random sample of 100 items was selected from the total population of invoices. The following results were obtained:

Attribute	Failures	Description of Failures
1. Credit approval	3	Approvals were bypassed for sales of equipment to new customers. Each of the new customer sales was the result of efforts by the division sales manager.
2. Sales price	6	Five of the price failures were attributable to a senior salesperson and represented price discounts ranging from 10 to 18%. The other failure was a 5% reduction of a sale by a different salesperson that took place while the division sales manager was on vacation.
3. Shipping document exists	5	No shipping documents could be found. All five sales were recorded in the last week of the year.

In considering your answers to parts (a) and (b) below, the following information is available to the auditors from the preliminary assessment of the organization's control environment:

1. The company is experiencing some financial difficulty; earnings have been down. Management is optimistic about this year and hopes to position the company to increase its stock value or to participate in a merger.
2. J.P. Maxwell is in his second year as the division sales manager. A significant portion of his yearly earnings will be based on reported sales and profits.
3. The auditor expected a low failure rate for all three attributes but considers them important.

Required

a. Identify the audit steps the auditor should use to follow up in evaluating the sample findings. Be specific as to each attribute.

b. Assume that the audit follow-up in part (a) reveals the continuance of the same pattern of control procedure failures. Identify the implications for the design of substantive audit procedures, and briefly indicate the rationale for your answer.

c. Comment on whether any of the areas noted above would be considered either a significant or material weakness in internal control.

10-36 (Attribute Estimation Sampling—Public Company) Avation is a public company and, therefore, the auditor is required to test controls and issue an opinion on the effectiveness of the client's controls as well as the fairness of the financial statements. Avation manufactures specialty clocks used for such things as sales promotions and achievement awards. The auditor is planning to use attribute estimation sampling to test the controls over recording the purchases of raw materials.

The procedures manual describes the following steps that should be taken to order and receive raw material and process invoices for payment: (1) The purchasing department prepares a prenumbered purchase order based on an authorized purchase requisition from the inventory control department and sends a signed copy of the purchase order to the accounts payable department. (2) A receiving clerk prepares and initials a prenumbered receiving report noting the quantity received and forwards a copy to accounts payable. (3) When the vendor's invoice is received by accounts payable, a clerk compares the quantities and prices with the purchase order and receiving report, noting this was done by placing a check mark next to each item. (4) Any invoice with a discrepancy in quantity and/or price is sent to the purchasing department for follow-up where the disposition is noted on the invoice and returned to accounts payable. The clerk also checks the clerical accuracy of the invoice, writes the stock number of each item on the invoice, and initials the invoice indicating that these steps have been taken. (5) The accounts payable supervisor reviews each invoice and approves it for payment by initialing the invoice. The information, including the payment due date, is then entered into the computer system.

Required

a. Identify the controls to be tested. Your decisions should be based on the controls which, if not working, could lead to more than a remote possibility of material misstatement in the financial statements. Explain the rationale for your choices.
b. Write an audit program to test these controls noting the assertion(s) tested, from what population the sample should be selected, and what would constitute a control failure.
c. Determine the appropriate sampling risk and tolerable failure rate for each of the controls identified in part (a) and the appropriate sample size(s). Explain your rationale.

10-37 **(Integrated Audit—Public Company)** You are using attribute estimation sampling to test the controls over revenue recognition of the Packet Corporation, a public company, and will use the results as part of the evidence on which to base your opinion on its internal controls and to determine what additional audit procedures should be performed on revenue and accounts receivable. You have decided to test the following controls and have set sampling risk at 5%, the tolerable failure rate at 5%, and the expected failure rate of 1%. A sample size of 100 is used. The results of your testing are as indicated.

Control	Results
1. All sales over $10,000 must be approved by the sales manager by initialing the customer's order.	1. There were only 25 sales over $10,000 in the sample. All were approved by the sales manager.
2. Credit must be approved by the credit department prior to shipment and noted on the customer's order.	2. Three sales were recorded without evidence of credit approval. The sales manager said she had approved the sales. No customer order could be found for two of the other sampled items.
3. Sales are recorded only when a shipping document is forwarded to the billing department.	3. No shipping document could be found for three of the sampled items.
4. The date of recording the sale must correspond to the date on the shipping document.	4. Four sales were recorded prior to the date of shipment. Your follow-up indicates that a temporary employee worked for the last two months of the fiscal year and was unaware of this requirement.

Control	Results
5. All prices are obtained from the current price list that is periodically updated by the sales manager.	5. All prices agreed with the appropriate price list.
6. The shipping department is not to ship products without first receiving an approved customer's order.	6. No customer order could be found for two sample items as indicated in step (2).
7. The billing department compares the quantity billed with the customer's order.	7. Four billed quantities were for more than the customer order. Three of these took place near year end. In addition, there was no customer order for the two items indicated in step (2).

Required

a. Determine the upper limit of control failures for each of the controls.
b. What impact do these results have for the type of opinion to be given on the client's internal controls?
c. Indicate the potential misstatements that could be the result of the control failures?
d. Determine what substantive audit procedures should be performed in response to each of the control failures identified above.

10-38 **(Sample Misstatements)** In confirming individual accounts receivable balances, your client's customers reported the following exceptions.

Required

Which of these exceptions should be considered misstatements for evaluation purposes if misstatements are defined as:

a. Differences that affect the account balance
b. Differences that affect pretax income

Explain your reasoning in each instance.

1. The wrong trade discount was used.
2. The client charged sales tax to a tax-exempt customer.
3. The client failed to record returned merchandise.
4. The invoice contained a clerical error.
5. The payment was posted to the wrong customer's account.
6. The client failed to record a sale.
7. The payment was in transit at the confirmation date.
8. Freight was charged to the customer when the terms were FOB destination.
9. The customer subtracted a cash discount for a payment made after the discount period.

10-39 **(Non-Statistical Sampling)** The following information relates to a non-statistical sample used for a price test of inventory:

	Population		Sample		
	Number	Amount	Number	Amount	Misstatement
>= $30,000	20	$1,600,000	20	$1,600,000	$1,000
<$30,000	200	$1,500,000	20	$185,000	$600
Total	220	$3,100,000	40	$2,785,000	$1,600

Required

a. What is the best estimate of the total misstatement?
b. Are these results acceptable assuming tolerable misstatement is $15,000? Explain.
c. If the results are not acceptable, what possible courses of action can the auditor take?

10-40 **(Quantifying Judgments)** The auditor must quantify the following parameters when using PPS sampling:

1. Tolerable misstatement
2. Expected misstatement
3. Risk of incorrect acceptance

Required

a. Describe each of these parameters and how they can be determined.
b. Explain the effect on a PPS sample size of decreasing each of these parameters and explain the logic of each of those effects.

10-41 **(Effect of Misstatement Analysis)** Your evaluation of a statistical sample indicates that there may be a material misstatement in the population. Upon analyzing the detected misstatements, a common cause was discovered: most of the misstatements were caused by the failure to record sales returns on a timely basis. That is, sales were returned prior to December 31 but were recorded as January returns because the person who normally records sales returns was on vacation at year end.

Required

How should the auditor proceed to determine whether accounts receivable and sales returns and allowances contain a material misstatement?

10-42 **(Risk Factors and Sample Size—PPS Sampling)** You are designing a PPS sample to determine how many accounts receivable confirmations to send. There are 2,000 customer accounts with a total book value of $5,643,200. You estimate the maximum misstatement to be $40,000 and tolerable misstatement is set at $175,000.

Required

a. Complete the following table using the audit risk model

$$(AR = IR \times CR \times OSPR \times TD):$$

	Risks (%)						
Case	**AR**	**IR**	**CR**	**OSPR**	**TD**	**Sampling Interval**	**Sample Size**
1	5	100	100	50			
2	10	100	100	50			
3	5	100	50	50			
4	5	50	25	80			
5	5	50	50	20			

b. What is the effect on sample size (increase or decrease) of:
   1. Increasing the audit risk
   2. Increasing the TD risk
   3. Increasing the tolerable misstatement
   4. Increasing the expected misstatement

10-43 **(PPS Sample Design and Selection)** You are planning the confirmation of accounts receivable. There are 2,000 customers with a total book value of $5,643,200. Tolerable misstatement is set at $175,000 and expected misstatement is $40,000. The allowable risk of incorrect acceptance (TD risk) is 30%.

Required

a. What is the sampling interval?
b. What is the maximum sample size?
c. What is the largest value you can use for a random start?
d. Using the following list of the first 15 items in your population, a random start of $25,000, and a rounded sample interval of $100,000, identify the items to be included in your sample.

Item	Book Value	Cumulative Amount	Sample Item
	Random Start		
1	3,900		
2	26,000		

Item	Book Value	Cumulative Amount	Sample Item
3	5,000		
4	130,000		
5	2,000		
6	260,000		
7	100		
8	25,000		
9	19,000		
10	10,000		
11	9,000		
12	2,500		
13	65,000		
14	110,000		
15	6,992		

e. What is the probability of selecting each of the following population items, assuming a $100,000 sampling interval?

Item	Book Value	Probability of Selection
1	3,900	
2	26,000	
4	130,000	
6	360,000	

f. Explain how item 1 in part (e) ($3,900) would be included in your sample prior to selecting a random start.
g. Why might the final sample size be less than the maximum sample size?

10-44 **(PPS Sample Evaluation)** Based on the information in Problem 10-43, assume that your sampling interval is $100,000.

Required

a. What is your statistical conclusion if no misstatements are found in the sample? Is this acceptable? Explain.
b. Calculate the most likely misstatement and upper misstatement limit and prepare a summary like the one illustrated in Exhibit 10.10, assuming the following misstatements are found in the sample:

Misstatement Number	Book Value	Audit Value
1	$210,000	$208,000
2	9,000	8,910
3	15,000	14,250

c. Are these results acceptable? Explain.
d. If the results are not acceptable, what courses of action are available to you?

10-45 **(PPS Sampling)** The auditor is auditing accounts receivable. The company is a long-time client. Because of problems encountered in previous years, the auditor has assessed control risk as moderate and assigns a control risk assessment of 50% and a desired audit risk of 5%. Other factors considered by the auditor:

1. The auditor believes the other substantive audit procedures will be 50% effective in detecting material misstatements.
2. Inherent risk, by firm policy, is assessed at 100%.
3. Client book value is $8,425,000.
4. Tolerable misstatement is set at $200,000.
5. Previous audits have shown an expected error of $40,000 overstatement is reasonable.

Required

a. Calculate the test of details risk.
b. Calculate (and show the calculation) of the sample selection interval.
c. Assume that the auditor rounds the sampling interval down to the next nearest 10,000. Calculate the largest sample size the auditor would expect.
d. Assume the auditor found the following differences when performing the audit work:

Book Value	Audited Value	Nature of Difference
$25,000	$15,000	$10,000 was billed to Jason Company, but it should have been billed to Johnson Company. Subsequent follow-up work confirmed that it should be billed to Johnson, and Johnson acknowledged the $10,000 debt.
$40,000	$20,000	Merchandise was returned before year end, but credit was not recorded until the next period.
$325,000	$250,000	Major dispute on cost overrun charges. Subsequent review supports customer position.
$105,000	$100,000	Another dispute on cost overrun. Again customer position is correct.
$122	$0	A credit memo was supposed to have been issued for defective merchandise but was not.

Note: Show all calculations for the items requested below:

1. Calculate the most likely misstatement and the upper misstatement limit for accounts receivable.
2. Discuss the audit implications, that is, whether the audit work supports book value or whether additional audit work should be recommended, and, if so, the nature of the audit work.

10-46 **(PPS Design and Evaluation of Overstatements and Understatements)** You are performing a price test of inventory, which has a book value of $2,750,699 and 3,875 items. Tolerable misstatement is $150,000, expected misstatement is $30,000, and the TD risk is 10%.

Required

a. What sampling interval should be used for this sample?
b. Without prejudice to your answer in part (a), assume that the sampling interval was $45,000 and the following misstatements were found. Evaluate these misstatements and determine the most likely upper misstatement limits separately for overstatements and understatements:

Book Value	Audit Value	Misstatement
$ 5,000	$ 4,750	$ 250
10,000	10,300	(300)

10-47 **(PPS Sampling)** The auditor is auditing accounts receivable. The company is a longtime client and has good internal controls. The auditor has assessed control risk as low and assigns a control risk assessment of 20% and a desired audit risk of 5%. Other factors considered by the auditor:

1. The auditor will not be performing any other substantive audit procedures.
2. Inherent risk, by firm policy, is assessed at 1.00.
3. Client book value is $9,325,000.
4. Materiality is assessed at $215,000.
5. Previous audits have shown an expected error of $45,000 overstatement is reasonable.

Required

a. Calculate the test of details risk.
b. Calculate (and show the calculation) of the sample selection interval.
c. Assume the auditor rounds the sampling interval *down* to the next nearest 5,000. Calculate the approximate largest sample size the auditor would expect.
d. The auditor found the following differences when performing the audit work:

Book Value	Audited Value	Error
$32,500	$15,000	$17,500 was billed to the wrong company due to an error in transcription. Subsequent follow-up work confirmed that it should have been billed to the other company and the other company acknowledged the debt.
$55,000	$20,000	Merchandise was returned before year end, but credit was not recorded until the next period.
$125,000	$???	Major dispute on quality of product delivered. Customer agreed to keep the product and pay the full $125,000, but the client incurred another $60,000 in costs to keep the client happy and collect the receivable. The staff is debating whether the audited value should be $125,000 or $65,000. You decide and justify.
$105,000	$85,000	Another dispute on product quality. Customer was satisfied by an issuance of a credit memo shortly after year end, although the item had been in dispute for 6 months.
$500	$400	Credit was supposed to be issued, but was not issued.

Required

a. Calculate the *Most Likely Error* and the *Upper Error Limit* for accounts receivable.
b. Discuss the audit implications (i.e., whether the audit work supports book value or whether additional audit work should be recommended), and, if so, the nature of the audit work.

10-48 **(PPS Sampling with ACL)** You are auditing the inventory of Husky Manufacturing Company for the year ended December 31, 2007. The book value is $8,124,998.66. Tolerable misstatement is $400,000 and expected misstatement is $10,000. The TD risk is 10% (confidence level of 90%). PPS sampling is to be used for a price test.

Required

a. Calculate the sampling interval and maximum sample size.
b. Calculate the most likely misstatement and the upper misstatement limit assuming the following misstatements were found in the sample:

Book Value	Audit Value
$41,906.45	$36,906.45
335,643.28	333,643.28

c. Use ACL to calculate the sample interval and sample size and evaluate the two misstatements shown in part (b):
   i. Import the file labeled "Husky Inventory 2007."
   ii. Choose "Sampling" from the menu, then "Calculate Sample Size," then "Monetary," and fill in the information provided above.

iii. Compare the results with part (a).
iv. Choose "Sampling," "Evaluate error," and enter the information using the misstatements in part (b).
v. Compare the results with part (b).

Cases

10-49 Mead, CPA, was engaged to audit Jiffy Co.'s financial statements for the year ended August 31, 2007. Mead is applying the following sampling procedures.

During the prior years' audits, Mead used classical variables sampling in performing tests of controls on Jiffy's accounts receivable. For the current year Mead decided to use PPS sampling in confirming accounts receivable, because PPS sampling uses each account in the population as a separate sampling unit. Mead expected to discover many overstatements, but presumed that the PPS sample still would be smaller than the corresponding size for classical variables sampling.

Mead reasoned that the PPS sample would automatically result in a stratified sample, because each account would have an equal chance of being selected for confirmation. Additionally, the selection of negative (credit) balances would be facilitated without special considerations.

Mead computed the sample size using the risk of incorrect acceptance, the total recorded book amount of the receivables, and the number of misstated accounts allowed. Mead divided the total recorded book amount of the receivables by the sample size to determine the sampling interval. Mead then calculated the standard deviation of the dollar amounts of the accounts selected for evaluation of the receivables.

Mead's calculated sample size was 60, and the sampling interval was determined to be $10,000. However, only 58 different accounts were selected, because two accounts were so large that the sampling interval caused each of them to be selected twice. Mead proceeded to send confirmation requests to 55 of the 58 customers. Three selected accounts each had insignificant recorded balances under $20. Mead ignored these three small accounts and substituted the three largest accounts that had not been selected in the sample. Each of these accounts had balances in excess of $7,000, so Mead sent confirmation requests to those customers.

The confirmation process revealed two differences. One account with an audited amount of $3,000 had been recorded at $4,000. Mead projected this to be a $1,000 misstatement. Another account with an audited amount of $2,000 had been recorded at $1,900. Mead did not count the $100 difference because the purpose of the test was to detect overstatements.

In evaluating the sample results, Mead determined that the accounts receivable balance was not overstated, because the projected misstatement was less than the allowance for sampling risk.

Required

Describe each incorrect assumption, statement, and inappropriate application of sampling in Mead's procedures.

10-50 **(Ethical Dilemmas in Audit Sampling)** This case is to be used in conjunction with the facts in Problem 10-47 and can be completed individually or in groups via classroom discussion.

Part 1. Without regards to the dollar amount of the calculated upper misstatement limit for accounts receivable in Problem 10-47, assume that you have calculated that the upper misstatement limit is $213,500, and assume that the test of details risk is 10%. Recall that materiality for this engagement is set at $215,000. What is the implication of the fact that the most likely

misstatement is very close to the materiality threshold? What does the closeness of these dollar amounts imply with regard to whether the accounts receivable amount requires downward adjustment? Using the ethical decision-making framework (which is based on Utilitarian Theory and Rights Theory from Chapter 3), develop an appropriate course of action to take assuming the following possibilities:

a. You think that the accounts receivable balance is fairly stated because the misstatement is below the materiality threshold, but you are not entirely convinced of the soundness of your judgment given the nearly material amount of the upper misstatement limit.
b. You collect a larger sample size. You send out ten more accounts receivable confirmations, and find two more overstatements totaling $88,000. Your senior tells you that the client has agreed to write down those two specific accounts receivables. He says that because of this agreement, you should disregard these overstatements for purposes of making a conclusion about the accounts receivable balance in total.

Part 2. Without regard to the dollar amount of the most likely misstatement and the upper misstatement limit for accounts receivable in Problem 10-47, assume that the most likely misstatement is $230,000, and assume that the test of details risk is 10%. Recall that materiality for this engagement is set at $215,000. Your senior tells you that he has decided to increase the materiality amount to $250,000. His rationale for this change is that the client is in good financial health and has relatively strong internal controls. What is the implication of the change in materiality amount with regard to whether the accounts receivable amount requires downward adjustment? Using the ethical decision-making framework (which is based on Utilitarian Theory and Rights Theory from Chapter 3), develop an appropriate course of action to address this situation.

Part 3. As noted in Problem 10-47, the sample of accounts receivable that you collected revealed five audit differences. For nearly all of those cases, the book value was greater than the audited value. What is management's incentive with regard to potential misreporting associated with accounts receivable (or other assets)? Assume that this pattern of overstatements has become routine during the past several years on this engagement. What does this trend potentially reveal about management? What are the ethical implications of this trend? What should you do?

Appendix 10A: Effect of Population Size (Finite Adjustment Factor)

Sample size tables assume that the population is very large. A *finite adjustment factor* can be used to determine the appropriate sample size when the sample size from the table is a significant part of the population. Some CPA firms recommend making this adjustment if the sample size is more than 10% of the population. Most sampling computer programs make this adjustment automatically. The formula for determining the sample size for these smaller populations is:

$$n = \frac{n'}{1 + \frac{n'}{N}}$$

where
n' = the sample size from the table
N = the population size

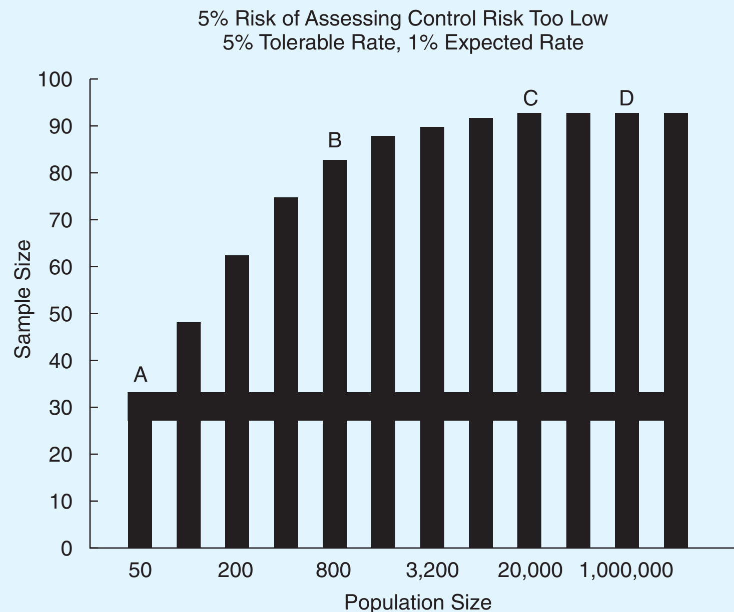
For example, if the sample size from Exhibit 10.3 is 93 and the population is 800, the adjusted sample size would be 83:

$$83 = \frac{93}{1 + \frac{93}{800}}$$

The effect of the finite correction factor is to reduce sample sizes in smaller populations; it is thus useful in improving audit efficiency and decreasing audit cost. Exhibit 10.10 illustrates the relationship between sample size and population size using 5% risk of assessing control risk too low, 5% tolerable rate, and 1% expected rate. There is a point (C) above which an increase in population size does not affect the sample size. That point is a population of around 20,000 (point C) for this set of parameters. The sample sizes in the sample size table are based on these large populations.

A careful review of Exhibit 10.10 shows why statistical sampling helps achieve substantial economies of scale when auditing large clients. After a certain point, sample size is insensitive to the population size. Thus, a small client

EXHIBIT 10.10 Relationship between Sample Size and Population Size



	Percent Sample Size to Population Size
A	66.00000%
B	10.37500%
C	0.46500%
D	0.00093%

with only 800 transactions (point B) requires the auditor to look at about 83 documents (10.375% of the population), whereas a client with 20,000 documents (point C) would require the auditor to look at only 93 documents (0.465% of the population) for the same audit test. For this reason, sampling tends to be used extensively on large clients but not as extensively in audits of small clients.

Biltrite Bicycles, Inc.

1. Module III of the Biltrite audit practice case contains an exercise requiring the application of *attribute sampling* to the sales processing system. This exercise may be completed at this time.
2. Module IV of the Biltrite audit practice case contains an exercise requiring the application of *PPS sampling* to factory equipment additions. This exercise may be completed at this time.

Module III: Control Testing—Sales Processing

In this module you will be asked to apply attribute sampling to Biltrite's prenumbered sales invoices to evaluate whether sales have been processed properly. Recall from Module I that several control weaknesses suggest a high misstatement incidence. However, nothing surfaced during the application of analytical procedures (other than the large 2007 sales increase) that indicated the existence of significant misstatements. For this reason, the audit team has decided to test sales transactions as a means for reducing the assessed level of control risk, thereby enabling them to decrease the extent of accounts receivable confirmation and other substantive procedures related to the revenue cycle.

Specifically, your first sampling objective is to determine that all recorded sales were shipped and that all shipments were invoiced and recorded. As discussed previously in the case, invoices are mailed to customers prior to shipment; therefore, customers may have received invoices for goods never shipped. Also, in the absence of prenumbered bills of lading, goods may have been shipped but never billed to the customer. The second possible processing problem is that customers may have exceeded existing credit limits without home office knowledge; you need to test the degree to which this has occurred. Finally, due to lack of input editing, prices, customer number, and/or product number may be incorrect; you will test for this as well.

Derick has asked you to complete the sampling plan worksheet that he began earlier. He has defined the sampling unit as the prenumbered sales invoice, and the relevant attributes as the following:

1. Bill of lading attached and signed by the carrier
2. Product prices in agreement with master price list stored in computer
3. Extensions and footings correct
4. Quantities and product type in agreement with customer order
5. Customer balance within the authorized credit limit

The population for attribute sampling purposes is the numeric file of sales invoices. During 2007, 22,400 sales invoices were processed, with document numbers ranging from 10610 to 33009. For each sales invoice number drawn at random and included in the sample, you will request the client to supply the invoice/bill of lading packet and the corresponding customer order. The sales invoice/bill of lading packet can be obtained from the numeric file maintained in CBIS. The customer order, the number of which appears on the face of the invoice, is stored in the computer and can be printed out on demand. You then will examine the documents for the previously listed attributes.

Requirements

1. Based on the control weaknesses identified in the sales processing subset of the revenue cycle, does the above sampling plan test for all significant weaknesses? If not, how might you test for any weaknesses not considered in the initial plan?
2. Using the spreadsheet program and downloaded data, retrieve the file titled "Attrib." Using the sample size and sample evaluation tables in Chapter 10 and the following data, complete the attribute sampling plan worksheet (in using the "Sample Results Evaluation" table, select the sample size that is closest to your sample size):
   a. A 5% risk of assessing control risk too low has been decided on for all attributes.
   b. Misstatements have been defined, and expected deviation rates set for each attribute as follows:
      1. Bill of lading not attached to packet—1%
      2. Incorrect prices—1%
      3. Extension and/or footing errors—0.5%
      4. Quantities and/or product type not in agreement with customer order—1%
      5. Customer balance exceeds authorized credit limit—1.5%
   c. Tolerable deviation rates of 4% have been set for all attributes.
   d. The following misstatements were discovered in examining the sample:

Sales Order Number	Misstatement
12511	Bill of lading not signed by carrier
15439	Invoice causing customer to exceed authorized credit limit
18616	Bill of lading missing
23468	Bill of lading missing
27891	Bill of lading missing

3. Print your completed document. (You will need to compress print size or otherwise accommodate a wide document.)
4. What conclusions can you draw based on your completed sampling plan worksheet? What impact might your findings have on the substantive audit programs for Biltrite? Based on the results of your testing, should the aggregate materiality threshold be changed for any part of the revenue cycle? Be as specific as you can in answering this question.

Module IV: PPS Sampling—Factory Equipment Additions

Richard Derick has asked you to develop a sampling plan to determine the extent of misstatements in classifying expenditures as repairs and maintenance expense or factory equipment additions. Given the failure to double-check debits on the face of vouchers, as described in Module I, Derick believes that significant misstatements may have occurred.

The same vendor's invoice frequently contains charges for parts and supplies as well as equipment, and the Biltrite employees preparing the vouchers sometimes fail to distinguish among the charges and simply indicate "factory equipment" as the debit if the invoice amount is large. Inasmuch as this type of misstatement would cause an overstatement in the factory equipment account, Derick instructs you to use PPS sampling to determine the extent to which such misstatements have occurred during 2007.

Of the total debits—$89,860,000 to factory equipment during 2007—major additions in the amount of $77,260,000 have been made to replace worn-out equipment. Derick has decided to audit the major additions in their entirety and sample the remainder.

Requirements

1. What is the sampling objective for the purpose of this exercise? What is the sampling unit? What is the population?
2. Using the spreadsheet program and downloaded data, retrieve the file labeled "PPS." Locate the following documentation in the file:
   - WP 11.3A—Probability-proportional-to-size sampling plan
   - WP 11.3B—Probability-proportional-to-size sampling plan—projected misstatement
   - WP 11.3C—Probability-proportional-to-size sampling plan—computed precision and upper misstatement limit

   Scroll to WP 11.3A, "Probability-Proportional-to-Size Sampling Plan." Calculate sample size and sampling interval assuming Derick has set the following parameters:

   Risk of incorrect acceptance: 5%

   Anticipated misstatement: $100,000

   Tolerable misstatement: $640,000
3. What factors did he consider in setting these parameters? Print the document.
4. Scroll to WP 11.3B, "Probability-Proportional-to-Size Sampling Plan—Projected Misstatement." This document summarizes all invoices containing posting errors and calculates the projected misstatement. Note the equations that have been incorporated into the document template.
   a. What factor determines whether a "tainting percentage" appears in column 4?
   b. Print the document. (Compress print size or otherwise accommodate a wide document.)
5. Scroll to WP 11.3C, "Probability-Proportional-to-Size Sampling Plan—Computed Precision and Upper Misstatement Limit." Complete the "Incremental Allowance for Sampling Risk" schedule by ranking the projected misstatements as appropriate. (*Hint*: If you forgot how to do this, refer to Chapter 10.)
6. Print the document.
7. Explain the meaning of the following amounts:
   a. Basic precision
   b. Incremental allowance for sampling error
   c. Allowance for sampling risk
   d. Upper misstatement limit
8. Evaluate the sampling results. Do they support Derick's sampling objectives? Note the audit adjustment based on misstatements discovered while examining the sample. Is this adjustment adequate to bring the population into acceptable bounds? If not, what alternate actions might you choose to pursue based on the sampling results?

CHAPTER 11

Auditing Revenue and Related Accounts

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Explain the concept of accounting cycles and their impact on audit approaches and identify the accounts in the revenue cycle.
- Discuss the importance of proper revenue recognition and the characteristics of revenue-related fraud.
- Describe the major types of fraud and misstatements that have occurred in the revenue accounts.
- Describe the approach an auditor would take to perform an integrated audit in the revenue cycle.
- Describe how to use analytical procedures to identify possible misstatements in the revenue cycle.
- Utilize audit procedures to test the effectiveness of internal control in the revenue cycle and integrate the control testing into an integrated audit.
- Describe the factors that influence the effectiveness and efficiency of audits of account balances.
- Describe overall audit approaches to test revenue and accounts receivable for the primary audit assertions of existence and valuation.
- Describe fraud indicators and related audit procedures for the revenue cycle.

CHAPTER OVERVIEW

This chapter illustrates the audit testing concepts developed earlier in the text by applying those concepts to an integrated audit of the accounts in the revenue cycle. Sales transactions are always material to a company's financial statements and often are subject to manipulation. Because sales are often subject to misstatement, special attention is paid to the control environment and to management's motivation to "stretch" accounting principles to achieve desired revenue reporting.

Once the auditor has evaluated internal controls over significant account balances and assertions in the revenue cycle, the audit program for testing account balances is finalized. After considering the quality of internal control, as well as fraud risk indicators, the auditor should have a good idea where and what types of misstatements might exist in the account balances. The auditor must decide which additional audit procedures to perform, how extensively those procedures should be performed, and which accounts and account items should be tested. This chapter describes the basic sales recording process, identifies the major documents and controls in that process, describes the types of revenue-related fraud, discusses an integrated audit, and identifies substantive audit procedures relevant to revenue cycle accounts.

Introduction

Revenue and the related receivables account are presumed to be high risk for most audits. These accounts are highly susceptible to misstatement. The auditor needs to understand the relationships present in the accounts and how to best approach an integrated audit of the related accounts and controls.

Performing Audits

Risks of Material Misstatements
Substantive Tests
Conclusions

The Cycle Approach

Many accounting transactions follow a defined cycle. For example, we view the transactions related to revenue as beginning with an initial sale and flowing through to the establishment of a receivable and eventually to the collection of cash. The cycle concept helps the auditor visualize the income and balance sheet accounts related to most transactions and thus provides a convenient way to think about audit testing of internal controls and the related account balances. We use the term **cycle** to refer to the processing of transactions and their effect on account balances associated with the transaction. **Revenue cycle** transactions include the processes ranging from the initiation of a sales transaction, to shipping a product, billing the customer, and collecting cash for the sale or writing off uncollectible receivables.

Overview of the Revenue Cycle

The cycle approach recognizes the interrelationship of material account balances. Audit evidence addressing the existence and valuation of accounts receivable also provides evidence on the existence and valuation of recorded revenue, and vice versa. When examining sales transactions and internal controls over sales processing, the auditor also gathers evidence on credit authorization and valuation of the recorded transactions.

Sales transactions often serve as a basis for computing commissions for sales staff. Sales information is used for strategic long-term decision-making and marketing analysis. Thus, the accuracy of accounting in the revenue cycle is important for management decisions as well as for the preparation of financial statements.

Consider the Risk

By examining the process of recording transactions and the internal controls implemented in a company, the auditor should be able to identify areas where the greatest risks of misstatements might occur.

The accounts typically affected by sales transactions are shown in Exhibit 11.1.

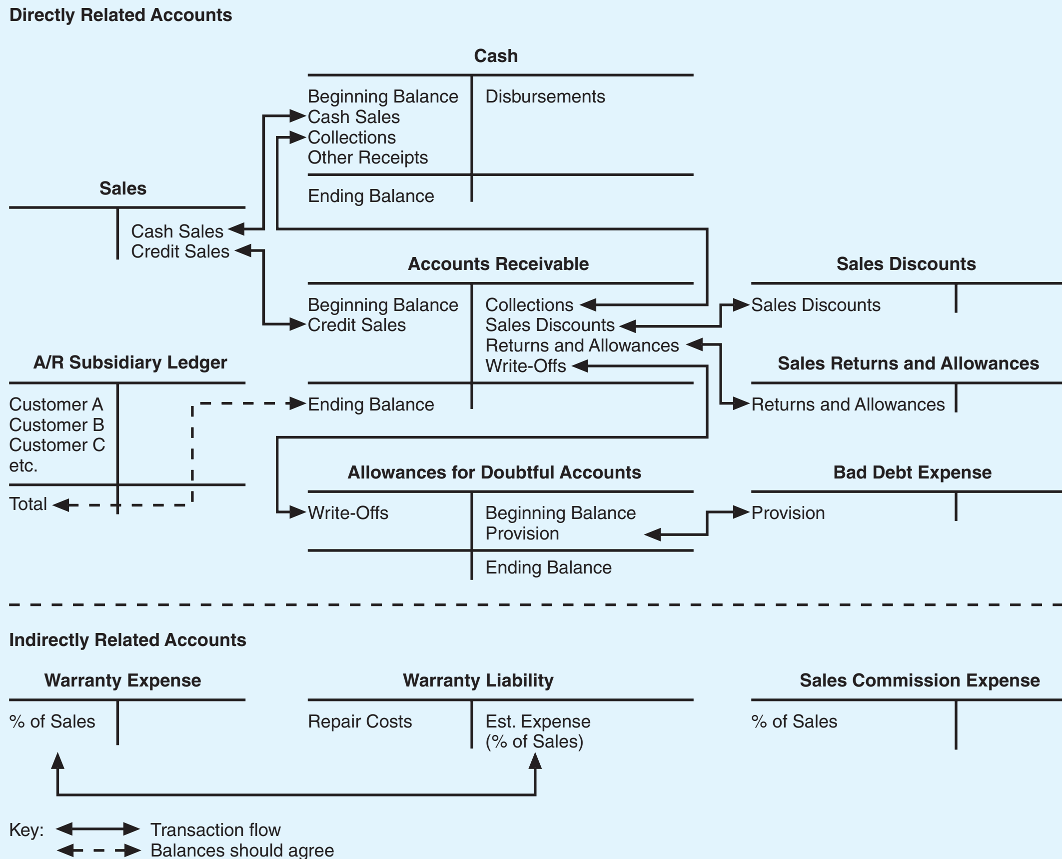
The sales process may differ with each client, but the commonalities of the revenue cycle can be used to develop audit programs for most organizations. For example, a sales transaction for a shirt in a department store differs from a sale of construction equipment, and both of these differ from a book sale on an Internet site. The Internet sale and the retail sale most likely require cash or credit card for payment. The construction equipment most likely sets up an account receivable, or maybe a loan is arranged with a third party. Some organizations generate detailed paper for sales documentation; others maintain an audit trail only in computerized form. The control concepts are similar, but the means to implement them differ.

Integrated Audit

The important controls in each process should be identified for testing.

The Revenue Accounting System and Related Controls Most sales transactions include the procedures and related documents shown in Exhibit 11.2. But with computerization, several of these procedures are combined. We use the term *documents* to apply not only to paper documents, but also to electronic documents that provide evidence of the transaction and the responsibilities of each party to the transaction. The auditor will need to consider the nature of the document (electronic or paper) to determine the specific controls and types of audit procedures

EXHIBIT 11.1 Revenue Cycle Accounts

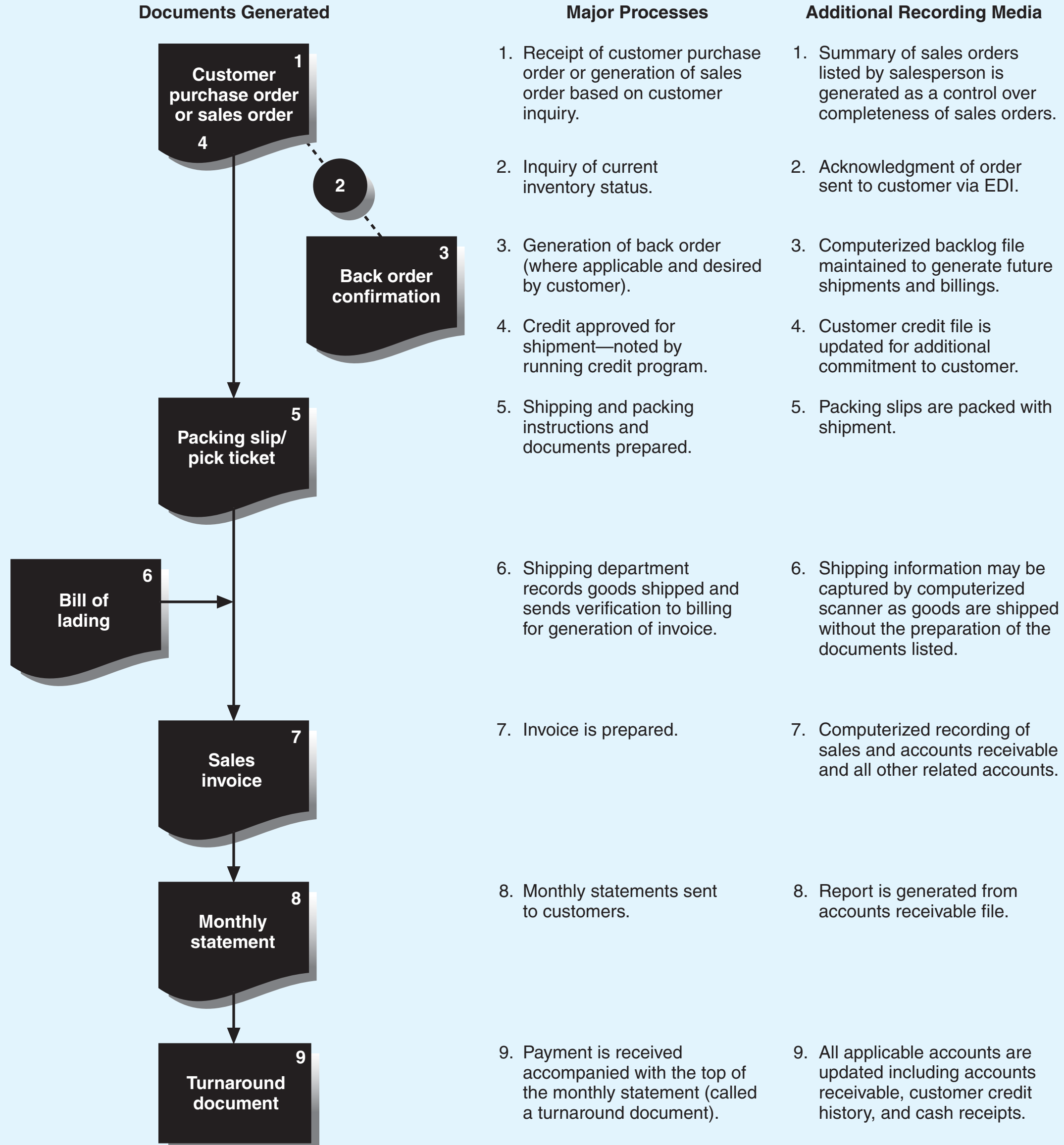


needed to verify the effectiveness of the control procedures. For example, a customer's purchase order, the bill of lading (signed by a representative of the common carrier), and a turnaround document (on which the customer writes the amount of payment) are paper-based documents with external validation attributes. On the other hand, a customer may have a contract specifying prices and quantities of goods for a year. Instead of a paper purchase order, the customer might submit its planned production schedule electronically to the company for delivery on a just-in-time basis. Shipments may be delivered and unloaded directly into the production line with no bill of lading, and the customer might pay once a month via electronic funds transfer based on production quantities. The control objectives are the same in both the manual and electronic environment, but the audit approaches and the control procedures differ markedly.

Receive a Customer Purchase Order Processing begins with the receipt of a purchase order from a customer or the preparation of a sales order by a salesperson. The order might be taken by (1) a clerk at a checkout counter, (2) a salesperson making a call on a client, (3) a customer service agent of a catalog sales company answering a toll-free number, (4) a computer receiving purchase order information electronically from the customer's computer, or (5) the sales department directly receiving the purchase order. The nature and extent of documentation vary considerably. For example, among the order takers just identified, it is possible that none of them will generate a paper document.

The sales order document should contain elements that provide a basis for determining that all transactions are properly authorized and completely recorded.

EXHIBIT 11.2 Overview of Sales Process



These control procedures include requiring the use of prenumbered sales orders, authorization, formal approval for credit, a description of part number, sales price, and shipping terms of the products ordered, and an authorized billing address.

Even if a sales order is not physically generated, the underlying information should be recorded in computerized form. Consider a customer service agent for a catalog merchandiser taking an order over the phone. The information is keyed into a computer file, and each transaction is uniquely identified. The computer file (often referred to as a *log of transactions*) contains all the information for sales orders taken for a period of time and can be used for control and reconciliation purposes.

> ***Integrated* Audit**
>
> The auditor will test to determine that there are controls in place to ensure that all orders are recorded and reconciled with orders shipped.

Check Inventory Stock Status Many organizations have computer systems capable of informing a customer of current inventory status and likely delivery date. The customer is informed of potential back-ordered items as well as expected delivery date.

Generate Back Order If an item is to be back-ordered for later shipment to the customer, a confirmation of the back order is prepared and sent to the customer. If the back order is not filled within a specified time, the customer is often given the option of canceling the order. An accurate list of back-ordered items must be maintained to meet current customer demand and future inventory needs. Appending a separate field to the individual inventory records to show back-ordered items usually does this.

Obtain Credit Approval Formal credit approval policies are implemented by organizations to minimize credit losses. Some companies eliminate credit risk by requiring payment through a credit card. Other companies require that a check accompany the order and generally delay the shipment for the time it takes a check to clear through the banking system to ensure that the payment is collectible.

Many industrial companies issue credit to their customers because it is a more convenient way to transact business. However, the company does accept some risk that they ultimately will not receive payment from the customer. There can be many reasons for non-payment ranging from (a) dissatisfaction with, or return of, the goods received or (b) inability to make the payments because of financial constraints. Thus, companies need to have a credit approval process that (a) evaluates the credit-worthiness of new customers and (b) updates the credit worthiness (including timeliness of payments) of existing customers. The credit approval might include a review of sales orders and customer credit information by a computer program that contains current account balance information and credit scoring information to determine whether credit should be extended to the customer. Most companies set credit limits for customers and develop controls to ensure that a pending sale will not push the customer over the credit limit.

Integrated Audit

Credit approval processes may change over time, or may not be consistently adhered to. Because the credit policies affect the collectibility of receivables, and thus the valuation of receivables, the auditor will normally test controls over credit.

Practical Point

Gateway Computer was found at fault in an SEC investigation because it changed its credit policies, but did not change the way in which it evaluated the allowance for uncollectible accounts.

Prepare Shipping and Packing Documents Many organizations have computerized the distribution process for shipping items from a warehouse. Picking tickets (documents that tell the warehouse personnel the most efficient sequence to pick items for shipment and the location of all items to be shipped) are generated from the sales order or from the customer's purchase order. Separate packing slips are prepared to insert with the shipment and to verify that all items have been shipped. Some companies put a bar code on the shipping container that identifies the contents. The bar code can be scanned by the customer to record receipt of the order.

Ship and Verify Shipment of Goods Most goods are shipped to customers via common carriers such as independent trucking lines, railroads, or airfreight companies. The shipper prepares a bill of lading that describes the packages to be conveyed by the common carrier to the customer, the shipping terms, and the delivery address. The **bill of lading** is a formal legal document that conveys responsibility to the shipper. A representative of the common carrier signs the bill of lading acknowledging receipt of the goods.

The shipping department confirms the shipment by (1) completing the packing slip and returning it to the billing department, (2) electronically recording everything shipped and transmitting the shipping information to the billing department, or (3) preparing independent shipping documents, a copy of which is sent to the billing department. The most common approach for verifying the shipment of goods and ensuring that they will be billed properly is completing the packing slip and sending a copy to the billing department, but companies are increasingly entering shipping information on a computer screen, which updates a billing database.

Integrated Audit

Most companies will have controls that reconcile goods shipped and goods billed on a daily basis.

Integrated Audit

For many companies, prices are kept in a computer file that is accessible only by authorized people in the sales department. The auditor will test to see that there are adequate controls that limit access to the computer price file. In addition, the auditor will select transactions to determine that they were all billed at authorized prices.

Prepare the Invoice Invoices are normally prepared when notice is received that goods were shipped. Controls should be in place to ensure that the invoice corresponds with the sales order as to terms of sale, payment terms, and prices for merchandise shipped.

Send Monthly Statements to Customers Many companies prepare monthly statements of open items and mail these statements to customers. The *monthly statement* provides a detailed list of the customer's activity for the previous month and a statement of all open items. The volume of transactions in many organizations often dictates that open account statements are prepared on a cycle basis. For example, if you have a MasterCard or VISA account, you may receive a statement around the 5th of the month with a due date of the 16th of the month; one of your classmates may receive her statement around the 20th of the month with a payment due date around the 29th of the month. If the auditor chooses to confirm the correctness of the accounts receivable by direct correspondence with the customer, information about when and how the client prepares monthly statements will be important.

Integrated Audit

All unusual transactions, especially those at year-end or with special terms, should be reviewed by the auditor assuming they are material.

Risk Linkage

For most clients, the revenue recognition processes described will be fully computerized. The auditor should be suspicious of numerous manual journal entries.

Receive Payments Control over cash receipts is often addressed separately as part of the cash receipts and cash management cycle. The proper recording of all receipts is crucial to the ultimate valuation of both cash and accounts receivable. Thus, as part of the review of internal control over account receivables, the auditor will normally review control procedures to ensure the completeness and accuracy of cash receipts.

Business Risk and Business Environment

Revenue Recognition

SAS #99, *Consideration of Fraud in a Financial Statement Audit*, states that the auditor should ordinarily presume there is a risk of material misstatement due to fraud relating to revenue recognition. A research study of 300 cases of fraudulent financial statements issued between 1987 and 1997 showed that over half of the frauds involved overstating revenues. Refer to the Auditing in Practice—Examples of Improper Revenue Recognition and Receivable Valuation box and note the wide range of methods used to inflate revenue and net receivables. Note that some of the schemes did not affect net income, but the company was motivated to report higher revenues.

Consider the Risk

Improper revenue recognition has been identified as the most frequent factor in financial reporting fraud.

Methods Used to Inflate Revenue Recent fraud investigations undertaken by the SEC uncovered a wide variety of methods used to inflate revenue:

- Recognition of revenue on shipments that never occurred
- Hidden "side letters" giving customers an irrevocable right to return the product
- Recording consignment sales as final sales
- Early recognition of sales that occurred after the end of the fiscal period
- Shipment of unfinished product
- Shipment of product before customers wanted or agreed to delivery
- Creation of fictitious invoices
- Shipment to customers that did not place an order
- Shipment of more product than the customer ordered
- Recording shipments to the company's own warehouse as sales
- Shipping goods that have been returned and recording the reshipment as a sale of new goods before issuing credit for the returned sale

The frauds listed here could not have taken place had there not been significant internal control failures, including, in many cases, management override of other internal controls. The auditor needs to understand the risks of such misstatements and management's incentives for misstatement. When properly understood, the auditor can design audit procedures to effectively test for the misstatements.

AUDITING IN PRACTICE

Examples of Improper Revenue Recognition and Receivable Valuation

Coca Cola is charged with coercing its largest distributors to accept delivery of more syrup than they needed at the end of each quarter, thus inflating sales by about $10 million a year.

WorldCom's CEO, Bernard Ebbers, pressured the COO to find and record one-time revenue items that appear to be fictitious and were hidden from the auditors by altering key documents and denying auditor access to the appropriate database.

HealthSouth understated its Allowance for Doubtful Accounts when it was clear certain receivables would not be collected.

Gateway recorded revenue for each free subscription to AOL services that was given with each computer sale, thus overstating pretax income by over $450 million.

Ahold (a Dutch company that is the world's second biggest operator of grocery stores) booked higher promotional allowances, provided by suppliers to promote their goods, than they received in payment.

Kmart improperly included as revenue a $42.3 million payment from American Greetings Corp. that was subject to repayment under certain circumstances and therefore should not have been fully booked by Kmart in that quarter.

Xerox improperly accelerated $6 billion of revenue from long-term leases of office equipment.

Qwest immediately recognized long-term contract revenue rather than over the 18-month to 2-year period of the contract inflating revenue by $144 million in 2000–2001. It also inflated revenue by $950 million by swapping network capacity with Global Crossing.

Rite-Aid sold 189 stores to J.C. Penney. Instead of booking $82.5 million as a one-time gain, it put that amount into an internal reserve account and used it to absorb future operating expenses.

Bristol-Myers inflated 2001 revenues by as much as $1 billion by using sales incentives to wholesalers that then packed their warehouses with extra inventory, referred to as channel stuffing.

Lucent Technologies improperly booked $679 million in revenue during its 2000 fiscal year. The bulk of this, $452 million, reflected products sent to its distribution partners that were never actually sold to end customers (channel stuffing).

Charter Communications, a cable company, added $17 million to revenue and cash flow in 2000 through a phony ad sales deal with an unnamed set-top decoder maker. They persuaded the set-top maker to tack $20 onto the invoice price of each box. Charter held the cash and recorded it as an ad sale. Net income was not affected but revenue was increased.

Sources (respectively): *Atlanta Business Chronicle,* June 2, 2003; *The Wall Street Journal Online,* June 9, 2003; *Accountingweb.com,* July 14, 2003; *Accountingweb.com,* May 19, 2003; *The Wall Street Journal Online,* February 25, 2003; *The Wall Street Journal Online,* February 26, 2003; *The Wall Street Journal Online,* June 28, 2002; *St. Cloud Times,* p. 6A, February 26, 2003; *The Wall Street Journal Online,* February 8, 2001; *The Wall Street Journal Online,* July 11, 2002; *The Wall Street Journal Online,* February 9, 2001; *USA Today,* July 25, 2003.

For example, if the auditor noted a large increase in sales near the end of the quarter, the auditor could use audit procedures to examine a large number of those transactions. A sample of sales invoices that show a "ship to" address to the company's own warehouse provides evidence of likely misstatement.

Revenue Recognition When to recognize revenue and how much to recognize are often difficult to determine. Auditors should refer to authoritative guidance, such as that provided by the SEC, FASB, and the AICPA to determine the appropriateness of their clients' methods of recognizing revenue.[1] The basic concept for revenue recognition is that revenue should not be recognized until it is realized or realizable and earned.[2] The SEC staff has determined that the following criteria must be met in applying this concept:

- Persuasive evidence of an arrangement exists.
- Delivery has occurred or services have been rendered.

[1] Examples of such guidance are *SEC Staff Accounting Bulletin: Codification of Staff Accounting Bulletins,* Topic 13: Revenue Recognition; FASB Concepts Statement No. 5; *Audit Issues in Revenue Recognition,* AICPA, 1999; and AICPA Audit Guide, *Auditing Revenue in Certain Industries,* June 1, 2001.

[2] FASB Concepts Statement 5, *Recognition and Measurement in Financial Statements of Business Enterprises,* paragraph 83.

- The seller's price to the buyer is fixed or determinable.
- Collectibility is reasonably assured.[3]

These criteria are not as straightforward as they might seem. For example, the criterion of *delivery* seems simple enough. Consider, however, a situation in which the seller has delivered product to a customer. The customer has the right to return the product and the buyer's obligation to pay is contractually excused until the buyer resells the product. In this case, revenue should not be recognized until the buyer has the obligation to pay, that is, when the product is resold.

The SEC generally does not consider delivery to have occurred until the customer has taken title and assumes the risks and rewards of ownership. Auditors may need to do research to determine when a client should recognize revenue and how to audit revenue. Some of the major research sources are shown in the box below.

Some revenue recognition areas require special consideration. The following is a sample of some that have emerged in recent years:

- How much should be recognized as revenue when a company sells another company's product but does not take title until it is sold? For example, should Priceline.com (an Internet travel site) record the full sales price of airline tickets it sells or the net amount it earns on the sale (the sale commission)?
- Should shipment of magazines by a magazine distributor to retail stores result in revenue when delivered to stores or await the sale to the ultimate consumers? Assume that the arrangement with the convenience stores is that all magazines not sold can be returned to the distributor when the racks are filled with the next month's magazines.
- Should revenue be recognized in barter advertising in which two web sites exchange advertising space on their web sites?
- At what point in time should revenue be recognized when:
  - The right of return exists.
  - The product is being held awaiting the customer's instructions to ship (bill and hold).
  - A bundled product is sold. As an example of the latter item, assume that a software company sells software bundled with installation and service for a total of $5,000. Should the total revenue be $5,000 or should the service element be separately estimated and recognized along with an attendant liability to perform the service work? What if the software entitles the user to free updates for a period of three years?

Integrated Audit

Most of these revenue recognition items are addressed by the control environment component of the COSO Internal Control Framework. It consists of the tone at the top and the commitment of management to hire competent accounting managers and CFOs with independence and knowledge of accounting treatments.

Revenue Recognition—Research Sources

- SEC Staff Accounting Bulletin 101 (Contained in Codification of Staff Accounting Bulletins, Topic 13: Revenue Recognition; it gives several examples of the application of these criteria. Available on the Web at http://www.sec.gov.)
- FASB Concepts Statement No. 5 *Recognition and Measurement in Financial Statements of Business Enterprises*, particularly paragraphs 83 and 84
- AICPA Statements of Position; for example, SOP 97-2 *Software Revenue Recognition*
- Emerging Issues Task Force Abstracts; for example, EITF Issue 99-19 *Reporting Revenue Gross as a Principal versus Net as an Agent*
- AICPA's *Audit Issues in Revenue Recognition* (available on the Web at http://www.aicpa.org)
- FASB Statements of Financial Accounting Standards; for example, SFAS No. 51 *Financial Reporting by Cable Television Companies*
- AICPA Audit Guide, *Auditing Revenue in Certain Industries*, as of June 1, 2001
- AICPA Industry Accounting and Auditing Guides

[3] The *SEC Staff Accounting Bulletin: Codification of Staff Accounting Bulletins,* Topic 13: Revenue Recognition provides several examples of the application of these criteria.

FOCUS ON FRAUD

Channel Stuffing

The timing of recording a sale is crucial. The SEC has been proactive in setting criteria for sales recognition. These include: the earnings principle is met, revenue is realized, and the principal revenue-producing activities are met. The SEC investigated Lucent Technologies because they were involved in "channel stuffing." Lucent would load up sales during the last few days of a quarter in order to make preset revenue objectives. The customers would take title to the goods (but not always delivery) because (a) they eventually needed the goods and (b) Lucent provided large incentives (good deals) to take the goods in advance. The SEC said the company was essentially taking normal sales from the next quarter (year) to show sales in the current quarter (year). The SEC argued that the earnings principle was not met and sales should not be recognized. Auditors will need to make judgments on whether unusual amounts of end-of-quarter sales should be recognized as normal revenue.

Practical Point

Auditors should refer to authoritative sources to determine proper revenue recognition for each client. However, most revenue recognition cases can be solved by paying attention to underlying accounting concepts.

The auditor is expected to know enough about the client's transactions to be able to exercise informed judgment in determining both the timing and extent of revenue to be recognized. Although the judgments may appear to be subjective, the SEC and other authoritative bodies have set forth objective criteria they expect both auditors and managers to use in determining revenue recognition. See the *Focus on Fraud* feature.

Fraud Risk Factors—Revenue Recognition

There are many motivations to overstate revenue. Bankruptcy may be imminent because of operating losses, technology changes in the industry causing the company's products to become obsolete, or a general decline in the industry. Executives may be pressured to meet their own or analysts' earnings expectations. The company may need additional financing. Bonuses or stock options may be dependent on reaching a certain earnings goal. A merger may be pending and management wants to negotiate the highest price possible.

There are a number of "red flags" to which the auditor should be alert regarding revenue recognition. Identifying and adjusting the audit to address any red flags involves the following:

- Examining motivation to enhance revenue due to either internal or external pressures
- Examining the financial statements through analytical procedures to identify account balances that differ from expectations or general trends in the economy
- Recognizing that not all of the fraud will be instigated by management; for example, a CFO or accounting staff person may be engaged in misappropriating assets for their own use (defalcation)

Integrated Audit

Significant red flags will lead the auditor to examine more transactions at year-end, as well as sales that either have unusual terms or are shipped to an intermediary rather than the end customer.

External Fraud Indicators External factors and other information that the auditor should consider include, but are not limited to, the following:

- Analyst expectations; the auditor needs to be aware of representations made by management to analysts and the potential effect of those expectations on stock prices.
- Industry trends; if the company's performance is significantly different than the rest of the industry or the economy, the auditor should be suspicious.
- Investigations; government regulators such as the SEC are conducting investigations of the client's accounting.

Internal Red Flags Internal red flags should also be examined, including, but not limited to, the following:

- Management compensation schemes; especially those that rely on stock options and therefore current stock prices

FOCUS ON FRAUD

Risk Linkage: Undue Accounting Complexity

WorldCom is a prime example of undue accounting complexity. Transactions were complex, but they were made more difficult by two factors. First, many of the accounting personnel were not sufficiently qualified for their position. Second, the accounting function was spread over three or more places without a good rationale for the decentralization. Third, the decentralization was by function. Many firms have decentralization with a full accounting unit at various places. WorldCom was not distributed that way. Rather, the property accounting function was located in Texas, while the revenue and line cost accounting were in Mississippi, and the equipment control was in Washington, D.C. Consequently, an accounting unit never saw the complete transaction. Only a few people at the very top were aware of the full accounting entries.

- Expiration of stock options; if stock options are expiring, there may be a tendency to attempt to boost stock price before the option expires
- Complex transactions; the company engages in many complex sales arrangements when simple transactions would suffice
- Accounting that is made unduly complex (see the *Focus on Fraud* feature)
- Accounting is not centralized.
- Accounting personnel are not qualified for their positions.
- The CFO does not have an accounting background.
- Internal audit is weak or does not address accounting controls.
- Computerized controls are weak or difficult to understand.
- Aggressive history; the company has a history of aggressive accounting interpretations.
- Growth through stock acquisitions; the company uses stock to grow the company through acquisitions.

Unusual Financial Results If a fraud is taking place, the financial statements usually will contain departures from industry norms. The financial statements may not be different from the expectations set by management to inflate the price of a company's stock, thus the auditor must take care to focus on a comparison with both past results and industry trends. Some of the differences the auditor might expect to see include the following:

- Revenue increases in the face of strong competition and competitor's new products
- Revenue increases that are not consistent with industry expectations or the economy
- Higher than average gross margins, or other significant financial indicators
- Large increase in sales made near the end of the quarter

The auditor usually identifies these risks through a combination of review of industry data coupled with analytical review of the client's preliminary financial data.

Practical Point

The first question asked in most court cases is: Why didn't the auditor suspect something when the client's results were so different than the rest of the industry? An auditor should be able to answer this question during the course of the audit.

Analytical Analysis for Possible Misstatements

Procedures such as the following can help auditors identify areas of potential misstatements and design appropriate audit procedures.

Comparison of Revenue Trend with Industry Trends

A client showing revenue growth when the economy or industry is in a downturn should cause the auditor to take a careful look at the client's method of recognizing revenue and consider the possibility of improperly inflated revenue.

Compare Cash Flow from Operations with Net Income

If a client is showing revenue growth and increased net income, but shows negative cash flow from operations on the cash flow statement, the auditor should be skeptical and look for the possibility that accounts receivable and/or inventory may be inflated.

Other Analytical Procedures

Other analytical procedures can identify unexpected results that should be investigated. Ratio analysis, trend analysis, and reasonableness tests are three standard analytical tools that are often used on revenue cycle accounts. When considering the use of analytical procedures, the auditor should independently examine corroborating evidence rather than rely on management explanations of unexpected findings. Typical analytical procedures for the revenue cycle are described next.

Ratio Analysis Ratio analysis is useful in highlighting account balances that are out of line or different from reasonable expectations. The approach to ratio analysis is similar to what a financial analyst would perform in examining a financial statement. Some ratios focus primarily on revenue accounts, while others focus on receivables and the allowance account. Remember that if there is a fraudulent credit to revenue, there must be a fraudulent debit somewhere else in the financial statements. That debit is most likely to be in the receivables account. Some of the ratios the auditor might want to compute include the following:

Risk Linkage

Auditors do not just look at the numbers when performing ratio analysis. The ratios must be examined in relation to the company's business practices and compared to industry ratios. For example, if all sales are due in thirty days, then a larger number of day's sales in receivables, such as 58, would be a concern.

- Gross margin analysis, including a comparison with industry averages and previous year's averages for the client
- Turnover of receivables (ratio of credit sales to average net receivables) or the number of days' sales in accounts receivable
- Average balance per customer
- Receivables as a percentage of current assets
- Aging of receivables
- Allowance for uncollectible accounts as a percent of accounts receivable
- Bad debt expense as a percent of net credit sales
- Sales in the last month to total sales
- Sales discounts to credit sales
- Returns and allowances as a percentage of sales

The following example taken from a court case demonstrates how ratio analysis may be helpful to the auditor. The company is a wholesaler selling to major retail chains. It was in a competitive industry. The changes in ratios noted by the auditor were as follows:

- The number of days' sales in accounts receivable increased in one year from 44 to 65.
- The gross margin increased from 16.7% to 18.3% (industry average was 16.3%).
- The amount of accounts receivable increased 35% from $9 million to $12 million while sales remained virtually unchanged.

All of these ratios were substantially greater than the industry average. An auditor reviewing these ratios should take a hard business look at the changes and ask these questions: (1) Is there a business reason why these ratios changed? (2) What alternatives could potentially explain these changes? (3) What corroborating evidence is available for potential explanations? The auditor should develop a potential set of explanations that could account for the change in all three ratios, and gather independent corroborating evidence that either supports or contradicts that explanation. The auditor should rank order the potential explanations and then investigate to determine which one is the most appropriate. In this example,

the company was engaged in a complicated scheme of recording fictitious sales. A number of other explanations were offered by management, e.g., increased efficiency, better computer system, better customer service, and so forth. However, only fictitious sales could account for the change in the gross margin, the increase in the number of day's sales in accounts receivable, and the increase in the total balance of accounts receivable that occurred when sales were not increasing.

Risk Linkage

The auditor was suspicious of the unusual amount of receivables. Upon further investigation, he found that the CFO of this company had embezzled several million dollars and had covered it up by recording fictitious accounts receivable. Although 30 days' sales in receivables is common for most companies, it should not have been common for this company. The auditor's knowledge of business procedures uncovered the fraud.

Trend Analysis Trend analysis is based on the assumption that current performance will continue in line with previous performance or industry trends unless something unusual is happening in the company. Unless a company has introduced significant new products or new ways of doing things, it is reasonable to expect a company's performance to parallel industry trends. For example, it might have seemed unusual to some that WorldCom could report continuing increases in earnings when none of its major competitors could do so. Could it be because WorldCom had products the other companies did not have; did they have superior management; or could it be that it was a company that merited greater audit skepticism and testing? Some basic trend analysis should include the following:

- Monthly sales analysis compared with past years and budgets
- Identification of spikes in sales at the end of quarters or the end of the year and
- Trends in discounts allowed to customers that exceed both past experience and industry average

With today's computerized systems, the auditor should prepare a graphical illustration of the changes in trends as well as an analysis of the underlying economic data. If an auditor plotted monthly sales and noticed unusual spikes during the last ten days of June and the last fifteen days of December, it would stand out and alert the auditor for the need for more investigation of those transactions. The value of the information is enhanced if the analysis is separated by product line, division, or some other sub-classification.

Reasonableness Tests Reasonableness tests are based on a simple premise: the auditor can gather a great deal of information about the correctness of an account by examining the relationship of the account with some underlying economic factor or event. For example, revenue from room rental for a motel can be estimated using the average room rate and average occupancy rate. Alternatively, the revenue from an electrical utility company should be related to revenue rates approved by a Public Service Commission (where applicable) and demographic information about growth in households and industry in the service area being served.

Practical Point

An auditor is more effective if he or she has a thorough understanding of the client's business, its industry, the economy, and, more importantly, the services the company must render to generate and sustain a growing customer base.

Regression Analysis

The auditor can also use more sophisticated analysis for analyzing trends. One of the most powerful tools is regression analysis. Often regression analysis is performed as a *time-series* analysis by examining trends in relationship with previous results. For example, it might be used to estimate monthly sales by product line based on the historical relationship of sales and independent variables such as cost of sales, selected selling expenses, or growth in total sales for the industry.

Another form of regression analysis is referred to as *cross-sectional analysis.* Rather than comparing relationships over a period of time, cross-sectional analysis is designed to compare results across a number of locations. For example, Home Depot and Lowes own hundreds of stores—each with one of three basic store layouts and size. Cross-sectional analysis allows the auditor to identify any unusual store performances. For example, the auditor may identify potential problems by comparing sales per square foot of retail space among the stores looking for those with significantly more sales per square foot than the other stores. More detailed testing should be performed at those suspect stores. Regression analysis is covered in Appendix 11A of this chapter.

Risk Linkage

An auditor used regression analysis and noted that the relationship between sales and cost of sales showed the last month of the year as an outlier (non-predicted relationship). This caused further investigation into the potential of revenue being recorded in the wrong period or fictitious sales.

Auditing Internal Controls and Account Balances—The Integrated Audit of Revenue

The auditor of a public company must report on both internal controls and the financial statements. The concepts associated with an integrated audit, including identifying the risk of material misstatements, is applicable to other audits as well. For illustration purposes, we are assuming that many of the entitywide controls, especially the control environment, have already been tested and any deficiencies are considered in the design of substantive tests for the revenue cycle. For example, the control environment includes such factors as a commitment to financial accounting competencies and the independence of an audit committee. If either, or both, of these important control components are missing, the auditor must conclude that the risk of material misstatement in the revenue cycle is high and plan to do significantly more testing of the accounts at year-end.

Risk Linkage

Considering business risk and the pressure on the company to report increased sales or profits assists in identifying many misstatements.

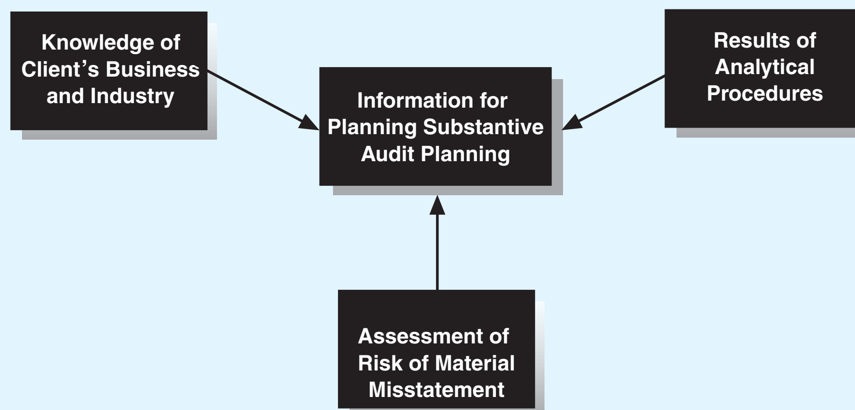
As shown in Exhibit 11.3, the auditor continually updates information about the client's industry and its business plans, results from preliminary analytical procedures regarding the company's financial position, and potential deficiencies in internal control to plan the detailed tests of account balances. This exhibit is applicable to the audits of all cycles covered in this text.

Inherent Risk—Sales Sales transactions are routine for many organizations and do not represent an abnormally high risk. The sales at retail organizations such as Wal-Mart, for example, are routine and are controlled through computerized cash registers and detailed procedures reconciling sales recorded by the cash registers with deposits at the bank. However, for some organizations, sales may not be routine; or management may override normal processing to achieve a particular sales or profitability goal.

Revenue should be recognized only when it is realized or is realizable and earned. While these concepts appear to be simple to apply, they are often difficult in practice. The auditor has to take care to understand:

- The entity's principal business, that is, what is the entity in the business of selling? For example, if a business sells phone services, but they enter into a one-time agreement to buy equipment from one supplier and then sell the equipment to another supplier, the auditor should question whether this is the client's business.

EXHIBIT 11.3 Sources of Audit Planning Information



- The earning process and the nature of the obligations that extend beyond the normal shipment of goods
- The right of the customer to return a product, as well as the history of the customer in returning merchandise

Complex sales transactions often make it difficult to determine when a sale has actually taken place. For example, a transaction might be structured so that title passes only when some contingent situations are met, or the customer may have an extended period to return the goods. The FASB has addressed several of these complex issues. Some difficult audit issues include determining:

- The point in time when revenue should be recognized
- The impact of unusual terms, and whether title has passed to the customer
- That all goods recorded as sales have been shipped and were new goods
- The proper treatment of sales transactions made with recourse or that have an abnormal or unpredictable amount of returns

The auditor can identify many of these risks when developing an understanding of business risks and control environment of the client and the types of transactions entered into by the client.

Risk Linkage

Organizations still commit fraud by manipulating shipping dates.

Sales with Abnormal Returns Companies that suddenly show an abnormal amount of merchandise returns most likely have problems that should lead the auditor to further evaluate the internal control over revenue and inventory. One example of such a problem was MiniScribe, a manufacturer of disk drives for personal computers. The company had a very aggressive, sales-oriented chairman who communicated specific sales goals to the financial press. Poor quality control led to a high rate of returns by customers. Rather than reworking the returned merchandise to fix defects, MiniScribe shipped the returned disk drives as new products. When the auditors discovered the situation, the company had to write down assets of more than $200 million.

Examples of sales transactions that have high inherent risk and have caused problems for auditors are reported in Exhibit 11.4.

Inherent Risks: Receivables The primary risk associated with receivables is that the net amount shown is not collectible, either because the receivables recorded do not represent bona fide claims or there is an insufficient allowance for uncollectible accounts. If a valid sales transaction does not exist, a valid receivable does not exist.

EXHIBIT 11.4 Examples of Complex Sales Transactions

DELIVERY

Company A receives purchase orders for products it manufactures. At the end of its fiscal quarters, customers may not yet be ready to take delivery of the products for various reasons. These reasons may include, but are not limited to, a lack of available space for inventory, having more than sufficient inventory in their distribution channel, or delays in customers' production schedules.

Question

May Company A recognize revenue for the sale of its products once it has completed manufacturing if it segregates the inventory of the products in its own warehouse from its own products? What if it ships the products to a third-party warehouse but (1) Company A retains title to the product and (2) payment by the customer is dependent upon ultimate delivery to a customer-specified site?

Answer

Generally, no. The SEC's staff believes that delivery generally is not considered to have occurred unless the customer has taken title and assumed the risks and rewards of ownership. Typically this occurs when a product is delivered to the customer's delivery site (if the terms of the sale are FOB destination) or when a product is shipped to the customer (if the terms are FOB shipping point).

(continued)

EXHIBIT 11.4 Examples of Complex Sales Transactions (*continued*)

INTERNET SALES

Company B operates an Internet site from which it will sell Company C's products. Customers place their orders for the product by making a product selection directly from the Internet site and providing a credit card number for the payment. Company B receives the order and authorization from the credit card company, and passes the order on to Company C. Company C ships the product directly to the customer. Company B does not take title to the product and has no risk of loss or other responsibility for the product. Company C is responsible for all product returns, defects, and disputed credit card charges. The product is typically sold for $200 of which Company B receives $30. In the event a credit card transaction is rejected, Company B loses its margin on the sale (i.e., the $30).

Question

Should Company B recognize revenue of $200 or $30?

Answer

The SEC's position is that Company B should recognize only $30. "In assessing whether revenue should be reported gross with separate display of cost of sales to arrive at gross profit or on a net basis, the staff considers whether the registrant:

1. Acts as principal in the transaction,
2. Takes title to the products,
3. Has risks and rewards of ownership, and
4. Acts as an agent or broker (including performing services, in substance, as an agent or broker) with compensation on a commission or fee basis."

Source: *SEC Staff Accounting Bulletin: No. 101—Revenue Recognition in Financial Statements*, December 3, 1999.

Alternatively, if the company had been shipping poor quality goods, there is a high risk of return. Finally, some companies, in an attempt to increase sales, may have chosen to sell to new customers that have questionable credit-paying ability.

There are other risks that may be directly related to the nature of the sales contract that was written with the customer, or with the company's management of the receivables. For example, a company may desperately need cash and decide to sell the receivables to a bank, but the bank may have a right to seek assets from the company if the receivables are not collected. Some of the risks affecting receivables include the following:

- Sales of receivables made with recourse and recorded as sales transactions rather than financing transactions
- Receivables pledged as collateral against specific loans with restricted use. Disclosures of such restrictions are required
- Receivables incorrectly classified as current when the likelihood of collection during the next year is low
- Collection of a receivable contingent on specific events that cannot currently be estimated
- Payment is not required until the purchaser sells the product to its end customers.

Audit Steps for an Integrated Audit

The audit steps associated with an integrated audit for the revenue cycle include the following:

1. Continually update information on business risk, including the identification of any fraud risk factors noted during preliminary audit planning. Update audit planning for new risk information.
2. Perform analytical procedures to determine if unexpected relationships exist in the accounts, and document how the audit testing should be modified because of the unusual relationships.

3. Develop an understanding of the internal controls in the revenue cycle, including the applicability of entity-level controls to the revenue cycle.
4. Analyze potential motivations to misstate sales, as well as the existence of other fraud indicators, and determine the most likely method that sales might be misstated.
5. Review the client's documentation of the operation of accounting applications in the revenue cycle and important control activities that need to be tested to formulate an opinion on the entity's internal controls. Determine whether the client's process of documenting and evaluating internal controls is adequate to substantiate a report on internal control.
6. Develop a plan for testing internal controls and perform the tests of key controls in the revenue cycle. (For non-public companies, the auditor can choose to not test controls, but must determine where material misstatements could occur if controls are not present.)
7. If internal controls are deficient (control risk is assessed as high), determine the types of misstatements that are most likely to occur. Consider the potential misstatements in planning substantive tests of account balances.
8. Correspondingly, if internal controls are effective, determine the extent that they provide evidence on the correctness of account balances. Determine a preliminary plan to gather corroborating information about the correctness of the account balances (a lower level of direct testing than required in step 7 where material deficiencies in internal control exist).
9. Determine whether the preliminary control risk assessment should be modified and document the implications for direct testing of account balances.
10. Carry out direct tests of account balances based on the potential for misstatement and the strength of information gathered about internal controls.

Example: An Integrated Audit of Sales and Receivables

The following is an abbreviated example of an audit approach to perform an integrated audit of internal controls and financial account balances in the revenue cycle.

Develop an Understanding of Internal Controls

Once the auditor has obtained an understanding of the control environment, attention is shifted to the remaining components of internal control—risk assessment, control activities, information and communication, and monitoring controls. Although the auditor needs to understand all the components of internal controls, the auditor will normally find it useful to focus attention on significant control procedures and monitoring controls. Remember, the auditor is required to gain an overall understanding of internal controls. The auditor will normally gain an understanding of the controls with a walk-through of the process, inquiry, observation, and review of the client's systems documentation. That understanding must be documented.

Identify Important Controls

The auditor has evaluated the entity-level controls, especially the control environment, and has concluded that there are no material deficiencies in the control environment. The financial group is competent, the audit committee is independent and plays an important oversight role, and the company has an effective internal audit activity that periodically looks at internal control over revenue. Further, the client has documented and evaluated internal controls over revenue and receivables and has not found any significant deficiencies. The auditor evaluates the following key controls to test:

- Credit authorization and consistency of credit policies
- Access to the computerized price list for goods sold

- Accuracy of quantities and prices for items shipped and billed
- Daily reconciliation of items shipped and items billed

In addition, the auditor is concerned about potential adjusting entries to sales and to receivables (outside of normal adjustments such as writing off uncollectible accounts). The client has a control that limits the adjustments to authorized personnel, with a separate authorization of all adjusting entries over $25,000 by the CFO. The auditor decides that the controls over the journal entries also require separate evaluation.

Design and Perform Tests of Internal Controls

The auditor designs tests of internal controls and proceeds to test the controls using the following procedures:

- A sample of shipments is selected and traced to invoices to determine that the goods are billed at the proper price and quantities. The auditor notes shipment approval (control), and daily reconciliation of shipments and invoices. The test of prices verifies that the control over pricing is working properly (no overrides of prices). Each invoice is also examined to determine that credit approval has taken place.
- Access to the price-table maintained in the computer is tested through an examination of the computer logs of all accesses to the pricing table. The auditor reviews the entries to determine if any accesses came from unauthorized personnel.
- The invoices are traced into the general ledger noting that all were properly recorded.
- The auditor also makes inquiries and verifies that there were no changes in the company's credit policies during the year.

The auditor did not find any exceptions and concluded that internal controls were working as described.

Evaluate Accounts for Unusual Activity

The auditor then performs a preliminary review of the revenue and accounts receivable accounts and notes that there is no unusual activity in either account:

- There is no unusual year-end sales activity.
- Accounts receivable growth is consistent with revenue growth.
- Both revenue growth, receivables growth, and gross margin are consistent with that of the industry.
- There is no unusual concentration of sales made to customers (in comparison with the past year).

The preliminary analysis confirms that the internal controls are working properly, including the client's commitment to transparent financial reporting.

Determine Year-End Tests

All of the auditor's information to this point is that the controls are working and the account balances will be fairly stated. The control information has been corroborated by the auditor's analytical procedures. However, since revenue is always considered high risk, the auditor performs the following year-end procedures:

- Examines shipments made during the last 15 days of the year and the first 15 days of the next year to determine that they are (a) appropriate (normal terms etc.) and (b) are recorded in the correct time period
- Sends a sample of accounts receivable confirmations to customers selected using PPS sampling

- Examines the client's allowance for uncollectible accounts for (a) consistency with past years, (b) subsequent collections and (c) consistency with industry trends

The nature and amount of direct testing was adjusted for the strength of controls and the previous analytical procedure results. When risk of misstatements is higher, the auditor adjusts the direct tests to consider the type of misstatements that might take place.

Risk Linkage

Most revenue and income related frauds are covered up by inflating either accounts receivable or inventory.

Linking Internal Controls and Audit Assertions

The following description of controls follows the assertions for internal control transactions developed in Chapter 5.

Occurrence Sales transactions should be recorded only when title has passed and the company has received cash or a collectable receivable. Control procedures should ensure that a sale is recorded only when shipment has occurred and the primary revenue-producing activity has been performed.

A second control occurs when a company sends monthly statements to customers. However, the control should be such that the statements are prepared and mailed by someone independent of the department, or individual, initially processing the transaction. Further, customer inquiries about their balances should be channeled to a department or individual that is independent of the original recording of the transactions.

Unusual transactions, either because of their size, complexity, or special terms, should require a high level of management review. Upper levels of management—and maybe even the Board—must be involved in approving highly complex and large transactions.

For normal transactions, authorization should be noted as part of an audit trail and should not be performed by the same person who records the transactions. Credit authorization is often computerized and includes an update of a customer's outside credit rating and a status of the current amounts owed to the client. The credit policies should fit the organization. For example, clients that sell large special-order products should develop credit policies requiring (1) information on past customer payments, (2) current credit rating information from companies such as Dun & Bradstreet, and, in some cases, (3) a customer's audited annual financial statements and/or current interim financial information.

Risk Linkage

Smaller businesses often do not have the personnel to separate the recording, inquiry, and customer statement process. They therefore have greater risks related to embezzlement of funds.

Cutoff Most transactions should be routine and the accompanying controls should ensure that the transactions are properly recorded at the time shipments or transfers of goods take place. Each transaction should be uniquely identified and accounted for. A formal process should be in place to record the sale upon notification of shipment—unless the shipment or sales contract contains unusual terms.

Risk Linkage

Sales should be recorded on a normal basis through the client's computer system and the processes described here. Therefore, the auditor should be alert to all sales transactions that are recorded manually through journal entries.

Completeness Completeness control procedures ensure that all valid transactions are recorded. Many transactions often go unrecorded because of sloppy procedures. In some cases, companies may choose to omit transactions because they want to minimize taxable income. Thus, the auditor still has to pay attention to completeness controls. Some controls that should be considered by the auditor include the following:

- Use of prenumbered shipping documents and sales invoices and subsequent accounting for all numbers
- Immediate online entry into the computer system and immediate assignment of unique identification by the computer application
- Reconciliation of shipping records with billing records

- Supervisory review, e.g., review of transactions at a fast-food franchise
- Reconciliation of inventory with sales; for example, the reconciliation of liquor at a bar at the end of the night with recorded sales

Accuracy Implementing controls to ensure the proper valuation of routine sales transactions should be relatively easy. Sales should be made from authorized computer price lists—for example, the price connected to a scanner at Wal-Mart, or the price accessed by a salesman from a laptop. In these normal situations, the control procedures should ensure the correct input of authorized price changes in the computer files and limit access to those files, including the following:

- Limiting access to the files to authorized individuals
- Printing a list of changed prices for review by the department authorizing them
- Reconciling input with printed output reports to ensure that all changes were made and no unauthorized ones were added
- Limiting authorization privileges to those individuals with the responsibility for pricing

Valuation issues most often arise in connection with unusual or uncertain sales terms. Examples include sales where the customer has recourse to the selling company, franchise sales, bundled sales, cost plus contracts, or other contracts covering long periods with provisions for partial payments. If these complex transactions are common, the company should have established policies and processes for handling them that should be reviewed by the auditor. Unusual transactions, if material, should be reviewed by the auditor as a part of substantive testing because there is usually not an established process to ensure that these transactions are properly valued.

Once a transaction has been initiated and captured, it is essential that the accounting system contain adequate control procedures to verify that the integrity of the transaction is maintained: no transactions are lost, added, or modified during the recording process. Control procedures include periodic reconciliation of input with output, and procedures designed to generate prompt follow-up of missing or unusual transactions.

Classification Normally, classification is not difficult for normal, recurring transactions. The major control procedures include (1) a comprehensive chart of accounts for classifying transactions, (2) training of employees, (3) review of complex or unusual transactions by supervisory personnel, and (4) computerization of standard transactions to ensure consistency of classification and processing. The classification of unusual or complex transactions should be reviewed to ensure that it is treated in accordance with the substance of the transaction.

Monitoring Monitoring is designed to alert the organization to a failure in the processing of transactions and then to determine that timely, corrective action is taken. There are a number of monitoring approaches applicable to revenue transactions, including the following:

- Comparison of sales and cost of sales with budgeted amounts
- Exception reports identifying unusual transactions or dollar amounts (Such reports are investigated and corrective action is taken, if needed.)
- Reports of transaction volumes that exceed prespecified norms
- Internal audit of the revenue cycle controls and unusual transactions
- Review by division and department management of internal controls and the quality of exception reports for management decision-making
- Computer reports reconciling transactions entered into the system with transactions processed by the system
- Monitoring of accounts receivable for quality, for example, aging of accounts receivable by customer credit rating

- Reports of transactions that exceed previously stated edit rules
- Independent follow-up of customer complaints
- Regulatory audits of sales tax collections

Control Structure Regarding Returns, Allowances, and Warranties

Abnormal returns or allowances may be the first sign that a company has problems. As an example, the problems with MiniScribe described earlier were first evidenced by unusually high rates of returns. In many other cases, companies booked large numbers of sales in the fourth quarter only to be followed by large numbers of returns after the end of the year.

Key controls that should be implemented for identifying and promptly recording returned goods include formal procedures for:

- Contractual return and warranty provisions that are clearly spelled out in the sales contract
- Approving acceptance of returns
- Granting credit or performing warranty work related to returned merchandise
- Recording goods returned on prenumbered documents that are accounted for to be sure they are all recorded promptly
- Identifying whether credit should be given, or whether the goods will be reworked according to warranty provisions and returned to the customer
- Determining the potential obsolescence or defects in the goods
- Ensuring proper classification of the goods and determining that the goods are not reshipped as if they were new goods

The company needs a specified methodology to determine whether a reasonable value exists at which the returned items could be recorded in regular or scrap inventory. Returned goods might be scrapped, sold through a company factory outlet store, or reworked and sold as repaired products.

Practical Point

The auditor should always examine unusual amounts of sales returns after year-end to determine the cause of the returns and the appropriations of previous revenue recognition.

Importance of Credit Policies Authorizing Sales

Formal credit policies are designed to ensure the realization of the asset acquired in the sales transaction, i.e., realization of the accounts receivable into cash. Control procedures should ensure that the organization identify the acceptable level of credit risks that should be taken by the organization.

The following control procedures should be considered by an organization in controlling its credit risk at the level desired:

- A formal credit policy, which may be automated for most transactions but requires special approval for large and/or unusual transactions
- A periodic review of the credit policy by key executives to determine whether changes are dictated either by current economic events or by deterioration of the receivables
- Continuous monitoring of receivables for evidence of increased risk, such as increases in the number of days past due or an unusually high concentration in a few key customers whose financial prospects are declining
- Adequate segregation of duties in the credit department with specific authorization to write off receivables segregated from individuals who handle cash transactions with the customer

In some industries, such as financial institutions, statutory rules are intended to minimize the financial credit risk to an organization. For example, banks and savings and loans often have limits on how much they can lend to a specific organization. In such cases the auditor must be particularly alert to the client's procedures for identifying all borrowers that are related to each other, so that the aggregate amount of loans does not exceed statutory regulations.

Consider the Risk

Every organization will identify its appetite for risk, including credit risk. Some companies sell primarily to high-risk customers at high rates. Such a strategy is appropriate, but it does mean that the auditor has to closely monitor economic trends that would affect the likelihood that the company's receivables are so risky that the bulk of accounts receivable might be impaired.

ACL can be used to list all customers with balances that exceed their credit limit.

Documenting Controls Internal controls can be documented in a flowchart, narrative, and/or questionnaire. An example of an internal control questionnaire for sales and accounts receivable is shown in Exhibit 11.5. Each negative answer in the questionnaire represents a potential control procedure deficiency. When a negative answer is given, the auditor should consider the impact of the response on potential misstatements in the account. For example, a negative response to the question regarding the existence of a segregation of duties between those receiving

EXHIBIT 11.5 Control Risk Assessment Questionnaire: Sales and Receivables

SALES ORDERS

Sales authorized by: (Describe the source and scope of authority, and the documentation or other means of indicating authorizations. Include explicitly the authorization of prices for customers.)

____

____

Sales orders prepared by, or entered into the system by:

____

____

Individuals authorized to change price tables: (Indicate specific individuals and their authority to change prices on the system and the methods used to verify the correctness of changes.)

____

____

Existence of major contracts with customers that might merit special attention during the course of the audit: (Describe any major contracts and their terms.)

____

____

Restrictions on access to computer files for entering or changing orders: (Describe access control systems and indicate whether we have tested them in conjunction with our review of data processing general controls.)

____

____

	Check (x) one: Yes	No
1. Are orders entered by individuals who do not have access to the goods being shipped?	____	____
2. Are orders authorized by individuals who do not have access to the goods being shipped?	____	____
3. Are batch and edit controls used effectively on this application? If so, describe the controls. ____ ____	____	____
4. Are sales invoices prenumbered? Is the sequence of prenumbered documents independently accounted for?	____	____
5. Are control totals and reconciliations used effectively to ensure that all items are recorded and that subsidiary files are updated at the same time invoices are generated? If so, describe. ____ ____	____	____
6. Do procedures exist to ensure that the current credit status of a customer is checked before an order is shipped? If so, describe. ____ ____	____	____
7. Are price lists stored in the computer independently reconciled to authorized prices by the marketing manager or someone in the marketing manager's office?	____	____

cash and those authorizing write-offs or adjustments of accounts indicates that a risk exists that an individual could take cash receipts and cover up the theft by writing off a customer's balance. Unless another control compensates for this weakness, the auditor should consider the risk of that specific misstatement in designing the audit program for direct tests of the account balance. Although questionnaires have been used extensively, they are being replaced by flowcharts and documented walk-throughs of processes.

Practical Point

Public companies must document their controls to meet the reporting obligations of Sarbanes-Oxley Section 404. The documentation generally consists of narrative and flowcharts of the process. The documentation also becomes important for training company personnel.

Testing for Operating Effectiveness In most organizations, the auditor can choose from a wide variety of procedures to test the controls. Some of these alternatives include the following:

- *Manual reviewing evidence of control operation*—Take a sample of recorded transactions and determine that the prices agree with authorized prices.
- *Computerized testing of computer controls*—Test controls used to limit access to the computer files, select a number of prices in the system, and reconcile to preauthorized price changes.
- *Testing of monitoring controls*—Management should have controls in place to assist them in monitoring proper prices, e.g., gross profit by product line. Management should investigate incidences that deviate from expected results.

The auditor must decide which approach or combination of approaches provides the best evidence at the least cost. Many auditors utilize the first approach by taking a sample of transactions and determining that they had been recorded at authorized prices. However, such a procedure is only an indirect test of the control. The auditor will also have to determine that the price used has been properly authorized.

Practical Point

The auditor must test the controls if expressing an opinion on internal controls over financial reporting. The selection of controls to test and the audit procedures are the same as described here for testing the effectiveness of controls in operation.

Exhibit 11.6 presents an overview of various controls that might be considered to satisfy specific control objectives, how the controls might be tested, and the audit implication if controls are not working. Note that the tests of controls include selecting samples of transactions to vouch back to supporting documents, reviewing monitoring controls, testing computer access controls, using audit software to match documents and look for gaps or duplicate document numbers, reviewing customer complaints, reviewing documents such as reconciliations and management reports noting timely action taken, and reviewing sales contracts.

EXHIBIT 11.6 Control Examples and Tests

Objective	Examples of Controls	How Control Would be Tested	Implications if Control Not Working
1. Recorded transactions were authorized and actually occurred.	a. Sales recorded only with valid customer order and shipping document.	a. Sample recorded sales transactions and vouch back to source documents. Use generalized audit software to match sales with electronic shipping document or customer order.	a. Recorded sales may not have occurred. Extend accounts receivable confirmation work and review of subsequent collections.
	b. Credit is approved before shipment.	b. Use ACL to determine each customer's balance and compare with its credit limit.	b. Receivables may not be collectible. Expand confirmation work and review of subsequent collections.
2. Sales are recorded in the correct accounting period (cutoff).	a. Computer records sale upon entry of customer order and shipping information.	a. Review monitoring controls (e.g., management's review of transactions entered into	a. Company may have unrecorded sales transactions. Discuss with manage-

(continued)

EXHIBIT 11.6 Control Examples and Tests (*continued*)

Objective	Examples of Controls	How Control Would be Tested	Implications if Control Not Working
	Transactions entered, but not yet processed, are identified for an exception report and followed up.	the system and not shipped and billed).	ment to determine if it has plans to bill the sales.
	b. Monthly statements are sent to customers. A group independent of those recording the transactions receives and follows up complaints.	b. Review nature of complaints received. Investigate to determine if there is a pattern.	b. Sales may be recorded in the wrong year. Expand sales cutoff testing.
3. All sales are recorded (completeness).	a. Prenumbered shipping documents and invoices which are periodically accounted for.	a. Review reconciliations to determine that control is working.	a–c. Expand cutoff tests at year-end to determine that all transactions are recorded in the correct period.
	b. Online input of transactions and independent logging.	b. Use online computer techniques such as ITF to verify transaction trails.	
	c. Monitoring: transactions are reviewed, compared with budgets, and differences are investigated.	c. Review management reports and evidence of actions taken.	
4. Sales are accurately recorded.	a. Sales price comes from authorized sales price list maintained on the computer.	a. Test access controls. Take a sample of recorded sales invoices and trace price back to authorized list.	a. Accounts receivable may be over- or understated due to pricing errors. Expand confirmation and subsequent collection procedures.
5. Sales are correctly classified.	a. Chart of accounts is up to date and used.	a. Take a sample of transactions and trace to general ledger to see if properly classified.	a. Expand test of sales and receivables to determine that all items represent bona fide contracts and not consignment sales or sale of operating assets.
	b. Computer program is tested before implementation.	b. When testing general controls, determine that controls over program changes are working.	b. Expand confirmations to customers.

Substantive Testing in the Revenue Cycle

Planning for Direct Tests of Transactions and Account Balances

Audit objectives provide the framework for the development of audit programs in the revenue cycle. Audit programs are based on assertions. Audit evidence addresses the assertions in the context of the general planning factors discussed in Chapter 5 on audit evidence for testing account balances.

Audit Objectives and Assertions

The audit objectives, related assertions, and typical audit tests for sales and accounts receivable are shown in Exhibit 11.7. The audit objectives are directly derived from the assertions framework. Further, the audit procedures show an integration of tests of transaction processing, direct tests of the sales and receivables balances, and an integration of evidence derived from related accounts (accounts receivable evidence is applicable to sales assertions, and vice versa). The specific audit procedures to be selected (including the timing and extent of the procedures) depend on evidence the auditor has obtained regarding the risk of material misstatement.

The extent of direct tests is dependent on the assessment of internal controls and the auditor's approach to an integrated audit.

Substantive Tests of Revenue

The auditor must obtain an understanding of the client's revenue recognition approaches, making sure they are in accordance with generally accepted accounting principles, and are properly applied to revenue transactions. Other specific tests follow the assertions developed earlier in the text.

EXHIBIT 11.7 Relationships between Audit Objectives and Substantive Tests—Accounts Receivable and Sales

Audit Objective (Assertion)	Substantive Test
Recorded sales and accounts receivable are valid (existence/occurrence).	1. Trace sales invoices to customer orders and bills of lading. 2. Confirm balances or unpaid invoices with customers. 3. Examine subsequent collections. 4. Scan sales journal for duplicate entries.
Sales are recorded in the correct accounting period (cutoff).	Perform sales cutoff test.
All sales are recorded (completeness).	1. Trace bills of lading to sales invoice and sales journal. 2. Account for sequence of sales invoices in sales journal. 3. Perform analytical procedures.
Sales and accounts receivable are properly valued (valuation/accuracy).	1. Verify clerical accuracy of sales invoices and agreement of sales invoices with supporting documents. 2. Trace sales invoices to sales journal and customer's ledger. 3. Confirm balances or unpaid invoices with customers. 4. Foot sales journal and Accounts Receivable trial balance and reconcile Accounts Receivable trial balance with control account. 5. Review adequacy of the Allowance for Doubtful Accounts.
Pledged, discounted, assigned, and related-party accounts receivable are properly disclosed (rights, presentation, and disclosure).	1. Obtain confirmations from banks and other financial institutions. 2. Review loan agreements and board of directors' minutes. 3. Inquire of management. 4. Review work performed in other audit areas. 5. Review trial balance of accounts receivable for related parties.
Revenue has been properly recognized in accordance with GAAP (accuracy, valuation, and classification).	Review the revenue recognition policies for appropriateness and consistency.

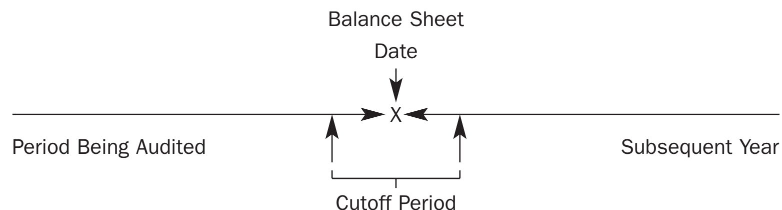
The timing and extent of tests depend on the auditor's approach to the integrated audit and the quality of the client's internal control. Audit software can assist in many of the tests.

ACL can perform many of these tests.

Occurrence, Accuracy, and Valuation Vouching a sample of recorded sales transactions back to customer orders and evaluating the quality of evidence of shipment provides support for the assertion that they actually occurred. The auditor should compare the quantities billed and shipped with customer orders and verify the clerical accuracy of the sales invoices. The absence of these supporting documents or evidence of tampering with shipment dates should cause the auditor to consider the possibility of fraud.

Special care should be given to sales recorded just before the end of each fiscal year to be sure sales have not been inflated by shipping more than the customer ordered. Audit software can be used to identify duplicate recording of sales invoices. Audit software can also select the sample and may be able to compare the detail with the supporting electronic documents. Audit software can also check the clerical accuracy of the invoices and foot the sales journal.

Cutoff Procedures applied to sales, sales returns, and cash receipts transactions selected from those recorded during the cutoff period to provide evidence as to whether the transactions have been recorded in the proper period are called **cutoff tests.** The **cutoff period** is usually several days before and after the balance sheet date:



The greatest risk of recording transactions in the wrong period occurs during the cutoff period. The extent of cutoff tests depends on the auditor's assessment of the effectiveness of the client's cutoff controls. If the client has strong controls to ensure that transactions are recorded in the correct period, the auditor can minimize such testing. However, it should be emphasized that controls can be overridden and that auditors have historically found a high degree of risk related to recording sales transactions in the correct period.

The following items can be examined to determine whether a proper cutoff has been achieved:

Practical Point

The extent of cutoff tests may be significantly less in an integrated audit where there is strong evidence that internal controls over shipments are highly effective.

Cutoff Test of	Items to Examine
Sales	Shipping documents and related recorded sales
Sales returns	Receiving reports and related credits to customer accounts
Cash receipts	Deposits per books and per bank, Cash on hand at year-end.

For high-risk clients, the auditor should normally be at the client's location at year-end to record the last shipping record, receiving record, and cash and checks ready for deposit for later cutoff testing.

Practical Point

Cutoff tests help test the assertion of timeliness in recording transactions.

Sales cutoff can be tested in two ways. *First,* a sample of sales transactions can be selected from the cutoff period to determine the correct time period of recording. The auditor can determine whether the sales were recorded in the correct period by looking at the shipping terms and shipment dates. The auditor may also want to examine the sales contracts to determine the existence of terms that might indicate that the recording of the sale should be postponed. Such terms might include the customer's right of return (and a high probability of return), the existence of additional performance by the seller, the probability of collection based on some future event (contingency), or the existence of an unusually low probability of

collection. *Second,* if reliable shipping dates are stored electronically, generalized audit software can be used to identify any sales recorded in the wrong period.

Sales Returns Cutoff The client should document merchandise returned by customers using receiving reports showing the date, description, condition, and quantity of the merchandise. The auditor can select some of the receiving reports issued during the cutoff period and determine whether the credit was recorded in the correct period.

ACL can compare billing and shipping dates for recorded transactions and print out all items where the shipment date was later or in a different period.

Completeness The most important control to ensure completeness is pre-numbered shipping and billing documents (even if assigned by the computer). Selecting a sample of shipping documents and tracing them into the sales journal tests for completeness. The auditor can also use audit software to look for gaps in the recorded sales invoice numbers and verify that the missing numbers are appropriate and do not represent unrecorded sales. For example, the gaps may represent voided documents or gaps caused by using different numbers at different locations. In addition, analytical procedures may be used such as comparing monthly sales by product line with prior periods. The results may raise the auditor's suspicion that some sales are missing or that sales have been artificially inflated.

Substantive Tests of Accounts Receivable

The auditor must determine that receivables exist, belong to the client, are complete, and are properly valued. It is important to realize that existence is necessary for correct valuation, but does not necessarily ensure correct valuation. For example, a customer might acknowledge the existence of the debt but not have sufficient resources to pay it.

Existence and Occurrence The timing and nature of audit tests depend directly on the auditor's assessment of the environment risk of material misstatement for this assertion. The most widely used auditing procedure is to ask customers to confirm the existence and amount of their indebtedness to the client. Confirmation of receivables is required by GAAS under most circumstances.

In addition to selecting items for confirmation, ACL can be used to identify gaps or duplicates of sales invoice numbers.

Valuation Two valuation questions directly concern the auditor. First, are the sales and receivables transactions initially recorded at their correct value (gross value)? Second, is it likely that the client will collect the outstanding receivables, and do so in a timely fashion (net realizable value)? The first concern is addressed during the auditor's tests of transactions processing and confirmation work. The second concern is more difficult and is addressed in the discussion related to determining the reasonableness of the allowance for doubtful accounts.

Rights and Obligations Some companies sell their receivables to banks or other financial institutions, but may retain responsibility for collecting the receivables, and do so or may be liable if the percentage of collection falls below a specified minimum. The auditor should review all such arrangements and consider obtaining confirmations from the client's banks about any contingent liabilities, including discounted receivables. The auditor should also make inquiries and review the minutes of the board of directors' meetings for indications of discounted receivables.

Presentation and Disclosure Material amounts of pledged, discounted, or assigned receivables or related-party receivables and sales should be disclosed in the financial statements. Substantive procedures that provide evidence about the need for such disclosures include confirmations from banks and financial institutions, review of loan agreements, board of directors' minutes, review of the receivables trial balance, and inquiry of management.

Standard Accounts Receivable Audit Procedures

Although each audit is unique, the auditor most likely performs some standardized audit procedures such as obtaining and evaluating an aging of accounts receivable, confirming receivables with customers, performing cutoff tests, and reviewing subsequent collections of receivables.

ACL is frequently used to age and analyze accounts receivable files.

Aging Accounts Receivable The auditor usually obtains a copy of a detailed aged accounts receivable trial balance from the client, manually prepares a trial balance, or uses generalized audit software to assist in developing aging information and identifying old outstanding balances (see Exhibit 11.8 for an example of an aged trial balance). A detailed trial balance lists each customer's balance or unpaid invoice with columns to show those that are current, 30 days overdue, 60 days, and so on. Generalized audit software can also be used to develop an aging summary.

If the client prepared the trial balance, it should be tested for mathematical and aging accuracy to be sure that it is a complete representation of the recorded accounts receivable balance that will appear on the balance sheet. It should be footed and checked for agreement with the general ledger, and the aging should be tested to be sure that the client's personnel or computer program that prepared it did it correctly. Many companies have serious algorithm difficulties in applying partial payments, or applying round payment amounts to account balances when specific invoices are not noted in the customer's remittance.

EXHIBIT 11.8 Accounts Receivable Aging

Name	Balance	Current	30–60	61–90	91–120	Over 120
Alvies	154,931	154,931				
Basch	71,812		71,812			
Carlson	115,539	115,539				
Draper	106,682	106,682				
Ernst	60,003			60,003		
Faust	90,907	90,907				
Gerber	241,129	211,643	29,486			
Hal	51,516	51,516				
Harv	237,881	237,881				
Kaas	18,504				18,504	
Kruze	44,765	44,765				
Lere	28,937	28,937				
Misty	210,334	210,334				
Mooney	216,961	216,961				
Otto	273,913	273,913				
Paggen	209,638	209,638				
Quast	88,038					88,038
Rauch	279,937	279,937				
Sundby	97,898	97,898				
Towler	96,408	85,908		10,500		
Zook	31,886	31,886				
	.	.				
	.	.				
	.	.				
Nough	245,927	245,927				
Totals	2,973,546	2,695,203	101,298	70,503	18,504	88,038

The aged trial balance can be used to:

- Agree the detail to the balance in the control account
- Select customer balances for confirmation
- Identify amounts due from officers, employees, or other related parties or any non-trade receivables that need to be separately disclosed in the financial statements (presentation and disclosure)
- Help determine the reasonableness of the allowance for doubtful accounts by identifying past-due balances

Credit balances can also be identified and, if significant, reclassified as a liability. The auditor also finds it convenient to note collections of balances subsequent to year-end on the trial balance.

Confirming Receivables with Customers Confirmation of receivables can provide reliable external evidence on the existence of recorded accounts receivable and should be considered as an audit procedure on every engagement.

When Confirmations Are Required The requirement for confirming receivables relates to a 1938 landmark case, *McKesson and Robbins,* in which the SEC found a massive fraud involving material amounts of fictitious receivables. The misstatements would have been discovered had the auditors confirmed the receivables. Current standards require the use of confirmations unless one of the following conditions exists:

- Accounts receivable are *not material*.
- The use of confirmations would be *ineffective*. An auditor might determine that confirmations are ineffective if customers have previously refused to confirm balances or customers do not have a good basis on which to respond to the confirmation.
- The auditor's assessment of the risk of material misstatement is low, and that assessment, in conjunction with the evidence provided by other substantive tests, is *sufficient* to reduce audit risk to an acceptably low level.

Practical Point

With an integrated audit where no control deficiencies were found, the number of confirmations can be low as long as it is sufficient to corroborate the effectiveness of internal control.

Information requested in confirmation letters must be *objective and independently verifiable* by the customers from their own records. Recipients may be more likely to reply and identify discrepancies if the confirmation request is sent with their monthly statement. When the verification of an account balance is difficult or complex, the auditor may ask the recipient to confirm supporting information from which the auditor can later compute the ending account balance. For example, instead of asking an individual to confirm an installment loan balance that includes a complex interest calculation, the auditor could request confirmation of the date of the loan, original balance, interest rate, number of installments, and date the last installment was paid.

Types of Confirmations The two basic types of accounts receivable confirmations are positive confirmations and negative confirmations. **Positive confirmations** are letters sent to selected customers asking them to review the current balance or unpaid invoice(s) due the client and return the letters directly to the auditor indicating whether they agree with the indicated balance. If the customer does not return a signed confirmation, the auditor needs to utilize follow-up audit procedures to verify the existence of the customer's balance. An example of a positive confirmation is shown in Exhibit 11.9. Notice that it is printed on the client's letterhead, is addressed to the customer, is signed by the client, indicates the balance or unpaid invoice amount as of a particular date—referred to as the confirmation date—and tells the customer to respond directly to the auditor in an enclosed self-addressed, postage-paid envelope.

A **negative confirmation** is similar in that it asks the customer to review the client's balance but requests the customer to respond directly to the auditor only if the customer disagrees with the indicated balance. Exhibit 11.10 is an example

EXHIBIT 11.9 Positive Confirmation

NSG Manufacturing Company
200 Pine Way, Kirkville, WI 53800
January 10, 2008

A.J. Draper Co.
215 Kilian Avenue
Justice, WI 53622

Our auditors, Rittenberg & Schwieger, CPAs, are making an annual audit of our financial statements. Please confirm the balance due our company as of December 31, 2007, which is shown on our records as $32,012.38.

Please indicate in the space provided below if the amount is in agreement with your records. If there are differences, please provide any information that will assist our auditors in reconciling the difference.

Please mail your reply directly to Rittenberg & Schwieger, CPAs, 5823 Monticello Business Park, Madison, WI 53711, in the enclosed return envelope. PLEASE DO NOT MAIL PAYMENTS ON THIS BALANCE TO OUR AUDITORS.

Very truly yours,

Joleen Soyka
Controller
NSG Manufacturing Company
To: Rittenberg & Schwieger, CPAs
The balance due NSG Manufacturing Company of $32,012.38 as of 12/31/07 is correct with the following exceptions, (if any):

Signature: ________________________________
Title: ________________________________
Date: ________________________________

of a negative confirmation. A negative confirmation is less expensive to administer than a positive confirmation because there are no follow-up procedures when a customer does not return the confirmation. The auditor assumes that a non-response has occurred because the customer agrees with the stated balance.

Note that to adequately respond to the positive or negative confirmation request, customers must reconcile any differences between their records and the client's records (such as payments already mailed or invoices not yet received). Sometimes this may involve considerable effort on the customers' part and many of them do not take the time to respond.

Type of Confirmation to Use Positive confirmations are considered to be more persuasive than negative confirmations because they result in either (1) the receipt of a response from the customer or (2) the use of alternative procedures. The negative form may be used *only* if all three of the following conditions exist:

- There are a large number of relatively small customer balances.
- The assessed level of the risk of material misstatement for receivables and related revenue transactions is low.
- The auditor has sound reason to believe that the customers are likely to give proper attention to the requests; that is, the customers have independent records on which to make an evaluation, will take the time to do so, and will return the confirmation to the auditor if there are significant discrepancies.

EXHIBIT 11.10 Negative Confirmation

NSG Manufacturing Company
200 Pine Way, Kirkville, WI 53800
January 10, 2008

B. D. Kruze
8163 Pleasant Way
Lucas, TX 77677

Our auditors are making an annual audit of our financial statements. Our records show an amount of $1,255.78 due from you as of 12/31/07. If the amount is not correct, please report any differences directly to our auditors, Rittenberg & Schwieger, CPAs, using the space below and the enclosed return envelope. NO REPLY IS NECESSARY IF THIS AMOUNT AGREES WITH YOUR RECORDS. PLEASE DO NOT MAIL PAYMENTS ON ACCOUNT TO OUR AUDITORS.

Very truly yours,

Joleen Soyka

Joleen Soyka
Controller
NSG Manufacturing Company

Differences Noted (If Any)

The balance due NSG Manufacturing Company of $1,255.78 at 12/31/07 does not agree with our records because (No reply is necessary if your records agree):

Signature: ____
Title: ____
Date: ____

If the negative form is used, the number of requests sent or the extent of other procedures applied to the accounts receivable balance should normally be increased. Therefore, the auditor has a cost-benefit decision to make in choosing between the two forms. More time per confirmation letter is spent on the positive form; but because it is more reliable, fewer forms need to be sent and/or the extent of other procedures can be reduced. Because positive confirmations provide more reliable evidence, they must be used when the auditor utilizes statistical sampling in choosing which accounts to confirm. Auditors may choose to use positive confirmations for large receivable balances and negative confirmations for the smaller balances.

Practical Point

Because negative confirmations do not provide assurance on each account that is selected, they cannot be used with statistical sampling evaluation techniques.

Auditors should normally confirm the terms of unusual or complex agreements or transactions in conjunction with the confirmation of account balances or separately. The confirmation may need to be addressed to customer personnel who would be familiar with the details rather than to their accounts payable personnel. In certain circumstances, the auditor should confirm not only the terms of the transactions but also the absence of side agreements. Examples of these circumstances include bill-and-hold transactions, extended payment terms or non-standard installment receivables, or an unusual volume of sales to distributors/retailers (possible "channel stuffing").

Confirmations as Audit Evidence Confirmations may provide evidence on a number of assertions in the revenue cycle. However, the persuasiveness of some forms of confirmations is open to question and the auditor must be aware of

AUDITING IN PRACTICE

Reliability of Confirmation Responses

Several research studies have shown that confirmations are not as reliable as auditors would like to believe. In one study, installment loan customers of a large bank were sent confirmations with balances that were known to be incorrect. Negative confirmations were sent to some customers and positive confirmations to others. In each case, there were equal numbers of small and large understatements and overstatements.

If negative confirmations were a reliable source of evidence, the auditor could expect a response from most of the customers objecting to the balance. On average, however, fewer than 20% of the customers with known errors actually responded to the request to indicate differences to the auditor. The auditor ordinarily assumes that the other 80% represents correct balances—an erroneous conclusion. Less than 50% of those replying to the positive confirmations responded to the auditor indicating that the balance as shown by the bank was incorrect. The majority returned signed statements agreeing with balances that the auditor knew to be incorrect!

Why were the responses so unreliable? Several explanations are possible. First, the borrowers may have compared the confirmation with their records, detected a discrepancy, and declined to inform the auditor because:

- The misstatement was in the borrower's favor, so correcting the bank's books would not be advantageous; borrowers were less likely to respond when their balances were understated.
- The misstatement was perceived as small and not worth informing the auditor about.
- The borrowers concluded that their own records were wrong.

The positive confirmation results were also disturbing. Borrowers may fail to compare the confirmation with their records or assume that the balance is correct. In some instances, customers admitted to simply signing and returning the confirmation request to avoid being bothered by further requests.

Source: Horton Lee Sorkin, *The Expanded Field Confirmation,* Research Report No. 21 (The Institute of Internal Auditors, 1978).

potential impairments that jeopardize the integrity of confirmation responses. (See the *Auditing in Practice*—Reliability of Confirmation Responses feature.) Confirmations are generally considered to provide *strong* evidence about the *existence* of receivables and the *completeness* of collections, sales discounts, and sales returns and allowances. For example, if a payment had been made, or an invoice was recorded but no shipment occurred, the customer would likely report the discrepancy on the confirmation. A confirmation can be a very effective procedure to address the existence of fictitious sales. The presumption is that if the fictitious sales are recorded to the account of a *valid* customer, the customer will note that some of the recorded sales are not correct. If the customer is fictitious, the auditor must take care to ensure that it will not be delivered to a location where the client can act as a surrogate and confirm an inappropriate receivable.

Accuracy and Security of Confirmation Process Confirmations may be prepared manually but are more frequently prepared by computer with audit software. The auditor should ensure that the information in each confirmation is correct and should control the mailing of the confirmation requests so that the client cannot modify them. Customers are requested to return the confirmations directly to the auditor's office in an enclosed self-addressed, postage-paid envelope. Similarly, the mailing should show the auditor's address as the return address in the event that the confirmation is not deliverable. Undeliverable confirmations should raise the auditor's suspicion regarding the validity of the recorded receivable.

Sample Selection There are several approaches to selecting receivables to be confirmed. The auditor can confirm all of the large balances and randomly or haphazardly select some of the smaller balances. Either nonstatistical or probability proportional to size (PPS) sampling (described in Chapter 10) can be used. The auditor may decide to include in the sample those accounts that have credit balances, are significant and past due, are related-party accounts, and/or those with unusual customer names that are unfamiliar to the auditor.

Sampling Unit The auditor has a choice in identifying the sampling unit by confirming a customer's entire balance or selecting one or more of the unpaid invoices that make up that balance. When a balance is composed of several unpaid invoices, it will help the customer if a list of those invoices is attached to the confirmation. Some customers may use a voucher system and not maintain a detailed accounts payable subsidiary ledger. As an alternative to confirming the whole balance, the auditor can confirm one or more selected unpaid invoices to improve the useful response rate.

ACL can be used to profile the account and select items for verification using either statistical or nonstatistical sampling.

Undeliverable Confirmations The auditor should determine the cause of confirmations returned as undeliverable. If the wrong address was used, the correct address should be obtained and another request sent. It is possible that the customer does not exist. Every effort should be made to determine the customer's existence. For example, the customer's name and address could be looked up in the telephone directory, in the publication of a credit rating service, or on the Internet. If a valid address cannot be located, the auditor should presume that the account does not exist or might be fictitious.

Follow-Up to Non-Responses: Positive Confirmations Follow-up procedures are required for positive confirmations that are not returned within a reasonable time after being mailed, such as two weeks. Second, and sometimes third, requests are mailed. If the amount being confirmed is relatively large, the auditor may consider calling the customer to encourage a reply.

When customers do not respond to the positive confirmation requests, the auditor should perform other procedures to verify the existence and validity of the receivable, referred to as **alternative procedures.** Remember that mailed confirmations represent only a sample of the many account balances shown in the client's records. The results of the sample are intended to represent the total population; thus, it is important that the auditor develop sufficient follow-up procedures to gain satisfaction as to the correctness of each of the balances selected for confirmation. Alternative procedures that can be considered include the following:

- *Subsequent collection of the balance after year-end*—Care should be taken to ensure that these subsequent receipts relate to the balance as of the confirmation date, not to subsequent sales.

  Evidence obtained from testing subsequent collections is often believed to be a stronger indicator of the validity of the customer's balance than is obtained from confirmations. If a significant amount of the year-end receivables balance is normally collected before the end of the audit (which can be up to three months after the balance sheet date), the auditor may choose to emphasize tests of subsequent collections and minimize or eliminate confirmation work. In a computerized environment, subsequent receipts may be identified using special computer programs. Testing subsequent collections provides strong evidence about both the existence and collectibility of the related receivables.

- *Examination of supporting documents*—If all, or a portion, of the balance has not been collected, documents supporting the uncollected invoices should be examined. These documents include customer orders, sales orders, bills of lading or internal shipping documents, and sales invoices.

  The auditor must consider that evidence obtained from internal copies of customer orders, internal shipping documents, and sales invoices is not as persuasive as that obtained from subsequent cash receipts. Bills of lading are usually external and provide independent verification of shipments.

Risk Linkage

Fraud studies show that fictitious receivables often have P. O. Box addresses that can be accessed by management to sign confirmations. The auditor may need to use other methods to verify large accounts when receivables seem unusually high. If subsequent collections are not forthcoming, the auditor should consult business directories and published financial statements to verify the existence of a customer.

Follow-Up to Non-Responses: Negative Confirmations The basic premise underlying negative confirmations is that if no response is received, the auditor may assume that the customer agrees with the balance and no follow-up procedures are required. This is not always the correct assumption. The customer may not respond even though the balance is wrong, because (1) the letter was lost,

misplaced, or sent to the wrong address; (2) the customer did not understand the request; or (3) the request was simply ignored and thrown away. The auditor must have some assurance that the reliability of the negative confirmation process is not compromised because of any of the factors just described. The auditor does not expect that a large number of negative confirmations will be returned.

Returned Negative Confirmations Experience shows that negative confirmations are returned for the following reasons:

- The customer did not understand the request.
- The customer confirms an incorrect amount because there are payments or shipments in transit.
- The amount recorded by the client is in error.

The auditor must perform follow-up work to determine whether the confirmed amount really represents a misstatement. The auditor might look at subsequent cash receipts or vouch back to the customer's order and evidence of shipment to help make this assessment. If the auditor determines there are errors, expanded procedures need to be utilized to (1) determine the underlying cause of the errors and (2) estimate the amount of misstatement in the account balance.

Follow-Up Procedures: Exceptions Noted on Positive Confirmations Customers are asked to provide details of any known differences between their own records and the amount shown on the confirmation. Differences are often referred to as **exceptions.** The auditor should carefully investigate exceptions to determine that the cause of any difference is properly identified as a customer error, a timing difference, an item in dispute, or a client misstatement. Misstatements need to be projected to the entire population of receivables to determine if there may be a material misstatement in the account balance. If the projected amount of misstatement appears to have a material effect on the financial statements, the magnitude and cause of such misstatement should be discussed with the client to decide the appropriate follow-up procedures and whether a client investigation should precede further audit work. If subsequent work supports the conclusion of material misstatement, an adjustment will be required, and the client should adjust both the subsidiary and general ledger records to reflect that adjustment.

Some exceptions noted by customers are **timing differences** caused by transactions that are in process at the confirmation date, such as in-transit shipments or payments. If the auditor can determine that the timing difference did not result in recording the receivable in the wrong period, the differences do not represent misstatements in the account balance. What appears to be a timing difference may actually be the result of **lapping,** which is a way to cover up the embezzlement of cash. Lapping is an irregularity that may be detected by confirmations, as described in the *Auditing in Practice* feature.

Procedures When Accounts Are Confirmed at an Interim Date If the internal controls over receivable transactions are strong, and the auditor has thus chosen to confirm receivables at a date prior to the balance sheet date, additional evidence must be gathered to ensure that no material misstatements have occurred during the **roll-forward period** (the period between the confirmation date and the balance sheet date). The procedures used in gathering the additional evidence are often referred to as **roll-forward procedures** and include the following:

- Compare individual customer balances at the interim confirmation date with year-end balances and confirm any that have substantially increased.
- Compare monthly sales, collections, sales discounts, and sales returns and allowances during the roll-forward period with those for prior months and prior years to see if they appear out of line; if they do, obtain an explanation from management and acquire corroborative evidence to determine if that explanation is valid.

AUDITING IN PRACTICE

Lapping: An Accounts Receivable Irregularity

Lapping is a technique used to cover up the embezzlement of cash. Lapping is most likely to occur when there is an inadequate segregation of duties—an employee has access to cash or incoming checks and to the accounting records. The employee steals a collection from a customer. However, that customer does not receive credit for the payment. If no other action is taken, that customer will detect the absence of the credit for payment on the next monthly statement. To prevent detection, the employee covers the defalcation by posting another customer's payment to the first customer. Then the second customer's account is missing credit, which is covered up later when a subsequent collection from a third customer is posted to the second customer's account (hence the term *lapping*). At no time will any customer's account be very far behind in the posting of the credit. Of course, there will always be at least one customer whose balance is overstated unless the employee repays the stolen cash.

The defalcation can take place even if all incoming receipts are in the form of checks. The employee can either restrictively endorse it to another company, or go to another bank and establish an account with a similar name. If the lapping scheme is sophisticated, very few accounts will be misstated at any one time. Because the auditor selects only a sample for confirmation purposes, it is important that all differences be investigated and the cause for any exceptions determined rather than rationalizing the exception away as an isolated instance. Detailed entries in the cash receipts journal related to credits posted to that customer's account should be traced to the details on the related deposit slips and remittance advices. If the amount the customer paid exceeds the amount of the credit to the account, the detail in the cash receipts journal will not agree with the detail on the deposit slip or with the remittance advice. The pattern of the error should be noted for further investigation.

- Reconcile receivable subsidiary records to the general ledger at both the confirmation date and year-end.
- Test the cutoff of sales, cash collections, and credit memos for returns and allowances at year-end.
- Scan journals to identify receivables postings from unusual sources and investigate unusual items.
- Compute the number of days' sales in receivables at both the confirmation date and year-end, and compare these data with each other and with data from prior periods.
- Compute the gross profit percentage during the roll-forward period, and compare that to the percentage for the year and for prior periods.

ACL can be used to identify any unusual looking transaction and can develop a printout for auditor verification.

The purpose of performing these procedures is to search for evidence concerning the auditor's tentative conclusion that control risk is low and that the accounts do not contain material misstatements.

Summarizing Confirmation Work The confirmation work should be summarized to show the extent of dollars and items confirmed, the confirmation response rate, the number and dollar amount of exceptions that were not misstatements, and the number and amount of exceptions that were misstatements (cross-referenced to the detailed explanation and disposition thereof). Such a summary helps the reviewers quickly grasp the extent and results of this work. The following is an example of such a summary:

	Items	Amount
Population	3,810	5,643,200.00
Positive confirmations	29	193,038.71
Percent confirmed	0.76%	3.42%
Responses	27	180,100.11
Percent responding	93.1%	93.3%
Exceptions	5	32,061.50
Cleared	4	19,105.82
Misstatements—B-4	1	971.68
Projected to population		30,446.31

Related-Party Receivables

Amounts due from officers, employees, affiliated companies, or other related parties should be separately disclosed. Audit procedures directed toward the identification of related-party transactions include the following:

- Reviewing SEC filings
- Reviewing the accounts receivable trial balance
- Inquiring of management
- Communicating the names of identified related parties so that the audit team members can be alert to related-party transactions

Non-Current Receivables

Receivables that are not due within the normal operating cycle or one year (whichever is longer) should be listed as non-current assets. For example, a receivable arising from the sale of a fixed asset and due three years hence, or due in installments over a three-year period, should be classified wholly or in part as a non-current asset unless the client's operating cycle covers the entire period of collection. Audit procedures to identify misclassified receivables include making inquiries of management, reviewing the aged trial balance for large old outstanding balances, reading the board of directors' minutes, and scanning the subsidiary ledger to identify unusually large receivable balances, particularly those that resulted from a single transaction that was posted from an unusual source.

Sold, Discounted, and Pledged Receivables

Receivables that have been sold with recourse, discounted, or pledged as collateral on loans should be disclosed. Audit procedures that would reveal these ownership and disclosure items include the following:

Risk Linkage

When a large amount of receivables is sold, the auditor must examine relevant contracts to identify potential recourse to the company.

- Inquiring of management
- Scanning the cash receipts journal for relatively large inflows of cash that are posted from unusual sources
- Obtaining bank confirmations, which include information on obligations to the bank and loan collateral
- Reviewing the board of directors' minutes, which generally contain approval for these items

Few but Large Sales—Confirmation of Sales

In some businesses, the balance in the sales account is made up of relatively few transactions, but each transaction is for a large dollar amount. In such situations, the auditor should review sales contracts, being careful to review sales recorded just prior to year-end or reviewing sales returns posted just after year-end. In some situations, the auditor may even choose to confirm recorded sales with major customers. The auditor must be careful, however, to ensure that the customer is legitimate and has a reasonable basis on which to respond to the auditor's inquiry. For an example of potential problems the auditor might face, see the *Auditing in Practice* feature.

Fraud Indicators and Audit Procedures

Substantive tests must be adjusted when specific fraud indicators are present. Some potential fraud indicators include the following:

Consider the Risk

Detailed audit procedures are effective in identifying most frauds.

- Excessive credit memo or other credit adjustments to accounts receivable after the end of the fiscal year
- Customer complaints and discrepancies in accounts receivable confirmations (for example, disputes over terms, prices, or amounts)

AUDITING IN PRACTICE

Endotronics: Audit of Large Sales Transactions

Endotronics, Inc., a Minneapolis-based publicly-held company, reportedly recorded $3.7 million in machine sales to a Japanese company, its largest customer. The Japanese company had a common name (like Yamaha, Inc.), but was in fact a small shell company with few financial resources. Endotronics was under pressure to show increasing sales and profitability to obtain larger contracts and municipal financing of expanded plant capacity.

The company engaged in "bill-and-hold" sales, whereby a sales transaction for goods was recorded but the equipment was stored in a warehouse near the Minneapolis–St. Paul International Airport rather than shipping it to Japan. The auditors obtained confirmation of the sales from the customer and obtained a legal opinion from an independent law firm that the sales contract was valid. The explanation the auditors received for the customer warehousing near a U.S. airport seemed reasonable: the customer could obtain its inventory within 24 hours, and storage costs in Japan are very high. The public warehouse company also confirmed its storage of these machines. However, a warehouse spokesperson was very explicit in noting that they responded only to specific questions asked by the auditor. In other words, the spokesperson seemed to indicate that the auditor failed to ask the critical question and therefore failed to understand the nature of the agreement with the client:

> A spokesman for [the public warehouse company] said the information it supplied merely confirmed that it was holding some Endotronics machines that had been sold, or were being sold, to Japan. [The operations manager] conceded, however, that the information should have made it clear that Endotronics, not the customer, was still in control of the equipment. "We couldn't ship it without getting word from Endotronics."

It turned out the machines were still under Endotronics' control. The customer reneged on the contract, and the client was forced into bankruptcy. In spite of all their efforts, the auditors, among others, were sued by—and paid damages to—shareholders. The auditors were also the subject of considerable negative press.

Source: "Firm That Did Endotronics Audit Says It Received Misinformation," *Minneapolis Star and Tribune,* 28 July 1987, p. 1D.

- Unusual entries to the accounts receivable subsidiary ledger or sales journal
- Missing or altered source documents or the inability of the client to produce original documents in a reasonable period of time
- A lack of cash flow from operating activities when income from operating activities has been reported
- Unusual reconciling differences between the accounts receivable subsidiary ledger and control account
- Sales to customers in the last month of the fiscal period at terms more favorable than previous months
- Pre-dated or post-dated transactions
- Large or unusual adjustments to sales accounts just prior to or just after the fiscal year-end

The following *audit procedures* should help detect the frauds described earlier:

- Perform a thorough review of original source documents including invoices, shipping documents, customer purchase orders, cash receipts, and written correspondence between the client and the customer.
- Analyze and review credit memos and other accounts receivable adjustments for the period subsequent to the balance sheet date.
- Confirm with customers the terms of sales agreements, including the absence of right of return and terms that might preclude immediate revenue recognition.
- Analyze all large or unusual sales made near year-end. Vouch to original source documents. Confirm terms of the transaction directly with the customer.
- Scan the general ledger, accounts receivable subsidiary ledger, and sales journal for unusual activity.
- Perform analytical reviews of credit memo and write-off activity by comparing to prior periods. Look for unusual trends or patterns such as large numbers of credit memos

Practical Point

Information technology provides opportunities for companies to develop fictitious documents to support fictitious balances. The auditor should always insist on locating documents immediately, but especially when fraud is suspected.

pertaining to one customer or sales person, or those processed shortly after the close of the accounting period.

- Analyze recoveries of written-off accounts.

If any of the preceding procedures were part of the original audit program, the auditor should consider expanding the extent of testing if evidence of potential fraud is discovered.

Allowance for Doubtful Accounts

Accounts receivable should be valued at its net realizable value, that is, the gross amount customers owe less an allowance for doubtful accounts. Estimating the allowance for doubtful accounts is one of the more difficult audit tasks because, at the time of the audit, no correct answer is available, i.e., the allowance must be a best estimate. The estimate must reflect the economic status of the client's customers, current economic conditions, and an informed expectation about default on payment. The method for developing an estimate of the allowance will be affected by the strength of the client's credit policies and the nature of its business operating environment. In many companies, the determination of the allowance will have a substantial effect on the organization's profitability.

Estimate of the Allowance for Doubtful Accounts Recording the allowance for doubtful accounts and determining bad debts expense for the year is the result of an accounting estimate. The allowance should reflect management's best estimate of year-end accounts receivable that will not be collected. The auditor should obtain an understanding of how management developed the estimate and the controls management used in making the estimate. The auditor must be aware of any changes in the client's credit policies, or changes in the economy that affect the client's customer base. Auditors generally use one or a combination of the following approaches to evaluate the reasonableness of the estimate:

- Review and test the process used by management, as well as the underlying controls, to develop the estimate.
- Develop an independent model to estimate the accounts and update the model each year based on past experience and current economic conditions.
- Review subsequent events or transactions occurring prior to completion of fieldwork, such as subsequent collections.

Attesting to Internal Controls

If the company does not have a process that utilizes objective data to estimate uncollectible receivables, it has a significant deficiency in internal control.

The auditor can track the history of annual write-offs and provisions for bad debts. If they are approximately equal over a period of years for stable credit sales, or approximately the same percentage of credit sales or receivables from year to year, these estimates would appear to be reasonable. Such estimates are useful but should be modified for changes in economic conditions, customer demographics, credit policies, or products. Blindly following old approaches often results in substantially underestimating a client's collection problems.

The auditor should ask management about the collectibility of customer balances that have not yet been collected in the subsequent period, particularly those that are large and long overdue. The auditor can also review credit reports from outside credit bureaus, such as Dun & Bradstreet, to help determine the likelihood of collection, and can check customer correspondence files to provide additional insight into the collectibility of specific accounts. In some cases in which amounts are due from customers whose balances are past due or unusually large, the auditor may want to request a copy of the customer's latest financial statements to perform an independent analysis of collectibility.

Write-Offs Accounts should be written off as soon as they are determined to be uncollectible. The auditor should inquire about the client's procedures for

deciding when to write off an account, and determine whether the procedures and related internal controls are reasonable and are being followed. All write-offs should be approved.

When a customer is unable to pay his open account when due, he may be asked to sign a note receivable requiring payment within a specified period, with interest. The auditor can physically examine or confirm notes receivable. For confirmations, the auditor should ask customers to confirm not only the amount due (as for accounts receivable), but also the date of the note, the due date, the interest rate, and, when appropriate, any collateral pledged as security that should be in the client's possession but should not be included on the balance sheet. The auditor should test the related interest income at the same time as the notes receivable.

Practical Point

A clever way to cover up embezzlements is to write-off the receivables of the company whose funds were taken. That is why someone independent of those dealing with cash should approve all accounts receivable write-offs.

Summary

Although most businesses have developed highly sophisticated automated control structures for recording transactions in the revenue cycle, misstatements can occur because of (1) the sheer volume of transactions that must be recorded, (2) the complexity of some sales transactions, and/or (3) pressures to record fictitious revenue. Some sales transactions are further complicated by the difficulty in determining the economic substance of the transaction. The auditor must be able to both understand and test the strength of the client's recording process, internal controls, and the business purpose of transactions in order to assess the risk of material misstatement in the revenue cycle. An integrated audit, based on a sound understanding of the client's internal controls, business risk, and fraud indicators, provides for an efficient approach to audit a public company. Audits of smaller companies will usually focus more on direct tests of account balances.

Knowledge of the interrelationships among transactions, account balances, assertions, tolerable misstatements, persuasiveness of alternative procedures, and the various risk factors allows the auditor to develop an effective and efficient audit program. When detection risk is relatively low, the auditor should perform direct tests of the account balances, perform them as of year-end, and test relatively large samples. When detection risk is moderate or high, the auditor may use more analytical procedures, perform some procedures at an interim date, and/or use smaller sample sizes.

Significant Terms

alternative procedures Procedures used to obtain evidence about the existence and valuation of accounts receivable when a positive confirmation is not returned, including examining cash collected after the confirmation date and vouching unpaid invoices to customer's orders, sales orders, shipping documents, and sales invoices.

bill of lading A shipping document that describes items being shipped, the shipping terms, and delivery address; a formal legal document that conveys responsibility for the safety and shipment of items to the shipper.

cutoff period The few days just before and just after the balance sheet date; the number of days is chosen by the auditor, depending on the assessment of potential errors made in recording items in the incorrect period (especially sales and receivables).

cutoff tests Procedures applied to transactions selected from those recorded during the cutoff period to provide evidence as to whether the transactions have been recorded in the proper period.

cycle A group of accounts related to a particular processing task; represents a convenient way to look at the interrelationship of account balances. Normally, but not always, a transaction cycle encompasses all aspects of a transaction from its initiation to final disposition.

exceptions Differences between a customer's records and the client's records reported on positive or negative confirmations.

lapping A technique used to cover up the embezzlement of cash, whereby a cash collection from one customer is stolen by an employee who takes another

customer's payment and credits the first customer. This process continues and at any point in time, at least one customer's account is overstated.

negative confirmation A request to customers asking them to respond directly to the auditor only if they disagree with the indicated balance.

positive confirmation A request to customers asking them to respond directly to the auditor if they agree or disagree with the indicated balance.

revenue cycle The process of receiving a customer's order, approving credit for a sale, determining whether the goods are available for shipment, shipping the goods, billing the customers, collecting cash, and recognizing the effect of this process on other related accounts such as Accounts Receivable and Inventory.

roll-forward period The period between an interim date, when a substantive procedure was performed, and the balance sheet date.

roll-forward procedures Procedures performed at or after the balance sheet date to update substantive evidence obtained at an interim date.

timing difference Confirmation exceptions caused by transactions that are in process at the confirmation date, such as in-transit shipments or payments. These are not misstatements.

Review Questions

11-1 What is meant by the cycle approach to analyzing revenue-related accounts

11-2 What accounts are typically affected by transactions in the revenue cycle? Identify the relationships among them.

11-3 What are the internal control objectives in the revenue cycle?

11-4 What are the major processes involved in generating and recording a sales transaction? What are the major documents generated during each process?

11-5 Why should auditors ordinarily consider revenue recognition as a fraud risk factor?

11-6 What criteria has the SEC utilized to help determine if revenue can be recognized?

11-7 Why might it be necessary to do some research in order to determine whether a client's revenue recognition policies are proper?

11-8 What methods are sometimes used to fraudulently inflate revenue?

11-9 What sometimes motivates management to overstate revenue?

11-10 What analytical procedures can help auditors identify areas of potential misstatements and design appropriate audit procedures?

11-11 What are the audit steps associated with assessing the risk of material misstatement for the revenue cycle?

11-12 What are the basic inherent risks associated with sales and accounts receivable?

11-13 Why should auditors develop an understanding of a client's control environment as it affects the accounts in the revenue cycle?

11-14 What important control functions are served by mailing monthly statements to customers? Why is it important to separate the duties of responding to customer complaints from the accounts receivable and cash collection functions?

11-15 Monitoring controls are effective in alerting management to the potential breakdown of other internal controls. Identify two or three monitoring controls that are applicable to the revenue cycle.

11-16 In assessing whether the controls are operating effectively, is it necessary for the auditor to re-perform the work of the control itself? For

example, if someone tests for the correctness of computations and initials the bottom of a document to indicate that such a control procedure has been performed, is it necessary for the auditor to re-perform? Explain the rationale for your response.

11-17 What alternative methods can be used to test the effectiveness of controls in the revenue cycle?

11-18 How do auditors use their knowledge about the risk of material misstatement in designing substantive tests?

11-19 What is the relationship between audit objectives, account balance assertions, and audit procedures?

11-20 Explain how audit evidence gathered about accounts receivable also provides evidence about sales, and vice versa.

11-21 Why is it important to directly test sales transactions as well as accounts receivable?

11-22 How can the audit of revenue provide a good opportunity to test the completeness assertion for both sales and accounts receivable?

11-23 From what population should a sample be selected to test the completeness of recorded sales? Explain your choice.

11-24 When might it be advisable to send the confirmation to the customer's personnel who is familiar with the details of sales contracts rather than to the accounts payable department?

11-25 Are direct tests of account balances generally more effective in detecting overstatements or understatements? Explain.

11-26 What is the effect on the nature, timing, and extent of substantive tests of accounts receivable when the risk of material misstatement is assessed as being low instead of high?

11-27 What are the advantages and disadvantages of performing direct tests of account balances prior to the balance sheet date?

11-28 Under what circumstances should an auditor consider confirming individual unpaid invoices as opposed to confirming the customer's total balance?

11-29 What is an aged trial balance of accounts receivable? For what purposes does an auditor use it? How does an auditor determine that it is correctly aged?

11-30 Distinguish between the positive and negative forms of accounts receivable confirmation.

11-31 Which confirmation form, the positive or the negative, is considered the more reliable? Why?

11-32 If a confirmation is not returned by a customer, what follow-up work should the auditor perform if it is a
a. Positive confirmation
b. Negative confirmation

11-33 Under what circumstances can a customer's confirmation be considered reliable?

11-34 When might an auditor consider using negative confirmations? What factors must be present in the client-customer environment to justify the use of the negative confirmation form?

11-35 What is a confirmation exception? Why is it important to investigate confirmation exceptions?

11-36 What evidence does vouching cash collections after the balance sheet date provide?

11-37 What are cutoff tests? What assertion(s) do they test?

11-38 What are some potential fraud indicators that may be identified by direct tests of revenue cycle accounts? What audit procedures could be used to help determine if fraud actually occurred?

11-39 How can the auditor determine whether the allowance for doubtful accounts is reasonable?

Multiple-Choice Questions

11-40 A manufacturing client received a substantial amount of goods returned during the last month of the fiscal year and the first month after year-end. The client recorded the returns when credit memos were issued (usually six to eight weeks after receipt of the goods). The control procedure that would have led to timelier recording of the goods would include the following:
a. Prenumbering receiving reports, which are separately identified for goods returned and serve as a control for issuance of credit memos
b. Aging schedules of accounts receivable prepared at year-end by individuals separate from the billing process
c. A reconciliation of the detailed accounts receivable with the general ledger accounts receivable account
d. Prenumbering credit memoranda for which all numbers are periodically accounted for

11-41 Which of the following would not represent a factor the auditor would consider when assessing the inherent risk associated with a sales transaction?
a. The existence of terms that specify the right of return or the right to modify the purchase agreement
b. Billing for invoices but agreed-upon shipments of goods at a later date
c. Goods billed according to a percentage-of-completion methodology
d. The nature of the credit authorization process

11-42 The auditor generally makes a decision not to test the effectiveness of controls in operation when
a. The preliminary assessment of control risk is at the maximum.
b. It is more cost efficient to directly test ending account balances than to test control procedures.
c. The auditor believes that controls are not functioning as described.
d. All of the above.

†11-43 A restaurant food chain has more than 680 restaurants. All food orders for each restaurant are required to be input into an electronic device, which records all food orders by food servers and transmits the order to the kitchen for preparation. All food servers are responsible for collecting cash for all their orders and must turn in cash at the end of their shift equal to the sales value of food ordered for their I.D. number. The manager then reconciles the cash received for the day with the computerized record of food orders generated. Management investigates all differences immediately.

Corporate headquarters has established monitoring controls to determine when an individual restaurant might not be recording all its revenue and transmitting the applicable cash to the corporate headquarters. Which one of the following would be the best example of a monitoring control?

† All problems marked with a dagger are adapted from the Certified Internal Auditor Examination.

a. The restaurant manager reconciles the cash received with the food orders recorded on the computer.
b. All food orders must be entered on the computer, and there is segregation of duties between the food servers and the cooks.
c. Management prepares a detailed analysis of gross margin per store and investigates any store that shows a significantly lower gross margin.
d. Cash is transmitted to corporate headquarters on a daily basis.

Use the following information to answer Problems 11-44 through 11-46.

An organization sells products through the catalog and takes orders over the phone. All orders are entered online and the organization's objective is to ship all orders within 24 hours. The audit trail is kept in machine-readable form. The only papers generated are the packing slip and the invoice sent to the customer. Revenue is recorded upon shipment of the goods. The organization maintains a detailed customer database that allows the customer to return goods for credit at any time. The company maintains a product database containing all the authorized prices. Only the marketing manager has authorization to make changes in the price database. The marketing manager either makes the changes or authorizes the changes by signing an authorization form, and his assistant implements the changes.

†11-44 Which of the following controls would be *least* effective in ensuring that the correct product is shipped and billed at the approved price?
a. Self-checking digits are used on all product numbers, and customers must order from a catalog with product numbers.
b. The sales order taker verbally verifies both the product description and price with the customer before the order is closed for processing.
c. The sales order taker prepares batch totals of the number of items ordered and the total dollar amount for all items processed during a specified period of time (e.g., 1 hour).
d. The product price table is restricted to the director of marketing, who alone can approve changes to the price file.

†11-45 The auditor wants to determine that only the marketing manager has approved changes to the product price file. Which of the following audit procedures would provide the most persuasive evidence that only those price changes that have been properly authorized by the marketing manager have been made?
a. Use an integrated test facility (ITF) and submit product orders to the ITF. Compare the prices invoiced to the prices in the most recent catalog.
b. Use ACL to create a listing of all customer orders exceeding a specified dollar limit, and print out the results for subsequent investigation.
c. Obtain a copy of all authorized price changes and manually trace to the current edition of the organization's catalog.
d. Obtain a computerized log of all changes made to the price database. Take a random sample of changes and trace to a signed list of changes authorized by the marketing manager.

11-46 Which of the following should an auditor gain an understanding of during the engagement planning process?
a. Internal control structure related to revenue recognition
b. Revenue-related computer applications
c. Key revenue-related documents
d. All of the above

†11-47 The auditor wants to gain assurance that all telephone orders received were shipped and billed in a timely fashion. Which of the following audit procedures would be most effective in meeting the auditor's objective?

a. Use an integrated test facility and submit product orders to the ITF. Compare the prices invoiced with the prices in the most recent catalog.
b. Take the computer log of incoming orders and use generalized audit software to compare order date with invoice and shipping date in the sales invoice file.
c. Use test data to generate batch control totals. Trace the batch control totals from the items submitted to the sales invoice file generated for the test data.
d. Use generalized audit software to randomly select a sample of sales invoices and have the software match the items selected to the log of transactions maintained for incoming orders.

11-48 To test the completeness of sales, the auditor would select a sample of transactions from the population represented by the:
a. Customer order file
b. Open invoice file
c. Bill of lading file
d. Sales invoice file

11-49 The auditor is concerned that fictitious sales have been recorded. The best audit procedure to identify the existence of the fictitious sales would be to:
a. Select a sample of recorded invoices and trace to shipping documents (bills of lading and packing slips) to verify shipment of goods.
b. Select a random sample of shipping documents (bills of lading) and trace to the invoice to determine whether the invoice was properly recorded.
c. Select a sample of customer purchase orders and trace through to the generation of a sales invoice.
d. Select a sample of invoices and trace to a customer purchase order to determine whether a valid customer actually exists.

***11-50** The confirmation of customers' accounts receivable rarely provides reliable evidence about the completeness assertion because:
a. Many customers merely sign and return the confirmation without verifying its details.
b. Recipients usually respond only if they disagree with the information on the request.
c. Customers may not be inclined to report understatement errors in their accounts.
d. Auditors typically select many accounts with small balances to be confirmed.

***11-51** An auditor should perform alternative procedures to substantiate the existence of accounts receivable when:
a. No reply to a positive confirmation request is received.
b. No reply to a negative confirmation request is received.
c. Collectibility of the receivables is in doubt.
d. Pledging of the receivables is probable.

***11-52** Negative confirmation of accounts receivable is less effective than positive confirmation of accounts receivable because:
a. Most recipients usually lack the willingness to respond objectively.
b. Some recipients may report incorrect balances that require extensive follow-up.
c. The auditor cannot infer that all non-respondents have verified their account information.

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*All problems marked with an asterisk are adapted from the Uniform CPA Examination.

d. Negative confirmations do not produce evidential matter that is statistically quantifiable.
e. All of the above.

11-53 A customer confirmed its balance by fax. Which of the following would not reduce the risk associated with the response?
a. Consider the fax response to be an exception.
b. Examine subsequent collections of the account.
c. Request the customer to mail the original confirmation to the auditor.
d. Consider the fax to be an acceptable confirmation response.

Discussion and Research Questions

11-54 **(Revenue Recognition)** Judgments about whether revenue should be recognized are among the most contentious that an auditor faces. The following are situations in which the auditor will be required to either acquire additional information or make decisions about the amount of revenue to be recognized.

Required

a. Identify the primary criteria the auditor should use in determining revenue to be recognized.
b. For each of the following scenarios:
   - Identify the key issues to address in determining whether or not revenue should be recognized.
   - Identify additional information the auditor may want to gather in making a decision on revenue recognition.
   - Based only on the information presented, develop a rationale for either the recognition or non-recognition of revenue.

Revenue Recognition Scenarios

1. AOL sells software that is unique as an Internet provider. The software contract includes a service fee of $19.95 for up to 500 hours of Internet service each month. The minimum requirement is a one-year contract. The company proposes to immediately recognize 30% of the first-year's contract as revenue from the sale of software and 70% as Internet services on a monthly basis as fees are collected from the customer.
2. Modis Manufacturing builds specialty packaging machinery for other manufacturers. All of the products are high-end and range in sales price from $5 million to $25 million. A major customer is rebuilding one of its factories and has ordered three machines with total revenue of $45 million. The contracted date to complete the production was November and the company met the contract date. The customer acknowledges the contract and confirms the amount. However, because the factory is not yet complete, they have requested that Modis hold the products in their warehouse as a courtesy to the company until their building is complete.
3. Standish Stoneware has developed a new low-end line of baking products that will be sold directly to consumers and to low-end discount stores (but not Wal-Mart). The company had previously sold high-end silverware products to specialty stores and has a track record for returned items for the high-end stores. The new products tend to have more defects, but the defects are not necessarily recognizable in production. For example, they are more likely to crack when first used in baking. The company does not have a history of returns from these products but because the products are new, they grant each customer the right to return the merchandise for a full refund or replacement within one year of purchase.
4. Omer Technologies is a high-growth company that sells electronic products to the custom copying business. It is an industry with high

innovation, but Omer's technology is basic. In order to ensure growth, management has empowered the sales staff to make special deals to increase sales in the fourth quarter of the year. The sales deals include a price break and an increased sales person commission. However, it does not extend either the product warranty or the customer's right to return the product.

5. Electric City is a new company in the Chicago area that has the exclusive right to a new technology that saves municipalities a substantial amount of energy for large-scale lighting purposes, e.g., lighting ball fields, parking lots, shopping centers, etc. The technology has been shown to be very cost effective in Europe. In order to get new customers to try the product, the sales force allows the customers to try the product for up to 6 months to prove the amount of energy savings they will incur with the product. The company is so confident that the customers will buy the product that they provide this "pilot" period. Revenue is recognized at the time the product is installed at the customer location with a small provision made for potential returns.
6. Jackson Products decided to quit manufacturing a line of its products and outsourced the production. However, much of the manufacturing equipment they had could be used by other companies. In addition, they had over $5 million of new manufacturing equipment on order in a non-cancelable deal. They decided to become a sales representative to sell the new equipment ordered and their existing equipment. All of the sales were recorded as revenue.

11-55 **(Analytical Procedures)** One of your audit clients manufactures fishing boats and sells them all over the country. Boats are sold to dealers who finance their purchases on a floor-plan basis with their banks. The banks usually pay your client within two weeks of shipment. The company's profits have been increasing over the past several years. You have obtained the following information related to your 2007 audit ($ in millions):

	2007	2006*	2005*	2004*	2003*	Major Competitor (2007 unaudited)
Accounts Receivable	6.8	3.3	2.3	1.8	1.7	4.2
Inventory	16.0	10.0	7.2	5.5	5.1	13.9
Accounts Payable	3.1	2.6	1.9	1.5	1.4	3.2
Sales	84.7	77.9	56.8	43.6	39.8	110.3
Gross Profit %	19%	17%	18%	17%	18%	21%
Number of Days Sales in Receivables	29	16	15	16	16	14
Number of Days Sales in Ending Inventory	69	47	46	46	47	46

* Audited

Required

a. From the data shown, identify potential risk areas and explain why they represent potential risks.
b. Suggest possible explanations for any unexpected results.
c. What inquiries and follow-up audit procedures might be performed to determine the accuracy of the client's data?
d. How might the CFO use accounts receivable and inventory to conceal the embezzlement of cash?

11-56 **(Cross-Sectional Analysis of Revenue Using Excel or ACL)** You are auditing FloorMart, a retailer with 200 stores around the country. It has two basic sizes of stores—minimarts with 3,000 square feet and maximarts with 7,500 square feet. Both types of stores carry the same types of products. The client has provided an Excel file with the square feet, sales, and inventory at each store. This file must be downloaded

from the web site http://thomsonedu.com/accounting/rittenberg under the tab "Student Resources." It is labeled "Floormat Data."

Required

a. Using either Excel or ACL, identify the stores for which sales appear to be out of line with the other stores and will require additional evidence.

b. What procedures would the auditor use to gather the additional evidence?

11-57 **(Analytical Procedures)** Stainless Steel Specialities (SSS) is a manufacturer of hot water–based heating systems for homes and commercial businesses. The company has grown about 10% in each of the past five years. The company has not made any acquisitions. Following are some of the statistics of the company during the past five years:

OVERVIEW OF OPERATIONAL DATA
STAINLESS STEEL SPECIALITIES (SSS)
(SALES AND NET INCOME REPORTED IN $ MILLIONS)

Operations	2003	2004	2005	2006	2007 (unaudited)
Sales	$800	$880	$950	$1,050	$1,300
Net Income	$28	$38	$42	$52	$68
Stock Price	$17	$24	$19	$28	$47
Economic Growth in Areas Served (Index with 1.00 for 20x1)	1.00	1.04	1.09	1.13	1.14
Percent of Heating Market by SSS	8.9%	9.4%	9.6%	10.8%	14.0%
Accounts Receivable	$180	$170	$196	$210	$297
Percent of Sales Made in Last Quarter	38%	36%	40%	38%	43%
Gross Margin	28%	28.3%	28.8%	29.2%	33.6%

Additional information that is available to the auditor includes the following:

- The company has touted its new and improved technology for both the increase in sales and gross margin.
- The company claims to have decreased administrative expense thus increasing net profits.
- The company has reorganized its sales process to a more centralized approach and has empowered individual sales managers to negotiate better prices to drive sales as long as the amounts are within corporate guidelines.
- The company has changed its salesperson compensation by increasing the commission on sales to new customers.
- Sales commissions are no longer affected by either returned goods if the good are returned more than 90 days after sale and/or by not collecting the receivables.

SSS has justified the changes in sales commissions on the following grounds:

- The salesperson is not responsible for "quality" issues—the main reason that products are returned.
- The salesperson is not responsible for approving credit. Rather credit approval is under the direction of the global sales manager.

Required

a. What is the importance of the information about sales person compensation to the audit of receivables and revenue? Explain how the information would be used in conducting the audit.

b. Perform an analytical review of the data included in the table and the information about the change in performance. What are the important insights that the auditor should gain from performing the analytical review?

c. Why should the auditor be interested in a company's stock price when performing an audit since stock price is dependent, at least in part, on audited financial reports?
d. What data might be considered as fraud risk factors?
e. Identify specific audit procedures that should be performed as a result of the analytical procedures performed by the auditor.

11-58 **(Audit Procedures and Objectives)** The following is a list of procedures performed in the audit of the revenue cycle:

a. Take a block of shipping orders and account for the invoicing of all items in the block and account for the prenumbering of the documents.
b. Review the general access controls to the computer application and the authorized ability to make changes to computer price files.
c. Re-compute the invoice total and individual line items on a sample of sales invoices.
d. Review client documentation to determine policy for credit authorization.
e. Select a sample of shipping notices and trace to invoices.
f. Randomly sample entries into the sales journal and trace back to sales orders and shipping documents

Required

For each procedure, indicate the control or substantive testing objective that is accomplished.

***11-59** Field, CPA, is auditing the financial statements of Miller Mailorder, Inc. (MMI) for the year ended January 31, 2008. Field has compiled a list of possible errors and irregularities that may result in the misstatement of MMI's financial statements, and a corresponding list of internal controls that, if properly designed and implemented, could assist MMI in preventing or detecting the errors and irregularities.

Required

For each possible error and irregularity numbered 1 through 15, select one internal control procedure from the answer list below that, if properly designed and implemented, most likely could assist MMI in preventing or detecting the errors and irregularities.

Each response in the list of controls may be selected once, more than once, or not at all.

Possible Errors and Irregularities

1. Invoices for goods sold are posted to incorrect customer accounts.
2. Goods ordered by customers are shipped, but are not billed to anyone.
3. Invoices are sent for shipped goods, but are not recorded in the sales journal.
4. Invoices are sent for shipped goods and are recorded in the sales journal, but are not posted to any customer account.
5. Credit sales are made to individuals with unsatisfactory credit ratings.
6. Goods are removed from inventory for unauthorized orders.
7. Goods shipped to customers do not agree with goods ordered by customers.
8. Invoices are sent to allies in a fraudulent scheme, and sales are recorded for fictitious transactions.
9. Customers' checks are received for less than the customers' full account balances, but the customers' full account balances are credited.
10. Customers' checks are misappropriated before being forwarded to the cashier for deposit.
11. Customers' checks are credited to incorrect customer accounts.
12. Different customer accounts are each credited for the same cash receipt.

13. Customers' checks are properly credited to customer accounts and are properly deposited, but errors are made in recording receipts in the cash receipts journal.
14. Customers' checks are misappropriated after being forwarded to the cashier for deposit.
15. Invalid transactions granting credit for sales returns are recorded.

Internal Control Procedures

a. Shipping clerks compare goods received from the warehouse with the details on the shipping documents.
b. Approved sales orders are required for goods to be released from the warehouse.
c. Monthly statements are mailed to all customers with outstanding balances.
d. Shipping clerks compare goods received from the warehouse with approved sales orders.
e. Customer orders are compared with the inventory master file to determine whether items ordered are in stock.
f. Daily sales summaries are compared with control totals of invoices.
g. Shipping documents are compared with sales invoices when goods are shipped.
h. Sales invoices are compared with the master price file.
i. Customer orders are compared with an approved customer list.
j. Sales orders are prepared for each customer order.
k. Control amounts posted to the accounts receivable ledger are compared with control totals of invoices.
l. Sales invoices are compared with shipping documents and approved customer orders before invoices are mailed.
m. Prenumbered credit memos are used for granting credit for goods returned.
n. Goods returned for credit are approved by the supervisor of the sales department.
o. Remittance advices are separated from the checks in the mailroom and forwarded to the accounting department.
p. Total amounts posted to the accounts receivable ledger from remittance advices are compared with the validated bank deposit slip.
q. The cashier examines each check for proper endorsement.
r. Validated deposit slips are compared with the cashier's daily cash summaries.
s. An employee, other than the bookkeeper, periodically prepares a bank reconciliation.
t. The same employee who issues receiving reports evidencing actual return of goods approves sales returns.

11-60 **(Inherent Risks)** Drea Tech Company has been growing rapidly and has recently engaged your firm as its auditors. It is actively traded over the counter (OTC) and believes it has outgrown the service capabilities of its previous auditor. However, on contacting the previous auditor, you learn that a dispute led to the firm's dismissal. The client wanted to recognize income on contracts for items produced but not shipped. The client believed the contracts were firm, and that all the principal revenue-producing activities were performed. The change in accounting principle would have increased net income by 33% during the last year.

Drea is 32% owned by Anthony Dreason, who has a reputation as a turnaround artist. He bought out the previous owner of Drea Tech (formerly named Johnstone Industries) three years ago. The company's primary products are in the materials handling business, such as automated conveyors for warehouses and production lines. Dreason has increased profits by slashing operating expenses, most notably personnel and research and development. In addition, he has outsourced a significant portion of component part production. Approximately 10% of the

company's product is now obtained from Materials Movement, Inc., a privately-held company 50% owned by Dreason and his brother.

A brief analysis of previous financial statements shows that sales have been increasing by approximately 20% per year since Dreason assumed control. Profitability has increased even more. However, a tour of the plant gives the impression that it is somewhat old and not kept up to date. Additionally, a large amount of inventory is sitting near the receiving dock awaiting final disposition.

Required

a. Identify the elements of inherent risk associated with the revenue cycle that the auditor should consider.
b. For each element of inherent risk identified, briefly indicate the audit concern and suggest audit procedures to address the risks.

11-61 **(Credit Authorization)** Verona Shoe Company is considering automating its credit approval function. It manufactures a brushed pigskin shoe and acts as a wholesaler by buying closeouts of other brands and selling them to approximately 3,000 retail customers. The company has moved into new lines by recently acquiring the U.S. distribution rights to an important European brand of ski equipment and ski wear. The ski line will be sold to approximately 750 different retail outlets, but three major chains will constitute over 50% of the sales.

Required

a. What factors should the company consider in setting its credit policies? How could data normally contained in the client's computer system assist the company in setting its overall credit policies?
b. Assume that the company chooses to automate much of its credit approval process. Outline the control procedures the company should consider utilizing to ensure that credit is granted only in accordance with company credit policies.
c. For each control procedure identified in part (b), briefly indicate how the auditor might go about testing the effectiveness of its operation.

11-62 **(Testing Credit Approval)** A client has a computerized credit approval process that incorporates various factors, such as:

- Previous credit history with the company
- Current credit rating obtained online from Dun & Bradstreet
- Current account balance
- Size of proposed credit balance
- Last credit review rating by the credit manager based on current correspondence with the customer and an analysis of the latest annual report

The company also has a policy that the credit for an individual company, or a group of companies that are separate legal entities but are part of the same holding company, cannot exceed $1 million.

The auditor is considering three alternatives to determine whether the credit approval function is operating correctly:

- Generalized audit software (GAS)
- Snapshot, or tagging and tracing
- Manually selecting transactions and tracing through to determine that only those companies that should have been authorized credit were granted credit

Required

a. Explain how each of these approaches might be used to test the operating effectiveness of the current credit granting process.
b. Evaluate the strengths and weaknesses of each approach, and recommend the approach that you believe would be both (1) most efficient in achieving the audit objective and (2) most effective. State the rationale for your answer.

11-63 **(Testing Controls)** The following is a list of controls typically implemented in the processing of sales transactions:

Required

a. For each control identified, briefly indicate the financial misstatement that could occur if the control is not implemented effectively.
b. Identify an audit procedure to test for effectiveness of the control.

Controls Typically Found in Sales Processes

1. Authorization: All transactions under $10,000 may be approved by computer authorization program. The credit manager must approve all transactions over $10,000.
2. All invoices are priced according to the authorized price list maintained on the computer. Either the regional or divisional sales manager must approve any exceptions.
3. All shipping documents are prenumbered and periodically accounted for. Shipping document references are noted on all sales invoices.
4. Customer complaints regarding receipt of goods are routed to a customer service representative. Any discrepancies are immediately followed up to determine the cause of the discrepancy.
5. All merchandise returns must be received by the receiving department and recorded on prenumbered documents for receipts. A document is created for each item (or batches of like items). Returns are sent to quality control for testing, and a recommendation for ultimate disposition is made (scrap, rework and sell as a second, or close out as is), noted, and sent to accounting for proper inventorying.
6. The quantity of items invoiced is reconciled with the packing document developed on receipt of the order and the shipping notice by a computer program as the goods are marked for shipment. If discrepancies appear, the shipping document prevails. A discrepancy report is prepared daily and sent to the warehouse manager for follow-up.
7. The company pays all freight charges, but the customer is charged a freight fee based on a minimum amount and a sliding scale as a percentage of the total invoice. The policy is documented and the computer automatically adds the charge.

11-64 **(Credit Card Sales)** Jason Co. accepts VISA and MasterCard for any sales transaction exceeding $50. The company has not yet implemented online recording of the credit card transaction, but does have a toll-free number to call for authorization for all sales over $50. The company has two cash registers, but three clerks work during peak times. The company processes credit card sales as follows.

Blank credit card slips are maintained near the cash register along with two card imprinters. The card imprinter imprints the company's account identification and takes an imprint of the customer's credit card. Normally, credit card sales are rung up on the cash register, as would be done with a cash sale. The credit card receipts are kept in a separate location in the cash register. During peak times, however (such as clearance sales), a special line is set up for credit card customers. The totals are calculated on a regular calculator, and a credit slip is prepared and run through the imprinter. The credit card slips are stored in a convenient location and are recorded on a cash register later in the day. Periodically in the day, the store manager collects all credit card receipts, separates the two copies into one for the store and one for the bank, batches all the slips, and prepares an entry to later record the sales. The batches for the day are collected for a deposit. The controller then reconciles the deposits made each day with the credit card sales recorded.

Required

a. Identify the strengths and weaknesses of the controls for credit card sales identified.

b. For each deficiency noted, identify the potential effect on the company's financial statements.

11-65 **(Exception Reports)** Computer accounting systems have the ability to generate exception reports that immediately identify control procedure failures or transactions that are out of the norm, so that management can determine whether any special action is needed.

Required

a. Identify how the auditor might use each type of exception report noted below in assessing the effectiveness of controls.
b. If the exceptions are properly followed up and corrected, would the fact that many exceptions occurred affect the auditor's judgment of control risk? Explain.

Types of Exception Reports—Sales Processing

1. A list of all invoices over $5,000 for which credit was not preauthorized by the credit manager (the computer program is designed so that if the authorization is not provided within 24 hours of the original notice to the credit manager, the shipment is made as if it were authorized). This exception report goes to the credit manager.
2. A report of any sales volume to one customer exceeding $2 million in a month is sent to the sales manager with a copy to the credit manager.
3. A report of exceptions for which shipping documents and packing slips did not reconcile.
4. A report noting that goods ordered were not shipped (or back-ordered) within five days of receipt of the order as is required per company policy.

Group Activity

11-66 The audit of the revenue cycle accounts of Acco, Inc. has been planned with a low preliminary assessment of control risk related to each of the relevant assertions. A sample of sales transactions was audited. Each of the following types of control or transaction processing deviations uncovered in the sample was significant enough to cause the auditor to increase control risk assessment from low to moderate.

Required

Discuss the type of financial statement misstatement that may result, the assertion(s) affected, and the effect on the nature, timing, and/or extent of related substantive tests. Each type of failure should be considered independently from the others.

a. No evidence that price and quantity on the invoice were compared with the supporting documents.
b. Failure to approve customer credit before shipping the merchandise on open account.
c. Recording sales before they were shipped.
d. Recording sales several days after they should have been recorded.
e. Several sales were recorded before and several after they should have been recorded.
f. Lack of customer orders. Items were shipped.
g. Lack of shipping documents; customer order was found.
h. Invoice price was wrong.
i. Quantity shipped differed from the quantity billed.

11-67 **(Auditing Revenue)** All invoicing for a company is done on a computer system from a price list table incorporated into the system. Only the sales department can change the prices on the approval of the department manager. One copy of the up-to-date price list is printed monthly for verification purposes and is maintained in the sales department. The sales department keeps a list of all changes. The master price

printouts are maintained for three months. The quarterly printouts, however, are maintained for one year.

Required

Identify two ways in which the auditor might gain assurance that sales transactions are properly valued.

11-68 **(Directional Testing and Dual-Purpose Tests)** During a discussion, one auditor noted that her approach to testing sales transactions was to select a random sample of recorded sales and trace back through the system to supporting documents, noting that all items billed were shipped and were invoiced at correct prices. She stated that she then had good confidence about the correctness of the sales account, and thus having performed a dual-purpose test, the remaining work on sales (assuming the procedures also evidenced the working of control procedures) could be limited.

A second auditor disagreed. Her approach was to select evidence of shipments, such as prenumbered shipping documents, and then trace forward through the system to the actual invoice, noting the existence of control procedures and the correctness of the invoice processing. If no exceptions were noted, however, she agreed with the first auditor that the remaining audit work on the sales account could be limited.

Required

a. Which auditor is right, or are both right? Explain.
b. What assertion is tested by the second auditor?
c. What is a dual-purpose test? Explain why the tests performed by both of the auditors would or would not be considered dual-purpose tests.

***11-69** **(Audit of Rent Revenue)** Bert Finney, CPA, was engaged to conduct an audit of the financial statements of Clayton Realty Corporation for the month ending January 31, 2008. The examination of monthly rent reconciliation is a vital portion of the audit engagement.

The following rent reconciliation was prepared by the controller of Clayton Realty Corporation and was presented to Finney, who subjected it to various audit procedures:

Clayton Realty Corporation
Rent Reconciliation

For the Month Ended January 31, 2008

Gross apartment rents (Schedule A)	$1,600,800†
Less vacancies (Schedule B)	20,500†
Net apartment rentals	1,580,300
Less unpaid January rents (Schedule C)	7,800†
Total	1,572,500
Add prepaid rent collected (Apartment 116)	500†
Total cash collected	$1,573,000†

Schedules A, B, and C are available to Finney but are not presented here. Finney has conducted a study and evaluation of the system of internal control and found that it could be relied on to produce reliable accounting information. Cash receipts from rental operations are deposited in a special bank account.

Required

What substantive audit procedures should Finney employ during the audit to substantiate the validity of each of the dollar amounts marked by the dagger (†)?

11-70 **(Performing a Cutoff Test)** The following sales were selected for a cutoff test of Genius Monitors, Inc., for the December 31, 2007

financial statements. All sales are credit sales and are FOB shipping point. They are recorded on the billing date.

Invoice Number	Sales Price	Date	
		Shipped	Billed
36590	2,750	12/28/07	12/29/07
36591	25,390	12/29/07	1/2/08
36592	9,200	1/3/08	12/31/07
36593	570	1/2/08	1/3/08

Required

a. What adjusting journal entries, if any, would you make for each of these items?
(Do not consider the inventory implications of this cutoff.)
b. What complications do shipping terms of FOB destination create?
c. Under what circumstances might an auditor accept sales that are recorded when shipped, even though they are shipped FOB destination?

11-71 (Audit of Membership Fees) You are auditing the revenue from membership fees of your local chapter of the Institute of Management Accountants, of which you are not a member. The local chapter receives an allocation of national dues. The remainder of the dues come from chapter members. The chapter maintains as detailed list of membership.

Required

Describe some analytical procedures you could use to provide some assurance that such revenue is fairly stated.

11-72 (Cutoff Procedures) Sales cutoff tests are performed to obtain evidence that sales are recorded in the proper period. You are to perform a cutoff test of sales for a manufacturer that uses prenumbered bills of lading and sales invoices. All sales are FOB shipping point.

Required

How would you perform the cutoff test if the primary audit concern is the

a. Existence of sales
b. Completeness of sales

***11-73 (Accounts Receivable Audit Procedures)** Sean Edwards, CPA, is engaged to audit the financial statements of Matthews Wholesaling for the year ended December 31, 2007. Edwards obtained and documented an understanding of the internal controls relating to the accounts receivable and assessed control risk relating to accounts receivable at the maximum level. Edwards requested and obtained from Matthews an aged accounts receivable schedule listing the total amount owed by each customer as of December 31, 2007, and sent positive confirmation requests to a sample of the customers.

Required

What additional substantive audit procedures should Edwards consider applying in auditing the accounts receivable?

***11-74 (Accounts Receivable Lapping)** During the year, Strang Corporation began to encounter cash flow difficulties, and a cursory review by management revealed receivable collection problems. Strang's management engaged Elaine Stanley, CPA, to perform a special investigation. Stanley studied the billing and collection cycle and noted the following.

The accounting department employs one bookkeeper who receives and opens all incoming mail. This bookkeeper is also responsible for depositing receipts, filing daily remittance advices, recording receipts in the cash receipts journal, and posting receipts in the individual customer

accounts and the general ledger accounts. There are no cash sales. The bookkeeper prepares and controls the mailing of monthly statements to customers.

The concentration of functions and the receivable collection problems caused Stanley to suspect that a systematic defalcation of customers' payments through a delayed posting of remittances (lapping of accounts receivable) is present. Stanley was surprised to find that no customers complained about receiving erroneous monthly statements.

Required

Identify the procedures that Stanley should perform to determine whether lapping exists. Do not discuss deficiencies in the system of internal control.

11-75 **(Existence and Completeness)** The existence and completeness assertions are complementary but require different audit approaches.

Required

a. Why is it more difficult to test for the completeness than the existence/occurrence of an account balance or a class of transactions?

b. What procedures can an auditor use to test the completeness of accounts receivable and sales?

11-76 **(Using Generalized Audit Software)** Your audit client, Daman, Inc., has a fully computerized accounts receivable system. There are two master files, a customer data file and an unpaid invoice file. The customer data file contains the customer's name, billing address, shipping address, identification number, phone number, purchase and cash payment history, and credit limit. For each unpaid invoice, the second file contains the customer's identification number, invoice number and date, date of shipment, method of shipment, credit terms, and gross invoice amount.

Required

Discuss how generalized audit software could be used to aid in the examination of Daman's accounts receivable.

11-77 **(Audit of Notes Receivable)** You are in charge of your second yearly examination of the financial statements of Clark Equipment Corporation, a distributor of construction equipment. Clark's equipment sales are either outright cash sales or a combination of a substantial cash payment and one or two 60- or 90-day nonrenewable interest-bearing notes for the balance. Title to the equipment passes to the customer when the initial cash payment is made. The notes, some of which are secured by the customer, are dated when the cash payment is made (the day the equipment is delivered). If the customer prefers to purchase the equipment under an installment payment plan, Clark arranges for the customer to obtain such financing from a local bank.

You begin your fieldwork to examine the December 31 financial statements on January 5, knowing that you must leave temporarily for another engagement on January 7 after outlining the audit program for your assistant. Before leaving, you inquire about the assistant's progress in his examination of notes receivable. Among other things, he shows you a working paper listing the makers' names, the due dates, the interest rates, and amounts of 17 outstanding notes receivable totaling $100,000. The working paper contains the following notations:

1. Reviewed internal controls and found them to be satisfactory.
2. Total of $100,000 agrees with general ledger control account.
3. Traced listing of notes to sales journal.

The assistant also informs you that he is preparing to request positive confirmations of the amounts of all outstanding notes receivable, and that no other audit work has been performed in the examination of notes

receivable and interest arising from equipment sales. There were no outstanding accounts receivable for equipment sales at the end of the year.

Required

a. What information should he confirm with the customers?
b. State the objectives of auditing the notes receivable, and list additional audit procedures that the assistant should apply in his audit of the account for notes receivable arising from equipment sales (Clark has no other notes). No subsidiary ledger is maintained.
c. You ask your assistant to examine all notes receivable on hand before you leave. He returns in 30 minutes from the office safe where the notes are kept and reports that notes on hand that have dates prior to January 1 total only $75,000. List the possible explanations that you would expect from the client for the $25,000 difference. (Eliminate fraud or misappropriation from your consideration.) Indicate beside each explanation the audit procedures you would apply to determine whether it is correct.

11-78 **(ACL Project—Accounts Receivable)** You are auditing Accounts Receivable of HUSKY Corp. as of December 31, 2007. The Accounts Receivable general ledger balance is $4,263,919.52. The data files must be downloaded from the web site http://www.thomsonedu.com/accounting/rittenberg. The files are labeled "HUSKY Unpaid Invoices 2007" (the 12/31/2007 unpaid invoices), "HUSKY Shipping File 2007" (contains the shipment numbers and shipment dates for those invoices), and "HUSKY Credit Limit 2007" (contains each customer's credit limit). Sales are made FOB shipping point. The auditor has verified the last shipment in 2007 is numbered 62050 and that shipping numbers have been used in proper sequence.

Required

a. Using ACL:
   1. Foot the file of unpaid invoices using the menu option **Analyze** then **Statistical** then **Statistics** and agree to the general ledger. Print the statistics for the audit documentation and note the other statistics provided.
   2. Identify customers with balances over their credit limit and print out the results. (Hint: Before combining files, be sure the matching fields, such as CUSTNUM or INVNUM, have been changed in each table from a number format to ASCII format using the menu item **Edit** then **Table Layout.** Double click on the field you want to change.
   3. Perform a sales cutoff test to identify any unpaid invoices with shipping dates in 2007 and print out the results including the total of those invoices. (Hint: In the expression editor use the **Date** button and find and enter the proper cutoff date.)
   4. Age the unpaid invoices, print the aging and graph of the aging, extract (by double clicking on the over 45 days aging indicator), and print out a list of invoices over-45-days old that also shows the total of those invoices.
   5. Summarize your results and describe what procedures should be performed based on those results.
b. Use ACL to stratify the population of customer balances, print the results, and describe how this information could be used to help determine which balances to confirm.

11-79 **(Follow-Up Work—Accounts Receivable)** You have sent confirmations to 40 customers of Berg-Shovick Express, a long-time audit client experiencing some financial difficulty. The company sells specialized high-technology goods. You have received confirmations from 32 of the 40 positive confirmations sent. A small number of errors were

noted on these accounts, but the projected amount of errors on the confirmations returned is just below tolerable error. The following information is available to you:

Book value of receivables	$7,782,292
Book value of items selected for confirmations	$3,100,110
Book value of items confirmed	$1,464,000
Audit value of items confirmed	$1,335,000

Summary of items selected but confirmations not returned:

Name	Outstanding Amount	Management Comments on Account Balance
Yunkel Specialty Mfg.	$432,000	Regular sales, but extended credit terms were given on $200,000 of goods. Yunkel has responded that it does not respond to confirmations.
Hi-Tech Combonitics	$300,000	No response to either confirmation request. Management indicates the sale was a special-term sale, and the goods are being held for the convenience of this company. The company is located in Albuquerque, New Mexico, and recently had a fire in its main production plant but expects to resume production early next month. The goods will be shipped as soon as production begins, but the sale has legally been completed.
Beaver Dam Electronics	$275,000	Account balance represents sales of specialty products made in late December. The president of Berg-Shovick has orally confirmed the receivable because Beaver Dam Electronics is 50% owned by him.
California Hi-Fi	$200,000	Regular sales, but company has renegotiated its account balance due because of defective merchandise. Management has indicated it has issued a credit to the company, but because management had inspected the goods on the customer's property, it did not require the return of the merchandise. It expects the company to pay the $200,000.
Brenner Specialties	$175,000	Regular sales. This is a new company. Most of the sales ($100,000) were made in December.
Sprague Electronics	$100,000	Regular sales. Customer is negotiating a potential return of defective items.
Williams Pipeline	$100,000	Williams is a large company. Prior experience indicates that it does not respond to confirmations.
Long Tom Towers	$ 54,110	Customer is new this year and is located in Medicine Hat, Saskatchewan.

Required

a. Indicate the audit procedures (and be specific as to what those procedures will be doing) to complete the work on accounts receivable related to the confirmation process. In other words, identify the specific alternative audit procedures that should be performed. (*Note:* You do not need to specify a particular procedure for each account balance, but you must indicate the necessary procedures that would address all of the open items.)

b. Assuming that all items could not be cleared to the auditor's satisfaction, identify the audit procedures that should be implemented to finish auditing the valuation of accounts receivable.

Cases

11-80 MiniScribe Case (based on "Cooking the Books," *The Wall Street Journal,* September 11, 1989; and "MiniScribe's Investigators Determine That 'Massive Fraud' Was Perpetrated," *The Wall Street Journal,* September 12, 1989).

In October 1988, MiniScribe, a computer disk drive manufacturer, announced its thirteenth consecutive record-breaking quarter, while its competitors were laying off hundreds of employees. MiniScribe's receivables had increased significantly, and inventories had increased to a dangerous level because disk drives can become obsolete from one quarter to the next. The company's stock price had quintupled in just two years. It had apparently risen from the dead under the leadership of Q. T. Wiles, who had resurrected other companies and was known as "Dr. Fix-It." It looked as if he had done it again.

Seven months later, it was announced that MiniScribe's sales gains had been fabricated.

What was supposed to be the crowning achievement of Wiles's career became an epitaph; he resigned and is living in near seclusion. An internal investigation concluded that senior management apparently perpetrated a massive fraud on the company, its directors, its outside auditors, and the investing public. Most of MiniScribe's top management was dismissed, and layoffs shrank its employment by more than 30% in one year. MiniScribe might have to write off as much as $200 million in bad inventory and uncollectible receivables.

Wiles's unrealistic sales targets and abusive management style created a pressure cooker that drove managers to cook the books or perish. And cook they did—booking sales prematurely, manipulating reserves, and simply fabricating figures—to maintain the illusion of unbounded growth even after the industry was hit by a severe slump.

When Wiles arrived at MiniScribe in mid-1985, it had just lost its biggest customer, IBM, which decided to make its own drives. With the personal computer industry then slumping, MiniScribe was drowning in red ink.

Dr. Fix-It's prescription was to cut 20% of the workforce and overhaul the company from top to bottom. As part of the overhaul, several semiautonomous divisions were created. Each division manager set the division's own budget, sales quotas, incentives, and work rules. The company became a chaotic Babel of at least 20 mini-companies that were constantly being changed and reorganized. One employee held 20 different positions in less than seven years.

Wiles turned up the heat under his lieutenants. Four times a year, he would summon as many as 100 employees for several days of intense meetings, at which they were force-fed his idiosyncratic management philosophy. At one of the first such meetings he held, Wiles demanded that two controllers stand, and he fired them on the spot, saying, "That's just to show everyone I'm in control of the company."

At each of these meetings, division managers had to present and defend their business plans. Invariably, Wiles would find such plans deficient and would berate their authors in front of their peers. A former controller says Wiles would throw, kick, and rip the plan books that displeased him, showering his intimidated audience with paper while yelling, "Why don't you understand this? Why can't you understand how to do this?"

Then something changed. Wiles started saying, "I no longer want to be remembered as a turnaround artist. I want to be remembered as the man who made MiniScribe a billion-dollar company." Sales objectives became the company's driving force, and financial results became the sole determinant of whether bonuses were awarded. Wiles said, "This is

the number we want to hit first quarter, second quarter, third quarter, and so on," and it was amazing to see how close they could get to the number they wanted to hit.

Hitting the number became a companywide obsession. Although many high-tech manufacturers accelerate shipments at the end of a quarter to boost sales—a practice known as "stuffing the channel"—MiniScribe went several steps beyond that. On one occasion, an analyst relates, the company shipped more than twice as many disk drives to a computer manufacturer as had been ordered: a former sales manager says the excess shipment was worth about $9 million. MiniScribe later said it had shipped the excess drives by mistake. The extras were returned—but by then MiniScribe had posted the sale at the higher number. Wiles denied this practice.

Other accounting maneuvers involved shipments of disk drives from MiniScribe's factory in Singapore. Most shipments went by airfreight, but a squeeze on air cargo space toward the end of each quarter would force some shipments onto cargo ships, which required up to two weeks for transit. On several occasions, said a former division manager, MiniScribe executives looking to raise sales changed purchase orders to show that a customer took title to a shipment in Singapore when, in fact, title would not change until the drives were delivered in the United States.

MiniScribe executives tried to persuade an audit team that 1986 year-end results should include as sales the cargo on a freighter that they contended had set sail in late December. The audit team declined to do so. Eventually, the cargo and the freighter, which did not exist, were simply forgotten.

MiniScribe executives also found other ways to inflate sales figures. One was to manipulate reserves for returns of defective merchandise and bad debts. The problem of inadequate reserves grew so great that private analysts began noticing it.

MiniScribe was booking less than 1% reserves: the rest of the industry had reserves ranging from 4% to 10%.

To avoid booking losses on returns in excess of its skimpy reserves, defective drives would be tossed onto a "dog pile" and booked as inventory. Eventually, the dog-pile drives would be shipped out again to new customers, continuing the cycle. Returns of defective merchandise ran as high as 15%.

At a time of strong market demand, such ploys enabled MiniScribe to seem to grow almost exponentially, posting sales of $185 million in 1986 and $362 million in 1987. In early 1988, Wiles was confidently forecasting a $660 million year, and he held fast to his rosy forecast even as disk drive sales started slipping industrywide in late spring and nose-dived in the autumn. Meanwhile, Wiles increased the pressure on his managers. Division reports would be doctored as they rose from one bureaucratic level to the next.

Before long, the accounting gimmickry became increasingly brazen. Division managers were told to "force the numbers." Workers whispered that bricks were being shipped just so a division could claim to have met its quota. Others joked that unwanted disk drives were being shipped and returned so often that they had to be repackaged because the boxes wore out.

Employees also joked about shipments to "account BW," an acronym for "big warehouse." But that wasn't just a joke. MiniScribe established several warehouses around the country and in Canada as "just-in-time" suppliers for distributors. Customers weren't invoiced until they received shipments from the warehouses. MiniScribe, however, was booking shipments to the warehouses as sales. The number of disk drives shipped to the warehouses was at MiniScribe's discretion. It is estimated that between $80 million and $100 million worth of unordered disk drives went to the warehouses.

Wall Street began to smell trouble. Analysts could find no significant customers other than Compaq to support MiniScribe's bullish forecasts. Several major anticipated orders from Apple Computer and Digital Equipment Corp. fell through. MiniScribe reported a fourth-quarter loss and a drop in net income for 1988 despite a 66% increase in sales—on paper, that is. A week later, Wiles abruptly resigned. The stock price tumbled from a high of $15 to less than $3 per share, a decline that upset many stockholders.

An investigative committee of MiniScribe's outside directors reported that senior company officials:

- Apparently broke into locked trunks containing the auditors' working papers during the year-end 1986 audit and changed inventory figures, inflating inventory values by approximately $1 million
- Packaged bricks and shipped them to distributors as disk drives in 1987, recording $4.3 million in sales; when the shipments were returned, MiniScribe inflated its inventory by the purported cost of the bricks
- Packaged approximately 6,300 disk drives that had been contaminated to inflate inventory during the fourth quarter of 1988

Several lawsuits have been filed charging MiniScribe with engineering phony sales artificially to inflate its stock to benefit insiders. The suits also charge that its auditors participated in the conspiracy by falsely certifying the company's financial statements.

Required

Write an analysis of MiniScribe's rise and fall, identifying the following:

a. How MiniScribe inflated its financial statements
b. The factors that led to the inflated financial statements
c. The red flags that should have raised the auditor's suspicions about phony sales and other attempts by MiniScribe to inflate income
d. Normal audit procedures that could have uncovered the falsified numbers in the financial statements

†11-81 **(Control Risk Assessment—Retail Organization)** You are the internal auditor for a company that started over 40 years ago as a local retailer of major home appliances. The company has now grown to include 55 retail stores in 12 metropolitan areas. Because of rapid growth in the number of stores opened in the last three years (46), a professional management team was hired to replace the previous management team, which was composed of members of the owning family. To encourage continued growth, a sales incentive bonus plan was instituted. Under the plan, managers of individual stores receive a bonus based on inventory turnover.

A retail point-of-sale system is used to aid inventory management. Each store is a node with terminals, a local processor, and a storewide database. The nodes communicate with a central systemwide database located at corporate offices. Retail prices for all merchandise are updated once a month to the storewide database, using a master price list provided by corporate offices.

Because the desired margin is achieved for each product sold at the established master price, inventory turnover is viewed as the critical determinant of profitability for each store. Accordingly, sales volume, by product class, is reported weekly to corporate offices. Revenue is also reported weekly, but only in the aggregate. Detailed sales and inventory data, including unit revenue, product class revenue, revenue generated at discount prices, inventory movement, and inventory levels, are produced daily by each store for use by the store manager.

Selling prices are frequently discounted in widely advertised sales. For sale items, sales clerks in each store must override the

master price and input the advertised price. Sales at wholesale prices, such as contractor sales, are prohibited by company policy. Damaged goods can be sold at any time at heavily discounted prices at the discretion of the store manager, who assesses damage and sets the sale price.

Over a two-year period, a store manager inflated unit sales by the following acts:

1. Fictitious credit sales were recorded in the last month of the year, with subsequent return of the goods recorded in the first month of the new year. No goods actually changed hands.
2. Undamaged goods were declared to be damaged and sold at prices significantly less than master prices.
3. Sales were completed at wholesale prices.
4. "Sale-priced" merchandise was frequently sold at prices above its advertised sale price.

Acting alone, the store manager also sold selected merchandise for cash with no record made of the sale. Although a register receipt is required for customer pickup, the store manager verbally instructed the warehouse to load the merchandise without a receipt.

Required

a. Identify six control weaknesses or management deficiencies that permitted the fraud.
b. Identify four indicators that may have signaled the presence of the fraud.
c. Identify four controls needed to detect the fraud.
d. Describe the responsibilities of the internal auditing department in the situation just described.

11-82 (Revenue Recognition and Internal Control Deficiencies)

Group Activity

UTStarcom is a global leader in the manufacture, integration, and support of networking and telecommunications systems. The company sells broadband wireless products and a line of handset equipment to operators in emerging and established telecommunications markets worldwide. The following excerpt was obtained from the 2004 10-K of UTStarcom, Inc., which reported material weaknesses in the company's internal controls. In describing the company's remediation efforts, the company stated that:

> . . . planned remediation measures are intended to address material weaknesses related to revenue and deferred revenue accounts and associated cost of sales. These material weaknesses were evidenced by the identification of six separate transactions aggregating approximately $5 million in which revenue was initially included in the Company's fourth quarter 2004 financial statements before all criteria for revenue recognition were met. In addition, there were other transactions for which there was insufficient initial documentation for revenue recognition purposes, but which did not result in any adjustments to the Company's fourth quarter 2004 financial statements. If unremediated, these material weaknesses have the potential of misstating revenue in future financial periods. The Company's planned remediation measures include the following:
>
> a. The Company plans to design a contract review process in China requiring financial and legal staff to provide input during the contract negotiation process to ensure timely identification and accurate accounting treatment of non-standard contracts;
> b. In March 2005, the Company conducted a training seminar regarding revenue recognition, including identification of non-standard contracts, in the United States and, in April 2005, the Company conducted a similar seminar in China. Starting in May 2005, the Company plans to conduct additional training seminars in various international locations regarding revenue recognition and the identification of non-standard contracts; and

c. At the end of 2004, the Company began requiring centralized retention of documentation evidencing proof of delivery and final acceptance for revenue recognition purposes."

Required

1. Using the disclosures above as a starting point, brainstorm about the challenges regarding internal controls that a company may face in doing business internationally.
2. The company has disclosed their planned remediation efforts for 2004. How might the auditor use that information during the 2005 audit in terms of audit planning?
3. Considering potential analytical procedures relevant to the revenue cycle that were discussed in this chapter, identify what types of analytics might be applied in 2005 to ensure that the problems detected in 2004 have been remedied.
4. Considering potential substantive tests of revenue that were discussed in this chapter, identify procedures that might be applied in 2005 to ensure that the problems detected in 2004 have been remedied.

11-83 Refer to the ACL Case 3—Accounts Receivable in the ACL appendix at the end of the book. This case requires the use of ACL to perform certain audit functions on accounts receivable files.

Appendix 11A: Regression Analysis

Regression analysis is a statistical technique that can provide information to help (1) determine what relationship exists between the dependent and independent variables and (2) determine whether a "significant difference" has occurred.

A *simple regression model* includes just one independent variable. A *multiple regression model* includes two or more independent variables. Regression analysis can be used for time-series analysis or cross-sectional analysis. *Time-series regression analysis* is used for predicting a dependent variable based upon the historical relationship between that variable and one or more other financial or non-financial independent variables. A *simple time-series regression application* is the prediction of the current-year sales by month based on a two- or three-year history of the monthly relationship of sales to cost of sales. Predicted sales are then compared with recorded sales, and any significant differences can be identified. If the auditor does not have adequate evidence to explain the significant differences, additional evidence is needed. A *multiple time-series application* is the prediction of the dependent variable based on a number of independent variables, such as predicting office overhead expense for the current year based on square feet of office space, the age of the building, the number of office employees, and the number of clients served during the previous 10 years. At least 10 periods or data points are needed for a reliable regression model.

Cross-sectional regression analysis is used for predicting an amount, such as an account balance, based on independently predicting variables from the same period: data from other firms, the industry, or across different units of the client's business, such as sales branches or inventory locations. For example, auditors cannot economically observe inventory at each location of a client that has 600 retail outlets. Regression analysis can be used to identify locations that seem out of line with the other stores. Inventory amounts at each store may be predicted based on the sales, floor space, and price-level index at each location. The auditor may choose to observe the inventory at those stores that appear to be out of line or perform additional alternative procedures. For example, the client has 12 stores—6 megastores with 2,200 square feet and 6 mini-stores with 800 square feet. Using a simple cross-section regression analysis, the auditor can identify any store with an unexpected amount of sales or inventory:

Store	Sq Ft	SALES			INVENTORY		
		Per Books	Predicted	Residuals	Per Books	Predicted	Residuals
1	2200	7,500,390	7,661,021	–160,631	625,033	638,418	–13,386
2	800	3,546,988	3,411,631	135,357	295,582	284,303	11,280
3	800	3,065,921	3,411,631	–345,710	255,493	284,303	–28,809
4	2200	6,950,423	7,661,021	–710,598	579,202	638,418	–59,216
5	2200	8,153,788	7,661,021	492,767	679,482	638,418	41,064
6	800	3,333,333	3,411,631	–78,298	277,778	284,303	–6,525
7	2200	7,555,555	7,661,021	–105,466	689,424	638,418	–8,789
8	800	3,065,921	3,411,631	–345,710	255,493	284,303	–28,809
9	800	2,956,455	3,411,631	–455,176	246,371	284,303	–37,931
10	2200	8,305,578	7,661,021	644,557	692,132	638,418	53,713
11	2200	7,500,390	7,661,021	–160,631	625,033	638,418	–13,386
12	800	4,501,169	3,411,631	1,089,538	375,097	284,303	90,795

Notice that store 12 has unexpectedly large sales and inventory in comparison with the predicted amounts. This could be an indicator of potential fraud or it may just be an unusual store. The auditor should investigate to find out which it is.

Computer assistance is readily available through most spreadsheets and some graphics computer programs to perform simple regression analysis. Special statistical programs, such as *Statistical Programs for the Social Sciences (SPSS)* or *ANSWERS* (sold by Financial Audit Systems) may be needed for multiple regression models. Many public accounting firms have developed their own regression software. Deloitte & Touche, for example, has a program called *Statistical Techniques for Analytical Review (STAR)*. It is a sophisticated regression program that can be used for time-series or cross-sectional analysis, single or multiple independent variables. It integrates audit decisions about materiality, reliability, and other audit objectives with regression analysis and certain other statistical techniques. IDEA and ACL also have regression capabilities. Examples of regression analysis applications include predicting:

- Monthly sales based on cost of sales and selling expense
- Airline and truck company fuel expense based on miles driven and fuel cost per gallon
- Maintenance expense based on production levels
- Inventory at each branch location of a retail company based on store sales, store square footage, regional economic data, and type of store location

Module V covers accounts receivable aging analysis and evaluation of allowance for doubtful accounts. This exercise may be completed at this time.

Module V: Accounts Receivable Aging Analysis

Richard Derick has asked you to review the accounts receivable aging analysis and the allowance for doubtful accounts, and to recommend any audit adjustments or reclassifications you consider necessary. Shelly Ross had prepared the aging analysis and the allowance for doubtful accounts document before being temporarily transferred to the Joplin Mills audit. She should be back early next week, but Derick would like to "wrap up" accounts receivable this week.

Based on the aging analysis prepared by Ross, you have decided to confirm all large accounts and a sampling of the smaller accounts, using positive confirmations.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "AR." Locate the following documentation in this file
   - WP 3—Accounts and notes receivable—trade
   - WP 3.A—Accounts receivable aging analysis
   - WP 3.C—Allowance for uncollectible accounts.

   Scroll to WP 3.A, "Accounts Receivable Aging Analysis."
   a. What proportion of the total dollar amount of accounts receivable have you included in your confirmation requests?
   b. What procedures should you apply in the event of no reply to a request for positive confirmation?
   c. What is the purpose of analyzing subsequent collections?
2. Based on your analysis of subsequent collections and the results of the confirmation process, are you satisfied that you have sufficient evidence to evaluate the existence and valuation assertions?
3. Draft the suggested Reclassification Entry A.
4. Scroll to WP 3.C, "Allowance for Uncollectible Accounts."
   a. What type of correspondence would you examine to satisfy yourself as to the accounts receivable write-offs?
   b. Draft the suggested Audit Adjustment 2. Are you satisfied that the balance in the allowance is adequate after your recommended adjustment?
   c. Scroll to WP 3, "Accounts and Notes Receivable—Trade" (lead schedule). Post Reclassification Entry A and Audit Adjustment 2 to the appropriate locations in the lead schedule.
5. Print the documents 3, 3.A, and 3.C.

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CHAPTER 12

Audit of Acquisition Cycle and Inventory

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Discuss the role of important changes in technology and supply chain management and how these changes affect the audit of acquisitions and inventory.
- Describe the major types of fraud and errors that have historically occurred in the acquisition cycle accounts.
- Identify areas where analytical procedures are most efficient in auditing payables, inventory, and expense accounts.
- Describe the important processes and controls in the acquisition cycle.
- Describe the procedures for testing accounts payable and expenses.
- Explain the complexities inherent in auditing inventory
- Describe appropriate internal controls over inventory.
- Describe the procedures for testing the details of inventory and cost of goods sold.

CHAPTER OVERVIEW

The acquisition cycle includes all the processes from identifying products or services to be acquired, receiving the goods, storing and accounting for the goods, and paying for goods and services received. The acquisition cycle is often considered a high-risk area because of the many frauds that have taken place in acquisition schemes and in accounting for inventory. The auditor must identify and assess important controls and assess risks to determine the extent of audit work and whether the work should be concentrated at year end. In this chapter, we discuss the risks associated with this cycle, identify the issues that should be considered in deciding the extent and timing of audit procedures, and describe several computerized audit techniques to enhance audit efficiency.

Introduction

Overview of the Acquisition Cycle

The major accounts in the acquisition cycle are inventory, cost of goods sold, accounts payable, and expenses. An overview of the major accounts included in the acquisition cycle is shown in Exhibit 12.1. For many clients, inventory represents one of the largest and most difficult accounts to audit. Much of our discussion of the acquisition cycle assumes an audit of a manufacturing client so we can discuss both inventory and cost of goods sold.

The acquisition process begins with a **requisition** (formal request) for goods and services. The receipt of goods or services should cause the recognition of accounts payable with debits to an expense account, an inventory account, or other asset accounts. The shipment of goods and the recognition of obsolete

inventory are recorded as debits to Cost of Goods Sold. Finally, the payment for goods or services received is reflected as cash disbursements.

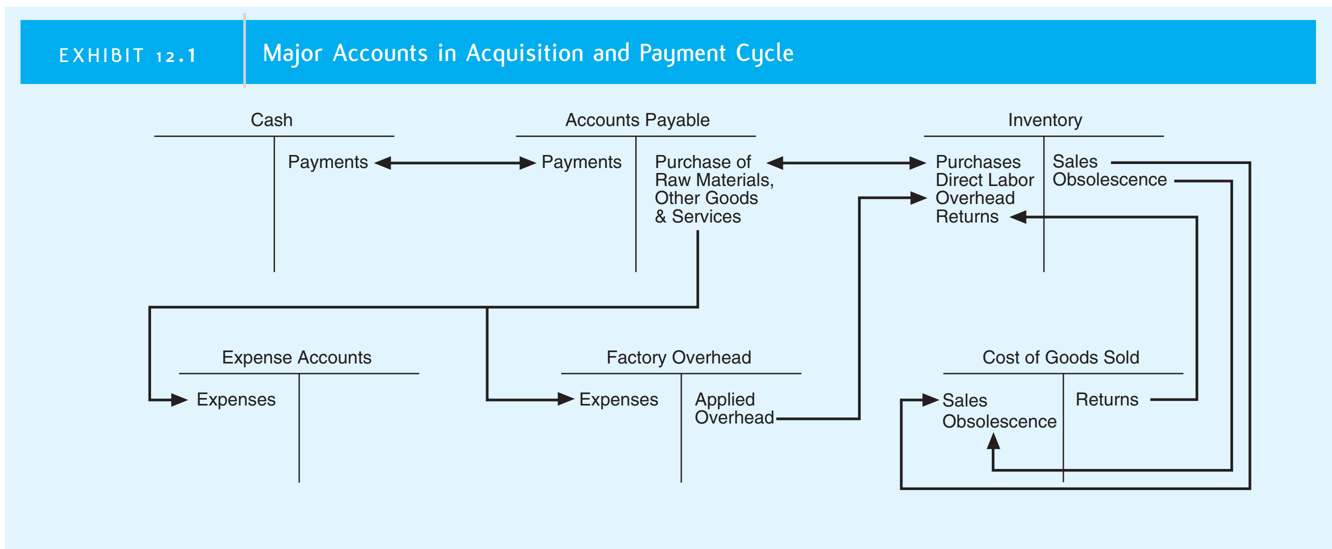
Major changes are taking place in the acquisition cycle of many businesses as computerized processes become more integrated with "supply chain management." A number of companies have specific contracts with vendors that specify price and delivery terms to meet the client's production needs. Companies such as Wal-Mart and J.C. Penney have arrangements with some vendors whereby title to the goods does not pass until a consumer purchases the goods at the checkout counter. The auditor has to understand the contracts and processes to determine when title passes and when the client[1] assumes the risk for the inventory located on the client's premises. Many companies have been successful in reducing inventory levels and associated carrying costs. Thus, if the auditor finds an unusually large amount of inventory on hand, there should be concern about potential obsolescence of the inventory.

Business Risk and Business Analysis

Because of the volume of transactions, as well as the ability to physically move inventory, the acquisition and payment cycle have often been areas of fraud. Most of the frauds in this area involve overstatement of inventory, expenses, or assets. On the other hand, many disbursement frauds (defalcations) involve fictitious purchases, or in some cases involve kickbacks to the purchasing agent. Frauds that have taken place include the following:

- Employee theft of inventory
- Employee schemes involving fictitious vendors as means to transfer payments (unnoticed) to themselves
- Executives misusing travel and entertainment accounts and charging them as company expense (e.g., Tyco)

EXHIBIT 12.1 Major Accounts in Acquisition and Payment Cycle



[1] We will refer to the business being audited as the client. However, as noted in Chapter 1, the real client is the audit committee of the public company being audited.

FOCUS ON FRAUD

WorldCom and Pharmor

WorldCom

WorldCom management recorded billions of line rental expenses as fixed assets. Management was motivated to engage in the fraud to meet earnings expectations and to show that they were able to manage their "line expenses" better than the rest of the industry. The expenses were in line with previous years and did not raise auditor suspicion.

PharMor

Pharmor was a major discount retailer that had over 300 stores in the 1990s with great operating results and a concept that captured Wall Street. Typical of many frauds, the company was dominated by an officer who viewed the company as his own and diverted more than $10 million to support a now defunct minor-league basketball league. To cover up this misuse of company money, the officers directed the managers of each store to inflate their inventory costs. For example, if a carton of Coca Cola cost $1.99, they were to value it at $2.99. The overstatements were needed to balance the cash outflow to the creation of an asset. Company management knew the auditor would not visit all 300 stores to test inventory valuation.

- Schemes to classify expenses as assets (e.g., WorldCom)
- Manipulation of "restructuring reserves" to manage future income (e.g., WorldCom and a host of others)

Two recent high profile frauds involved this cycle. See the *Focus on Fraud* feature.

There are a number of potential fraud indicators that affect this cycle and should be considered by the auditor, including

Consider the Risk

Major frauds have generally involved overstating inventory or receivables or capitalized expenses. However, embezzlements might result in expense overstatements, for example, crediting cash and debiting an expense account.

- Inventory that is growing at a rate greater than sales
- Expenses that are either significantly above or below industry norms
- Capital assets that seem to be growing faster than the business and for which there are no strategic plans
- Significant reduction of "reserves," particularly restructuring reserves
- Expense accounts that have significant credit entries
- Travel and entertainment expense accounts, but no documentation or approval of expenditures
- Inadequate follow-up to auditor recommendations on needed controls
- Payments made to senior officers in the form of loans that are subsequently forgiven

Analytical Analysis for Misstatements

There are several analytical procedures that may help the auditor identify potential misstatements of inventory or expense account balances. Calculating and analyzing the dollar and percent change in inventory, cost of goods sold, and expense account balances relative to both past performance and industry performance may identify unexpected results. For example, *inventory turnover* and the *number of day's sales in inventory* can be compared with prior years, industry averages, and auditor expectations. A *common-sized income statement* can help identify cost of goods sold or expense accounts that are out of line with the auditor's expectations based on prior years, industry information, and the auditor's knowledge of the business.

ACL can be used to calculate inventory turnover of each item in inventory, compare it with the prior year, and print a report of those needing further analysis. It can also be used for cross-sectional analysis to identify outliers.

Cross-sectional analysis of multi-location retail clients can identify locations needing more detailed testing. Inventory per square foot of retail space can be calculated for each location and compared with the average of the stores' of comparable size and product mix. The auditor can then plan to obtain appropriate evidence for those locations with significantly more or less inventory than expected.

Audit of the Acquisition Cycle

Overview of Control Procedures and Control Risk Assessment

The acquisition and payment process consists of five major phases:

1. Authorized requisition (request) for goods or services
2. Authorized purchase of goods or services according to company policies
3. Receipt of goods and services
4. Approval of items for payment
5. Cash disbursements

The specific controls used vary with the amount of automation of the process. The following discussion assumes a high degree of process automation.

Requisition of Goods and Services The acquisition process begins with a production or sales plan by the organization. In some organizations there will be long-term production plans. For example, in the automotive industry a manufacturer might schedule production for a month in advance and notify its suppliers of the production plan. In other situations (e.g., Dell Computer), the production process begins when Dell receives an order for the computer. The auditor must thoroughly understand the relationships with the suppliers and should examine major contracts that specify delivery quantity, timing, and quality conditions. The traditional acquisition process begins with recognizing the need for the purchase—either by an individual or a computer program that monitors inventory or production. Normally, a requisition form is forwarded to the purchasing department by a supervisor, although some departments may have authority for individual purchases up to a specific dollar limit. Computer-generated purchase orders are often reviewed by the purchasing department; but in some automated systems the purchase order may be electronically communicated to the vendor with no additional review. An overview of a traditional requisition process is shown in Exhibit 12.2.

EXHIBIT 12.2 Overview of the Requisition Process

INVENTORY

Form of requisition:

- Written requisition for specific products by the production manager or stockroom manager
- Computer-generated requisition based on current inventory levels and production plans

RETAIL ORGANIZATION

- Overall authorization to purchase product lines is given to individual buyers by the marketing manager. The authorization is built into the computer as a control. The limits for individual goods can be exceeded only on specific approval by the marketing manager.
- Store managers may be granted authority to purchase a limited number of goods. The store manager's ability to issue a purchase order may be subject to overall corporate limits, usually specified in dollars.
- The supplier may have access to the retailer's inventory database and, by contract, ship replacement merchandise based on sales activity and reorder points.

JUST-IN-TIME MANUFACTURING PROCESS

An agreement is signed with the supplier whereby the supplier agrees to ship merchandise (just in time) according to the production schedule set by the manufacturer. A long-term supply contract is negotiated specifying price, quality of products, estimated quantities, penalties for product shortages or quality problems, and so forth. Specific purchase orders are not issued; rather, the production plan is communicated to the supplier with the specified delivery dates. The production plan serves as the requisition.

SUPPLIES: MANUFACTURING

Requisitions are issued by production departments and sent to the production manager for approval.

(continued)

EXHIBIT 12.2 Overview of the Requisition Process (*continued*)

SUPPLIES AND MISCELLANEOUS: OTHER DEPARTMENTS

- Formal requisitions are approved by the departmental supervisors.
- Each department may be given a budget for supplies and may have the ability to issue purchase orders directly for the needed items or may be able to purchase a limited number of items without a purchase order.

SERVICE CONTRACTS

Contracts are negotiated directly by the department. For example, the data processing department may negotiate a service contract with a vendor for backup service.

Integrated Audit

Important controls include a production plan and authorization of a requisition form that is sent to the vendor by a purchasing agent, or is sent through the computer system according to pre-existing contracts.

Many companies partner with major suppliers to improve their supply-chain management process. For example, General Motors is partnering with Eaton Corporation to furnish sub-assemblies that are already assembled to move directly into the production line. This kind of relationship requires close coordination between all parties and may never involve a requisition form. It may only involve the development of a long-term contract and the sharing of production schedules with the supplier. Goods are delivered and moved directly into production. There is no formal receiving department, and Eaton Corporation is paid upon the production of an automobile.

Authorized Purchase of Goods and Services Many organizations centralize the purchasing function in a purchasing department. The rationale for a separate purchasing function is that it:

1. Promotes efficiency and effectiveness
2. Eliminates potential favoritism that could take place if individual department heads were allowed to place orders
3. Reduces the opportunity for fraud by segregating the authorization to purchase from the custody and recording functions
4. Centralizes control in one function

Although there are advantages to centralized purchasing, there is a risk that purchasing agents may enter into kickback arrangements with vendors. Controls include requiring competitive bids for large purchases and rotating purchase agents across product lines. Perhaps the most important control is an authorized vendor database. Company employees cannot purchase from vendors other than those in the database, thereby making it difficult to set up fictitious vendors.

In traditional purchasing situations, prenumbered forms are used to establish the uniqueness of each order and the completeness of the purchase order population. The purchase order identifies the quantity and prices of goods ordered, quality specifications, and the delivery date. The receiving department uses the purchase order to determine whether a shipment of goods should be accepted. The accounting department uses the purchase order to determine whether a purchase was authorized and whether the vendor's invoice is correct.

Two variations of the traditional purchase order are becoming more common: the computer-generated purchase order and the supply-chain delivery contract.

Computer-Generated Purchase Order Good inventory management identifies levels for inventory reorders. When inventory drops below a specified level, or in response to production plans, the company's information system generates a purchase order that is sent directly to a pre-specified vendor. Companies may consider additional controls, such as: (1) a maximum quantity that can be ordered

within a given time period, (2) a minimum amount of previous usage during a specified time period, and (3) a required review by a purchasing agent for some accounts or for high-dollar levels.

Contracts with Major Suppliers A variation of the computer-generated purchase order is the electronic consignment system used by some retailers. As an example, Wal-Mart encourages its partners to monitor store activities, inventory levels, and current trends in sales, and authorizes the vendor to ship additional goods to stores when inventory levels decrease. However, the trade-off for the partner is that the partner—for example, Levi Straus—maintains ownership of its product until a consumer purchases it. When the consumer brings the jeans to the counter, the ownership transfers to Wal-Mart and then to the consumer. The sales information is captured and the accounting system records the sale as well as the cost of good sold and a payable to Levi Straus. The contract between the trading partners also specifies controls to ensure that Wal-Mart acknowledges receipt of goods, and takes steps to ensure that the goods are not subject to damage, theft, or loss.

Receipt of Goods and Services Receiving departments should ensure that only authorized goods are received, the goods meet order specifications, an accurate count of the goods received is taken, and that accountability is established to ensure that all receipts are recorded. Several alternative methods of recording the receipt of goods may exist, including the following:

- The receiving department prepares *prenumbered receiving documents* to record all receipts.
- The receiving department *electronically scans bar codes* on the goods received to record quantity and vendor, and then visually inspects the goods for quality. The computer prepares a sequentially numbered receiving record for goods scanned in.
- *Departments may receive goods directly*, such as office supplies, and must approve payment for the merchandise.
- Goods are received *directly into the production* process. The vendor is paid according to the long-term contract based on the purchaser's actual production and the vendor is penalized for production delays that are due to failures to deliver the goods.

The traditional receiving process creates a prenumbered receiving document based on a count of the merchandise received. A copy of the purchase order (usually with quantities blanked out to help assure an independent count) is reviewed to determine whether a shipment is authorized. Prenumbered receiving documents establish the completeness of the population and are useful in determining that all goods are recorded in the correct period.

Automated scanning can improve both control and efficiency of the receiving process. Products shipped with bar codes can be directly scanned into the system. Actual receipts can be automatically matched with purchase orders to determine if the shipment contains errors. Goods received into production must match the production process. If they do not, then there is a potential problem of either the production line shutting down, or producing the wrong subcomponents. For example, if Eaton fails to deliver the correct subassembly to General Motors, the production line will shut down and General Motors will know the cause. Although this is not a traditional "accounting control," it is very effective because any failure immediately gets the attention of management and the vendor. Thus, there is strong motivation to avoid any mistakes.

As auditors increasingly encounter these integrated order, delivery, and payment supply-chain management systems, they have to reconsider the types of controls that should be present. Exhibit 12.3 provides an overview of controls that are found in traditional receiving systems and those in more automated systems.

Regardless of the approach taken to implement the receiving function, the auditor must gain assurance that management has sufficient controls to monitor purchases and control costs. If errors occur, they are most likely to show up in inventory or expenses.

Integrated Audit

Important controls include the existence of a contract with suppliers, restricted access to the computer program, and monitoring of inventory and purchase levels by management.

Practical Point

The control objective is to ensure that only authorized purchases are made at competitive prices. Some systems can accomplish these objectives without the forms described here. The auditor must address the control objectives, not just the form of the control.

Consider the Risk

Companies and vendors are increasingly integrated. If a subcomponent producer fails to deliver quality products, then there is a risk that the product produced will also fail.

Integrated Audit

Companies need controls to ensure not only the correct quantity of goods are received and are valued at the correct purchase price; they must also have controls to ensure that the goods delivered meet the quality requirements of the company. For example, if Boeing is not sure of the quality of an aircraft engine purchased from General Electric, then it risks failure of its plane. Similarly, if GE is not sure of the quality of the fuel control system it receives from its supplier, it incurs risks of engine failure. The auditor must also understand these risks and controls.

EXHIBIT 12.3 Comparison of Controls in Traditional and Automated Systems

Traditional Receiving System	Electronic Integrated Receiving System
Purchase orders are prepared and sent to vendors.	Long-term contract is signed with vendor specifying: • Quality • Shipping and delivery requirements • Payment terms • Penalties for performance failures • Reconciliations between trading partners for goods shipped/received
Purchase orders based on: • Projected sales or production • Current inventory levels	Quantities are based on production plans or sales programs. Quantities and delivery times are updated monthly or bi-weekly depending on scheduling and shipping constraints.
Price is either negotiated, or competitively bid among a number of vendors.	Price is locked in with a preferred vendor.
Independent receiving function exists.	Good are delivered to production line.
Independent, sequentially numbered receiving documents are prepared to provide evidence that the goods are received.	Disruptions of production provide evidence that goods were not delivered.
Accounts Payable department matches purchase order, receiving document, and invoice and accrues accounts payable.	Accruals are set up based on contract (production, sales of goods, etc.).
Payments are made via check or by electronic transfer once or twice a month.	Payments are electronically transferred to vendor based on contractual terms.
Differences are identified before payments are made.	Processes are described in the contract to resolve differences between goods received and goods that were shipped by vendor.

Practical Point

Controls have changed to reflect the changes in arrangements between suppliers and customers.

Approval of Items for Payment

Traditional Manual Matching The traditional, document-based acquisition and payment system requires personnel in accounts payable to match the vendor invoice, the purchase order, and the receiving report to determine the validity of the requested payment. If all items properly match, the vendor's invoice is set up as an account payable with a scheduled payment date. Discrepancies are reviewed with the purchasing agent. The supporting documentation and authorization are then presented to the treasury department for payment. Internal controls should ensure that all items are recorded in a timely manner, that the authorization process includes a review of documents, and that supporting documentation is canceled on payment to avoid duplicate payments.

Automated Matching The traditional approach to controlling the receipt of, and payment for, purchases is labor intensive and error prone. The **automated matching** process represents an efficient alternative. Purchase orders are entered into a purchase order database that is accessed by the receiving department to determine whether an incoming shipment of goods should be accepted. The receiving department electronically records the receipt of goods through scanning of the bar code or other means and cross-references the receipt to the purchase order.

The computerized application matches the three documents (purchase order, receiving document, and vendor invoice), and if the three match within a pre-specified tolerance limit, the invoice is approved for payment. A payment date is scheduled, and a check is automatically generated on the scheduled date and is signed using an authorized signature plate. The complete payment process

occurs without any apparent human intervention. There is no authorized reviewer, no physical matching, and no individual physically signs the checks. In some systems, the payment may be transferred electronically to the vendor.

The lack of human intervention is compensated for by control procedures and authorization concepts built into the system such as the following:

- *Authorized Vendors*—Purchases can be made only from authorized vendors.
- *Restricted Access*—Access is restricted to databases, in particular to the vendor database and the purchasing database. Anyone with the ability to add a vendor or make unauthorized purchase orders is in a position to set up fictitious vendors and purchases. Therefore, someone outside the purchasing department should maintain the vendor database (a list of approved vendors).
- *Automatic Processes*—Although the receiving department has access to the purchase order (read only), the use of automatic scanners and other counting devices lessens counting and identification errors.
- *Reconciliations Inherent in the Process*—Most retailers mark retail prices on the goods at the distribution center when they are received. The retail price tickets for an order can be generated from the purchase order. The actual number of tickets used should be reconciled with the goods received, and any leftover tickets should cause an adjustment to be made to the receiving report.
- *Automation of Error-Prone Activities*—Vendor invoices are traditionally entered into the system by accounts payable personnel, thereby segregating this process from the other two functions. An alternative is to receive invoices electronically. It is still important that purchasing and receiving not have the ability to enter vendor invoice data or access the vendor invoice file.
- *Restricted Access to Transferring Funds*—Access to the check signature plate, or authorization of electronic cash transfers, is usually limited to the treasury function.
- *Monitoring*—Activity reports are prepared on a regular basis for management review.

Because most of the control procedures are developed during the system design process, it is important that users and internal auditors actively participate in reviewing the effectiveness of controls designed into the computer application.

Integrated Audit

The computerized process requires authorization for orders, restricted access to the vendor database, automatic reconciliation, and monitoring of activities for unusual activity. These controls will be tested, and if working properly will provide significant evidence on the accuracy of the account balances in the cycle.

Cash Disbursements In a manual system, someone in the organization (the president in some small organizations, the treasurer in others) reviews the completeness of the documentation and signs a check for payment of goods and services. The supporting documents are immediately canceled to avoid duplicate payments. In most automated systems, the checks are generated automatically according to the scheduled payment date, and the supporting documents are canceled when the invoice is set up for payment. The most important controls in these systems are (1) monitoring of transactions, by which someone reviews the expenditures and compares them to other key data (e.g., production, budgets, other measures of volume); and (2) vendor disputes are directed to someone outside of the process. Other monitoring activities include the periodic review of the system by the internal audit department and periodic reconciliation of inventory on hand with inventory per the books.

Integrated Audit

Cash disbursements need proper authorization; supporting documentation (electronic or paper-based) needs to be immediately canceled in order to avoid duplicate payments; and the process must be monitored for unusual activity.

Testing Controls over Accounts Payable and Related Expenses

The internal controls to be tested are those identified above as part of the integrated audit, i.e., all purchases are authorized, are for goods received, at the appropriate amount, in the correct time period, and are paid only once to the authorized vendor. Many tests involve computerized controls, e.g., process change approval and access controls and exception reports that are followed up by management.

In a less sophisticated system, attribute sampling can be used to take a sample of payments to trace back through the process to test for evidence that matching was done and test the occurrence, accuracy, classification, and timeliness of recording.

A sample of receiving reports that is traced through the recording process tests the completeness assertion as well as account classification and valuation assertions. Significant lags in recording of the liability indicate potential problems that should be addressed during substantive testing of accounts payable at year end.

Evidence of proper authorization should be available for each purchase and payment. Paper-based systems provide evidence of authorization through signatures. Computerized systems are controlled through access controls and exception reports.

The financial press has documented many business failures in which managers were using the business assets as if they were personal property. The auditor should pay particular attention to items such as expense reimbursements or other expenses that do not seem to have a justifiable business purpose.

Practical Point

Stakeholders often expect auditors to look at reimbursements made to top managers to see that they are proper.

Substantive Tests of Accounts Payable

The auditor's major concern with Accounts Payable is that the account will be understated. Therefore, a great deal of emphasis is placed on testing the completeness assertion.

Integrated Audit

If the auditor concludes that the controls over acquisition and payment are adequate, the amount of substantive testing can be reduced significantly because the risk of material misstatement is reduced.

Testing for Completeness The testing to be performed depends on the risk of an understatement of accounts payable. If there is little risk, the audit might be restricted to tests of underlying expense and asset accounts, as well as a comparison of accrued payables to major vendors in comparison with the previous year. On the other hand, if there are significant deficiencies in internal control over acquisitions, the auditor will use one or more of the following approaches:

1. Reconciling vendor statements or confirmations with recorded payables
2. Testing subsequent disbursements
3. Analytical review of related expense accounts

Reconciling Vendor Statements or Confirmations with Recorded Payables The auditor requests vendors' monthly statements or sends confirmations to major vendors requesting a statement of open account items. The auditor reconciles the vendor's statement or confirmation with the accounts payable trial balance of the client. The method generates reliable evidence, but is costly and is used only where there is a high risk that the company does not pay vendors on a consistent basis.

Testing Subsequent Disbursements The auditor examines a sample of cash disbursements made after the end of the year to determine whether the disbursements are for goods and services applicable to the previous year—and if so, whether a liability was recorded in the previous year. The disbursements review is followed by an examination of unrecorded vendor invoices and receiving reports to determine whether goods or services received in the previous year were properly set up as a payable. If control risk is high or there are fraud-related red flags, the auditor may review 100% of the larger subsequent disbursements.

Analytical Review of Related Expense Accounts This procedure is designed to determine if the accounting data indicate a potential understatement of expenses. If an understatement is likely, the auditor expands accounts payable tests by performing one of the two procedures just described. This approach is used on clients for whom control risk has been assessed as low, no red flags are present to indicate motivation to understate payables, and the company is not in danger of violating potential debt covenants related to maintenance of working capital.

Other Accounts Payable Substantive Tests

Year-End Cutoff Tests Cutoff (correct time period) errors are common. Some of these difficulties occur because year end is a hectic time, and errors can occur

if precautions are not taken to ensure timely recording. We cover the cutoff tests in conjunction with the discussion of inventory later in the chapter.

Review of Contracts for Purchase Commitments Organizations are increasingly entering into long-term contracts to purchase inventory at fixed prices or at a fixed price plus inflation adjustments. These contracts can extend over a period of years, and there is always some risk that economic circumstances can change and the contracts may no longer be economically viable. The contracts should be examined to determine penalties associated with default, and the auditor should gain sufficient knowledge to assess the client's estimate of the probability of contract default or losses.

Audits of Expense Accounts

Audits of payables and related cash disbursements provide indirect evidence about the correctness of expense accounts. However, some additional analysis of selected expense accounts is usually merited, depending on the strength of internal controls tested during the initial parts of the integrated audit. When evaluating evidence regarding expense accounts, the auditor should consider that management is more likely to (1) understate rather than overstate expenses and (2) classify expense items as assets rather than vice versa.[2] The auditor should also perform tests that would identify all significant credits to expense accounts because these credits might indicate inappropriate transfer of costs to asset accounts. In auditing expense accounts, the auditor is aware that not all expenses are directly related to cash expenditures. For example, depreciation expense is an amortization of an expenditure made on the capital asset; interest expense may be accrued when payments are not made; and other expenses are accrued over time (insurance, taxes, pensions, and others).

***Fraud* Risk**

Credits to expense accounts increase reported net income and often are offset by an increase in fictitious assets.

Detailed Test of Expense Accounts Some accounts are of intrinsic interest to the auditor simply because of the nature of the account. These include Legal Expense, Travel and Entertainment Expense, Repairs and Maintenance Expense, and Income Tax Expense. The Legal Expense account should be examined as a possible indicator of litigation that may require recording and/or disclosure. Travel and Entertainment Expense should be examined for questionable or non-business-related items. Repairs and Maintenance Expense should be examined together with fixed asset additions to ensure a proper distinction has been made between expenditures that should be expensed and those that should be capitalized. Income Tax Expense and related liability(s) should be examined, often by a colleague who is a tax professional, to ensure that tax laws and regulations have been followed. Underlying documentation should be examined on a sampling basis to determine the nature of the expenditure, its appropriate business use, and the correctness of the recorded item.

***Integrated* Audit**

Travel and entertainment expense accounts may reflect on the integrity of management, and thus on the overall assessment of the client's control environment. Thus, while it is a test of the financial statement, it also provides indirect evidence on the organization's internal controls.

The most widely used approach to detailed testing is to either (a) have the client create a schedule of all larger items making up the expense account (usually done for smaller clients) or (b) using audit software to (i) examine randomly selected items from the expense account using PPS sampling and (ii) prepare a list of all credits to the expense items for further review. An example of a specific audit program for performing detailed testing of travel and entertainment expense is shown in Exhibit 12.4.

Detailed tests of other expense accounts, such as repair and maintenance expenses, would usually involve taking a sample of debits to the account balance and tracing the items back to supporting documents to determine that (a) adequate support for the payment existed and (b) the classification was appropriate

[2] The client may be motivated to minimize income taxes and thus would want to overstate expenses and understate income. In such cases, the auditor should concentrate on items classified as expenses that should be recorded as an asset.

EXHIBIT 12.4 Partial Audit Program for Travel and Entertainment Expense

1. Review control testing and assessment of control risk. Consider the potential misstatements that may occur, including any results from fraud brainstorming meetings.
2. Use audit software to read the travel and entertainment expense file and do the following:
   a. Foot the file and agree to the trial balance
   b. Create a sub-file of all reimbursements made to officers or directors; list by each officer
   c. Take a PPS sample of expense reimbursements to all officers
   d. Take a PPS sample of all other expenses
   e. Develop a list of all credits to the account
3. For each item selected, trace back to detailed evidence supporting the expenditure. Examine the supporting documentation to:
   a. Determine completeness of documentation
   b. Determine proper approvals of expenditure
   c. Examine business purpose of the expenditure, and determine that authorized individuals were present and that the expenditure meets with IRS approved guidelines
   d. Determine that expenditure was within company guidelines
   e. Summarize any discrepancies and determine whether or not company should be reimbursed
   f. Discuss potential adjustments with CFO or appropriate personnel, including CEO or audit committee chair for items involving CEO or CFO
4. Develop estimate of potential adjustments and determine if amounts are material.
5. Review list of credits to the account and determine if amounts are material. If amounts are material:
   a. Summarize by type
   b. Investigate source of entry and support for the entry
   c. Make a determination of whether or not the entries were appropriate
   d. Develop an estimate of required changes to the account(s)
6. Record any needed adjustments.
7. If any officer reimbursements exceeded company policy or were not for legitimate purposes, summarize the amounts and discuss with audit committee chair and CEO.
8. Consider whether findings support a conclusion that controls are working effectively. If not, consider impact on Section 404 report on internal control.
9. Summarize findings.

(expense vs. capitalization). The auditor could also use audit software to summarize all credits to the account balance and then investigate any amounts that would be material to determine their source and the appropriateness of the account balances (see the *Focus on Fraud* feature).

Evidence on expense accounts is also gathered through the audits of related asset or liability accounts. For example, if the auditor determines that something is inappropriately capitalized, that determination also means that an expense is understated. Similarly, if a liability is omitted, it is likely that an expense has been understated.

Analytical Procedures of Expense Accounts When the auditor has concluded that internal control risk is low, the major substantive tests may be gathering evidence through analytical procedures. Further, many account balances are directly related to the client's volume of activity. Stable relationships are expected between specific accounts (such as Cost of Goods Sold and Sales) that can be investigated for unusual discrepancies. Examples of expenses that should vary directly with sales include Warranty Expense, Sales Commissions, and Supplies Expense. The analytical model should be built using either audited data or independently

FOCUS ON FRAUD

WorldCom

Management at WorldCom wished to keep line expenses at 42% of total costs because (a) line expense was a key ratio followed by Wall Street analysts and (b) it helped to keep reported profits high. One of the processes used was to credit line expense by reducing restructuring reserves. The reserve account would be debited for a round figure such as:

Restructuring Reserve	$450,000	
Line Expense		$450,000

An examination of the credits in the expense account would have provided insight into this highly unusual accounting transaction.

It was recommended that repair and maintenance expense be examined at the same time as fixed asset increases. WorldCom blatantly debited fixed assets for many line rental costs. The processes described in this *Focus on Fraud* would have led to the discovery of the fraud at WorldCom.

generated data. If the expense account falls within expected ranges, the auditor can be comfortable in concluding that it is not materially misstated. If the account balance is not within the specified ranges, the auditor develops hypotheses as to why it may differ and systematically investigates the situation. The investigation should include inquiries of client personnel and the development of corroborating evidence (including a detailed examination of the expense accounts where merited). For example, sales commissions may have averaged 3% of sales over the past five years. If that ratio drops to 1% this year, the auditor should examine the cause of the change.

Exhibit 12.5 is an example of a partial audit program for testing accounts payable and purchases. This program is based on an assessment that there are no significant deficiencies in internal control over these processes.

EXHIBIT 12.5 Typical Manufacturing Company Audit Program—Accounts Payable

	December 31, 2006	
	W/P Ref	Done By
AUDIT OBJECTIVES		
Assess the control risk over purchase and cash disbursement transactions, and determine the completeness, existence, valuation, presentation, and obligations of purchases, operating expenses, and trade accounts payable.		
TEST OF CONTROLS AND TRANSACTIONS		
1. Review computer matching exception reports to determine number of exceptions and effectiveness of follow-up procedures.	______	______
2. Determine whether there have been any changes to the computer programs for processing purchases and disbursements during the year.	______	______
3. Test authorization controls by examining effectiveness of access controls to the computer system.	______	______
4. Review appropriate account distribution for a selected set of transactions; determine that they are recorded at the correct price and that they are recorded in the correct time period.	______	______
ANALYTICAL PROCEDURES		
Prepare a common-size income statement and compare expenses with the prior period. Identify and investigate significant differences.	______	______

(continued)

EXHIBIT 12.5 Typical Manufacturing Company Audit Program—Accounts Payable (*continued*)

	December 31, 2006	
	W/P Ref	Done By
TESTS OF DETAILS		
1. Use generalized audit software to verify mathematical accuracy of accounts payable, and agree to general ledger (valuation).	________	________
2. Agree monthly statements and confirmations from major vendors with accounts payable list (existence, completeness, valuation, and obligation).	________	________
3. Perform a cutoff test of purchases and cash disbursements.	________	________
4. Review long-term purchase commitments, and determine whether a loss needs to be accrued (completeness, presentation, and disclosure).	________	________
5. State your conclusion as to the correctness of the account balances.	________	________

Review of Unusual Entries to Expense Accounts The vast majority of transactions to expense accounts should be debits that are accompanied by purchases of goods or services that can be validated through independent receipts and by independent vendor invoices. The exceptions to this rule are accounts that represent estimates or accounts that are based on a relationship with specific asset or liability accounts such as fixed assets (depreciation) or bonds (interest expense). The auditor should examine the following:

- All credits to expense accounts
- All other unusual entries to the accounts

The auditor should search for independent validation of all unusual entries to expense accounts.

Consider the Fraud

Many auditors use analytical review procedures that compare expenses with previous years. But how do they know the previous year was right? Auditors should use audit software to list all credits to expense accounts and then investigate all material credits to the accounts.

Integrated Audit of Inventory and Cost of Goods Sold

Accounting for inventories is a major consideration for many clients because of its significance to both the balance sheet and the income statement. Inventories are defined as items of tangible personal property that are held for sale in the ordinary course of business, are in the process of production for such sale, or are to be currently consumed in the production of goods or services to be available for sale. Inventory includes such items as steel held for future production of an automobile, electronic goods in a retail store, drugs on shelves in hospitals or pharmaceutical companies, and petroleum products at an oil refining company. Inventory is a complex accounting and auditing area due to the following:

- Variety (diversity) of items in inventory
- High volume of activity
- Various accounting valuation methods
- Difficulty in identifying obsolete inventory and applying the lower of cost or market principle to determine valuation

Consider the Risk

Inventory is usually material, complex, and can be subject to management manipulation.

But the accounting issues are only one component of the audit task. Inventory audits take on added complexity because:

- Inventory is often misstated in fraudulent financial statements or defalcations.
- Inventory is easily transportable.
- Inventory often exists at multiple locations with some locations being remote from the company's headquarters.

- Inventory may become obsolete due to technological advances even though there are no visible signs of wear.
- Defective inventory may appear to be good.
- Proper inventory valuation may be difficult because valuation may be based on a number of different valuation models.
- Inventory is often returned by customers and the company has to properly account for the returns. Care must be taken to separately identify returned merchandise, check it for quality, and record it at net realizable value.
- Product diversity increases the knowledge that the auditor must have about the business in order to address obsolescence and valuation questions.
- Some inventory valuation methods are complex and can be difficult to apply, e.g., various methods to estimate a LIFO inventory.

Internal Controls for Inventory

The auditor usually begins by developing an understanding of the cost components of inventory and how inventory valuation is affected by current market prices. We will concentrate on the inventories of a manufacturing client, because it is the most complex and normally presents the most difficult audit problems. A well-conceived inventory control system should ensure the following:

- All purchases are authorized.
- There is timely, accurate, and complete recording of inventory transactions.
- Receipt of inventory is properly accounted for and independently tested to verify quality in adherence to company standards.
- The cost accounting system is up-to-date; costs are properly identified and assigned to products; and variances are analyzed, investigated, and properly allocated to inventory and cost of goods sold.
- A perpetual inventory system serves as a basis for management reports and to assist in managing inventory.
- All products are systematically reviewed for obsolescence, and appropriate accounting action is taken.
- Management periodically reviews inventory, takes action on excessive inventory, and manages inventory to minimize losses due to technological obsolescence.
- New products are introduced only after market studies and **quality control** tests are made.
- Long-term contracts are closely monitored. Excess purchase requirements are monitored and potential losses are recognized.

Consider the Risk

Inventory is susceptible to overstatement due to loss, theft, or decrease in value through obsolescence or defect.

Key Processes and Risks

Accounting System The accounting system should have the capability to individually identify products and record transactions in a timely fashion. The control procedures should be designed to address the assertions of cutoff, completeness, existence, classification, and accuracy of inventory transactions. Many of the controls will be automated within the computer system and include the following:

- Self-checking digits incorporated into inventory product identification
- Edit tests on all transactions, especially validity, limit, and reasonableness tests
- Automated updating of inventory records as transactions take place
- Periodic testing of the perpetual inventory system
- Periodic management reports on inventory usage, scrap, defects, and reworks
- Authorization and authentication of transactions

Integrated Audit

The auditor will test controls over the processing system that are designed to ensure that all goods are recorded, at correct quantities, in the proper time period, and accounts are updated. If these controls are working properly, the extent of direct testing of account balances can be reduced.

- Independent user testing in the design and/or maintenance of inventory applications
- Other monitoring activities such as aging of inventory by product lines, number of customer complaints received, or disputes with major suppliers regarding quality or timely receipt/payment of goods

Accounting for Returned Items Accounting for customer returns represents a potential problem area. Approved returns should generate a credit memo reducing the customer's accounts receivable balance and debiting the sales returns and allowances account. There should also be a corresponding credit to Cost of Goods Sold for its original cost, a debit to inventory for its net realizable value, and a debit to an expense/loss account for any difference. The auditor must determine the procedures utilized by the company to identify returned merchandise and segregate it from purchased merchandise. Procedures must be in place to determine (a) if the goods can be re-sold as new or scrapped and (b) whether the goods should be reworked and sold or simply scrapped. Major frauds have occurred where companies sold returned goods as if they were new product.

Quality Control Process Effective organizations must have a total quality process that permeates the production and storage functions. The process should identify defective units and either have them reworked on the line or put into scrap. Most companies build quality provisions into supplier contracts, most of which require severe penalties. The auditor should review quality control reports and consider the implications for unrecorded liabilities.

Cost Accounting System Most manufacturing companies use standard cost systems to assist in controlling costs, streamlining accounting, and costing inventory. Valuation of ending inventory is directly affected by the quality of the client's cost system. The auditor should make inquiries about the following:

- The method for developing standard costs
- How recently the standards have been updated
- The method for identifying components of overhead and of allocating overhead to products
- The methods used for identifying variances, following up on their causes, and allocating them to inventory and cost of goods sold

The auditor also tests the procedures of assigning raw material costs to products or cost centers. The auditor should be conversant with activity-based costing systems to determine their appropriateness for allocating costs to products.

An audit program to test the standard cost system is shown in Exhibit 12.6. The program is intended to determine the accuracy and reliability of the standard cost system as a basis for valuing a client's year-end inventory. The audit program assumes a standard cost system, but the concepts implicit in the program could be modified for other systems such as a job cost system. Note that the program requires the auditor to understand the client's business process as well as its standard cost system (including methods of estimating costs). The program also requires analyses of both variances and individual cost assignments.

Existence of an Accurate Perpetual Inventory System A perpetual inventory system allows an organization to know not only the current stock of its inventory, but also to identify products that need to be reordered, products that have not sold for some period of time, and products that might be obsolete. If there is a low risk that the perpetual inventory records are inaccurate, the client may save the time and cost associated with a complete year-end count of inventory.

The auditor will normally test perpetual inventory records to determine that (1) authorized receipts and sales of inventory are recorded accurately and promptly and (2) only authorized receipts and sales of inventory have been recorded.

EXHIBIT 12.6 Audit Program for Standard Cost System

Audit of Standard Cost System

Prepared by ______________________

Reviewed by ______________________

	Performed by	W/P Ref
1. Review previous-year audit documentation for a description of the standard cost system. Inquire about any major changes made in the system during the current year.	________	________
2. Tour the production facilities and make note of cost centers, general layout of the plant, storage of inventory, functioning of the quality control department, and process for identifying and accounting for scrap or defective items.	________	________
3. Examine prior-year audit documentation and current-year variance accounts as a basis for determining the amount of variances identified by the standard cost accounting system. Determine whether the variances imply the need for significant revisions in the standard cost system.	________	________
4. Inquire of the process used to update standard costs. Determine the extent to which revisions have been made during the current year.	________	________
5. Inquire whether significant changes have been made in the production process during the current year, whether major manufacturing renovations have taken place, and whether new products have been added.	________	________
6. Randomly select *X* number of standard cost buildups for products, and for each product buildup selected:	________	________
• Review engineering studies on the cost buildup, noting the items used, amount of product used, and standard cost of the product used.	________	________
• Test the reasonableness of the client's costs by randomly sampling components of product cost and tracing back to purchases or contracts with suppliers.	________	________
• Review payroll records to determine that labor costs are specifically identified by product or cost center and used in calculating variances.	________	________
• Review the reasonableness of the method for allocating overhead to products. Determine whether any significant changes have been made in the method of allocation.	________	________
7. Select a representative sample of products requisitioned into work in process, and determine that all entries are properly recorded.	________	________
8. Review the method for identifying overhead costs. Select a representative sample of expenditure charged to overhead, and trace to underlying support to determine that the costs are properly classified.	________	________
9. Review variance reports. Determine the extent to which the client has investigated and determined the causes of the variances. Determine whether the causes of the variances signal a need to revise the standard cost system.	________	________
10. Inquire about the method used by the client to allocate variances to inventory and cost of goods sold at year end. Determine the reasonableness of the method and its consistency with prior years.	________	________
11. Document your conclusion on the accuracy and completeness of the standard cost system used by the client. Indicate whether the standard costs can be relied on in assigning costs to year-end inventory.	________	________

Integrated Audit

An important control is the periodic testing, or **cycle counting**, of the perpetual inventory records by internal audit or other personnel to determine their accuracy, the need for adjustments, and the cause of any major inaccuracies. The auditor should determine that such counts are taken, corrections are made to the records, and major inaccuracies are investigated and action taken to correct the problem.

Integrated Audit

Good management techniques and good audit procedures are the same. If management does a thorough analysis of obsolescence, the auditor's year-end work can be reduced to corroborating management's analysis.

Consider the Risk

The auditor's knowledge of the business and industry should help the auditor identify obsolete inventory and determine the proper accounting for it.

ACL can help identify old and slow-moving inventory.

The auditor selects transactions from the perpetual record and traces them back to source documents to determine that only authorized transactions have been recorded and that unit costs are accurate. The auditor selects items from the source documents and traces them to the perpetual records to determine that all receipts and sales are recorded accurately and on a timely basis. Finally, support for any material adjustments made to the perpetual records based on physical counts is examined. These tests are summarized as follows:

Testing Perpetual Records Must Address Accuracy from All Angles

Select Sample from	Trace to	Assertions Tested
Perpetual Record	Source Documents	Occurrence, valuation, rights
Source Document	Perpetual Record	Timeliness, completeness
Perpetual Record	Physical Count Records	Accuracy, existence, completeness

Systematic Review for Obsolescence Inventory systems provide a wealth of information for a company to systematically review its inventory for potential obsolescence. Searching for possible obsolescence involves:

- Monitoring turnover or age of products individually or by product lines and comparing the turnover with past performance and expectations for the current period
- Monitoring the impact of competitors' new product introductions
- Comparing current sales with budgeted sales
- Periodically reviewing, by product line, the number of days of sales currently in inventory
- Adjusting for poor condition of inventory, reported as part of periodic cycle counts
- Monitoring sales for amount of product markdown and periodic comparison of net realizable value with inventoried costs
- Reviewing current inventory in light of planned new product introductions

Substantive Tests of Inventory and Cost of Goods Sold

The assertions and audit procedures that would be used to gather evidence for a typical manufacturing company are presented in Exhibit 12.7 and discussed in more detail.

Existence Generally accepted auditing standards require auditors to observe the client taking physical inventory to see if they are doing a good job of counting the inventory and to physically examine the inventory. This may be done in its entirety at year end or on a cycle basis throughout the year.

Complete Year-End Physical Inventory Not many years ago, it was standard procedure for most organizations to shut down operations at year end or near year end to take a complete physical inventory. The client's book inventory was adjusted to this physical inventory (often referred to as the *book to physical adjustment*). These procedures are still followed by many small clients that use a periodic inventory system, or where the perpetual records are not sufficiently reliable, or where there are fraud risk indicators.

If a year-end inventory is taken, the auditor should (1) observe the client taking inventory to determine the accuracy of the procedures; (2) make selected test counts that can later be traced into the client's inventory compilation; (3) test the client's inventory compilation by tracing test counts to the compilation, and independently test the client's computation of extended cost; and (4) look for evidence of slow-moving, obsolete, or damaged inventory that may need to be written down to lower of cost or market.

The auditor should review the client's plan to count inventory and plan to observe the client's count. The overall procedures for observing the conduct of the

EXHIBIT 12.7 Typical Manufacturing Company Assertions and Audit Procedures for Inventory

Assertions	Audit Procedures
Existence	1. Review the client's proposed physical inventory procedures to determine if they are likely to result in a complete and correct physical inventory. 2. Observe the client's count of the annual physical inventory. Perform test counts of the observations and trace to the client's compilation of inventory. (**Alternative Procedure**) Randomly select items from the client's perpetual inventory record and observe (count) the items on hand. Sample should emphasize high-dollar-value items.
Completeness	1. Perform year-end cutoff tests by noting the last shipping and receiving document numbers used before physical inventory is taken. Review the purchase and sales journal for a period of time shortly before and after year end, noting the shipping and receiving document numbers to determine whether the goods are recorded in the proper time period. 2. Make inquiries of the client regarding the potential existence of goods on consignment or located in outside warehouses. For material items, either visit the locations or send a confirmation to the outside warehouse management. 3. Make inquiries of the client regarding allowances made for expected returns. Determine client policy for accounting for returned items. Review receipt of transactions for a selected period of time to determine whether significant returns are received and appropriately accounted for.
Rights	1. Review vendor invoices when testing disbursements to determine that proper title is conveyed. 2. Review sales contracts to determine whether the customer has rights to return merchandise, and whether the rights are such that recognition of a sale might not be appropriate.
Valuation	1. Determine whether the valuation method is appropriate for the client. 2. Inquire of production and warehouse personnel about the existence of obsolete inventory. 3. Note potentially obsolete inventory while observing the physical inventory counts. Trace the potentially obsolete items to the client's inventory compilation, and determine whether they are properly labeled as obsolete items. 4. Test inventory cost by taking a sample of recorded inventory, and trace to source documents including: • Tracing raw material purchases to vendor invoices • Testing standard costs as built up through the standard cost system (see Exhibit 11.6) 5. Test for the possibility of obsolete inventory that should be written down to market value: • Review trade journals for changes in product technology. • Follow-up potentially obsolete items noted during observation of the client's physical inventory counts. • Use generalized audit software to read the inventory file and age the inventory items and compute inventory turnover. Investigate products with unusually low turnover or items that have not been used or sold for an extended period of time. • Inquire of the client about sales adjustments (markdowns) that have been offered to sell any products. • Verify sales price by reviewing recent invoices to determine whether the sales price is the same as included on the computer file. Use generalized audit software to compute net realizable value for inventory items, and prepare an inventory printout for all items where net realizable value is less than cost. • Analyze sales by product line, noting any significant decreases in product-line sales. • Review purchase commitments for potential loss exposures. Determine whether contingent losses are properly disclosed or recorded. • Use audit software to test extensions and prepare a printout of differences. • Use audit software to foot the inventory compilation. Trace the total to the trial balance.
Disclosure	1. Review client's financial statement disclosure of: • Inventory valuation methods used • FIFO cost figures and LIFO liquidation effects if LIFO is used • The percentage of inventory valued by each different valuation method • The classification of inventory as to raw material, work in process, and finished goods • The existence of contingent losses associated with long-term contracts or purchase commitments • Inventory policy regarding returns and allowances, if expected to be material, for merchandise expected to be returned

EXHIBIT 12.8 Procedures for Observing a Client's Physical Inventory

1. Meet with the client to discuss the procedures, timing, location, and personnel involved in taking the annual physical inventory.
2. Review the client's plans for counting and tagging inventory items.
3. Review the inventory-taking procedures with all audit personnel. Familiarize them with the nature of the client's inventory, potential problems with the inventory, and any other information that will ensure that the client and audit personnel will properly recognize inventory items, high-dollar-value items, and obsolete items, and understand potential problems that might occur in counting the inventory.
4. Determine whether specialists are needed to identify, test, or assist in correctly identifying inventory items.
5. Upon arriving at each site:
   a. Meet with client personnel, obtain a map of the area, and obtain a schedule of inventory counts to be made for each area.
   b. Obtain a list of sequential tag numbers to be used in each area.
   c. Observe the procedures the client has implemented to shut down receipt or shipment of goods.
   d. Observe that the client has shut down production.
   e. Obtain document numbers for the last shipment and receipt of goods before the physical inventory is taken. Use the information to perform cutoff tests.
6. Observe the counting of inventory and note the following on inventory count working papers:
   a. The first and last tag number used in the section.
   b. Account for all tag numbers and determine the disposition of all tag numbers in the sequence.
   c. Make selected test counts and note the product identification, product description, units of measure, and number of items on a count sheet.
   d. Items that appear to be obsolete or of questionable value.
   e. All high-dollar-value items included in inventory.
   f. Movement of goods into or out of the company during the process of inventory taking. Determine if goods are properly counted or excluded from inventory.
7. Document your conclusion as to the quality of the client's inventory-taking process, noting any problems that could be of audit significance. Determine whether a sufficient inventory count has been taken to properly reflect the goods on hand at year end.

client's physical inventory are shown in Exhibit 12.8. The process assumes that the client systematically arranges the inventory for ease of counting and attaches prenumbered tags (paper or electronic) to each group of products. Supervisory personnel (usually from the accounting department) and the auditors review the counts. The count tags are then used to compile the year-end physical inventory. During the counting process, the client arranges not to ship or receive goods, or to segregate all goods received during the process to be labeled and counted as "after inventory."

Consider the Risk

The auditor is sometimes pressured by management to omit the physical verification of inventory. If risk is high, the detailed counting and analysis of inventory are both a good audit technique and a valuable management procedure.

The auditor walks through the inventory areas, documenting the first and last tag numbers used, as well as tag numbers not used. The auditor also performs the following tasks:

- Makes test counts of selected items and records the test counts for subsequent tracing into the client's inventory compilation
- Makes notations of all items that appear to be obsolete or are in questionable condition; the auditor follows up on these items with inquiries of client personnel and retains the data to determine how they are accounted for in the inventory compilation
- Observes the handling of scrap and other material
- Observes whether there is any physical movement of goods during the counting of the inventory
- Records all high-dollar-value items for subsequent tracing into the client's records

The notation of high-dollar-value items is a check against potential client manipulation of inventory by adding new items or adjusting the cost or quantities of existing items after the physical inventory is completed. Because high-dollar-value items are noted, the auditor can systematically review support for major items included on the final inventory compilation that were not noted during the physical inventory observation. An example of audit problems that can occur when such procedures are not followed can be seen in the CMH case, described in the *Auditing in Practice* feature.

AUDITING IN PRACTICE

Inventory Observation—The Case of CMH

CMH was an SEC-registered company that went bankrupt after it had materially misstated its financial statements for a number of years. It inflated the reporting of its physical inventory by 50% during two years prior to its bankruptcy. The fraud was perpetrated by "(1) altering the quantities recorded on the pre-numbered, two-part inventory tags used in counting the inventory; (2) altering documents reflected on a computer list prepared to record the physical count of inventory; and (3) creating inventory tags to record quantities of nonexistent inventory."

The SEC asserted that the auditors should have detected the fictitious inventory, but did not because the audit firm "left the extent of various observation testing to the discretion of auditors, not all of whom were aware of significant audit planning that should have related directly to the extent of such testing. Observation of inventory counts at year end was confined to six locations (representing about 40% of the total CMH inventory) as opposed to nine in the preceding year. The field auditors did not adequately control the inventory tags and the auditor did not detect the creation of bogus inventory tags which were inserted in the final inventory computations." The SEC was also critical of the CPA firm for assigning interns to a significant portion of the inventory observation without training them in the nature of the client's inventory or its counting procedures.

Source: R. W. V. Dickenson, "Why the Fraud Went Undetected," *CA Magazine*, April 1977, 67–69.

Once the inventory is taken, the auditor's observations and test counts provide an independent source of evidence on the correctness of the client's inventory compilation. Noting the unused tag numbers prohibits the insertion of additional inventory items. The auditor's notation of potentially obsolete items can be used to determine whether the client has properly written the goods down to their net realizable value.

ACL can search the perpetual inventory records, identifying the high-dollar-value items, and select a sample to test count and/or to perform a price test.

Multiple Locations Many organizations have multiple locations, thus making the taking of an annual inventory difficult. As an example, one major company beset by fraud, Phar-Mor, Inc., had over 300 stores scattered across the country. The auditors insisted that a year-end physical count be taken, but notified the client that the auditors would observe the taking of inventory at only a few select locations. To expedite the observation of inventory, the auditor worked with the client and identified the locations that would be observed. Although there was a massive misstatement of inventory by Phar-Mor, Inc., the misstatement was not discovered by the auditors because the company made sure that no material misstatements occurred at the locations visited by the auditors.

When multiple locations contain inventory, the auditor should review other locations to determine that they are comparable and should use analytical procedures to see if the locations not visited seem to have inventory levels that are significantly different from those observed. If there are significant differences, the auditor may need to observe more locations, or at least follow-up with other procedures.

Practical Point

If controls are sufficiently poor and risk sufficiently high to justify the taking of a year-end inventory, the locations to be visited by the auditor should not be known to the client. Otherwise, the client can concentrate on getting those locations corrected.

Observing Inventory Prior to Year End Many organizations that take an annual physical inventory find that year end is not the most convenient time to take inventory. For example, the company may have a natural model changeover and shut down operations during that time. Or it may want to take the physical inventory shortly before or after year end to expedite the preparation of year-end financial statements. It is acceptable to have the client take inventory before or after year end, provided that:

- Internal control is good.
- There is an absence of "red flags" that might indicate both opportunity and motivation to misstate inventory.
- The auditor can effectively test the year-end balance through a combination of analytical procedures and selective testing of transactions between the physical count and year end.
- The auditor reviews the intervening transactions for evidence of any manipulation or unusual activity.

Inventory at Customer Locations As companies move toward innovative partnerships with their suppliers and customers, more agreements such as the one described earlier between Wal-Mart and Levi's Jeans will take place. The auditor will need to determine that the client has a sound methodology to determine the amount of inventory that is physically stored at a customer's location. Many times the client will have monitoring controls with which they examine existing inventory at the customer's locations and compare it to the perpetual records. If controls do not exist, the auditor will need to consider other methodologies, which might include (a) confirming amounts with amounts that the customers show were received, (b) examining subsequent payments from customers, or (c) examining a sample of items.

ACL can summarize the amount of inventory by location.

It is not sufficient for a company to just assert that its inventory is held by another company. The auditor must examine the contract, determine the existence of controls, and examine documentation of reconciliations between trading partners, cash remittances, and so forth. If there are red flags present, the auditor must go beyond these procedures and talk with the trading company and obtain information on the amount of the client's inventory the trading partner shows on hand. Finally, the auditor needs to develop assurance that the trading partner is a real company.

Consider the Risk

Good internal control requires less audit work and usually lower audit fees for the client.

Sample Physical Inventory If internal controls are strong, the client may concentrate on testing the accuracy and completeness of the perpetual records by (1) counting all inventory at least once during the year or (2) using statistical sampling to select items to be physically counted. The exact approach and its timing depend on the control environment and sophistication of the perpetual inventory system of the client. If the client uses statistical sampling, the auditor should review to ensure the approach is reasonable and statistically valid. The auditor must be present to observe such counts as are deemed necessary and must be satisfied with the effectiveness of the counting procedures used.

Completeness The auditor normally performs a cutoff test of receipts and shipments of inventory at year end to determine that all items are recorded in the correct time period. The cutoff test is usually accomplished by capturing information on the last items shipped and received at year end and examining samples of transactions recorded in the sales and purchases journals near year end; or using ACL to determine whether all items are recorded in the correct time period. The software can be used to match shipping dates and billing dates if the files containing that information have been tested for accuracy. The auditor should also inquire about any inventory out on consignment or stored in a public warehouse and consider confirming its existence.

Practical Point

The auditor must consider the materiality of needed audit adjustments in formulating an opinion on the company's internal control over financial reporting. The existence of numerous cutoff errors indicates a weakness in internal controls.

> *Cutoff Example*—A sale of $100 is recorded on December 30 for a product costing $80 that is not shipped until the next month. If a physical count of inventory is taken on December 31, this product will be included in the physical count, which will exceed the quantity shown in the perpetual records. The perpetual inventory record will need to be adjusted to the actual count, and Cost of Goods Sold will need to be corrected. Unless corrected, sales, gross profit, and pretax income are overstated by the full $100. The client can correct this by reversing the Sales entry.

Allowance for Returns In most situations, the expected amount of returns is not material. However, some companies (e.g., mail-order companies including Lands' End or L.L. Bean) provide return guarantees and expect significant returns—especially after year-end Christmas sales. They can use previous experience, updated for current economic conditions, to develop estimates of returns. When such returns are material to the overall financial presentation, allowances for returns should be established and the gross profit on the original sale reversed. The allowance is not restricted to mail-order companies but should be considered when a company is experiencing a large volume of returns.

Rights Most of the audit work regarding rights to and ownership of inventory is addressed during the auditor's test of the initial recording of purchases. The auditor should also review long-term contracts to determine obligations to take delivery of merchandise, customer rights to return merchandise, or buy-back obligations. Inquiries should be made concerning any inventory held on consignment.

Valuation Valuation is the most complex assertion related to inventory because of the volume of transactions, diversity of products, variety of costing methods, and difficulty in estimating net realizable value of products. A combination of direct tests and analytical procedures is used to estimate inventory valuation. The auditor should verify the correct cost of inventory and then test for lower of cost or market valuation. Usually the cost part of the valuation assertion is tested by looking at underlying invoices and/or supporting cost records. The auditor usually examines current market data and other information that might indicate a drop in sales price or potential inventory obsolescence.

Direct Tests of Product Costs Statistical sampling techniques, especially probability proportional to size (PPS) sampling, should be used to select items for testing. Then, the auditor should examine underlying supporting documentation, e.g., invoices to determine that the cost is recorded correctly. As an example, assume that the auditor selected product YG350 to test the valuation of the perpetual inventory record as follows:

PRODUCT YG350

	TOTAL		BALANCE	
Transaction	**Quantity**	**Cost**	**Quantity**	**Dollars**
Beginning balance			100	$1,000
3/1 Purchase	50	550	150	1,550
6/1 Purchase	100	1,200	250	2,750
6/1 Sale	150	1,550	100	1,200
9/1 Purchase	50	500	150	1,700
10/1 Sale	25	275	125	1,425
12/1 Sale	50	600	75	825
12/1 Purchase	75	975	150	1,800

Assume also that the client uses the FIFO inventory valuation method and has a year-end balance of $1,800 with 150 items in inventory. Vendor invoices would be examined for the purchases of the last 150 items (12/1, 9/1, and 6/1) to determine whether $1,800 was the correct cost. (*Note:* You should verify that the recorded cost should have been $1,775.)

Any differences noted between vendor invoices and recorded amounts should be identified as an error and should be projected to the population as a whole using PPS sampling to determine whether they might be material. Similar tests should be performed if the company uses other valuation methods, such as average cost or LIFO. If the company uses a standard cost system, the costs are verified by tests of the cost system and by tracing the selected items to standard costs. Significant variances should be allocated between Cost of Goods Sold and Inventory.

Tests for Obsolete Inventory (Net Realizable Value Tests) Determining the amount that should be written off because of obsolescence is a difficult and challenging audit task because (1) the client will usually state that most of the goods are still salable at current selling prices, and (2) net realizable value is only an estimate (i.e., there is no specific, correct price at which inventory should be valued). Thus the auditor attempts to gather evidence on potential

inventory obsolescence from a number of corroborating sources, including the following:

- Noting potential obsolete inventory when observing the client's physical inventory
- Calculating inventory turnover, number of days' sales in inventory, date of last sale or purchase, and other similar analytic techniques to identify potential obsolescence
- Calculating net realizable value for products by referring to current selling prices, cost of disposal, sales commissions, and so on
- Monitoring trade journals and the internet for information regarding the introduction of competitive products
- Inquiring of management about its approach to identifying and classifying obsolete items

Practical Point

The audit approach to obsolescence cannot strictly be mechanistic (ratios etc.). Rather, the auditor must know the company, its competitors, the market power of the company, industry trends, and the current economic conditions affecting product sales as if it were the auditor's own company. Then the auditor has better insight to complement the objective evidence identified earlier to make reasonable estimates of obsolescence.

Generalized audit software (GAS) is often used to assist in estimating obsolescence. GAS can be used to:

- Calculate turnover and report items with unusually slow turnover.
- Age inventory and develop a report on inventory that has not been used or sold for an extended period of time.
- Calculate net realizable value by comparing current net selling price with costs and reporting any differences.

Auditors often investigate items that appear to be obsolete by reviewing sales subsequent to year end and discussing future sales prospects with management.

Disclosure The auditor reviews the client's proposed disclosure for compliance with the guidelines established by GAAP. In addition to the normally required inventory disclosures, the auditor must identify any unusual circumstances regarding sales or purchase contracts that would merit additional disclosure. An example of a typical inventory disclosure for Johnson & Johnson Company is shown in Exhibit 12.9.

Cost of Goods Sold The audit of cost of goods sold can be directly tied to the audit of inventories. If beginning and ending inventory have been verified and acquisitions have been tested, cost of goods sold can be directly calculated. The auditor should apply analytical techniques to cost of goods sold, however, to determine if there are any significant variations—either overall or by product line. Significant variations, especially those that cannot be easily explained, might indicate a need for further inventory work. Regression analysis can be used to compare the historical

EXHIBIT 12.9 Typical Inventory Disclosure

Johnson & Johnson Inventory Footnote

Note 1. Significant Accounting Policies

Inventories

Inventories are stated at the lower of cost or market determined by the first-in, first-out method.

Note 2. Inventories

At the end of 2007 and 2006, inventories were composed of:

(Dollars in millions)	2007	2006
Raw materials and supplies	$ 770	$ 655
Goods in process	489	417
Finished goods	1,594	1,444
	$2,853	$2,516

relationships between sales and cost of goods sold by product line by month with the current year. Outliers should then be investigated further.

Summary

Audits of the acquisition cycle, expense accounts, inventory, and cost of goods sold are highly interrelated. The Inventory and Cost of Goods Sold accounts have been the subject of various manipulation schemes ranging from outright addition of fictitious inventory, movement of inventory from one location to another, recognition of defective items as good items, capitalizing costs that should be expensed, and failure to recognize decreases in market value due to technological changes. The extent of work the auditor performs depends heavily on the client's control environment. When control risk is assessed as high, the auditor extends the work on inventory. On the other hand, management of many well-run companies has realized that it must have accurate accounting controls over the inventory and disbursements if the company is to operate profitably. In such situations, the audit work can concentrate on testing the client's control system and corroborating the analysis with analytical procedures of cost of goods sold and selected testing of the perpetual inventory records.

Significant Terms

automated matching A process by which the computer matches a purchase order, receiving information, and a vendor invoice to determine whether the vendor's invoice is correct and should be paid.

cycle count Periodic testing of the accuracy of the perpetual inventory record by counting all inventory on a cyclical basis.

quality control An approach by an organization to ensure that high-quality products are produced and high-quality services are provided. The approach specifies quality requirements for processes and products and integrates those concepts into vendor contracts.

requisition A request for the purchase of goods or services by an authorized department or function within the organization; may be documented on paper or in a computer system.

Review Questions

12-1 What is supply-chain management? What key issues are usually included in agreements between suppliers and their customers to bring efficiencies to the process and ensure control?

12-2 What significant controls will a company such as General Motors implement in a partnering arrangement with a major supplier to ensure that all goods received are (a) properly accounted for, (b) of good quality, (c) within acceptable delivery and quality terms, and (d) paid for properly? Explain how the auditor would evaluate the effectiveness of each control.

12-3 What are the important attributes of good supply-chain management and how do those attributess affect the audit of accounts payable and inventory?

12-4 How might a company understate expenses?

12-5 How can cross-sectional analysis help the auditor identify potential inventory misstatements for a multi-location retail client?

12-6 Identify the major phases of the acquisition cycle and the control objectives that should be addressed in the design of controls for each phase.

12-7 Identify the different ways in which the requisition process might be implemented. For each method, indicate how the requisition is authorized and the evidence the auditor would gather to determine authorization.

12-8 Why should the function of requisitioning the purchase of goods be segregated from the function of issuing purchase orders?

12-9 How does an automated receiving function differ from a traditional manual receiving function? How do the controls differ in the automated function? What controls does the auditor normally find most useful in reviewing the control over an automated receiving function?

12-10 Assume that prenumbered receiving documents are not used in an organization that has attempted to automate much of the purchase and receiving function. What control objective is addressed by having prenumbered receiving documents? What compensating controls should the auditor expect to find when prenumbered receiving documents are not used?

12-11 Many organizations use the computer to generate purchase orders. Who is responsible for a purchase when the computer generates the purchase order? How does the responsible individual ensure that computer-generated orders are correct and are generated only for purchases that should be made?

12-12 Explain how an automated matching process works regarding the payment of accounts payable. What controls need to be implemented in the automated matching process to ensure that only authorized payments are made for goods and services actually received, and that payments are made at the authorized prices?

12-13 A client with just-in-time inventory does not formally receive goods, but unloads supplies from the railroad car directly into the production line. The client has a long-term contract with the supplier specifying delivery terms, quality requirements, and penalties for noncompliance. The vendor is paid based on production achieved during the month. The auditor is concerned that accounts payable is properly stated at the end of the period. How would the auditor gather evidence to satisfy him or herself that the accounts payable is properly recognized for vendors that are part of the just-in-time system?

12-14 What important controls would an auditor expect to find in an accounts payable environment when payments are automatically scheduled and checks or electronic transfers of cash are generated by the computer program?

12-15 Why does much of the audit work in the acquisition cycle focus on tests of transactions rather than year-end tests of account balances?

12-16 What objectives are addressed by accounts payable confirmations? What form is used for accounts payable confirmations? Explain why accounts payable confirmations are often not used on an audit.

12-17 What assumptions must hold true if the auditor chooses to test the completeness of accounts payable by examining subsequent disbursements and reviewing open accounts payable? What options exist to discover unrecorded accounts payable?

12-18 What information should an auditor gather in reviewing long-term purchase contracts or long-term supply contracts? How might the information affect the audit?

12-19 The auditor often examines some expense accounts, such as legal expenses, in detail even if the account balance is not material. Explain why.

12-20 Why does the auditor examine travel and entertainment expenses? What would poor controls regarding executive reimbursements say about the "tone at the top" for purposes of evaluating and reporting on internal control?

12-21 How might the auditor effectively use analytical procedures in the audit of various expense accounts, such as miscellaneous expenses? Give an example of how analytical procedures might be used in the audit of such accounts.

12-22 An auditor has been assigned to audit the accounts payable of a high-risk audit client. Control risk is assessed as high, management integrity is marginal, and the company is near violation of important loan covenants, particularly one that requires the maintenance of a minimum working-capital ratio. Explain how the auditor should approach the year-end audit of accounts payable.

12-23 What factors contribute to the complexity of inventory audits?

12-24 Explain why self-checking digits are an important control procedure found in computerized inventory systems. What potential errors are prevented by the use of self-checking digits?

12-25 Why is it important that the standard cost system be audited? How would the auditor test the standard cost system to determine that payroll expenses are appropriately charged to products?

12-26 Why is it important that a quality control function be used for receiving important inventory items? What is the financial statement risk if a manufacturing client does not use such a function?

12-27 During observation of the client's year-end inventory, the auditor notes that shipping document 8702 was the last shipment for the year, and that receiving report 10,163 was the last receiving slip for the year. Explain how the information gathered would be used in performing an inventory cutoff test.

12-28 The Northwoods Manufacturing Company has automated its production facilities dramatically during the last five years, to the extent that the number of direct-labor hours has remained steady while production has increased fivefold. Automated equipment, such as robots, has helped increase productivity. Overhead, previously applied at the rate of $7.50 per direct-labor hour, is now being applied at the rate of $23.50 per direct-labor hour. Explain how you would evaluate the reasonableness of the application of factory overhead to year-end inventory and cost of goods sold.

12-29 During the observation of a client's physical inventory count, the auditor noted that the client had changed the numbering system used to identify inventory products. In your observations, you discovered several errors in the product numbers recorded on inventory tags and brought the errors to the attention of the supervisor, who corrected every one that you noted. The auditor also noted that the count of inventory items was highly accurate. How would these findings affect the year-end audit of inventory?

12-30 The auditor has always received good cooperation from a particular client and has been willing to share information about the audit with the controller on a timely basis. The controller has requested copies of the auditor's observations on the physical inventory because she wants to ensure that a good inventory was taken. Should the auditor comply with this request? State your rationale.

12-31 The auditor has been assigned to the audit of Marathon Oil Company and will observe the testing of inventory at a major storage area in Ohio. The company has approximately 15 different types of fuel oils

stored in various tanks. The value of the fuel varies dramatically according to its grade. Explain how the auditor might use a specialist in auditing the inventory.

12-32 Assume that customers are allowed to return merchandise that is defective or that they simply did not like. What is the proper accounting for the returns? What control procedures should be implemented to ensure that all returned items are properly recorded?

12-33 The auditor is always concerned that slow-moving or potentially obsolete inventory is included in inventory, and that the goods should be reduced to a lower market value. Identify five procedures the auditor might use to determine the existence of obsolete goods or goods whose market value is less than cost.

12-34 During the audit of inventory, you note that the client had generated substantial cost and material variances. The client explains that many of the variances were due to irregular production schedules, heavy overtime for the summer period, and lighter production during other times of the year. The controller has allocated the variances (all negative) to Finished Goods and Work in Process Inventory, based on the relative proportion of each inventory category. Comment on the appropriateness of the allocation method used by the controller.

12-35 Explain the procedures the auditor would use to verify the cost of inventory, assuming the client uses the following valuation approaches:
a. FIFO valuation on a periodic inventory basis
b. LIFO based on an index of FIFO cost computed each year and then used to adjust the inventory to LIFO
c. Average cost on a perpetual inventory basis

12-36 Explain how ACL could be used to help identify potentially obsolete inventory.

12-37 Explain the purpose of the test counts and other inventory observations that the auditor notes while a physical inventory is being taken. Explain how each written observation is used in completing the audit of inventory.

12-38 What financial statement disclosures are required for inventory? How does the auditor determine the adequacy of the client's financial statement disclosures?

12-39 Identify two audit approaches that might be used to gain assurance about the correctness of perpetual inventory records.

Multiple-Choice Questions

12-40 Auditors use analytical procedures to help identify potential misstatements in inventory. Which of the following would not be useful for this purpose?
a. Calculating inventory turnover
b. Aging inventory
c. Comparing the percent change in inventory with the percent change in sales
d. All of the above would be useful.

***12-41** The auditor's analytical procedures are facilitated if the client:
a. Uses a standard cost system that produces variance reports
b. Segregates obsolete inventory before the physical inventory count

* All problems marked with an asterisk are adapted from the Uniform CPA Examination.

c. Corrects reportable conditions in internal control before the beginning of the audit
d. Reduces inventory balances to the lower of cost or market

12-42 Which of the following controls would be most effective in ensuring that recorded purchases are free of material errors?
a. The receiving department compares the quantity ordered on purchase orders with the quantity received, indicated on receiving reports.
b. Vendors' invoices are compared with purchase orders by an employee who is independent of the receiving department.
c. Receiving reports require the signature of the individual who authorized the purchase.
d. Accounts payable personnel match purchase orders, receiving reports, and vendors' invoices before approval for payment.

***12-43** Which of the following procedures in the cash disbursements cycle should not be performed by the accounts payable department?
a. Comparing the vendor's invoice with the receiving report.
b. Canceling supporting documentation after payment.
c. Verifying mathematical accuracy of the vendor's invoice.
d. Approving the invoice for payment.

***12-44** To determine whether accounts payable are complete, an auditor performs a test to verify that all merchandise received is recorded. The population of documents for this test consists of all:
a. Vendors' invoices
b. Purchase orders
c. Receiving reports
d. Canceled checks

12-45 Tracing debits from the inventory account to receiving reports and purchase orders provides evidence that:
a. All receipts of merchandise were properly recorded.
b. Recorded inventory purchases were for goods received and were properly authorized.
c. All vendor invoices have been properly recognized as a purchase and payable.
d. Inventory is not understated.

***12-46** After accounting for a sequence of inventory tags, an auditor traces a sample of tags to the physical inventory list and reconciles the sequences counted to the inventory list to obtain evidence that all items:
a. Included in the list have been counted
b. Represented by inventory tags are included in the list
c. Included in the list are represented by inventory tags
d. Represented by inventory tags are bona fide

***12-47** Which of the following is not one of the independent auditor's objectives regarding the examination of inventories?
a. Verifying that inventory counted is owned by the client
b. Verifying that the client has used proper inventory pricing
c. Ascertaining the physical quantities of inventory on hand
d. Verifying that all inventory owned by the client is on hand at the time of the count

***12-48** The auditor tests the quantity of materials charged to work in process by tracing these quantities from the work-in-process accounts to:
a. Cost ledgers
b. Perpetual inventory records
c. Receiving reports
d. Material requisitions

*12-49 Which of the following audit procedures is best for identifying unrecorded trade accounts payable?
a. Examining unusual relationships between monthly accounts payable balances and recorded cash payments
b. Reconciling vendors' statements to the file of receiving reports to identify items received just before the balance sheet date
c. Reviewing cash disbursements recorded subsequent to the balance sheet date to determine whether the related payables apply to the prior period
d. Investigating payables recorded just before and just after the balance sheet date to determine whether they are supported by receiving reports

Discussion and Research Questions

12-50 **(Analytical Procedures)** One of your audit clients manufactures fishing boats and sells them all over the country. Boats are sold to dealers who finance their purchases on a floor-plan basis with their banks. The dealer's banks usually pay your client within two weeks of shipment. The company's profits have been increasing over the past several years. You have obtained the following information related to your 2007 audit ($ in millions):

	2007	2006*	2005*	2004*	2003*	Major Competitor (2007)
Inventory	16.0	10.0	7.2	5.5	5.1	13.9
Sales	84.7	77.9	56.8	43.6	39.8	110.3
Cost of Goods Sold	65.9	64.7	46.6	36.2	32.6	92.0

* Audited

Required
a. Calculate the following ratios for each year and the competitor:
(i) Gross margin as a percent of sales.
(ii) Inventory turnover.
b. Suggest possible explanations for any unexpected results.
c. What inquiries and follow-up audit procedures might be performed to determine the accuracy of the client's data?

12-51 **(Automated Receiving Function)** Hodag Company has automated its receiving function as follows:
1. A receiving supervisor accesses an open purchase order file, listed by vendor, to determine whether a shipment should be accepted. If the shipment is not on the open order list, the supervisor must obtain permission from a purchasing agent before the shipment can be accepted.
2. Most items are accepted, opened, and counted. The counts are entered on paper documents that are copies of the purchase order with the quantity ordered blocked out. The document is batched in the receiving office, and all items are input by a clerk.
3. An automated scanner reads selected items, but the boxes are not opened. The computerized scanning count is automatically recorded on the receiving document. If differences are noted between the scanning from the outside of the carton and the actual contents when opened, an adjusting document is prepared and sent to accounts payable and the purchasing agent.
4. A quality control department selectively tests goods before they are put into production. Any defective items are noted and a document is sent to accounts payable and the purchasing agent, and the goods are marked for return. The goods are not returned to the vendor, however, unless specifically authorized by the purchasing agent.

5. The receiving document contains information on who should pay freight. If the shipment comes with freight due, the receiving department is authorized to make the payment. Where applicable, the receiving department prepares a chargeback notice for the freight and forwards it to the purchasing agent and accounts payable.

Required

a. What additional computerized control procedures would the auditor expect to be implemented in the system described?
b. What risks are present in the system as described? What additional controls, or improvements in controls, might be implemented to lessen the risks?
c. What audit procedures might the auditor use to ensure that goods are accepted and paid for only when the purchase is authorized and that the payments are for the correct quantity and correct price?

12-52 **(Potential Fraud in Purchasing Function)** Assume the internal auditor has assessed that the potential is high that some purchase agents are involved in a kickback scheme with vendors who have received preferential treatment. The purchasing agents are receiving gifts or cash payments directly from the vendors for steering new contracts their way, or negotiating purchase prices higher than could be obtained elsewhere. The auditor has limited, but as yet unverified, information that some specific purchasing agents have been living a rather lavish lifestyle.

Required

a. What controls would be effective in preventing kickback schemes?
b. What audit procedures might be used to determine whether the purchase agents might be involved with kickback schemes? Be specific in your procedures. Identify all evidence to be gathered (internal and external), populations from which you will sample, and the specific documentations you will examine.

12-53 **(Expense Fraud)** Each year Susan Riley, president of Bargon Construction, Inc., takes a three-week vacation to Hawaii and signs several checks to pay major bills during the period she is absent. Riley's vacation often occurs near the end of Bargon's fiscal reporting period because it is a slack time for the construction business. Jack Morgan, head bookkeeper for the company, uses this practice to his advantage. He makes out a check to himself for the amount of a large vendor's invoice and records it as a payment to the vendor for the purchase of supplies. He holds the check for several weeks to make sure the auditors will not examine the canceled check. Shortly after the first of the year, Morgan resubmits the invoice to Riley for payment approval and records the check in the cash disbursements journal. At that point, he marks the invoice as paid and files it with all other paid invoices. Morgan has been following this practice successfully for several years and feels confident that he has developed a foolproof fraud.

Required

a. What is the auditor's responsibility for discovering this type of embezzlement?
b. What weaknesses exist in the client's internal controls?
c. What audit procedures are likely to uncover the fraud?

‡12-54 **(Organization of Acquisition Function)** The organization structure of a manufacturing firm includes the following departments: purchasing, receiving, inspecting, warehousing, and controllership. An internal auditor is assigned to audit the receiving department. The preliminary survey reveals the following information:

1. A copy of each purchase order is routinely sent to the receiving department by the purchasing department. Intracompany e-mail is

‡ All problems marked with a dagger are adapted from the Certified Internal Auditor Examination.

used for the notification followed by the physical copy via regular intracompany mail. Each purchase order is filed by purchase order number. In response to a job enrichment program, everyone in the receiving department is authorized to file the purchase orders. Whoever happens to be available when the company mail is received is expected to file any purchase orders it contains.

2. When a shipment of goods is delivered to the receiving dock, the shipper's invoice is signed and forwarded to the controller's office, the vendor's packing slip is filed in receiving by vendor name, and the goods are stored in the warehouse by receiving personnel. In response to a job enrichment program, all persons in the receiving department have been trained to perform all three activities independently. Whoever happens to be available when a shipment arrives is expected to perform all three of the activities associated with that shipment.

Required

a. What are the major deficiencies and inefficiencies in the process as described?
b. How could the process be improved? First, consider the need for strategic production and suppliers. Second, consider how greater computerization could improve the process.
c. Why is it important to have segregation between the purchasing, receiving, and payment functions? How is that segregation maintained when all three functions are automated?
d. Assume the purchasing and receiving function operates as described. What would your assessment be of control risk? What are the implications for substantive testing of the related account balances? Describe the substantive procedures the auditor should consider for inventory, expenses, payables, and other related accounts.

***12-55 (Accounts Payable)** Paul Mincin, CPA, is the auditor of Raleigh Corporation. Mincin is considering the audit work to be performed in the accounts payable area for the current-year engagement. The prior-year documentation shows that confirmation requests were mailed to 100 of Raleigh's 1,000 suppliers. The selected suppliers were based on Mincin's sample that was designed to select accounts with large dollar balances. Mincin and Raleigh staff spent a substantial number of hours resolving relatively minor differences between the confirmation replies and Raleigh's accounting records. Alternative audit procedures were used for those suppliers who did not respond to the confirmation requests.

Required

a. Identify the accounts payable audit objectives that Mincin must consider in determining the audit procedures to be followed.
b. Identify situations in which Mincin should use accounts payable confirmations, and discuss whether he is required to use them.
c. Discuss why the use of large dollar balances as the basis for selecting accounts payable for confirmation might not be the most effective approach, and indicate what more effective procedures could be followed when selecting accounts payable for confirmation.

12-56 (Audit Procedures and Objectives) The following audit procedures are found in audit programs addressing the acquisition and payment cycle.

Required

For each audit procedure described:

a. Identify the objective of the procedure or the audit assertion being tested.
b. Classify the procedure as primarily a substantive test, a test of controls, or both.

Audit Procedures

1. The auditor examines payments to vendors following year end and then reviews any open accounts payable files.
2. The auditor reviews computer-center records on changes to passwords and the client's procedures to monitor unusual amounts of accesses by password type. The auditor makes inquiries of purchasing agents about how often passwords are changed, and whether assistants are allowed to access computer files in their absence in order to efficiently handle inquiries or process standing orders.
3. The auditor reviews a report of all accounts payable items that were not matched by the automated matching system, but had been paid upon authorization of the accounts payable department. A sample of selected items is taken and traced to the vendor payment and supporting documentation.
4. The auditor uses software to prepare a report of all debits to Accounts Payable other than payments to vendors. A sample of the debits is selected and examined for support.
5. The auditor uses software to access all recorded receipts of merchandise that have not been matched to an open purchase order.
6. The client prepares a report from a database showing inventory write-downs by product line and by purchasing agent. The auditor reviews the report and analyzes the data in relation to sales volume by product.
7. The auditor creates a spreadsheet showing the amount of scrap generated monthly, by product line.
8. The auditor downloads client data to create a report showing monthly sales and inventory levels, by product line.

12-57 **(Acquisition Controls—Small Business)** Because of the small size of the company and the limited number of accounting personnel, Dry Goods Wholesale Company initially records all acquisitions of goods and services at the time cash disbursements are made. At the end of each quarter, when financial statements for internal purposes are prepared, accounts payable are recorded by adjusting journal entries. The entries are reversed at the beginning of the next period. Except for the lack of an accounts payable or voucher journal, controls over acquisitions are excellent for a small company. (There are adequate prenumbered documents for all acquisitions, proper approvals, and adequate internal verification where appropriate.)

Before the auditor arrives for the year-end audit, the bookkeeper prepares adjusting entries to record accounts payable as of the balance sheet date. He prepares a list of all outstanding balances, by vendor, and gives it to the auditor. All vendors' invoices supporting the list are retained in a separate file for the auditor's use.

During the current year, the accounts payable balance has increased dramatically because of a severe cash shortage. (The cash shortage apparently arose from expansion of inventory and facilities rather than lack of sales.) Many accounts have remained unpaid for several months, and the client is being pressured by several vendors to pay the bills. Because the company had a relatively profitable year, management is anxious to complete the audit as early as possible so that the audited statements can be used to obtain a large bank loan.

Required

a. Explain how the lack of an accounts payable or vouchers journal will affect the auditor's test of transactions for acquisitions and payments.
b. What sampling unit should be used in performing tests of expenses and accounts payable?
c. Assuming no errors are discovered in the auditor's tests of transactions for acquisitions and payments, how will that result affect the verification of accounts payable?

d. Discuss the reasonableness of the client's request for an early completion of the audit, and describe the implications of the request from the auditor's point of view.
e. List the audit procedures that should be performed in the year-end audit of accounts payable to meet the cutoff objective.
f. State your opinion about whether it is possible to conduct an adequate audit in these circumstances.

12-58 **(Auditing an Expense Account and Accounts Payable)** You have been assigned to audit the factory supplies expense account for a medium-sized manufacturing firm. Here is the relevant data for the past three years:

	2007 (Unaudited)	2006	2005
Sales	$22,808	$21,900	$20,500
Supplies Expense	784	925	815
Net Income	1,001	985	915
Factory Assets	16,500	14,500	14,800

Required

a. Briefly explain how analytical review techniques might be used during the audit of this expense account. Identify potential variables (besides sales) that should be considered in modeling (estimating) the supplies expense account balance.
b. The auditor wishes to test existence, valuation, and classification of the supplies expense account balance. Describe *one* audit procedure (besides analytical review) that would test the three assertions.

***12-59** **(Accounts Payable Procedures)** Kane, CPA, is auditing Star Wholesaling Company's financial statements and is about to perform substantive audit procedures on Star's trade accounts payable balances. After obtaining an understanding of Star's internal controls for accounts payable, Kane assessed control risk at the maximum. Kane requested and received from Star a schedule of the trade accounts payable prepared using the trade accounts payable subsidiary ledger (voucher register).

Required

Describe the substantive audit procedures Kane should apply to Star's trade accounts payable balances.

12-60 **(Acquisition and Payment Cycle Audit Procedures)** The following are some tests of transaction procedures frequently performed in the acquisition and payment cycle. Each is to be done on a sample basis.

Required

a. State whether each procedure is primarily a test of controls, a substantive test of transactions, or a dual-purpose test.
b. State the purpose(s) of each procedure.

Audit Procedures

1. Trace transactions recorded in the purchase journal to supporting documentation, comparing the vendor's name, total dollar amounts, and authorization for purchase.
2. Account for a sequence of receiving reports, and trace selected ones to related vendor's invoices and purchase journal entries.
3. Select a sample of cash disbursements noting evidence that the details on vendor invoices were clerically checked and compared with the purchase order and receiving report and that the account charged and payment were approved.
4. Same as No. 3 but in addition the auditor compares the invoice detail with the supporting documents and assesses the appropriateness of the account charged.

5. Foot the cash disbursements journal, trace postings of the total to the general ledger, and trace postings of individual payments to the accounts payable master file.
6. Account for a numerical sequence of checks in the cash disbursements journal, and examine all voided or spoiled checks for proper cancellation.
7. Compare dates on canceled checks with dates on the cash disbursements journal and the bank cancellation date.

12-61 **(Auditing Legal Expenses)** You have been assigned the task to audit legal expenses for the recent year. The client prepares a schedule of all recorded legal expenses and presents the schedule to you for your audit work. You note that the amount on the schedule agrees with the amounts shown in the general ledger.

Required

a. Explain why the auditor should always examine legal expense as a part of the audit.
b. Identify the audit procedures that should be utilized in examining legal expenses.

12-62 **(Analysis of Errors)** The following errors or omissions are included in the accounting records of Westgate Manufacturing Company.

Required

a. For each error, identify the transaction assertion that was not met.
b. For each error, identify a control procedure that should have prevented it from occurring on a continuing basis.
c. For each error, identify a direct test of the account balance that would uncover the error.

Errors or Omissions Noted

1. Repairs and maintenance expense (account 2121) was charged to Equipment (account 1221).
2. Purchases of raw materials are frequently not recorded until several weeks after the goods are received because receiving personnel fail to forward receiving reports to accounting. Upon being pressured by a vendor's credit department, the accounts payable department searches for the receiving report, records the transactions in the accounts payable journal, and pays the bill.
3. The accounts payable clerk prepares a monthly check to Story Supply Company for the amount of an invoice owed, and then submits the unsigned check to the treasurer for payment along with related supporting documents. When she receives the signed check from the treasurer, the clerk records it as a debit to Accounts Payable and deposits the check in a personal bank account for a company named Story Company. A few days later, she records the invoice in the accounts payable journal, resubmits the documents and a new check to the treasurer, and sends the check to the vendor after it has been signed.
4. The amount of a check in the cash disbursements journal is recorded as $4,612.87 instead of the $4,162.87 shown on the face of the check.
5. The accounts payable clerk intentionally excluded from the cash disbursements journal seven large checks written and mailed on December 26 to prevent cash in the bank from having a negative balance on the general ledger. They were recorded on January 2 of the subsequent year.
6. Each month an employee in the receiving department submits a fictitious receiving report to accounting. A few days later, he sends Westgate an invoice for the quantity of goods ordered from a small company he owns and operates. The invoice is paid when the

accounts payable clerk matches the receiving report with the vendor's invoice.

12-63 **(ACL Audit Program for Inventory)** You are planning the audit of a company that manufactures outdoor equipment in Chicago and has distribution centers in Chicago, Boston, Tampa, Houston, Denver, and San Francisco. The client has provided a download of its inventory records of finished goods that contains the following information:

- Stock number
- Product line code
- Date of last sale
- Number sold year-to-date
- Number returned year-to-date
- Number of defectives returned year-to-date
- Unit cost
- Quantity on hand
- Extended cost
- Current selling price
- Location code

Required

Write, *in good form,* an audit program that identifies the specific procedures for which ACL can be used to help you audit this inventory.

12-64 **(Sampling of Perpetual Records)** Ace Corporation does not conduct a complete annual physical count of purchased parts and supplies in its principal warehouse; instead, it uses statistical sampling to test the accuracy of the perpetual records. Ace believes that statistical sampling is highly effective in testing the records and is sufficiently reliable to make a physical count of each item of inventory unnecessary.

Required

a. List at least 10 normal audit procedures that should be performed to verify physical quantities when a client conducts a periodic physical count of its entire inventory.
b. Is it acceptable to take a statistical sample to test the perpetual records rather than take a complete physical count of inventory? If it is acceptable, identify the key factors the auditor should consider in determining the acceptability of such a procedure.
c. Identify the audit procedures either different from, or in addition to, normal required audit procedures that should be use in the situation just described (when a client employs statistical sampling to test the perpetual records and does not conduct a 100% annual physical count of inventory items).
d. Assume the client uses FIFO for inventory valuation and has verified the accuracy of the perpetual inventory counts. What procedures should the auditor use to verify the accuracy of the cost of the inventory?

***12-65** **(Inventory Observation)** The auditor is required by existing auditing standards to observe the client's physical inventory. That requirement could be met by observing the client's annual physical count of inventory, and, in some circumstances, by observing inventory in connection with tests of the accuracy of the client's perpetual inventory.

Required

a. What major purpose is served by requiring the auditor to observe the client's physical inventory count? What is the rationale behind the profession's decision to require the inventory observation?
b. Identify at least five items related to inventory items that the auditor should be looking for and should document during observation of the client's inventory.

c. How does the observation process differ when the client takes a complete physical count at or near year end vs. when physical counts are taken throughout the year to test the accuracy of the perpetual records?

12-66 **(Inventory Obsolescence Tests)** You have been assigned to the audit of Technotrics, a company specializing in the wholesale of a wide variety of electronic products. Its major product lines are stereo and similar electronic equipment, as well as computers and computer add-ons such as hard disks, memory boards, and so forth. The client has four major warehouses located in Atlanta, Las Vegas, Minneapolis, and Philadelphia. At year end, the client has approximately $250 million in inventory, an increase of $7 million.

Required

a. Indicate how the auditor can gain information about major changes in products handled by the client, and about the effect of competition on existing products.
b. Indicate how the auditor might use ACL to search for slow-moving or potentially obsolete goods in the client's year-end inventory.
c. What other procedures might the auditor use in determining whether significant portions of the client's year-end inventory have a market value less than cost?

12-67 **(Inventory Cutoff Problem)** The auditor has gathered shipping cutoff information for Johnny M. Golf Company in conjunction with its December 31 year end. The auditor has observed the client's year-end physical inventory and is satisfied with the client's inventory procedures. The client has adjusted the year-end book value to the physical inventory compilation (book to physical adjustment) so that the account balance at year end equals the physical count. For purposes of analysis, you should assume that all items have a gross margin of 30%. The last shipping document and bill of lading used during the current year is 4500, and is the primary evidence regarding whether the goods were shipped before or after inventory. All shipping documents are sequentially numbered, and the auditor has established that the client uses them in order.

The shipping date listed in the journal is the date recorded on the sales invoice. Cost of goods sold is recorded at the same time the invoice is recorded.

DECEMBER SALES JOURNAL

Date	Billed to	Shipping Terms	Ship Date	Ship Number	Amount
12/31	Bartifshoski Electric	FOB shipping point	12/31	4498	$ 4,500
12/31	Schlagel Electric	FOB shipping point	12/31	4501	$11,000
12/31	Schenk Comptometer	FOB shipping point	12/31	4502	$20,000
12/31	Schoone Const.	FOB shipping point	1/3	4503	$20,000
12/31	Tomahawk Const.	FOB destination	12/31	4496	$10,000

JANUARY SALES JOURNAL

Date	Billed to	Shipping Terms	Ship Date	Ship Number	Amount
1/3	Smith Electric	FOB shipping point	12/31	4504	$10,000
1/3	Lampley Const.	FOB shipping point	1/3	4499	$ 8,000
1/3	Montana Mt. Const.	FOB shipping point	1/3	4505	$12,000

Required

a. Briefly discuss why the auditor would rely on the shipping document number instead of the recorded shipping date as the primary evidence of whether the goods were shipped before or after inventory.
b. Identify the items that should be adjusted. Prepare a journal entry to record the adjustments to Cost of Goods Sold, Inventory, Accounts

Receivable, and Sales based on the preceding data. Prepare the journal entries needed only for the December 31 year end.

c. Assume that the client took physical inventory on October 31 and adjusted the books to the physical inventory at that time. Given the information from the December and January sales journals, prepare the necessary year-end adjusting entries. Why are the entries different from those suggested for part (b)?

12-68 (Inventory Valuation and Adjustments) Inshalla Retail Company keeps its inventory on a perpetual FIFO basis for internal reporting, but adjusts the year-end FIFO balance to a LIFO basis using a dollar-value LIFO index. The auditor is satisfied that the FIFO perpetual inventory is accurate. The LIFO adjustment is made by calculating an index for each of the company's four product lines. The index is applied to determine whether there was an increase or decrease in inventory for the year, and the appropriate entry is made.

Required

Explain how the auditor would audit the LIFO adjustment.

12-69 (Audit of Standard Cost System) Badger Meter of Milwaukee, Wisconsin, designs and manufactures water meters, gasoline meters, and other metering systems to measure and report the flow of liquid through various lines. The company has three manufacturing plants: one in Milwaukee, Wisconsin, one in Lucerne, France, and one in Bustof, Poland. The plant in Milwaukee has been recently modernized and is the most modern of the three. The company uses standard costs to value all work-in-process and finished goods inventory. Because management wants to compare plant productivity across all three of its plants, it utilizes the standard cost system developed for the Milwaukee plant for use in all three plants. This allows them to analyze variances at the other plants to determine their relative efficiency. Overhead is applied to products based on the annual depreciation expense charged to each production area. This method is used because factory labor has become less of a factor in the manufacturing process in the United States, although it is not so true for the plant in Poland.

Required

a. Briefly discuss the validity of using standard cost systems as a basis for valuing inventory.
b. How are variances treated in the inventory valuation process?
c. Identify the procedures the auditor would utilize to audit the standard cost system and the inventory valuation at the Milwaukee plant.
d. Discuss how the information gathered in Milwaukee would be applicable to the audits of the inventory at the other two locations.

12-70 (Integrated Audit of Acquisition and Inventory)

Required

For each of the following tests of internal controls over acquisition and inventory, indicate the effect of the deficiency on the planning of direct tests of the related account balances.

1. The client utilizes an automated purchasing system. However, in the tests of controls, the auditor finds that access to the system is not restricted as authorized. The auditor finds that purchasing agents routinely override purchase requisitions and also add new vendors without going through the approval process required by company policies.
2. The client does not record returned merchandise.
3. The client does not take cycle counts of the perpetual inventory system. However, other controls over receipt and shipment of inventory are working.
4. The client does not employ a systematic process to evaluate the potential obsolescence in inventory.

5. Many of the travel and expense reimbursements to top management are not accompanied by receipts, or a description of the purpose of the expenditure.
6. Analytical procedures of expense accounts indicate that they are low in comparison with (a) previous years and (b) in relationship to sales.

12-71 **(Persuasive Evidence)** How much evidence is needed to be persuasive? Each of the following scenarios describes the auditor's findings of internal control.

Required

For each situation, indicate whether additional evidence in the form of direct tests of account balances is required, and if so, the type and amount of testing that should be performed. Identify the accounts affected.

1. The automated purchasing system for inventory items for direct delivery into production contains appropriate approvals, is accompanied by a long-term contract, and any shortages of delivery automatically generate exception reports that are sent to management.
2. Each department is limited to $500 per item limit on all purchases other than those that go through regular purchase agents. The auditor took a sample of 30 purchases and found that (a) all were approved by the department and (b) all were under $500. Most of the items were for subscriptions, travel, or miscellaneous expense.
3. The client performs regular cycle counts of perpetual inventory. No major discrepancies have been noted in the last year. The counts are made by inventory specialists, not by internal auditors.
4. Access to adding vendors is working properly.
5. The auditor finds that the same person is in charge of ordering products, reconciling receipt of merchandise with the purchase order and vendor invoice, and then forwarding the approved material to the treasurer for payment.
6. The auditor finds that both the purchasing controls and the shipping controls involving inventory are working properly.
7. The auditor's test of internal controls finds weaknesses in the control environment in the following ways:
   a. Management's compensation is dependent on increased stock valuations.
   b. Management shows little care for basic internal controls.
   c. Management has committed to increased sales and profits for this year.
   d. The audit committee meets four times a year, but the agenda is primarily set by management.
8. In addition, the company's inventory level has risen faster than sales; gross margin has increased over last year.

Cases

12-72 **(Husky ACL Project—Inventory Obsolescence and Lower-of-Cost-or-Market Testing)** You are auditing inventory of HUSKY Corp. as of December 31, 2007. The inventory general ledger balance is $8,124,998.66. HUSKY manufactures lawn and garden tractors, snowmobiles, and supplies. Download the data file labeled "HUSKY 2007 Inventory" from the books' web site http://www.thomsonedu.com/accounting/rittenberg. under student resources. This file contains the following information:

SNUMB	Stock number (The first letter is F—finished goods, W—work in progress, R—raw material.)
LASTSALE	Date of last sale (finished goods) or use (raw material)

NUMSOLD	Number sold (finished goods) or used (raw materials) year-to-date
UNITCOST	Unit cost
INVQTY	Quantity on hand
EXTCOST	Unit cost x quantity on hand.
SELPRICE	Current selling price (finished goods only)
REPLCOST	Current replacement cost (raw material only)

Salespersons receive a 10% commission based on selling price.

Required

Using ACL:

a. Using the menu option **Analyze,** choose **Statistical** then **Statistics** on the amount field, print the statistics and agree the total inventory to the general ledger.
b. Extract and printout all inventory items that have not been used or sold in six months. Include in the printout the total extended cost of those items.
c. Extract the finished goods into a separate file. (**Hint:** Use the expression **SNUMB** = **"F"**.)
   i. Extract those items that have a net realizable value less than cost. Add a column and calculate the amount of each of those items; these should be written down, and print a report that includes those items and the total of the write down.
   ii. Add a field and calculate inventory turnover for each item in inventory. Extract and print a report of those items with a turnover less than 2. The report should include the total extended cost of those items.
d. Extract the raw materials into a separate file (see hint in part (c) but replace "F" with "R"):
   i. Extract those items that have a replacement cost less than cost, add a column and calculate the amount of each of those items these should be written down, and print a report that includes those items and the total of the write down.
   ii. Add a column and calculate inventory turnover for each item. Extract and print a report of those items with a turnover less than 2. The report should include the total extended cost of those items.
e. Prepare a report of the audit implications of your findings, indicating any additional procedures that should be performed.

12-73 **(ACL Inventory Case)** Refer to ACL Case 4—Inventory in the ACL Cases appendix at the end of the book. This case requires you (1) to develop an audit program for inventory with procedures that can be assisted by the use of ACL, and (2) to perform those procedures using ACL and prepare a report on the results.

12-74 **(CMH Case—SEC Alleged Deficiencies)** The SEC alleged that many deficiencies occurred during the audit of CMH, as discussed in the *Auditing in Practice* feature in this chapter. Among the complaints were the following:

1. The audit firm "left the extent of various observation testing to the discretion of auditors, not all of whom were aware of significant audit conclusions which related directly to the extent of such testing. Observations of inventory counts at year end were confined to six locations (representing about 40% of the total CMH inventory) as opposed to nine in the preceding year. The field auditors did not adequately control the inventory tags and Seidman & Seidman [the auditor] did not detect the creation of bogus inventory tags which were inserted in the final inventory computations."
2. The comparison of recorded test counts to the computer lists in the nine warehouse locations in which the inventory count was

observed indicated error rates ranging from 0.9% to 38.3% of the test counts, with error rates in excess of 10% in several locations. Management attributed the differences to errors made by a key-punch operator. When the auditors asked to see the inventory tags, the CMH official stated that they had been destroyed.

3. The Seidman auditor who performed the price testing of the CMH inventory determined that, as in previous years, in numerous instances CMH was unable to produce sufficient vendor invoices to support the purchase by CMH of the quantities being tested. This was true even though Seidman & Seidman ultimately accepted vendor invoices reflecting the purchase of the item by any CMH branch, regardless of the location of the inventory actually being price tested.
4. A schedule of comparative inventory balances reflected significant increases from the prior year. A CMH financial officer wrote on this schedule management's explanations for the increases in inventory accounts.
5. CMH did not use prenumbered purchase orders and shipping documents.
6. There were several differences between the tags reflected on the computer list for the Miami warehouse and the observation of the same tag numbers by Seidman & Seidman auditors. The computer list contained a series of almost 1,000 tags, covering about 20% of the tags purportedly used and more than 50% of the total reported value of the Miami inventory, which were reported as being unused on the tag control document obtained by Seidman & Seidman during its observation work.
7. Because CMH management did not provide sufficient invoices as requested, the auditors relied primarily on vendor catalogs, price lists, and vendor invoices to test the accuracy of the CMH inventory pricing representations.

Required

a. For each of the deficiencies identified, indicate the appropriate action that should have been taken by the auditor.
b. What inventory information should be communicated to an auditor who is not regularly assigned to the audit of a particular client prior to the observation of a physical inventory count?
c. How do questions of management integrity affect the approach that should be taken in planning the observation of a client's inventory-counting procedures?

12-75 **(Ethical Decisions in Inventory Valuation)** Assume that you are conducting the audit of CollegeWare, a manufacturer and distributor of printed, embroidered, and embossed specialty clothing and gift items marketed to college students with school-specific logos. The company pays licensing fees and manufactures products in advance of the fall and winter peak sales periods. The stores that sell the company's products have a contractual agreement that they may return a percentage of unsold merchandise. During August 2006, many stores in the University of Wisconsin and University of Illinois markets canceled orders just before the start of the school year because of changes in school logos. In addition, the percentage of unsold merchandise, and associated returns, was higher than normal for these stores. As a result, CollegeWare has made an adjusting entry to record a loss due to market decline of inventory (Dr. Loss Due to Market Decline of Inventory, and Cr. Allowance to Reduce Inventory to Market Value for $40,000). You as the auditor have conducted a physical inventory of the products and, based upon sales data collected from CollegeWare's competitors, you are convinced that the write-down should be for $90,000 (a materially higher amount).

Another issue in the CollegeWare audit is that the company has started implementing plans to change their marketing strategy to include more sales of general purpose clothes and gift items to mass-merchandising retailers. These retailers are larger, and the initial receivables payments indicate that they present a more reliable pattern of payments, with fewer uncollectible amounts. As such, management has argued that the allowance for doubtful accounts should be reduced and has made the associated adjusting entry (Dr. Allowance for Doubtful Accounts, Cr. Other Revenue for $40,000).

In the past, you had questioned CollegeWare management about their steady increase in the Allowance for Doubtful Accounts, which had risen by about 3% per year for each of the past five years even though the rate of customer default on their receivables had remained steady over that time. However, you had never insisted that management revise their allowance downward since you considered management's estimates to be conservative (i.e., they reduced income rather than increased income). In your opinion, the allowance for doubtful accounts probably *should* be reduced, although it is hard to judge exactly the amount by which the reduction should be recorded because of the relatively recent change in the marketing strategy. In other words, it is difficult for you to dispute whether management's current adjusting entry is recorded at the correct amount.

Required

a. Comment on why management of CollegeWare may have an incentive to reduce the allowance for doubtful accounts this year.
b. The overly conservative accounting estimates used by management in their valuation of accounts receivable represent what is commonly referred to as "cookie jar reserves." Using this financial reporting strategy, management sets aside money in allowance accounts that they plan to remove later to cover future losses. In doing so, management allows itself discretion to report income at smoother levels than would otherwise be achieved had the cookie jar reserves not been put in place. Comment on the ethical implications of management's financial reporting strategy.
c. Comment on the auditor's ethical difficulty in this type of scenario. Specifically, why might auditors find it difficult to urge companies not to set up cookie jar reserves?
d. Develop a list of options for how the auditor might resolve the issues raised in this case, and specifically describe additional audit evidence that the auditor would need to collect regarding the various options.

BILTRITE PRACTICE CASE

The following acquisition cycle substantive testing assignments from the Biltrite audit practice case may be completed at this time:

Module VI: Sales and purchases cutoff tests
Module VII: Search for unrecorded liabilities

Module VI: Sales and Purchases Cutoff Tests

Along with Richard Derick and the rest of the audit team, you observed Biltrite's December 31, 2007, physical inventory. Derick is satisfied with the inventory-taking procedures and has considerable confidence in the reliability of the ending inventory quantities. He is concerned, however, with the methods used to value the ending inventories (especially the disposition of unfavorable budget variances) and with possible misstatements relating to sales and purchases cutoff. With regard to cutoff, Derick is particularly interested in learning why customers could not confirm details of sales transactions recorded by Biltrite on December 31, 2007. In response to the confirmation and cutoff concerns, he has asked you to examine the appropriate books of original entry and underlying documentation for a few days before and after the balance sheet date. Specifically, you are interested in the following:

1. Were purchases and sales recorded in the proper accounting period?
2. Were purchases recorded at year end included in the physical inventory?
3. Were all materials and purchased parts included in inventory recorded as purchases?
4. Were the finished goods inventory accounts properly relieved for all recorded sales?

Using your PC, you were able to download Biltrite's December voucher register and sales summary. These are partially reproduced in Exhibits BR.7 and BR.8 referred to in Module I. Using these as a focal point, you requested that the client provide you with the documentation supporting certain of the recorded transactions. You now are prepared to record any necessary audit adjustments and reclassifications.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Cutoff." Study WP 6.4, "Inventory Cutoff," and compare it with the voucher register and sales summary portions reproduced in Exhibits BR.13 and BR.14. Comment on any cutoff misstatements that you detect and determine their effect on net income. Do the misstatements appear to be intentional or unintentional? Explain.
2. Draft any audit adjustments suggested by the analysis performed in requirement (1). (Remember that Biltrite maintains perpetual inventory records and adjusts its perpetual inventory to the physical inventory through the appropriate "Cost of Goods Sold" accounts.)
3. Print the completed document with the proposed cutoff audit adjustments.

Module VII: Search for Unrecorded Liabilities

An important part of every audit is examining vendors' invoices processed after year end. Related to cutoff, as discussed in Module VI, this set of procedures has the purpose of determining that no significant invoices pertaining to the year being audited have been omitted from recorded liabilities. Derick has asked that

you examine the document prepared by Cheryl Lucas and entitled "Search for Unrecorded Liabilities," and review it for necessary audit adjustments.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Liab." Comment on the adequacy of the procedures performed by Lucas.
2. Assuming that you found the following additional unrecorded charges pertaining to 2007, draft Audit Adjustment 6 at the bottom of WP 15.1:
   a. Sales commissions $366,900
   b. Employer's payroll taxes: FICA $94,000, state unemployment $126,000
   c. Printing and copying $27,800
   d. Postage $22,300
   e. Office supplies $18,600.
3. Print the document.

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CHAPTER 13

Audit of Cash and Other Liquid Assets

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Explain the different types of cash and marketable security accounts.
- Describe the risks inherent in audits of cash, marketable securities, and other liquid assets.
- Describe the factors to consider in planning the audit of cash and marketable securities.
- Discuss and evaluate developments that assist organizations in managing cash.
- Discuss important controls over cash and how to test them.
- Describe procedures for testing cash balances.
- Explain an integrated audit of cash.
- Describe appropriate procedures to audit investments.
- Explain the nature and risks of other marketable securities and the risks that affect the audit approach.

CHAPTER OVERVIEW

Cash needs to be controlled for most organizations to function effectively. In this chapter, we examine approaches organizations take to control their cash assets and apply those concepts to the evaluation of control risk over the accounts and to audits of account balances. Even though a high volume of transactions flows through the Cash account, it usually has a relatively small balance. Because of the vulnerability to error or misappropriation, organizations and auditors usually emphasize the quality of control procedures over the cash transactions.

The increase in financial instruments, particularly derivatives, presents new risks to the organization. The auditor must understand the nature of the financial instruments used by the organization, the risks inherent in them, and the business purpose of the instruments.

Introduction

Overview of Cash Accounts Affected

An organization may have many different kinds of bank accounts, each for a special purpose and operating under different internal controls. Major types of bank balances include general checking accounts, cash management accounts, and imprest payroll accounts.

General Checking Accounts The general checking account is used for most cash transactions. The organization's regular cash receipts and disbursements are processed through this account. In some cases, the receipts are received directly by

the bank through a lockbox or electronic funds transfers and are directly deposited in the client's account by the bank. Most organizations have cash budgets to assist in planning disbursements, and they have cash management arrangements with the bank to temporarily invest excess funds in interest-bearing securities.

Performing Audits

Risks of Material Misstatements
Substantive Tests
Conclusions

Cash Management Accounts Good cash management requires the organization to earn the greatest possible return on idle cash balances. Most organizations have developed relationships with their financial institutions (not just banks) to move excess cash into and out of short-term savings accounts to generate extra returns. The auditor will need to understand the relationship with these financial institutions, the controls applicable to cash transfers, and the risk to the client occurring from errors or financial problems associated with the financial institution.

Imprest Payroll Accounts Some organizations disburse their payroll through an **imprest bank account**, into which cash is deposited as needed to cover payroll checks when they are issued. If the employees cash all payroll checks, the bank balance returns to zero. Some state laws require that old, uncashed payroll checks be transferred to the state (escheatment laws). Therefore most companies do not write off old payroll checks, but search to find the rightful check owner. The need for an imprest payroll account is disappearing as most organizations directly deposit employees' earnings to their bank accounts.

Types of Marketable Security Accounts

Marketable securities include a wide variety of financial instruments and the auditor must understand the risks associated with these financial instruments. For ease of discussion, most of the instruments can be classified into the following categories:

- Marketable securities (held as temporary investments)
- Short-term cash management securities, such as U.S. Treasury bills, certificates of deposit, and commercial paper (cash equivalents)
- Short-term hybrid-type securities intended to improve the organization's return on temporary investments

Marketable Securities Good cash management principles dictate that idle cash be invested. Organizations often develop cash budgets to temporarily invest funds for periods of time ranging from a day to a year. Marketable securities may range from short-term commercial paper to investments in common stock. Because some securities have duration of more than one year, the auditor must determine management's intent regarding the holding of securities for either a short-term or a longer-term investment.

Short-Term Cash Management Programs Most banks can automatically transfer excess cash to short-term, interest-bearing accounts—even on an overnight basis. Other programs direct client investments into specific securities for longer periods. An auditor must understand these banking contracts in order to identify special risks that may exist in the securities.

Other Types of Financial Instruments During the past decade, there has been a literal explosion of new types of **financial instruments**. Some are referred to by such exotic names as *collars, swaps,* and *zebras,* or by other acronyms reflecting the underlying financial instrument. Most are referred to as the broad

class of *financial derivatives,* because many of the instruments reflect the modification of a traditional security to spread the risks among parties. Audits of financial derivatives are discussed later in the chapter.

Business Risk and Business Environment

Each organization's economic health depends on its ability to successfully manage its cash flow and to temporarily invest its excess funds to maximize the rate of return with a minimum of risk. The volume of transactions flowing through these accounts makes them material to the audit—even if the year-end cash balance is immaterial.

Techniques such as electronic transfers of funds, lockboxes, and cash management arrangements with banks are used by organizations to effectively manage cash flow. Electronic forms of cash have emerged to facilitate Web-based transactions. In some companies, cash management is tied to just-in-time inventory management programs. Some companies have detailed cash budgets; others operate more informally. Most organizations move cash into and out of liquid assets almost continuously.

Cash and cash budgets are important for another reason. A company must be able to manage its cash flow in order to remain in business. For example, many e-commerce companies have failed in the past several years because they "burned" their cash too quickly. That is, they used all their cash before they could generate profits and positive cash flow from their entrepreneurial efforts. Thus the analysis of a company's cash flow is a major factor in evaluating overall risk associated with the audit client.

The casual observer might believe that the audit of cash is relatively straightforward, and it normally is. However, there have been instances of fraud involving cash. For example, the management of HealthSouth was able to overstate cash by $300 million, which the auditors did not detect.

A negative cash balance does not look good on the financial statements. To avoid showing a negative cash balance, a company may send checks near year end but not record them until after year end. On the other hand, a company wanting to improve its current ratio may record the payment of accounts payable before year end but not mail the checks until after year end. For example, if current assets are $150,000 and current liabilities are $100,000, by recording a $50,000 payment to a vendor, the company improves its current ratio from 1.5:1 to 2:1. The company may hold the checks because it does not have immediate cash coverage. Auditors must be alert to these and other possible manipulations of cash and short-term investments.

Planning for Audits of Cash and Marketable Securities

The auditor's planning for audits of cash and marketable securities is affected by the business risk, materiality, and risk of material misstatement (inherent risk and control risk) associated with the accounts.

Materiality and Risk Considerations for Cash and Marketable Securities

When cash is managed correctly, there is not a large account balance at the end of

FOCUS ON FRAUD

Cash Can be Deceiving

Cash is usually well controlled and auditors may fall into a false sense of security regarding cash. When such a false sense of security steps in, a company such as HealthSouth can become more blatant in its fraud. Indeed, HealthSouth overstated its cash balance by $300 million through a series of transactions that masked the real cash balance, but which they were able to explain satisfactorily to the auditor.

the year. Yet the Cash account is generally considered material to the auditor for the following reasons:

- *Volume of activity*—The volume of transactions flowing through the account during the year makes the account more susceptible to error than most other accounts.
- *Liquidity*—The Cash account is more susceptible to fraud than most other accounts because cash is liquid and easily transferable.
- *Automated systems*—The electronic transfer of cash and the automated controls over cash are such that if errors are built into computer programs, they will be repeated on a large volume of transactions.
- *Importance in meeting debt covenants*—Many debt covenants may be tied to cash balances or to maintaining minimum levels of working capital.

Debt covenants specify restrictions on the organization to protect the lender. Typical covenants restrict cash balances, specify the maintenance of minimum working-capital levels, and may restrict the company's ability to pay dividends. The covenants may affect management's actions in its endeavor to present financial statements that do not violate the debt covenants.

The audit of cash involves evaluating the internal controls as well as the operation of controls throughout the year. In some smaller organizations, audit efforts will concentrate on substantive testing of these accounts at year end. Audits of larger organizations more often focus on evaluating and testing internal controls.

Consider the Risk

The liquidity of cash presents opportunities for fraud that must be considered by the audit team in planning the engagement.

Public/Non-Public

Because of the risks involved and weaker controls, the audits of many non-public organizations concentrate on direct testing of the accounts at year end. Audits of public companies must focus on testing and evaluating internal controls over the highly liquid assets.

Inherent Risk Inherent risk for cash and marketable securities may be high due to liquidity, the susceptibility to mishandling, financial risks associated with financial derivatives, and the sensitivity of derivatives to changes in interest rates or hedged factors. Simple investments in short-term commercial paper or certificates of deposit in a bank do not contain significant inherent risk. Other financial instruments—such as junk bonds, debt instruments with put options, and payment-in-kind debt instruments—may have high inherent risk.

Control Environment In assessing the control environment, the auditor is concerned with questions such as: Does management understand and control the risks inherent in marketable securities? Is the board of directors informed of the organization's investment in risky securities? Does the internal audit department regularly monitor adherence to management's policies? Examples of questions used in assessing the control environment are shown in Exhibit 13.1.

Cash Management Techniques Cash management techniques have been developed to (1) speed the collection and deposit of cash while minimizing the possibility of error or fraud in the process, (2) reduce the amount of paperwork, and (3) automate the cash management process. Three of the more important developments affecting cash management are the use of lockboxes, electronic data interchange (EDI) and automated transfers, and cash management agreements with financial institutions.

Lockboxes The collection of cash and reduction of the possibility of fraud can be facilitated by the use of **lockboxes**. Customers are instructed to send payments directly to the company at a specific post office box number, which is a depository (lockbox) at the organization's banking institution. The bank receives and opens the remittances, prepares a list of cash receipts by customer, credits the client's general Cash account, and notifies the client about details of the transactions. Notification can be either a document listing customer receipts or an electronic list of the same information.

The client's personnel use the data sent by the bank to update Cash and Accounts Receivable. The processing by the financial institution is performed for

EXHIBIT 13.1 Control Environment Questionnaire: Cash and Marketable Securities

CASH

1. Does the company have *significant cash flow problems* in meeting its current obligations on a timely basis? If yes, identify and analyze the steps the company is taking to minimize the problem.
2. Does the client use cash budgeting techniques? How effective are the client's cash management budgeting techniques? Explain.
3. Does the company use the *cash management services* offered by its banker? What is the nature of these arrangements? Have the arrangements been reviewed by management and the board of directors? Are the arrangements monitored on a current basis?
4. Has the client made *significant changes* in its cash processing during the past year? Have any major changes taken place in the client's computerized cash management applications during the year?
5. Does the client have loan or bond covenants that influence the use of cash or the maintenance of working capital ratios? Document the restrictions and cross-reference to the audit program.
6. Do management and the board *periodically review* the cash management process? Does the cash management organization provide for effective segregation of duties, review, and supervision?
7. Are cash transactions, including electronic cash transfers, properly authorized? What *authorization* is required to make electronic cash transfers?
8. Are *bank reconciliations* performed on a timely basis by personnel independent of processing? Is follow-up action taken promptly on all reconciling items?
9. Does the internal audit department conduct timely reviews of the cash management and cash handling process? If yes, review recent internal audit reports.
10. Does there appear to be any reason to suspect that management may desire to misstate the cash balance? If yes, explain and reference to expanded procedures.
11. Does the company use a *lockbox* to handle the collection of cash receipts? What is the agreement with the financial institution? What is the organization's control procedures associated with the lockbox agreement.
12. Who are authorized to make *cash transfers*, including electronic fund transfers, and the procedures by which that authorization is verified before the transfers take place. What procedures do management uses to ensure that the authorization process is monitored.

MARKETABLE SECURITIES

1. Does the client regularly invest in marketable securities?
2. Does the client have *written policies and guidelines* regarding investments in marketable securities? Are the policies approved by the board of directors? What process is used to authorize investments in marketable securities?
3. Does the client take possession of, or provide any restrictions on, collateral associated with marketable securities?
4. Does the client periodically obtain appraisals or revalue the collateral associated with the underlying securities?
5. Does the client *systematically identify the risks* associated with its holdings of marketable securities? Has the board of directors approved the risk associated with the investment in nontraditional securities?
6. Does the company require board approval of significant investments in financial derivatives? If yes, is there evidence that the company both (a) thoroughly understands the risks associated with the investments and (b) can quantify and manage that risk?
7. What is the company's exposure to losses on marketable securities? What impact on the client would the potential default of the securities have? Are the securities sensitive to changes in interest rates?
8. Is there a *ready market for the securities* classified as marketable securities? If the securities are not traded on a national stock exchange, present evidence on the existence of marketability—including depth and breadth of transactions in the security.
9. Does the company *establish limits over the amounts that can be invested in various types* of financial instruments, with specific counterparties or by individual traders? How are these limits derived and enforced?
10. Does the organization provide for effective segregation of duties among individuals responsible for making investment and credit decisions and those responsible for the custody of the securities?
11. Does the internal audit department conduct regular audits of the organization's controls over marketable securities? If yes, review recent reports.

a fee. The lockbox arrangements have these distinct advantages for the audit client:

- Cash is deposited directly at the bank. There is no delay, and the client immediately earns interest on the deposited funds.

- The manual processing associated with opening remittances, maintaining control of receipts, and developing detail for posting accounts receivable is shifted to the bank.
- The client usually establishes several lockboxes in different geographic locations to minimize the delay between the time the check leaves the customer's premises and when the client receives the cash. This speeds the receipt of cash and allows the organization to use the cash to earn a return.

Sufficient controls must be established to ensure that all customer remittances received by the bank are posted. For example, all remittance advices should be sent to the client to facilitate follow-up should the customer have any questions about the posting of accounts. The client should also reconcile the total of the remittance advices with the cash deposit recorded by the bank.

Electronic Funds Transfers Many organizations have adopted electronic funds transfers (EFT) as an integral part of their business. Cash transfers are made automatically and instantaneously; checks are not used. Lockboxes and other cash collection approaches will decrease in usage, although they will still be maintained for customers who are unable to make electronic transfers. The auditor should review the EFT agreements with the vendors, customers, and bank to ensure that adequate controls have been built into the process. For example, there should be notification of the payment made directly to the client and the bank, there should be automated or manual reconciliation procedures between the client and the bank, and a complete audit trail should be maintained to answer questions about completeness of payments and disputed items.

Practical Point

Many of us utilize bank accounts to automatically pay recurring bills, such as cable, phone, and insurance. The funds are electronically transferred. All parties need to have procedures and controls in place to ensure proper and complete recording of the cash transfers.

Cash Management Agreements with Financial Institutions Financial institutions provide automated services such as cash management programs for many of their clients. The auditor should determine that (1) adequate procedures are used for monitoring the risk associated with the investments and (2) controls are used to ensure that investments are not subject to undue risks. The auditor is particularly interested in the amount of control given to the financial institution regarding the investment of cash. For example, the auditor would be concerned if most of the cash had been invested in high-risk securities or non-liquid securities if the client did not understand the risks associated with the investments.

Compensating Balances Most companies have short-term loans and lines of credit with their primary financial institution. The line of credit provides the company with a pre-negotiated loan, available for use when the company needs it. The financial institutions usually require the company to maintain a specified balance in a non-interest–bearing account. The amount available for the loan is the credit line minus the compensating balance. If the amounts are material, the company is required to disclose the compensating balance arrangement and its effect on the effective rate of interest.

Audit of Cash

Evaluating Control Risk: Cash Accounts

Cash is an inherently risky asset. It can be easily misappropriated because (1) individual transactions vary greatly in size and (2) cash is the most negotiable financial instrument. It may be used for unauthorized purposes. Cash transactions may be posted to the wrong customer's account or not recorded on a timely basis. To minimize these and other potential misstatements of cash, the auditor expects to find appropriate internal controls, including the following:

- Separation of duties
- Restrictive endorsements of customer checks
- Independent bank reconciliations
- Computerized control totals and edit tests

Consider the Risk

Companies need good cash controls in order to operate effectively. When the company is viewed as high risk, or when controls are poor, the auditor will have to do more detailed testing of the cash account balances.

- Authorization of transactions
- Prenumbered cash receipt documents and turnaround documents
- Periodic internal audits
- Competent, well-trained employees

Segregation of Duties The general concept of segregation of duties does not change as processing systems become more automated and integrated. Automation can enhance control, but at the same time there is a risk for errors or irregularities to occur on a larger scale. For example, companies like Kahne, described in the *Auditing in Practice* feature below, have controls to ensure that incoming customer checks and remittance advices are segregated on receipt and processed by different people. Posting to Accounts Receivable should be based on remittance advices and reconciled to the postings to Cash, which are based on checks received. Segregation of duties is further enhanced if inquiries by customers concerning their account balance are referred to an independent group, such as a customer relations department, for investigation. Finally, the individuals who reconcile the bank accounts should not handle cash or record cash transactions.

Restrictive Endorsements Customer checks should be restrictively endorsed for deposit when received. The restrictive endorsement helps prevent modifications and theft of customer remittances.

Independent Reconciliation Control Procedures Two types of reconciliations should occur:

- *Reconciliation of items received with items recorded (control totals)*—Reconciliation is made more effective when control procedures exist to establish the initial integrity of

AUDITING IN PRACTICE

Automating the Cash Receipts Process

Kahne Company is a national wholesaler of merchandise ranging from electric motors to electronic surveillance equipment. It has annual sales of more than $2.5 billion, approximately 855,000 customers, 300 branches, and 6,200 employees. Customers may purchase goods at any branch or call the branch to order the merchandise for delivery. The branch's computer is online with the central database.

Some customers pay in cash for merchandise received. All cash receipts are deposited by the branch daily in a local financial institution, and the records are electronically transferred daily to the corporation's Chicago bank account. Most customer purchases are on credit with payment due within 30 days.

All payments are directed to the national accounts receivable department. Approximately 16,000 checks totaling about $10 million are received daily; many of the remittances are for small dollar amounts. The company uses a significant amount of automation in controlling the processing of cash receipts, including the following:

1. An optical scanner that reads the customer's remittance advice to determine
   a. Customer account number
   b. Customer invoice number
   c. Dollar amount of sale
   d. Invoice date
   e. Freight and tax on the sale
2. A magnetic-ink character recognition (MICR) machine that reads lines from the check and scans for the check amount.
3. An encoder that endorses the back of the check for deposit only and encodes the dollar amount of the check onto the front of it for efficient processing by the company and its financial institution.

Once initial accountability has been established, the receipts are sorted into batches for computer processing. Checks and remittance advices are separated, and differences are reconciled and corrected. Remittance advices are created for cash receipts that do not contain a remittance advice. Most of the processing is handled by computerized equipment with selected manual review and reconciliation to ensure that batches of items are not lost, and that the credits to Accounts Receivable do not differ from cash remitted.

Important controls include detailed reconciliation of cash and receivable updates, use of batch control totals for all postings and edit tests that are built into the computer application, segregation of cash receipts and remittance advices for processing and posting, and development of a detailed electronic audit trail for each customer. All inquiries from customers about their account balance are directed to an independent group.

FOCUS ON FRAUD

Desktop Forgery—Technology Makes It Possible

The ability to develop fraudulent checks has been enhanced by the widespread availability of quality graphics packages for microcomputers and the lower prices of equipment used to code checks for processing using magnetic-ink character recognition (MICR), which is embedded in the checks and used by the bank to process checks against the customer's account.

To develop fraudulent checks against a company, the following are needed:

- Blank check stock (i.e., the check forms).
- A high-quality graphics program and printer with the capability of duplicating letterheads, different font styles, and signatures.
- A copy of a check from the company whose account the check is to be written against, so that all important aspects of the check (such as MICR coding) can be duplicated.
- A machine to perform MICR coding. The equipment needed to carry out such a scam could be obtained at a cost somewhere between $10,000 and $30,000. The equipment is capable of developing a fake check that is virtually indistinguishable from the real check.

Are there any solutions or safeguards against such frauds? Fortunately, basic controls could be implemented including the following:

- Develop organization logos that are embedded in the checks, making them difficult to duplicate.
- Use multiple-color checks.
- Restrict the type of paper used in the blank check stock.
- Use separate accounts for low-dollar-value checks.
- Implement edit controls over the use of smaller checks, thus treating the low-dollar accounts as impress bank accounts.
- Provide timely and thorough independent reconciliations of the account balances.

the population (for example, for Kahne, each remittance opened was given a unique identifier before processing was performed). In an electronic environment, the client may have a procedure by which the bank sends details of each remittance directly to the client for posting to cash and accounts receivable. These control totals should be reconciled daily with the amount shown as direct deposits by the bank.

- *Periodic reconciliation of the bank accounts*—Independent reconciliation of the balance on the bank statement with the balance on the books should identify misstatements and unusual banking activity that may have occurred.

The auditor can test the reconciliation controls by reviewing the client's reconciliations to determine that they were independently performed. See the *Focus on Fraud* feature that describes the role of reconciliation in detecting potential frauds.

Computerized Control Totals and Edit Tests Computerized controls should be designed to ensure that all items are uniquely identified and an adequate audit trail exists for transactions. Controls include the following:

- *A unique identifier assigned to each item*—The unique identifier establishes the integrity of the total population and provides a basis to ensure that no items are added to or dropped from the population.
- *Control totals to ensure the completeness of processing*—Control totals should be established and reconciled with the computer-generated totals. A control total would also be established to reconcile the debits to cash and the credits to accounts receivable.
- *Edit tests to identify unusual or incorrect items*—Standard edit tests such as reasonableness tests, field checks, self-checking digits on account numbers, and alphanumeric tests should be implemented as deemed practical for the particular application.

Authorization of Transactions Individuals with proper authorization are able to electronically transfer millions of dollars each day. As a result, opportunities for abuse abound. Three authorization controls should be implemented:

1. Authorization privileges should be assigned to individuals based on unique activities associated with the individual and position. Authorization should follow the principles

of "need to know" and "right to know." Authorizations ought to be reviewed periodically by senior management.

2. Authentication procedures should ensure that only authorized personnel execute transactions. The authentication process may be implemented through electronic verification by using elements such as passwords, physical characteristics, cards, encryption, or terminals that are hard-wired to the computer. In a manual system, the authorization controls may involve limiting access to the area where checks are signed and to the prenumbered checks.
3. Monitoring should be established so that a detailed, daily review of transactions occurs and is compared with cash budgets, authorization limits by individuals, and riskiness of transactions.

Prenumbered Documents and Turnaround Documents Prenumbered documents are important in establishing the completeness of a population. The numbering may occur after the receipt where each remittance is assigned a unique identifier when it is received by the company. Another option is to use **turnaround documents** that customers return with their cash payment. A clerk can quickly review the turnaround document and compare the amount indicated paid with the actual cash remittance. The turnaround document contains other information useful for further processing, such as account number, invoice number, date billed, and date received (entered by clerk).

Periodic Internal Audits Internal audit departments are effective deterrents when they periodically conduct detailed audits of cash controls and cash management. Internal auditors may also review the development of new systems to determine whether adequate controls have been built into the new systems.

Competent, Well-Trained Employees Normally, the auditor is aware of the way that key employees perform their duties. The auditor should document any concerns about employee competence and assess how the audit should be adjusted.

Understanding and Testing Internal Controls

An understanding of the internal controls affecting cash processing is gained through walkthroughs of processing including interviews, observations, and review of procedures manuals and other client documentation. A questionnaire, such as the one shown in Exhibit 13.2, is often used to guide the auditor in obtaining this understanding. The questionnaire is designed to elicit information about specific controls performed. Usually the questionnaire identifies the specific individual responsible for performing each procedure, which assists the auditor in evaluating the segregation of duties. As you review Exhibit 13.2, note the heavy emphasis on monitoring activities; that is, the development of management reports that signal departure from what is expected and indicate a need for follow-up action.

An audit program for testing the controls is developed. An example of such a program is shown in Exhibit 13.3. The first part of the program focuses on gaining an understanding of internal controls; the remaining part identifies tests of controls. The program is designed around the basic control objectives and is cross-referenced to the audit objectives.

Consider the Risk

The auditor should consider the types of misstatements most likely to occur in planning the direct tests of account balances.

Substantive Testing of Cash Balances

When control risk is assessed as high; red flags are present; or for non-public clients, the auditor determines it is more efficient to directly test account balances; the audit will focus on direct tests of the cash balance. The audit tests follow the assertions developed earlier. In determining the specific tests that will be performed, the auditor assimilates information previously gathered regarding

EXHIBIT 13.2 Control Risk Evaluation Questionnaire: Cash Receipts (partial example)

	Yes	No	N/A
Are all payments received deposited intact on a timely basis? Consider:			
Procedures for Cash Remittances Received In-House			
1. Controls			
a. A list of incoming receipts is prepared by the person who opens the remittances and who delivers the list to a person independent of the deposit function.			
b. A duplicate deposit slip is prepared by someone other than the person opening the mail.			
c. Deposits are made daily.			
d. An authorized person compares the deposit slip with the listing prepared in step 1(a), noting agreement and completeness of deposit.			
2. Documented evidence of performance			
a. The listing prepared in step 1(a) is initialed by its preparer.			
b. The listing is attached to the deposit slip and is initialed by the person in step 1(d).			
c. Bank accounts are independently reconciled.			
Procedures for Cash Remittances Received Electronically by Bank on Behalf of Client			
1. Controls			
a. Agreement between bank and client on cash-handling activities, including when the remittances are added to client's account			
b. Procedures to forward detailed remittance advices to client on a daily basis			
c. Independent reconciliation of cash received reported by bank, with remittance advices forwarded to company and posted to accounts receivable			
d. Management monitoring controls to follow up on discrepancies in accounts receivable postings reported by customers			
e. Access to cash limited through computerized access controls including passwords and biometrics to those individuals with a need to know or to engage in transactions			
2. Documented evidence of performance			
a. Reports of daily reconciliations and follow-up by treasury personnel			
b. Periodic review by internal audit or treasury function			
c. Periodic comparison by treasury function with cash budgets and projections			
Are payments received completely credited to the correct customer accounts? Consider:			
1. Controls			
a. When the posting process is a function of a computerized application, assurance is gained by:			
(1) Prenumbered batch control tickets are used and include control totals of number of remittances to be processed and total dollars to be applied.			
(2) Batch edit reports or online edit routines identify invalid customer numbers, invoice numbers, and invoice amounts.			
(3) Online entry includes the input of a control total and/or hash total for each payment.			
2. Documented evidence of performance			
a. Edit reports and/or processing transmittals, which are saved and signed by the person clearing the exceptions.			
b. The person performing the independent check initials the remittance, noting agreement of the posting operation.			

(continued)

EXHIBIT 13.2 Control Risk Evaluation Questionnaire: Cash Receipts (partial example) (*continued*)

c. Online entry control totals and/or hash totals are noted on the face of the appropriate documents. ________ ________ ________
d. Batch control tickets are agreed to the edit reports and initialed to indicate agreement. ________ ________ ________

Are all overdue accounts followed up? Consider:

1. Controls
   a. An authorized individual makes regular collection calls on past-due accounts. ________ ________ ________
   b. The company systematically sends past-due notices to delinquent customers. ________ ________ ________
   c. Past-due accounts are periodically reviewed by senior collection officials to determine alternative collection procedures. ________ ________ ________
2. Documented evidence of performance
   a. Review procedures and discuss past-due accounts with the credit manager. ________ ________ ________

Conclusion

Procedural controls appear adequate to justify a preliminary control risk assessment as:

________ Low control risk
________ Moderate control risk
________ High control risk

control weaknesses, brainstorming about fraud, and the nature of errors found in previous years. Common types of misstatements regarding cash often include the following:

- Transactions recorded in the wrong period
- Embezzlements covered up by omitting outstanding checks or underfooting the outstanding checks on the reconciliation
- Double counting by manipulating accounts to record the same cash in two checking accounts at the same time (kiting)

Direct tests of cash include tests of year-end bank reconciliations, tests of cash cutoffs and bank transfers, and, in very high-risk situations, tests of deposits.

ACL can be used to foot the file, identify duplicate vendor invoice numbers, and check amounts as potential duplicate payments.

Independent Bank Reconciliations An independent reconciliation of the client's major bank accounts provides evidence as to the correctness of the year-end cash balance. The process reconciles the balance per the bank statements with the balance per the books. An independent test of the bank reconciliation is quite effective in detecting major errors such as those that might be covered up by omitting or underfooting outstanding checks. An example of bank reconciliation documentation is shown in Exhibit 13.4.

When testing the client's bank reconciliation, the auditor should independently verify all material items such as the balance per the bank statement, deposits in transit, outstanding checks, and other adjustments. The auditor should also foot all totals. Fortunately, there are two forms of evidence available from the client's bank to facilitate a test of the reconciliation—a cutoff bank statement and a standard bank confirmation.

The Cutoff Bank Statement A normal bank statement prepared at an interim agreed-upon date that is sent directly to the auditor is called a **cutoff bank statement**. The auditor asks the client to arrange for the bank to send a cutoff bank statement directly to the auditor for some period after year end, usually two weeks. For example, if the client's year end is December 31, the client may arrange for the bank to send a cutoff bank statement as of January 14 directly to the auditor.

EXHIBIT 13.3 Audit Program for Cash Receipt and Cash Management Controls

INTERNAL CONTROL OBJECTIVES

Occurrence

1. Recorded transactions and events have occurred and pertain to the entity.

Cutoff

2. Transactions are recorded in the correct accounting period.

Completeness

3. All transactions and events that should have been recorded have been recorded.

Accuracy

4. Amounts and other data have been recorded accurately.

Classification

5. Transactions and events have been recorded in the proper accounts.

Procedures	By	Ref.
1. Inquire of management about the existence of lines of credit, special cash management programs, and related fees with the company's primary banking institution. Analyze the arrangements for existence of special risks and for obligations of the client that should be considered in the audit.	______	______
2. Review the company risk analysis and assess the motivation to misstate or manage cash. Consider such items as: a. Financial condition of the company b. Past problems with cash c. Control environment d. Financial needs and liquidity problems e. Nonexistence of effective monitoring controls Based on the risk assessment, determine the risk that material misstatements could be occurring and would not be detected by the control system. Based on the risk assessment, make a preliminary determination as to whether satisfaction regarding controls can be determined by reviewing important monitoring controls, or if it is likely that detailed tests of cash transactions need to be performed.	______	______
3. Document internal controls over cash by completing the internal control questionnaire or by flowcharting the process.	______	______
4. Document the monitoring controls management has developed to determine whether other controls are working effectively. Determine whether:		
a. Monitoring activities are sufficient to alert management to breakdowns in other controls.	______	______
b. Monitoring reports are prepared on a timely basis and are reviewed by the proper levels of management.	______	______
c. Corrective action is taken on a timely basis, any control breakdowns are identified, and corrective action is taken.	______	______
Examples of monitoring controls include • Reconciliations of reported cash receipts with remittances prepared by independent parties • Daily review of cash budgets and comparison with actual cash balances • Reviews of discrepancies in cash balances • Weekly reporting of customer complaints regarding posting of cash balances and prompt investigation to follow up on cause of complaints • Reports on all unauthorized attempts to gain access to cash • Daily reports on any unusual cash activities by location or personnel		

(continued)

EXHIBIT 13.3 Audit Program for Cash Receipt and Cash Management Controls (*continued*)

Procedures	By	Ref.
5. Prepare and document a preliminary assessment of control risk. Identify specific controls to be tested if control risk is assessed at less than the maximum.	______	______
(The following audit steps assume that sufficient controls are present in the system.)		
General Tests of Controls		
6. Review the frequency of monitoring activities; determine their effectiveness through reviews of the reports, indications of management actions, descriptions of corrective actions taken, and interviews with key personnel. Determine if evidence is persuasive that the monitoring controls are sufficient to attain the broad control objectives.	______	______
Note: If monitoring controls are effective, the auditor may determine that control risk is low and there is no need to perform any of the following audit procedures. If some monitoring controls are not effective, then the auditor should test the part of the system that would have been affected by the monitoring controls by selecting relevant techniques as described next.		
Testing of Cash Receipts If Monitoring Controls Are Not Effective		
7. Perform a walkthrough of the processing of cash collections, starting with their receipt through the preparation of documents for processing. Note how conscientiously and efficiently the work is done, and the procedures used in developing batches and performing reconciliations. Interview supervisory personnel regarding potential problem areas. Identify any concerns regarding employee conscientiousness that would affect the risk assessment.	______	______
Testing of Specific Controls		
8. Select *x* number of cash receipts and determine that the following procedure takes place:		
a. Each remittance is given a unique identifier, which is subsequently entered into the system. (Objective 3)	______	______
b. The cash received is the same as the amount applied to the update of accounts receivable. Determine how differences (if any) are handled. Determine that the controls are operating effectively. (Objective 4)	______	______
c. Cash and remittances are segregated into batches for processing. (Objectives 3 and 4)	______	______
d. Documents that are prepared when turnaround documents are not returned with the remittances are accurate. (Objective 4)	______	______
e. Batches are prepared according to company standards. Review the reconciliation of batch controls to determine their accuracy and timeliness. (Objectives 2 and 4)	______	______
f. Exception reports contain all items rejected by the edit controls. The rejected items are properly followed up and recorded correctly. (Objective 3)	______	______
9. Determine who has the authorization to		
a. Make changes in documents or adjustments when cash amounts differ from invoiced amounts.	______	______
b. Make deposits.	______	______
c. Make withdrawals.	______	______
d. Make transfers among the organization's accounts or between the organization and other entities. (Objective 4)	______	______
10. Review reports for unusual cash transactions such as transfer of funds to other accounts, deposits other than through the normal cash receipts process, and disbursements not processed through the regular cash disbursements process. Select a sample of the transactions and review for proper authorization and completeness and correctness of processing. (Objective 1)	______	______

(continued)

EXHIBIT 13.3 Audit Program for Cash Receipt and Cash Management Controls (*continued*)

Procedures	By	Ref.
11. Review the procedures for authorizing passwords or other access codes for individuals who are authorized to initiate electronic transfers of cash. Select a limited number of transactions and trace back to the authorization. (As part of the general controls review of data processing, determine the procedures for ensuring that passwords are provided only to those properly authorized and that the passwords are kept secure. Determine through testing and observation that such controls continue to exist.) (Objective 1)	______	______
12. Review bank reconciliations for completeness, and trace selected items on the reconciliation to the bank statement. Determine that reconciliations are performed by someone independent of the processing. If there is evidence that bank reconciliations are performed regularly and that the auditor has assessed overall risk as low, there may be less need to test the reconciliations or other procedures. (Objectives 1, 2, 3, 4)	______	______
Documenting Work Performed		
13. Document the control risk assessment, including the types of misstatements that might occur because of any deficiencies in controls. Write a brief memo citing implications for the remainder of the audit.		

The auditor can examine canceled checks returned with the bank statement to determine that the checks dated prior to year-end were included as outstanding checks on the reconciliation and can trace deposits in transit into the statement to determine if they were deposited in a timely fashion. The auditor should be alert for groups of checks that do not clear for an unusually long time after year end. The delay in clearing the bank may indicate the recording of checks but not mailing them until after year end in an effort to improve the appearance of the balance sheet.

The Standard Bank Confirmation The auditor usually sends a standard **bank confirmation** to each bank with which the company has transacted business during the year. The confirmations have two parts. The first part, shown in Exhibit 13.5, seeks information on the client's deposit balances, on the existence of loans, due dates of the loans, interest rates, dates through which interest has been paid, and **collateral** for all loans outstanding with the bank at year-end. The second, shown in Exhibit 13.6, seeks information about any contingent liabilities.

If loans are outstanding, the auditor usually asks for copies of the loan agreements to identify restrictions on the ability of the organization to pay dividends or to determine whether the organization will have to maintain specific working capital or debt ratios. These requirements are generally referred to as *covenants,* a violation of which will make the loans immediately due and payable unless the financial institution temporarily waives the violation. If covenants are violated and the financial institution will not waive them, the auditor will have to consider whether the client will be able to continue to operate as a going concern and, if it is a long-term debt, reclassify it as a current liability. Additionally, the auditor normally makes inquiries about the existence of cash management or other programs that the client has with the financial institution.

Obtaining Year-End Cutoff Information In many instances of fraud, management has either held open the cash receipts book to record the next period's sales collections as part of the current period or has mailed checks to vendors but did not record the cash disbursements until the subsequent period. Sometimes these problems occur because a company is in dire financial straits and needs an improved balance sheet to avoid violation of loan covenants.

EXHIBIT 13.4 Tests of Client's Bank Reconciliation

ABC Client
December Bank Reconciliation
Year Ended December 31, 2007

Prepared by BJS
Reviewed by ________
Date ________

Balance per bank statement		**$1,073,852.65***
Add: Deposits in transit:		
12/28 Deposit	$287,000.00†	
12/31 Deposit	300,000.00†	587,000.00 F
Less: Outstanding checks:		
2809	$ 435.56#	
3678	67,892.09#	
3679	75,000.00#	
3899	700.00**	
3901	12,500.00#	
3903	50,000.00#	(206,527.65) F
Adjusted Balance		$1,454,325.00 F
Balance per books		**$1,481,350.00** TB
Bank charges not recorded		(25.00)‡
NSF checks:		
Bailey's Main	$ 12,000.00§	
Crazy Eddie's	15,000.00!	(27,000.00) F
Adjusted Balance		$1,454,325.00 F

Legend of Audit Work Performed:

* Confirmed per bank. See WP reference C-1.

† Traced to deposits shown on bank statement on 1/3 and 1/4 contained in bank cutoff statement. The 12/31 deposit was traced to bank transfer WP C-12 and was listed as an outstanding check on the subsidiary account.

‡ Traced to bank cutoff statement. Charge was for service fees, which should have been recorded by the client. Amount is not material and no adjustment is proposed.

§ NSF check was returned with 12/31 bank statement. Examined support showing client re-deposited the checks. Traced to deposit in cutoff bank statement and determined that it had not been returned in subsequent statement.

! Examined NSF check returned with 12/31 bank statement. Crazy Eddie's is a retail firm that has gone bankrupt. The likelihood of ultimate collection is low. Based on discussion with the client, the amount should be written off. See AJE 35.

Outstanding checks were traced to checks returned on 1/20/08 bank cutoff statements. Checks were examined, and all were dated 12/31 or earlier and were canceled by the bank subsequent to 12/31.

** Check had not cleared as of 1/20/08. Examined supporting document for the check. All appeared proper and no exceptions were noted.

TB Traced to general ledger.

F Footed, no exceptions noted.

If the auditor assesses the risk of such irregularities to be high, the following procedures should be considered:

- Obtain information on the last checks issued by the fiscal year-end, such as the last check number, and observe that all previous checks had been mailed. The mailing of the checks can be corroborated by observing whether the checks clear the bank in a timely fashion, as evidenced in the bank cutoff statement.
- Obtain information on the last cash receipts. The auditor usually notes the last few receipts as a basis for determining the recording in the correct period. The information is traced to the company's bank reconciliation and bank accounts to determine if items were recorded in the proper period.

EXHIBIT 13.5 Standard Bank Confirmation—Account Balances

Financial Institution's Name and Address

[ ]

[ ]

CUSTOMER NAME

We have provided to our accountants the following information as of the close of business on ____, 20__, regarding our deposit and loan balances. Please confirm the accuracy of the information, noting any exceptions to the information provided. If the balances have been left blank, please complete this form by furnishing the balance in the appropriate space below. Although we do not request nor expect you to conduct a comprehensive, detailed search of your records, if during the process of completing this confirmation additional information about other deposit and loan accounts we may have with you comes to your attention, please include such information below. Please use the enclosed envelope to return the form directly to our accountants.

1. At the close of business on the date listed above, our records indicated the following deposit balance(s):

ACCOUNT NAME	ACCOUNT NO.	INTEREST RATE	BALANCE*

2. We were directly liable to the financial institution for loans at the close of business on the date listed above as follows:

ACCOUNT NO./ DESCRIPTION	BALANCE*	DATE DUE	INTEREST RATE	DATE THROUGH WHICH INTEREST IS PAID	DESCRIPTION OF COLLATERAL

(Customer's Authorized Signature) (Date)

The information presented above by the customer is in agreement with our records. Although we have not conducted a comprehensive, detailed search of our records, no other deposit or loan accounts have come to our attention except as noted below.

(Financial Institution Authorized Signature) (Date)

(Title)

EXCEPTIONS AND/OR COMMENTS

Please return this form directly to our accountants:

*Ordinarily, balances are intentionally left blank if they are not available at the time the form is prepared.

Approved 1990 by American Bankers Association, American Institute of Certified Public Accountants, and Bank Administration Institute. Additional forms available from: AICPA—Order Department, P.O. Box 1003, NY, NY 10108-1003. D 451 5851

These procedures are more likely to be used on smaller businesses that still handle checks manually.

Bank Transfer Schedules A company with many divisions frequently transfers cash from one division to another. Companies wanting to overstate cash often utilize a technique called **kiting** to record the same cash twice. They do this by making transfers near year end from one bank account to another bank account, recording the deposit in the second division's account but not recording the disbursement on the first division's account until the next fiscal period. For example, a December 31 transfer would show the receipt on one account but not the disbursement on the other, resulting in the transferred amount being recorded twice. The elements of a simple kiting scheme are shown in Exhibit 13.7. A more

EXHIBIT 13.6 Standard Bank Confirmation—Loan Guarantees

(Date)
Financial Institution Official*
First United Bank
Anytown, U.S.A. 00000

Dear Financial Institution Official:
In connection with an audit of the financial statements of (name of customer) as of (balance-sheet date) and for the (period) then ended, we have advised our independent auditors of the information listed below, which we believe is a complete and accurate description of our contingent liabilities, including oral and written guarantees, with your financial institution. Although we do not request nor expect you to conduct a comprehensive, detailed search of your records, if during the process of completing this confirmation additional information about other contingent liabilities, including oral and written guarantees, between (name of customer) and your financial institution comes to your attention, please include such information below.

Name of Maker	Date of Note	Due Date	Current Balance	Interest Rate	Date Through Which Interest Is Paid	Description of Collateral	Description of Purpose of Note

Information related to oral and written guarantees is as follows:

____
____
____
____

Please confirm whether the information about contingent liabilities presented above is correct by signing below and returning this directly to our independent auditors (name and address of CPA firm).
Sincerely,

(Name of Customer)

____

By: ______________________
(Authorized Signature)

Dear CPA Firm:
The above information listing contingent liabilities, including oral and written guarantees, agrees with the records of this financial institution.** Although we have not conducted a comprehensive, detailed search of our records, no information about other contingent liabilities, including oral and written guarantees, came to our attention. (Note exceptions below or in an attached letter.)

____
____
____
____

____
(Name of Financial Institution)

____
(Officer and Title) *(Date)*

* This letter should be addressed to a financial institution official who is responsible for the financial institution's relationship with the client or is knowledgeable about the transactions or arrangements. Some financial institutions centralize this function by assigning responsibility for responding to confirmation requests to a separate function. Independent auditors should ascertain the appropriate recipient.

** If applicable, comments similar to the following may be added to the confirmation reply by the financial institution. This confirmation does not relate to arrangements, if any, with other branches or affiliates of this financial institution. Information should be sought separately from such branches or affiliates with which any such arrangements might exist.

EXHIBIT 13.7 Example of Kiting—All within One Company

Division A

- Transfers $1,000,000 to Division B near the end of the year but records the transaction in the following year.
- Transfer does not clear the bank in the current year.
- Transfer does not decrease the year-end cash balance because it has not been recorded in the current period.

Division B

- Receives $1,000,000 before year end and records the deposit in the current period.
- Deposit may or may not be deposited by year end. If not, the deposit will be shown as a deposit in transit in the division's bank reconciliation.
- Transfer increases the year-end cash balance by the amount of the transfer. The net effect is to overstate cash on the consolidated financial statements by the amount of the transfer.

Result: Cash is recorded in both divisions at year end, resulting in double counting.

sophisticated kiting scheme used by the E.F. Hutton Company is illustrated in the *Focus on Fraud* feature.

The most effective and efficient way to test for the existence of kiting is to prepare a **bank transfer schedule** similar to the one shown in Exhibit 13.8. The bank transfer schedule lists all transfers between the company's bank accounts for a short period of time before and after year end. All transfers are accounted for to determine that they are recorded in the correct period and the client is not overstating the year-end cash account. Note the transfer of check number 8702, recorded as a deposit on December 30—an example of kiting. The check was recorded as a deposit in the Cleveland account on December 31 but was not recorded as a disbursement in the Rockford account until after year end.

Integrated Audit of Cash

An effective yet efficient audit takes advantage of internal control strengths to minimize direct testing of cash. Most medium- and large-sized organizations have good internal controls over cash. In such cases, the audit will focus on testing the controls as described earlier in this chapter and areas where potential misstatements might occur if any significant or material deficiencies are identified. If there are no significant or material deficiencies, minimal substantive testing will be performed, such as obtaining cutoff bank statements and bank confirmations and using these to review the client's bank reconciliations for its major bank accounts. An interbank transfer schedule may also be prepared. There may be no need to perform any other substantive procedures. If, however, there are one or more significant or material deficiencies in controls, the auditor must determine what types of misstatements

FOCUS ON FRAUD

Kiting Schemes: The Case of E.F. Hutton

Kiting can occur without fraudulently misstating financial statements. In the 1980s, the SEC accused the brokerage firm of E.F. Hutton of participating in a kiting scheme to earn excess interest at the expense of their customers. Hutton set up an imprest account for disbursements at geographic locations far removed from the customer who would receive one of E.F. Hutton's checks. For example, a bank account might be set up in Billings, Montana, for disbursements to customers located on the East Coast. Hutton's agreement with the bank was that the bank would wire Hutton with a message indicating the amount of checks cleared each day, and Hutton would wire funds to cover the cleared checks. Meanwhile, Hutton had the use of the cash for the time it took the checks to clear the remotely located bank. The firm eventually settled with the SEC and agreed to refrain from such practices in the future. As the banking system continues to automate, the likelihood of such schemes in the future will lessen because all checks will clear the banks in even shorter periods of time.

EXHIBIT 13.8 Bank Transfer Schedule—XYZ Company for the Year Ended December 31, 2007

			DATE DEPOSITED		DATE WITHDRAWN	
Transferred from Branch	Check Number	Amount	Per Books	Per Bank	Per Branch Books	Per Bank
Cleveland	15910	$ 45,000	12/26*	12/27†	12/26*	12/30†
Cleveland	15980	100,000	12/28*	12/29†	12/27*	12/31†
Rockford	8702	87,000	12/30*	12/31†	1/2‡	1/3†
Cleveland	16110	25,000	1/3*	1/4†	1/2*	1/5†
Rockford	8725	65,000	1/5*	1/7*	1/4*	1/8†

* Traced to cash receipts/disbursements records.

† Traced to bank statement.

‡ Withdrawal recorded in wrong period. See AJE C-11.

could occur and design audit tests to determine if they did occur. For example, if the supporting documents for cash disbursements are not properly canceled to prevent duplicate payments, the auditor will need to test for duplicate payments. Audit software can be used to identify duplicate vendor invoices and/or duplicate dollar payments in the cash disbursement records.

Audit of Marketable Securities and Financial Instruments

Audits of Marketable Securities

Marketable securities are either debt or equity securities that are readily marketable and that management intends to hold for a short time. Determining the proper accounting for most marketable securities is usually easy because many marketable securities have short durations (60 or 90 days). In some instances, the organization may also invest in other debt instruments that have due dates of longer duration or in equity securities. In those cases, the appropriate classification and accounting for the security depends on management's intent to hold for a shorter or a longer period of time. The major types of marketable securities include commercial paper, marketable equity securities, and marketable debt securities.

Audits of Commercial Paper

The term **commercial paper** refers to notes issued by major corporations, especially finance companies that generally have good credit ratings. An example of an audit program for substantive testing of commercial paper is shown in Exhibit 13.9. Note the specific linkage between assertions and the audit procedures and that the related interest income is tested at the same time.

Audits of Other Short-Term Securities

Short-term investments include marketable equity securities such as common stocks and corporate bonds. Such investments should be accounted for at market value. An example of an audit document for the testing of marketable securities is shown in Exhibit 13.10.

Several points need to be made concerning the audit document:

1. The client prepares a schedule of all marketable securities it owns at year end. The schedule includes the accrued interest and dividends associated with each security for

EXHIBIT 13.9 Assertions and Audit Procedures: Commercial Paper

Assertion	Audit Procedure
Existence or occurrence	1. Request that the client prepare a schedule of all commercial paper held by the organization at year end. Verify the existence of the securities by either (1) counting and examining selected securities or (2) confirming the existence with trustees holding them. Reconcile the amounts with the general ledger.
Completeness	2. Foot the schedule of commercial paper and examine the securities (step 1). Examine selected transactions and brokers' advices near year end to determine that the transactions are recorded in the correct period.
Rights	3. Examine selected documents to determine if there are any restrictions on the marketability of the documents. Inquire of management as to existence of any restrictions.
Valuation	4. (*Note: Commercial paper should be valued at year-end market value.*) Determine current market value through reference to a financial reporting service such as *The Wall Street Journal* or a similar electronic source.
	5. Re-compute interest and determine that accrued interest is properly recorded at year end.
Presentation and disclosure	6. Determine management's intent to hold securities as a short-term investment. Document that intention in a management representation letter.
	7. Determine whether the securities are properly classified, and that any restrictions on their use are appropriately disclosed in the notes to the financial statements.

the period of time held. The auditor is testing both the balance sheet and the related income accounts at the same time.

2. The document shows three items related to the value of the security:
   - Cost
   - Year-end market value
   - Carrying value for debt instruments
3. Disposals and resulting gains/losses are shown for all accounts during the year.
4. The auditor verifies the cost or sales price of the assets by examining broker's advices evidencing either the purchase or sale of the security. If control risk is low, the verification can be performed on a sample of the transactions.
5. Current market value is determined by referring to the year-end closing price in *The Wall Street Journal* or by collecting this data electronically on the auditing firm's own database.
6. Income is recomputed on a selected basis for interest, dividends, and realized and unrealized gains and losses.
7. The schedule is footed to determine the mechanical accuracy and the correct valuation of the account.
8. The audit tests address all of the audit assertions except presentation and disclosure. That assertion is verified directly with management and documented separately.
9. Document the conclusion regarding the fairness of presentation of the account balance as adjusted.

If the risk of material misstatement is low, the auditor will test only a small sample of the items. If risk is high, the auditor may verify all the material items on the worksheet.

Other Financial Instruments and Derivatives

There has been a large increase in new financial instruments, commonly referred to as derivatives. Many of these instruments have been created to take advantage of short-term market anomalies, such as differences in interest rates between short- and long-term securities. Others have been developed for the explicit purpose of removing liabilities from a company's balance sheet. Selected examples of these new kinds of securities are listed in Exhibit 13.11.

EXHIBIT 13.10 Nature Sporting Goods Manufacturing Company Marketable Securities for the Year Ended December 31, 2006

Prepared by AMT
Date 1/28/07
Reviewed by
Date

Marketable Investments	Beginning Balance	PURCHASES Date	PURCHASES Amount	DISPOSALS Date	DISPOSALS Amount	Gain/Loss Disposal	Ending Balance	Market Value (12/31)	INCOME ACCOUNTS Interest	INCOME ACCOUNTS Dividends	Total
Gen. Motors 8% comm. paper	$ 45,000.00	10/31/05		4/30/06	$ 45,000.00*	$ 0.00	$ 0.00		$ 1,800.00[R]		$ 1,800.00
Ford Motor 8.25% comm. paper	100,000.00	12/1/05					100,000.00[C]	$100,000.00†	8,937.50[R]		8,937.50
1000 Sh Lands' End common stk	22,367.00	10/31/05					22,367.00[C]	16,375.00†		$1,000.00[R]	1,000.00
1000 Sh AMOCO	48,375.00	12/31/04		7/13/06	62,375.00*	14,000.00[R]	0.00	0.00		1,000.00[R]	1,000.00
1000 Sh Consolidated paper	0.00	7/31/06	$41,250.00*				41,250.00[C]	44,500.00†		500.00‡	500.00
2010 Bank America Zero Cpn Bond	1,378.00	6/30/04					1,378.00[C]	1,587.00†	209.00[R]		209.00
Totals	$217,120.00		$41,250.00		$107,375.00	$14,000.00	$164,995.00	$162,462.00	$10,946.50	$2,500.00	$13,446.50
	T/B				F	F	CF F	F	F	F	F
							Market value	$162,462.00		#	
							Excess cost > Mkt. Value	$ 2,533.00§ F	‖	‖	‖

* Correct, per examination of broker's invoice.

C Securities held in broker's account, confirmed with broker.

R Recomputed, no exceptions.

† Per December 31 stock transaction listing in *The Wall Street Journal*.

‡ Amount should be $1,000. Company failed to accrue dividend declared.

T/B Per December 31, 2005 trial balance and 12/31 working papers, schedule M-2.

F Footed.

CF Cross-footed.

§ Loss not recorded. Trace to AJE 31.

‖ Traced to year-end trial balance.

Interest and dividend payments verified through examination of Standard & Poor's *Dividend and Interest Digest* for year end December 31, 2006

EXHIBIT 13.11 Examples of the Sophisticated Types of Financial Instruments

EVENT-RISK PROTECTED DEBT

A debt covenant associated with bonds that is intended to protect the bondholder in case of a credit downgrading of the bond, such as might happen in the case of a leveraged buyout (LBO). The covenants generally allow the investors to resell the debt to the original issuer at par if a stipulated event (such as a change in ownership) were to occur.

FLOATING RATE NOTE

A debt instrument with a variable interest rate. Interest rate adjustments are made periodically, often every six months, and are tied to a money market index such as the Treasury bill rate or London InterBank Organizational Rate (LIBOR).

JUNK BOND

Junk bonds are high-yielding bonds issued by a borrower with a lower-than-investment-grade credit rating. Many of these bonds were issued in connection with LBOs; others were issued by companies without long records of sales and earnings.

PAY-IN-KIND (PIK) DEBENTURE

A bond that pays interest during the initial few years in additional PIK debentures rather than in cash. Although the investor gets only more paper, the bonds have a scheduled date on which cash interest will be paid on both the original paper and the paper issued as dividends. Most of these bonds become callable by the issuer when cash payments are scheduled for payment. These bonds have been issued by high-risk companies that have large debt obligations. Many issuing firms need asset sales to pay down debt.

ZERO-COUPON BOND

With no periodic interest payments, these bonds are sold at a deep discount from face value. The holder of the bond receives gradual appreciation in the carrying value of the bond, which is redeemed at face value at maturity. The appreciation in value represents interest income.

SECURITIES SOLD WITH A PUT OPTION

Marketable securities sold by an investor (not the original issuer) together with a put option that entitles the investor to sell the securities back to the seller at a fixed price in the future. These securities often carry low yields.

COLLATERALIZED MORTGAGE OBLIGATION (CMO)

Debt obligation issued as a special-purpose instrument collateralized by a pool of mortgages. The financial instrument is handled as a purchase of a group of mortgages using the proceeds of an offering of bonds collateralized by the mortgages. The new financial instrument uses the underlying cash flows of the collateral to fund the debt service on the bonds. The bonds are priced based on their own maturity and rate of return rather than that of the underlying mortgages. CMOs have created secondary markets in the mortgage industry and have assisted the industry in attaining greater levels of liquidity. However, they are subject to the default risk of the underlying mortgages.

SECURITIZED RECEIVABLES

Receivables converted into a form that can be sold to investors (similar in concept to CMOs). The issuer of the special financial instrument uses the cash flows of the receivables to fund debt service on the securities. In most cases, investors have no recourse to the sponsor or originator of the financial instrument if the underlying loans go into default.

In many cases, the financial instruments provide for greater efficiency in the marketplace. As an example, before the 1990s most banks would hold mortgages of its customers for the full length of the mortgage, e.g., a 30-year mortgage. This subjected the bank to both (a) default risk and (b) interest rate risk. Banks found they could better manage these risks by selling the mortgages to third parties such as Freddie Mac. Banks could still make money originating the loans and servicing the loans. The intermediary organizations that purchased the loans then packaged them into risk rate classes and sold them to various public holders. It is argued that such an approach spread the risks across a greater number of parties and allowed banks to operate more efficiently in originating and servicing loans. However, someone ultimately is accountable for both default and interest rate risk. If an audit client holds some of these Collateralized Mortgage Obligations as an investment, the auditor must understand the risks to which the client is subjected and whether or not a current market exists for the financial instruments held.

Consider **the Risk**

Many financial instruments are designed to help the organization better manage risk. However, they can also be used to take on risk, that is, bet on an outcome.

In regard to most of the derivative instruments, note the following points:

1. The examples are only a few among hundreds of similar instruments existing in the current marketplace.
2. Although there are commonalities among all the instruments, each contains unique features that may shift risks to the investor.
3. Some instruments do not provide recourse to other specific resources in the event of default but try to "sweeten the deal" by providing other terms, such as higher interest rates, to entice users to invest in the securities. For example, most debt securities may be collateralized or provide preference in liquidation. Many of the new securities do not carry such privileges.
4. Although many of the instruments are described as marketable securities, the market is often very thin. Thus, market quotations may not be an accurate assessment of what the marketable value of the specific securities might be at the balance sheet date.
5. Some of the instruments defer the payment of cash to the future, often in the hope that the instrument will be replaced by another one at that time and thus will not constitute a significant cash-flow burden on the issuer.
6. Some of the instruments have specific options, such as the put option that allows the investor to put (sell) the instrument back to the original issuer on the occurrence of a specific event. It would seem that the market value of such instruments would be near par, but remember that the instrument holder's ability to realize par value depends on the original issuer's ability to pay at the time of the triggering event.
7. The FASB has issued specific guidance, especially Statement No. 133, detailing how some of the instruments must be valued and how they are disclosed in the financial statements.

Practical Point

Market price quotes are useful only if the market is fluid. There must be sufficient trade volumes such that the securities owned by the company, if traded, would not adversely affect current market price.

Financial institutions often have had significant investments in financial instruments. When there is a ready market for such instruments, and risks can be calculated and controlled, the valuation and disclosure are straightforward. However, there are cases where quoted market values are often illusory and misleading because they are based on quoted sales at volumes significantly lower than the volume of instruments on a company's books. In other words, a security that has the term *marketable* in its name is not necessarily readily marketable. The risks associated with the new types of financial instruments require the auditor to understand the control procedures that a client has implemented to minimize risks. Guidelines for assessing risks and controls are shown in the *Auditing in Practice* feature.

The auditor must determine the effectiveness of management's controls over financial derivatives, including an understanding of risks associated with the securities. To the extent that risks affect the valuation of securities, those risks must be reflected in the financial reports.

Application of Concepts: Audit of Financial Hedges

Most international companies purchase hedges to monitor its exposure to foreign currency fluctuations. This section illustrates a generalized approach an auditor takes to audit sophisticated financial instruments through a currency hedge program.

Identify the Risks and the Objectives The risks are as follows:

- The instrument categorized as a hedge is not really a hedge; rather it is a bet that currencies or other referenced data, e.g., commodity prices, will move in a specific direction and if it moves in that direction the company will gain.
- All the hedging transactions are not identified or disclosed.
- The company is taking on more risk than approved by management or the board.

The control objectives are as follows:

- Hedges should be initiated in accordance with company policies.
- All items must be hedges, not speculation.
- All the transactions are fully disclosed and accounted for.

AUDITING IN PRACTICE

Controlling Risks Associated with Sophisticated Financial Instruments

The following management control considerations should exist for all companies that use financial instruments, particularly derivatives:

1. *Identify the risk management objectives*—Investments in financial instruments should follow a well-developed management strategy for controlling risks.
2. *Understand the product*—Analyzing the economic effect of a transaction on each party is crucial for gaining insight into potential risk. Transactions are becoming more complex, with a single instrument often divided into a dozen or more instruments with differing yields and maturities.
3. *Understand the accounting and tax ramifications*—The FASB has worked on a comprehensive document to clarify the accounting for financial instruments based on risks and obligations. Although the FASB cannot anticipate every kind of instrument that may evolve in the next decade, general concepts in the guide serve to lead the client and management to proper accounting. Potential tax savings has motivated many of the instruments; thus, potential tax law changes may affect the economics of the instruments.
4. *Develop corporate policies and procedures*—Companies should have explicit policies, preferably in writing, defining the objectives for entering into the new forms of financial transactions. Management should clearly define the nature, risk, and economics of each authorized instrument or type of transaction. The policies should also set limits for investments in specific types of instruments. The board of directors should approve the overall corporate policy.
5. *Monitor and evaluate results*—Procedures should be established to monitor the transaction (instrument) on a regular basis to determine whether the expected benefits fall within the assumed risk levels. If the risk was initially hedged or collateral was obtained, the value of the hedge or collateral should be re-measured. Procedures should be in place to react to risk that has grown greater than the entity wishes to bear.
6. *Understand the credit risk*—Investors should ensure that proper protection exists against default by counter-parties. A mechanism is needed for continued monitoring of the counter-party's economic health. Formal credit-monitoring procedures—similar to credit policies for accounts receivable—need to be considered (even for counter-parties with prominent names).
7. *Control collateral when risk is not acceptable*—Sometimes credit risk becomes higher than anticipated, but the investor allows the counter-party to keep the collateral. In such cases, investors should implement procedures to ensure that they have possession of the collateral.

Understand the Product Hedges are usually straightforward and have two elements—which may vary by time and by amount:

- A contract to pay (or receive) payment within a stated period of time, e.g., payments made in dollars within 10 months
- A contract to purchase (sell) another commodity or currency at the time of payment to offset changes in the pegged transaction value

The product is designed to keep the transaction constant. Currency hedges, for example, are designed such that an organization neither wins nor loses because of shifts in currency value, e.g., the change in the exchange rate between the Euro and the U.S. dollar.

Understand the Accounting If the transaction is clearly a hedge such that contracts fully offset each other, there are no required entries on the company's books other than the existence of the contracts and the need to disclose the nature of the contracts. On the other hand, if the contracts are not balanced, the entity needs to book the changes in obligations at the end of each accounting period. Therefore, the auditor must undertake procedures to determine that the contracts are balanced and whether obligations may exist.

Determine Existence of Policies and Adherence to the Policies The auditor should evaluate the specific policies that have been developed and determine whether the monitoring controls and other activities provide evidence of the existence of the policies.

Monitor the Transactions The financial accounting system should produce reports that provide the following information on a monthly basis (or more frequently in some instances):

- Settlement of all contracts during the latest reporting period and any gains or losses
- New transactions that are hedged and whether they are fully hedged

- Summary of unhedged transactions that are subject to currency risk
- Planning budget of future transactions that will need hedging
- Summary of issues that should be brought before the financial planning group

The monitoring controls should clearly indicate follow-up actions taken by both the board and management. Unusual gains or losses would be an indication that the controls are not working effectively—planned hedges are not working. Further, there should be periodic testing of the procedures by the internal audit group.

Understand the Risk The summary of risks should be clearly spelled out to management and the board by the financial planning group.

Understand the Collateral There usually is no collateral with currency hedges, but there may be with other types of hedges.

The audit program would include the following steps:

1. Identify the policies and control procedures the company has implemented to ensure adherence to the procedures.
2. Review all gains/losses associated with the hedged transactions during the year to determine whether the transactions were hedged.
3. Obtain a summary of all hedges currently in effect. Take a sample of contracts associated with the existing hedges to determine that the contracts insulate the company from the effect of foreign currency fluctuations.
4. Summarize the results of testing to determine if unhedged currency transactions exist. List the unhedged transactions and determine (a) needed disclosure and (b) the appropriate entry to mark the instrument to market.
5. Inquire of management and the financial planning committee of the existence of any other unhedged currency transactions.
6. Inquire of internal audit of any work they have performed regarding hedges. Review their report, especially regarding the existence of controls.
7. Reach a conclusion about the adequacy of the hedges, document the conclusion in the audit documentation, and determine appropriate financial statement presentation.

Special Concerns Regarding Liquidity As the name implies, liquid assets can be moved quickly and can easily be substituted for one another. As an example, cash that may have been counted in the morning could purchase marketable securities in the afternoon. When the auditor believes that the control environment contains high risk and management might be motivated to misstate, it is best to audit all the liquid assets simultaneously (or as close to simultaneously as possible) to preclude the double counting of assets at year end.

Summary

Organizations manage cash and liquid assets to maximize their potential return. Companies develop sophisticated agreements with their bankers to invest excess liquid assets in interest-bearing securities. Many audit clients are major investors in financial instruments, some of which are made without a full understanding of the risks associated with the securities. Audits are more complex because market values of new, and more complex, securities are not readily available. A well-informed board of directors is a positive factor in evaluating the potential risk, but an uninformed board may mean that an organization is subject to greater risk than the board or management desires.

The extent of substantive procedures performed on cash depends on the effectiveness of internal controls. For smaller clients, the focus usually will be on verifying the accuracy of the cash balances rather than relying on internal controls.

For larger clients with effective internal controls, the extent of substantive testing can be minimized.

As an overall guideline, the audit approach to the investment assets centers on the following major steps:

1. Identify the assets and management's internal controls for safeguarding the investments and maximizing returns within the risk parameters set by the board of directors.
2. Understand the economic purpose of major transactions and/or agreements with financial institutions and the economic impact on the client.
3. Identify the risks associated with the company's financial assets and the parties that hold the risks.
4. Confirm agreements and examine contracts associated with the agreements to determine necessary audit steps and accounting and financial statement disclosure.
5. Review and test transactions and related accounting and disclosure for their economic substance and adherence to appropriate accounting and SEC pronouncements.
6. Determine the existence of a market for securities and determine the appropriate accounting for year-end account balances.

The accounting for cash and marketable securities has often been assigned to first-year auditors because it was thought that the auditing procedures were mostly mechanical in nature: reconciling bank accounts, examining canceled checks, and so forth. As this chapter has communicated, the audit of cash and liquid assets is far from mechanical and represents a real challenge for many audit clients.

Significant Terms

bank confirmation A standard confirmation sent to all banks with which the client had business during the year to obtain information about the year-end cash balance and additional information about loans outstanding.

bank transfer schedule An audit document that lists all transfers between client bank accounts starting a short period before year end and continuing for a short period after year end; its purpose is to ensure that cash in transit is not recorded twice.

collateral An asset or a claim on an asset usually held by a borrower or an issuer of a debt instrument to serve as a guarantee for the value of a loan or security. If the borrower fails to pay interest or principal, the collateral is available to the lender as a basis to recover the principal amount of the loan or debt instrument.

commercial paper Note issued by major corporations, usually for short periods of time and at rates approximating prime lending rates, usually with high credit rating; its quality may change if the financial strength of the issuer declines.

cutoff bank statement A bank statement for a period of time determined by the client and the auditor that is shorter than the regular month-end statements; sent directly to the auditor, who uses it to verify reconciling items on the client's year-end bank reconciliation.

financial instruments A broad class of instruments—usually debt securities, but also equity or hedges—that represents financial agreements between a party (usually an issuer) and a counter-party (usually an investor) based on either underlying assets or agreements to incur financial obligations or make payments; instruments range in complexity from a simple bond to complicated agreements containing puts or options.

imprest bank account A bank account that normally carries a zero balance and is replenished by the company when checks are to be written against the account; provides additional control over cash. The most widely used imprest bank account is the payroll account, to which the company makes a deposit equal to the amount of payroll checks issued.

kiting A fraudulent cash scheme to overstate cash assets at year end by showing the same cash in two different bank accounts using an inter bank transfer.

lockbox A cash management arrangement with a bank whereby an organization's customers send payments directly to a post office box number accessible by the client's bank; the bank opens the cash remittances and directly deposits the money in the client's account.

marketable security A security that is readily marketable and held by the company as an investment.

turnaround document A document sent to the customer to be returned with the customer's remittance; may be machine readable and may contain information to improve the efficiency of receipt processing.

Review Questions

13-1 Why is it important to coordinate the testing of cash and other liquid-asset accounts?

13-2 Explain the purpose and risks associated with each of the following types of bank accounts:
a. General cash account
b. Imprest payroll account

13-3 Evaluate the following statement made by a third-year auditor: "In comparison with other accounts, such as accounts receivable or property, plant, and equipment, it is my assessment that cash and marketable securities contain less inherent risk. There are no significant valuation problems with cash. Marketable securities can be verified by consulting the closing price in *The Wall Street Journal*." Do you agree or disagree with the auditor's assessment of inherent risk? Explain.

13-4 Why is there a greater emphasis on the possibility of fraud in cash accounts than for other asset accounts of the same size? Identify three types of frauds that would directly affect the Cash account, and indicate how the frauds might be detected by the auditor.

13-5 What factors should be considered when planning the audit of cash and marketable securities?

13-6 Describe how a lockbox arrangement with a bank works. What is its advantage to an organization? What risks are associated with it? What controls should an entity develop to mitigate each of the risks identified?

13-7 What is a compensating balance? How does the auditor become aware of the existence of compensating balances?

13-8 How should duties be segregated in an automated cash receipts processing system? Explain the rationale for the segregation of duties that you recommend.

13-9 What are monitoring activities? Identify the major monitoring activities the auditor would expect to find in the cash management system. For each monitoring activity identified, indicate how the auditor would go about testing it to determine its effectiveness.

13-10 What are the major authorization principles the auditor should investigate regarding both cash management and investments in marketable securities?

13-11 Explain how turnaround documents can improve the controls over the cash receipts process. Does the existence of a turnaround document negate the need to assign a unique identification number to each cash receipts transaction? Explain.

13-12 What is the impact on the audit if the client does not perform independent periodic reconciliations of its cash accounts? What audit procedures would be dictated by the lack of the client's independent reconciliations?

13-13 Explain the purpose of the following audit procedures:
a. Sending a bank confirmation to all the banks with which the client does business
b. Obtaining a bank cutoff statement
c. Preparing a bank transfer statement

13-14 What information does an auditor search for in reviewing loan agreements with the client's bank?

13-15 How might management utilize the internal audit function to gain assurance about the effectiveness of its controls over cash and cash management?

13-16 Define and illustrate kiting. What procedures should the client institute to prevent it? What audit procedures should the auditor utilize to detect kiting?

13-17 Under what circumstances might it be acceptable to use an audit procedure other than physically examining marketable securities to verify their existence?

13-18 How does the auditor determine whether marketable securities are properly classified as short-term securities or long-term investments? What are the accounting implications of the classification as short term or long term? What types of evidence does the auditor gather to substantiate management's classification as a short-term security?

13-19 What role should the board of directors have regarding an organization's investment in marketable securities? What documentation would the auditor expect to find regarding the board's oversight role?

13-20 What role does collateral play in valuing marketable securities? Would an audit of marketable securities ever require an audit of the underlying collateral? Explain.

13-21 How would the absence of each of the following factors affect the auditor's assessment of the control environment? Assume that the company's investment in marketable securities is material to the financial statements.

a. The board of directors is not actively involved in monitoring the company's policies regarding marketable securities.
b. The company has an internal audit department, but it does not have any computer audit expertise and has not conducted audits of the cash or marketable securities account during the past three years.
c. Management does not have written guidelines for investments in marketable securities. The financial executive has been successful in procuring good returns on investments in the past, and management does not want to tamper with success.

13-22 In what ways do the new types of financial instruments differ from traditional financial instruments? What additional risks are associated with such securities?

13-23 What controls should an organization implement if it wishes to become an investor in more complex financial instruments? Explain the purpose of each control.

Multiple-Choice Questions

13-24 XYZ Company concealed a cash shortage by transporting funds from one location to another and by converting negotiable instruments to cash. Which of the following audit procedures would be most effective in discovering the cash cover-up?

a. Periodic review by internal audit
b. Simultaneous verification of cash and liquid assets
c. A surprise count of all cash accounts
d. Verifying all outstanding checks associated with the year-end bank reconciliation

13-25 An audit client has invested heavily in new marketable securities. Which of the following would not constitute an appropriate role for the company's board of directors?

a. Receive and review periodic reports by the internal audit department on compliance with company policies and procedures.

b. Approve all new investments.
c. Review and approve written policies and guidelines for investments in marketable securities.
d. Periodically review the risks inherent in the portfolio of marketable securities to determine whether the risk is within parameters deemed acceptable by the board.

***13-26** A cash shortage may be concealed by transporting funds from one location to another or by converting negotiable assets to cash. Because of this, which of the following is vital?
a. Simultaneous confirmations
b. Simultaneous bank reconciliations
c. Simultaneous verification of all bank accounts and negotiable instruments
d. Simultaneous surprise cash count

13-27 Which of the following would not represent an advantage to using a lockbox arrangement with a bank?
a. It expedites the receipt of cash and provides earlier access to it.
b. It is less costly than processing the cash receipts internally.
c. It provides additional segregation of duties because the bank handles cash.
d. It reduces the organization's susceptibility to fraud caused by diverting cash receipts to personal use.

13-28 Internal control over cash receipts is weakened when an employee who receives customer mail receipts also
a. Prepares initial cash receipt records
b. Prepares bank deposit slips for all mail receipts
c. Maintains a petty cash fund
d. Records credits to individual accounts receivable

13-29 The auditor suspects that client personnel may be diverting cash receipts to personal use. The individual who opens the mail also prepares the bank deposit and sends turnaround documents to accounts receivable for posting. Which of the following audit procedures would be the least effective in determining whether cash shortages are occurring?
a. Confirmation of accounts receivable
b. Preparation of a detailed cash trace
c. Review of all non-cash credits to accounts receivable for a selected period
d. Year-end reconciliation of the bank account

13-30 The auditor obtains a bank cutoff statement for a short period of time subsequent to year end as a basis for testing the client's year-end bank reconciliation. However, during the testing, the auditor notes that very few of the outstanding checks have cleared the bank. The most likely cause for this is that the client
a. Is engaged in a kiting scheme
b. Prepared checks to pay vendors but did not mail them until well after year end
c. Was involved in a lapping scheme
d. Needed to overstate the year-end cash balance to increase the working-capital ratio

13-31 The auditor would send a bank confirmation to all banks with which the client had business during the year, because
a. The confirmation seeks information on indebtedness that may exist even if the bank accounts are closed.

*All problems marked with an asterisk are adapted from the Uniform CPA Examination.

b. Confirmations are essential to detecting kiting schemes.
c. Confirmations provide information about deposits in transit that is useful in proving the client's year-end bank reconciliation.
d. All of the above.

13-32 An unrecorded check issued during the last week of the year would most likely be discovered by the auditor when
a. The check register for the last month is reviewed
b. The cutoff bank statement is reviewed as part of the year-end bank reconciliation
c. The bank confirmation is reviewed
d. The search for unrecorded liabilities is performed

***Items 13–33 and 13–34 are based on the following:**
The following information was taken from the bank transfer schedule prepared during the audit of Fox Co.'s financial statements for the year ended December 31, 2007. Assume all checks are dated and issued on December 30, 2007.

	BANK ACCOUNTS		DISBURSEMENT DATE		RECEIPT DATE	
Check No.	From	To	Per Books	Per Bank	Per Books	Per Bank
101	National	Federal	Dec. 30	Jan. 4	Dec. 30	Jan. 3
202	County	State	Jan. 3	Jan. 2	Dec. 30	Dec. 31
303	Federal	State	Dec. 31	Jan. 3	Jan. 2	Jan. 2
404	State	County	Jan. 2	Jan. 2	Jan. 2	Dec. 31

***13-33** Which of the following checks might indicate kiting?
a. 202
b. 303
c. 404
d. 202 and 303

***13-34** Which of the following checks illustrate deposits/transfers in transit at December 31, 2007?
a. 101 and 202
b. 101 and 303
c. 202 and 404
d. 303 and 404

13-35 An auditor should trace bank transfers for the last part of the audit period and first part of the subsequent period to detect whether:
a. The cash receipts journal was held open for a few days after the year end.
b. The last checks recorded before the year end were actually mailed by the year end.
c. Cash balances were overstated because of kiting.
d. Any unusual payments to or receipts from related parties occurred.

Discussion and Research Questions

13-36 The advent of sophisticated financial instruments has dramatically changed the nature of investing during the past decade. Many financial instruments offer potentially greater returns for the investor but at higher levels of risk.

Research Activity

Required
Review the FASB's discussion on financial instruments, or a finance text, to identify the types of financial instruments. Select five instruments

that you consider interesting, and prepare a report addressing (1) its nature of the instrument; (2) its underlying business purpose (3) risks associated with the instrument, and (4) special audit procedures that should be applied during the audit of a client with a significant investment in the instrument.

13-37 **(Electronic Funds Transfers)** Electronic funds transfer has been identified as a major method of transferring cash for most organizations.

Required

Complete *one* of the following:

a. Describe how electronic commerce and electronic transfer of funds works.
b. Identify the major risks that should be addressed by controls regarding electronic transfer of funds.
c. Identify the controls an organization should consider implementing to minimize the risks associated with electronic transfer of cash.

13-38 **(Authorization Concepts)** One of the major controls over cash and cash transfers is to ensure that only authorized personnel are handling cash, making cash transfers, or investing excess cash.

Required

a. For each of the following situations, indicate the appropriate position of the individual who should be authorized to initiate and implement the transaction:
   1. Electronic transfer of excess cash funds to the organization's major account for cash management and investment
   2. Regular disbursement of payment for accounts payable
   3. Transfer of funds to the imprest payroll account
   4. Investment of excess funds in nontraditional financial instruments.
   5. Endorsement for daily cash deposits
b. For each type of authorization identified in part (a), indicate the audit evidence the auditor would gather to determine whether transactions were appropriately authorized.

13-39 **(Audit Approach—Cash)** In conversation with another auditor, Fran—an auditor who has been associated primarily with audits of large clients—offers her opinion that "substantive testing of cash accounts is obsolete. The primary emphasis on cash audits ought to be on auditing the controls over the cash process, assessing the risks associated with the control environment, and selectively testing the client's year-end reconciliation." The other auditor, Cheng, replies, "Unfortunately, you have audited in a very sheltered world. Most of the audit clients I see are small and don't have particularly good internal controls. There is little segregation of duties. Most posting of accounts is to computer systems under control of the controller's department. Unless we do a primarily substantive audit, we could not gather enough evidence to render an opinion on cash."

Required

a. What primary elements of internal control must Fran be relying on in reaching her conclusion about the audit approach to cash?
b. For each item identified in part (a), indicate an audit procedure the auditor might utilize to corroborate the initial understanding of the risk or the control.
c. What primary substantive audit procedures would Cheng, the second auditor, most likely utilize to audit a small business? Describe the audit objectives accomplished with each procedure.

13-40 **(Cash—Audit Evidence)** The following items were discovered during the audit of the Cash account. For each item identified:

a. Indicate the audit procedure that most likely would have led to the discovery of the error.
b. Identify one or two internal controls that would have prevented or detected the misstatement or irregularity.

Audit Findings

1. The company had overstated cash by transferring funds at year end to another account but failed to record the withdrawal until after year end.
2. On occasion, customers with smaller balances send in checks without specific identification of the customer except the name printed on the check. The client has an automated cash receipts process, but the employee opening the cash pocketed the cash and destroyed other supporting documentation.
3. Same as finding (2), but the employee prepared a turnaround document that showed either an additional discount for the customer or a credit to the customer's account.
4. The controller was temporarily taking cash for personal purposes but intended to repay the company (although the repayment never occurred). The cover-up was executed by understating outstanding checks in the monthly bank reconciliation.
5. The company had temporary investments in six-month certificates of deposit at the bank. The CDs were supposed to yield an annual interest rate of 12%, but apparently are yielding only 6%.
6. Cash remittances are not deposited in a timely fashion and are sometimes lost.
7. Substantial bank service charges have not been recorded by the client prior to year end.
8. A loan has been negotiated with the bank to provide funds for a subsidiary company. The loan was made by the controller of the division, who apparently was not authorized to negotiate the loan.
9. A check written to a vendor had been recorded twice in the cash disbursements journal to cover a cash shortage.

***13-41** **(Internal Controls over Cash)** Pembrook Company had poor internal control over its cash transactions. The following are facts about its cash position at November 30:

- The cash books showed a balance of $18,901.62, which included undeposited receipts.
- A credit of $100 on the bank statement did not appear on the company's books.
- The balance, according to the bank statement, was $15,550.
- Outstanding checks were no. 62 for $116.25, no. 183 for $150.00, no. 284 for $253.25, no. 8621 for $190.71, no. 8623 for $206.80, and no. 8632 for $145.28.
- The only deposit was in the amount of $3,794.41 on December 7.

The cashier handles all incoming cash and makes the bank deposits personally. He also reconciles the monthly bank statement. His November 30 reconciliation follows:

Balance, per books, November 30		$18,901.62
Add: Outstanding checks:		
8621	$190.71	
8623	206.80	
8632	45.28	442.79
		$19,344.41
Less: Undeposited receipts		3,794.41
Balance per bank, November 30		$15,550.00
Deduct: Unrecorded credit		100.00
True cash, November 30		$15,450.00

Required

a. You suspect that the cashier may have misappropriated some money and are concerned specifically that some of the undeposited receipts of $3,794.41 may have been taken. Prepare a schedule showing your estimate of the loss.
b. How did the cashier attempt to conceal the theft?
c. On the basis of this information only, name two specific features of internal control that were apparently missing.
d. If the cashier's October 31 reconciliation is known to be in order and you start your audit on December 10, what specific auditing procedures could you perform to discover the theft?

*13-42 **(Audit of Cash—Reconciliations)** Toyco, a retail toy chain, honors two bank credit cards and makes daily deposits of credit card sales in two credit card bank accounts (Bank A and Bank B). Each day Toyco batches its credit card sales slips, bank deposit slips, and authorized sales return documents and sends them to data processing for data entry. Each week detailed computer printouts of the general ledger credit card cash accounts are prepared. Credit card banks have been instructed to make an automatic weekly transfer of cash to Toyco's general bank account. The credit card banks charge back deposits that include sales to holders of stolen or expired cards.

The auditor examining the Toyco financial statements has obtained copies of the detailed general ledger cash account printouts, a summary of the bank statements, and the manually prepared bank reconciliations, all for the week ended December 31, as shown here.

Required

Review the December 31 bank reconciliation and the related information contained in the following schedules, and describe what actions the auditor should take to obtain satisfaction for each item on the bank reconciliation. Assume that all amounts are material and that all computations are accurate. Organize your answer sheet as follows, using the code contained on the bank reconciliation:

Code Number	Actions to Be Taken by the Auditor to Gain Satisfaction

Toyco
Bank Reconciliation for December 31, 2007

Code No.	BANK A	BANK B
	Add or (Deduct)	
1. Balance per bank statement, December 31	$8,600	$ -0-
2. Deposits in transit, December 31	2,200	6,000
3. Redeposit of invalid deposits (deposited in wrong account)	1,000	1,400
4. Difference in deposits of December 29	(2,000)	(100)
5. Unexplained bank charge	400	
6. Bank cash transfer not yet recorded	-0-	22,600
7. Bank service charges	-0-	500
8. Chargebacks not recorded—stolen cards	100	-0-
9. Sales returns recorded but not reported to the bank	(600)	(1,200)
10. Balance per general ledger, December 31	$9,700	$29,200

Toyco
Detailed General Ledger Credit Card Cash Accounts Printouts
for the Week Ended December 31, 2007

	BANK A	BANK B
	Dr. or (Cr.)	
Beginning balance, December 24	$12,100	$4,200
Deposits: December 27	2,500	5,000
December 28	3,000	7,000

Toyco
Detailed General Ledger Credit Card Cash Accounts Printouts
for the Week Ended December 31, 2007

	BANK A	**BANK B**
	Dr. or (Cr.)	
December 29	0	5,400
December 30	1,900	4,000
December 31	2,200	6,000
Cash transfer, December 17	(10,700)	-0-
Chargebacks—expired cards	(300)	(1,600)
Invalid deposits (deposited in wrong account)	(1,400)	(1,000)
Redeposit of invalid deposits	1,000	1,400
Sales returns for week ended December 31	(600)	(1,200)
Ending balance	$9,700	$29,200

Toyco
Summary of the Bank Statements for the Week Ended December 31, 2007

	BANK A	**BANK B**
	(Charges) or Credits	
Beginning balance, December 24	$10,000	$ -0-
Deposits dated: December 24	2,100	4,200
December 27	2,500	5,000
December 28	3,000	7,000
December 29	2,000	5,500
December 30	1,900	4,000
Cash transfers to general bank account:		
December 27	(10,700)	-0-
December 31	-0-	(22,600)
Chargebacks:		
Stolen cards	(100)	-0-
Expired cards	(300)	(1,600)
Invalid deposits	(1,400)	(1,000)
Bank service charges	-0-	(500)
Bank charge (unexplained)	(400)	(-0)
Ending balance	$8,600	$ -0-

13-43 **(Bank Confirmations)** Generally accepted auditing standards require that auditors send confirmations to all banks with which the client has done business during the year. The AICPA has developed a standard bank confirmation form to ensure consistent communication with the banking community.

Required

a. Is the auditor required to send a bank confirmation to banks for which the client receives a bank cutoff statement shortly after year end? Explain.
b. What additional information is gathered through a bank confirmation? Explain how the other information gathered is used on the audit.
c. For each scenario in the following list, recommend an audit procedure or additional audit work that should be performed:
   1. The client has one major bank account located in a distant city, and the auditor is not familiar with the bank. The auditor has assessed control risk as high on this engagement. The mailing address of the bank is simply a post office box number, but such a number is not considered unusual.
   2. The client has three accounts with its major bank. For two of the three accounts, the confirmation returned by the bank shows

different balances from what the client shows. The balance per the client for one of the accounts is the same as the bank shows in the cutoff statement received from the bank shortly after year end. The auditor did not request a cutoff statement on the other account for which the confirmation differs.

3. The returned confirmation shows a loan that the client does not list as a liability.

13-44 (Electronic Funds Transfers—Monitoring Controls) Assume a major client is involved in transactions with customers such that almost all of the cash receipts are transferred to the client's bank electronically. The bank separates the remittance advices and sends that summary directly to the accounts receivable department of the client. At the end of the day, the bank also sends a complete cash receipts summary to the treasury department. In addition, the client purchases many products through e-commerce relationships with its major suppliers. It has signed contracts whereby a notification of receipt of goods in the client's system will cause an electronic transfer to be made to the major supplier within 10 days (i.e., 10 days of receipts will be paid on the 11th day) according to contracted prices and automated receiving documents.

Required

a. What are monitoring controls? How might monitoring controls be used to ensure that all receipts of cash are handled correctly and on a timely basis?

b. What major monitoring controls would the auditor expect to find over cash receipts? For each monitoring control identified, state how the auditor would test to see whether the control is operating effectively and the implication of effective operation on the conduct of other control tests.

c. What monitoring controls would the auditor expect to find over cash disbursements? For each monitoring control identified, state how the auditor would test to see whether the control is operating effectively and the implication of effective operation on the conduct of other control tests.

d. If effective monitoring controls are not present, and the auditor has identified the client as high risk because of financial liquidity problems, what kind of tests should the auditor perform to see that cash is being recorded correctly and is not overstated?

***13-45 (Bank Reconciliation)** The following client-prepared bank reconciliation is being examined by Kautz, CPA, during an examination of the financial statements of Concrete Products, Inc.:

Concrete Products, Inc.
Bank Reconciliation December 31, 2007

Balance per bank (a)		$18,375.91
Deposits in transit (b):		
December 30	1,471.10	
December 31	2,840.69	4,311.79
Outstanding checks (c):		
837	6,000.00	
1941	671.80	
1966	320.00	
1984	1,855.42	
1985	3,621.22	
1986	2,576.89	
1991	4,420.88	(19,466.21)
Subtotal		3,221.49
NSF check returned Dec. 29 (d)		200.00

Concrete Products, Inc.
Bank Reconciliation December 31, 2007

Bank charges	5.50
Error check no. 1932	148.10
Customer note collected by the bank	
($2,750 plus $275 interest) (e)	(3,025.00)
Balance per books (f)	$ 550.09

Required

Identify one or more audit procedures that should be performed by Kautz in gathering evidence in support of each of the items (a) through (f) in this bank reconciliation.

13-46 **(Overview and Objectives of Audit Procedures)** The following represents a critical review of the documentation of a new auditor for the cash and marketable securities audit areas. Several deficiencies are noted; they resulted in significant errors not being initially identified.

Required

For each of the following items:

a. Identify the audit procedure that would have detected the error.
b. Identify the basic financial assertion tested by the audit procedure.

Documentation Deficiencies and Financial Statement Misstatements

1. The client was in violation of important loan covenant agreements.
2. The client was engaged in a sophisticated kiting scheme involving transfers through five geographically disbursed branch offices.
3. The December cash register was held open until January 8. All receipts through that date were recorded as December sales and cash receipts. The receipts, however, were deposited daily.
4. Cash disbursements for December were written but the checks were not mailed until January 10 because of a severe cash flow problem.
5. The client's bank reconciliation included an incorrect amount as balance per the bank.
6. Approximately 25% of the cash receipts for December 26 and December 28 were recorded twice.
7. The client's bank reconciliation covered up a clever fraud by the controller by incorrectly footing the outstanding checks and including fictitious checks as outstanding.

13-47 **(Bank Transfer Problem)** Eagle River Plastics Company has a major branch located in Phoenix. The branch deposits cash receipts daily, and periodically transfers the receipts to the company's home office in Eagle River. The transfers are accounted for as intercompany entries into the home office and branch office accounts. All accounting, however, is performed at the home office under the direction of the assistant controller. The assistant is also responsible for the transfers. The controller, however, independently reconciles the bank account each month or assigns the reconciliation to someone in the department (which, in some cases, could be the assistant controller). The company is relatively small; thus, the controller is also the financial planner and treasurer for the company. As part of the year-end audit, you are assigned the task of conducting an audit of bank transfers. As part of the process, you prepare the following schedule of transfers:

Information from client's records			Information per bank statements	
			Date Cleared	
Date per Branch	Date per Amount	Date Deposited Home Office	per Home Bank	per Branch Bank
12-27	$23,000	12-31	12-31	1-3
12-29	$40,000	12-31	12-31	1-7

Information from client's records			Information per bank statements	
Date per Branch	Date per Amount	Date Deposited Home Office	Date Cleared per Home Bank	per Branch Bank
12-31	$45,000	1-2	1-3	1-8
1-2	$14,000	12-31	12-31	1-5
1-5	$28,000	1-3	1-7	1-12
1-3	$10,000	1-3	12-31	1-5

Required

a. Identify the audit procedures that would be used to test the correctness of the client's bank transfers identified.
b. Identify any adjusting journal entries that would be needed on either the home or branch office accounting records as a result of the preceding transactions.

13-48 **(Control Weaknesses)** The following are weaknesses in internal controls over cash:

a. Authorized check signers are not updated on a timely basis when job assignments are changed or people leave the firm.
b. The person who opens the mail prepares the deposit when the cashier is not available.
c. If a customer does not submit a remittance advice with his or her payment, the mail clerk sometimes does not prepare one for the accounts receivable department.
d. Occasionally, the treasurer's department does not cancel the supporting documents for cash disbursements.
e. Customer correspondence concerning his or her monthly statements is handled by the person who makes the bank deposits.
f. Bank reconciliations are not prepared on a timely basis. When they are prepared, they are prepared by the person who handles incoming mail.

Required

For each weakness, indicate what audit procedure(s) should be performed to determine whether any material misstatements have occurred. Consider each weakness independently of the others.

13-49 **(Marketable Securities)** The client prepared the following worksheet listing all activities in the marketable securities account for the year under audit. For purposes of this question, you may assume that there are no unusual securities except the note from XYNO Corporation (a related party) and a note from Allis-Chalmers Corporation (a customer). Assume also that control risk was assessed as moderate to high, and that the auditor decides to concentrate on direct tests of the account balance. The account balances at the beginning and end of the year per the company's trial balance are as follows:

	Beginning Balance	Ending Balance
Marketable securities	$400,000	$675,000
Allowance to reduce securities to market	$ 35,000	$ 35,000
Balance per general ledger	$365,000	$640,000
Interest income		$ 25,000
Dividend income		$ 18,000
Net gain on disposal of securities		$ 32,000

Required

Identify the audit steps needed to complete the audit of marketable securities for year end. You may assume that the client was audited by the same firm last year.

13-50 **(Internal Audit of Investments)** The existence of an internal audit department is recognized as a strong element of a company's control environment. Internal auditors can perform financial audits (similar to that of the external audit) or operational audits (audits of the effectiveness of operations and compliance with controls).

Required

Assume that the client has started investing in financial instruments.

a. Develop a comprehensive operational audit program to identify the risk associated with such investments, management controls designed to address those risks, and the effectiveness of the board of directors, management, and the audit committee review of such risks.
b. Assume that management reports that they are using "hedging contracts" to reduce exposure to foreign currency fluctuation as well as future price changes in raw materials. You have read that it is often difficult to determine whether some of these financial instruments are hedges or are speculative investments. In completing this audit:
   1. Briefly describe the difference between a hedge and a speculative investment.
   2. Briefly describe how the risk should be measured in a speculative investment.

13-51 **(Audit of Collateral)** Financial institutions usually require collateral as part of a lending agreement. For example, loans to build shopping centers usually require the property to be put up as collateral in case the borrower cannot repay the loan. The bank then takes title to the collateral. However, as reported by the GAO, many financial institutions, especially savings and loans, did not obtain adequate collateral or were overly optimistic on the value of collateral for many loans.

Required

a. Identify the controls a financial institution might implement to ensure that adequate collateral is obtained for loans.
b. During an audit of a financial institution, the auditor becomes concerned about the collateral that exists for some financial instruments in which the company has invested (such as collateralized receivables and mortgages). Develop an audit program to address the auditor's concerns regarding adequacy of collateral.
c. How would a deficiency in collateral affect the financial presentation of a company's investment account? Explain.

13-52 **(Computer Spreadsheet Template)** Assume that you have just gone to work for Wipfli, Barber, & Zeitlow, a regional CPA firm with seven offices in your state. The company is interested in automating much of its documentation. The partner in charge of training asks you to prepare a spreadsheet template to be used by the firm for auditing marketable securities of its clients.

Required

Prepare a spreadsheet template (spreadsheet with the logic built into it, so that all the staff auditors have to do is to input the current securities and the template will calculate expected values) to be used in the audit of marketable securities of clients. In developing the template, assume that the clients invest in a wide range of marketable securities including common stocks, preferred stocks, certificates of deposits, and bonds, as well as non-interest or dividend instruments such as puts or calls. The template should be set up to accomplish the following as a minimum:

- Indicate the preparer of the worksheet.
- Calculate needed cost or market adjustments.
- Estimate expected income including dividend income, interest income, and gain or loss on disposal of securities.

- Project ending balances.
- Establish a standard electronic tick-mark legend.

The spreadsheet should be printed so that it shows the development of any macros and the logic built into it.

Cases

13-53 **(Application Controls)** Rhinelander Co. is a regional retailer with 45 stores located in the Southeast. The company accepts major credit cards and its own credit card in addition to cash. Approximately 25% of the company's sales are made on the firm's own credit cards. The company has decided to process sales and cash receipts itself. Monthly statements are sent out on a cyclical basis. The customers are requested to return the upper portion of the statement with their remittance as a turnaround document.

The client has attempted to automate the cash collection process. The turnaround documents are machine-readable.

Required

a. Identify the important application controls that this system would include if the auditor had assessed control risk as low.
b. For each control identified, indicate (1) the sources of evidence the auditor would examine to determine whether the control existed, and (2) how the auditor would test to determine that the control is functioning as indicated.

13-54 **(Marketable Securities—Control Environment)** Justin Company, a medium-size manufacturing client located in the Southwest, produces supplies for the automobile industry. The company is publicly traded on the American Stock Exchange. Joann Sielig took over as chief executive officer three years ago after a successful career working with a New York investment-banking firm. The company had been earning minimal returns, and Sielig is intent on turning the company around. She has analyzed the situation and determined that the company's main manufacturing arm could be treated as a cash cow. In other words, although the operations do not generate a lot of profit, they do generate cash flow that could be used for investment purposes. After analyzing the situations, Sielig has decided that the best opportunities for superior returns lie in investments in high-risk marketable securities. When questioned on this strategy during a board meeting, she cited the finance literature that she asserted shows that greater returns are consistent only with greater risk. However, the risk can be minimized by appropriately diversifying the investment portfolio. Given Sielig's knowledge of the subject and quick grasp of the company's situation, the board gave her complete control over all aspects of management. She personally manages the investment portfolio. Moreover, the board was so impressed with her analysis that she was given an incentive pay contract with an annual bonus based on a percentage of profits in excess of the previous year's profits. In addition, she received stock options.

The company has an internal audit department that reports directly to the CEO (Sielig). Although an audit committee exists, it exists more in form than substance and meets with the director of internal audit only occasionally. The audit program for the year is determined by the director of internal audit in conjunction with Sielig and is strongly influenced by two factors: (1) Sielig's perception of areas needing review and (2) areas of potential cost savings.

Sielig has let it be known that all units of the company must justify their existence, and if the internal audit department expected future budget increases, it must generate recommended cost savings in excess of the current internal audit budget.

Your CPA firm audits Justin Company. During the preliminary planning for the audit, you note the following:

1. The investment account has grown from approximately 7% of total assets to approximately 30% of total assets.
2. The investment portfolio includes some long-term investments in company stocks; however, many of the stocks held in the portfolio are high risk stocks (with hopes of greater returns).
3. The remainder of the investment portfolio consists of a wide variety of financial instruments including junk bonds, collateralized mortgages, and so forth.
4. Broker fees have increased dramatically. There is also a new line item for investment consulting fees. It appears that most of these fees are to a company that might be somehow related to Sielig.
5. Most of the securities are held by the brokerage firm, but a few are held by the investment consulting company, and a few others are held directly by the company.
6. The company has shown a 25% increase in reported net income over the past year.
7. The company's stock value has appreciated more than 20% during the past year.

Required

a. Identify the elements of inherent risk and control risk in the preceding scenario that should be considered in planning the audit. For the control environment issues identified, briefly indicate the potential audit implication.
b. Outline an audit program that could be utilized for auditing the marketable securities account for the current year.
c. Given only the information presented in the scenario, identify the specific factors the auditor would evaluate in formulating an opinion on the required public reporting of internal control over financial reporting.

13-55 (Problems with Cash Confirmations) As an example of difficulties that auditors experience in collecting confirmations of cash balances, consider the Parmalat fraud. In that case, the company overstated cash by about $5 billion, which reflected a fictitious amount in a Bank of America account in the Cayman Islands. The Italian segment of the audit firm, Grant Thornton, received a cash confirmation that noted no exceptions to the confirmation the audit firm had sent. Parmalat accomplished the deception, in part, by providing the audit firm with a fictitious bank mailing address. However, it is important to note that SAS 67 "The Confirmation Process" states that "if the combined assessed level of inherent and control risk over the existence of cash is low, the auditor might limit substantive procedures to inspecting client-provided bank statements rather than confirming cash balances" (paragraph 10).

Required

a. SAS 67 allows auditors to use low-cost methods for obtaining substantive evidence regarding the existence and valuation of cash. If those methods are used, what analytical procedures could provide a supplemental low-cost source of evidence?
b. What role does the concept of materiality play in the substantive testing of cash balances?
c. How may the Internet and associated electronic confirmation processes help to avoid fraud associated with cash confirmations?
d. What are two or three key factors the auditor might consider that could have indicated that the cash account was a high risk account for this client and would require more skeptical audit work?

As part of the audit of cash and other liquid assets, you may now complete the following exercises contained in the Biltrite audit practice case:

Module VIII: Dallas Dollar Bank—bank reconciliation
Module IX: Analysis of interbank transfers
Module X: Analysis of marketable securities

Module VIII: Dallas Dollar Bank—Bank Reconciliation

Biltrite maintains two general demand deposit accounts and a payroll account. One of the general demand deposit accounts and the payroll account are with Dallas Dollar Bank. The second demand deposit account is with Bank Two, the Chicago bank from which Biltrite obtained the $45 million loan referred to previously. As part of the cash audit, Derick has asked you to reconcile all three of the bank accounts for December 2007, and to do an analysis of interbank transfers between Dollar Bank and Bank Two. Recall that Biltrite has reconciled all bank accounts for each of the twelve months. You will begin, therefore, with the company's December 2007 reconciliations.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Bank." Briefly examine the following documentation in this file:
   - WP 1—Cash on hand and in banks
   - WP 1.B—Bank reconciliation—Dallas Dollar Bank
   - WP 1.C—Interbank transfer schedule

   Scroll to WP 1.B, "Bank Reconciliation—Dallas Dollar Bank." Does the Dollar Bank account reconcile for December? What are the possible causes for non-reconciliation?
2. In tracing cash disbursements from the December check register to the bank statement, you learn that check 44264, in the amount of $642,752, was recorded incorrectly as $651,752. Incorporate this misstatement into the appropriate section of the bank reconciliation. Does the account reconcile after you have made this correction? Assuming check 44264 was in payment of accounts payable (refer to Exhibit BR.16), draft the necessary audit adjustment at the bottom of your document.
3. Print the bank reconciliation document.
4. Scroll to WP 1 and record the audit adjustment in the "audit adjustments" column of the lead schedule.
5. The deposit in transit, as well as all but the last two checks outstanding on December 31, cleared with the bank cutoff statement. What specific audit objectives does obtaining a cutoff statement directly from the bank support? If the cutoff bank statement covered the period 1/1/08 through 1/21/08 and the deposit in transit was credited 1/12/08, would you be concerned? If so, why? What additional procedures would you apply to allay your concerns? Note on document WP 1.B that Dollar Bank credited the deposit in transit on 1/3/08.

Module IX: Analysis of Interbank Transfers

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Bank." Scroll to WP 1.C, "Inter-bank Transfer Schedule." Cheryl Lucas, a member of the Denise

Vaughan & Co. audit team, prepared this document. As part of your audit training, Derick asks that you examine and review the document and determine the need for possible audit adjustments and reclassifications.

a. What is the purpose of analyzing interbank transfers for a short period before and after the balance sheet date?

b. Identify possible audit adjustments and reclassifications by examining WP 1.C. Assume that Bank Two check 127332 was dated December 31, 2007, deposited on that date, and also credited by Dollar Bank on December 31, 2007.

c. As noted previously, Lawton had borrowed $3 million from Biltrite in April 2006, and had planned to repay the loan before December 31, 2007. Did he really repay the loan in December? Do you think the check drawn on Bank Two was reflected as an outstanding check in the 12/31/07 Bank Two reconciliation? Do you think the check was recorded as a December disbursement? If not, why not? (*Hint*: Remember that the loan agreement with Bank Two requires a $10 million compensating balance at all times.)

2. Draft Audit Reclassification B at the bottom of WP 1.C.
3. Print the interbank transfer document.
4. Scroll to WP 1. Record Reclassification B from requirement (2) in the reclassification column of the lead schedule. Does the reclassification place Biltrite in default on the loan agreement? If so, what further audit procedures might you elect to apply at this time?
5. Print the lead schedule.

Module X: Analysis of Marketable Securities

Although the addition of the Waistliner Stationary Bike to the product line in 1980 helped somewhat in increasing Biltrite's fall and winter revenue, business remains quite seasonal, producing large amounts in idle funds to be invested temporarily after the spring and summer bicycle sales season has ended. Marlene McAfee, the Biltrite treasurer, usually invests in marketable securities in mid-August and holds them until mid-January. They are sold in late January and February to finance spring inventories of bicycles. McAfee's goals in acquiring short-term investments are to maximize return while minimizing risk of loss from wide temporary price fluctuations. For this reason, the portfolio is limited to debt securities rated AA and above, and common stocks of "blue-chip" companies.

As of December 31, 2007, the portfolio consisted of the following holdings:

Security	12/31/07 Carrying Value	12/31/07 Market Value
Transco, Inc. Preferred	$ 804,024	$ 810,000
Jolly Roger Amusement Parks Common	720,000	660,000
Pets 'R' Us Common	736,000	742,000
General Department Stores Common	660,000	550,000
AT&T 8% Debenture Bonds	930,000	942,000
Daimler/Chrysler 11% Debenture Bonds	1,150,000	1,131,000
Cleveland Electric 9% Debenture Bonds	2,000,000	2,066,000

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Security." Do you think McAfee's securities portfolio is consistent with her stated goals of "maximizing return while minimizing risk of loss from temporary price fluctuations"? Justify your answer.
2. What determines whether marketable securities are to be classified as current or noncurrent on the balance sheet?

3. What are the objectives in the audit of marketable securities? Examine the audit legends at the bottom of document 2. Have the objectives been satisfied?
4. Enter the market data for each security held at December 31, 2007.
5. Add an audit legend (and explain it at the bottom of the worksheet) regarding how market was determined.
6. Draft Audit Adjustment 9 at the bottom of WP 2 to recognize the understatement of interest revenue. The discrepancy results from failure to recognize accrued interest at 12/31/07 (debit account 1205, "Accrued Interest Receivable").
7. Draft Audit Adjustment 10 to adjust the loss on decline of market value to reflect the corrected amount. The wide disparity in this instance arises because Biltrite, in adjusting to market at 12/31/07, compared market at 12/31/07 with the cost of the 12/31/06 portfolio, rather than comparing 12/31/07 market with 12/31/07 carrying values. For this adjustment, use account 9702, "Loss on Decline of Market Value of Securities," and account 1102, "Allowance for Decline of Market Value of Securities."
8. Print your document.

CHAPTER 14

Audit of Long-Lived Assets and Related Expense Accounts

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. Through studying this chapter, you will be able to:

- Explain how management can manage earnings through fixed-assets accounts.
- Identify the elements of an integrated audit of fixed assets and related expenses and develop an integrated audit program.
- Identify important internal controls over fixed assets.
- Describe the common audit approaches used to audit fixed assets and related expenses.
- Describe the audit procedures that should be used to test for the impairment of fixed assets.
- Explain the audit approach for natural resources and intangible assets.
- Discuss the risks associated with lease accounting.
- Explain the audit approach to audit leases.

CHAPTER OVERVIEW

In this chapter, we present a general discussion of risks and audit approaches related to fixed assets and related expenses, natural resources, and leases. Auditors must consider the possibility that management may manage earnings by manipulating fixed asset or lease accounts. Although types of fixed assets vary widely, there is a commonality in the audit approach to them. Assets are subject to impairment testing each year.

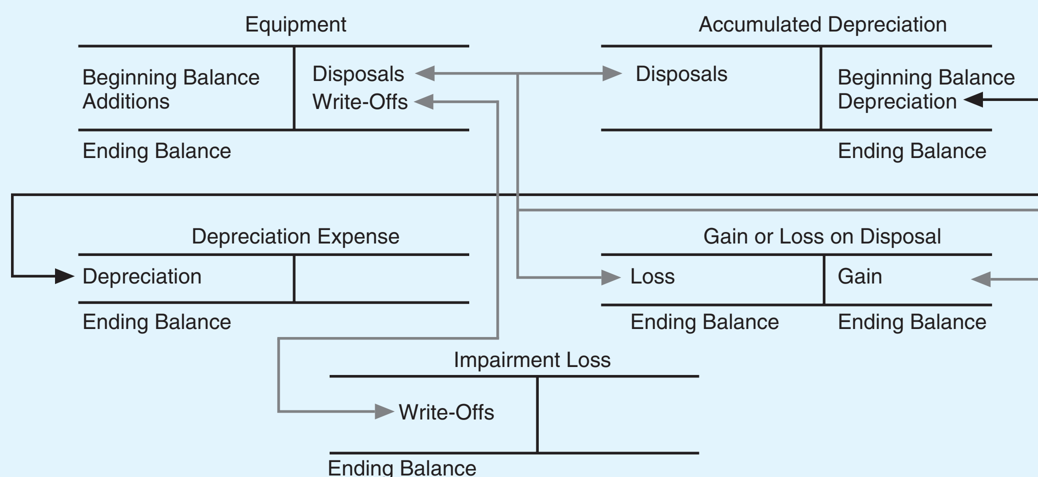
Business Risk and Business Environment

Fixed assets often represent the largest single category of assets of many organizations. An overview of the account relationships is shown in Exhibit 14.1. The asset account (equipment, buildings, or similarly titled assets) represents the culmination of major capital additions and disposals. Unless this is a first-year audit, the beginning balance is established in previous-year audits. The audit starts with an analysis of risks and controls to address those controls. The substantive testing of the account balances focuses on material transactions affecting the account balance during the year: additions, disposals, and write-offs of existing assets and the recognition of periodic depreciation of the assets.

Management can manage earnings in a variety of ways related to fixed-asset accounts:

- Changing estimated useful lives and residual values
- Capitalizing costs that should be expensed, such as repairs and maintenance costs

EXHIBIT 14.1 Fixed Assets: Account Interrelationships



- Improperly accounting for asset restructuring or acquisition
- Failing to properly perform asset impairment adjustments
- Accounting for capital leases as operating leases

Performing Audits

Risks of Material Misstatements
Substantive Tests
Conclusions

The management of WorldCom introduced some innovative methods to manipulate earnings by misstating asset and related expense accounts. See the *Focus on Fraud* feature at the top of next the page. The unique feature of the WorldCom fraud was that initially the net property was not misstated (fixed asset less accumulated depreciation). However, the company reduced the accumulated depreciation by debiting the account and crediting depreciation expense. These entries were performed on a regular basis and, unfortunately, the auditors did not view them as unusual and worthy of separate investigation. They also misstated assets by routinely capitalizing line expense (cash paid to other carriers when WorldCom used their lines to transmit calls). Finally, upon making new acquisitions, they established reserves for plant closings and related expenses. When the actual expenses were less, they debited the liability and credited expense thereby increasing net income in subsequent periods.

Unusual entries, particularly credits to depreciation expense or non-standard adjusting entries will require special attention.

Other risks associated with fixed assets and related expenses include the following:

- Incomplete recording of asset disposals
- Environmental liabilities or claims related to violations of safety and protection regulations, or violation of environmental regulations
- Obsolescence of assets
- Restructuring charges related to changes in the nature of the business
- Incorrect recording of assets, hidden by complex ownership structures designed to keep assets (and related liabilities) off the books

FOCUS ON FRAUD

WorldCom Uses Depreciation Reserves to Manage Earnings

From the first quarter of 1999 through the first quarter of 2002, WorldCom's management improperly released approximately $984 million in "depreciation reserves" to increase pre-tax earnings by decreasing depreciation expense or increasing miscellaneous income.

The "depreciation reserves" were created in a variety of ways including:

- The cost of equipment returned to vendors for credit after being placed in service was credited to the reserve (accumulated depreciation) rather than the asset itself.
- Following mergers with MCI and other companies, the reserve was used to house differences identified in the course of migrating the capital asset accounting systems of acquired companies onto WorldCom's SAP computer system. These differences were often the result of asset sub-ledgers that were out of balance with related general ledger balances.
- Recording unsupported additions to an asset account with a corresponding increase in the reserve.

After the end of each fiscal quarter, management in General Accounting would direct Property Accounting personnel to release large balances from this reserve account (debit to the accumulated depreciation account), usually to reduce depreciation expense. If it was too late in the quarterly closing process to record depreciation expense as a standard adjusting entry, they were directed to prepare a draft journal entry so General Accounting could make the adjustment.

WorldCom also inappropriately capitalized line expense (amounts paid to other carriers such as AT&T to use their lines) as fixed assets.

Source: *Report of Investigation* by the Special Investigative Committee of the Board of Directors of WorldCom, Inc., March 31, 2003.

- Incorrect valuation of assets acquired as part of a group purchase, including assets acquired as part of an acquisition of another business
- Amortization schedules or depreciation schedules that do not reflect economic impairment or use of the asset
- Failure to properly recognize impairment in value

The auditor will normally be aware of these risks through review of:

- Industry trends, technological advances, and changes in the location of production facilities
- The business plan for major acquisitions or changes in the way the company conducts its business
- Major contracts regarding capital investments or joint ventures with other companies
- The minutes of board of director meetings
- Company filings with the SEC describing company actions, risks, and strategies

Many young auditors just returning from an internship often believe that the audit of fixed assets is primarily mechanical, e.g., recalculate depreciation, tracing amounts to accumulated depreciation, and vouch fixed-asset additions. In some organizations, that may be the case. However, as with all other aspects of the audit, the auditor must understand the business plan, current economic conditions, and potential changes in the economic value of the assets. Auditors can make serious mistakes if they act as if fixed assets are always a low risk audit area.

Analytical Analysis for Possible Misstatements

Analyze Industry Trends and Changes in Product Lines

It is often very difficult to identify if the value of fixed assets has been impaired. However, knowledge of industry product trends and changes in the client's product lines may indicate that those assets are not as useful as they have been in previous years; they may not generate as much cash flow in future years as they have

in the past. A tour of the plant will indicate that some assets are not utilized at all, or they are not utilized efficiently. Such observations would indicate impairment in value. Other times it is more apparent. For example, Ford Motor Company announced plans in 2007 that it would reduce vehicle production by 20% over the next few years. That reduction requires the company and their auditors to carefully identify which assets will be discontinued and should receive a write down to their impaired value.

Analyze Depreciation for Consistency and Economic Activity

We have repeatedly made the point that the auditor must know the business and the economics of the business. Take a simple example. A local company is in the business of picking up and hauling garbage. Should the auditor have a good idea of about how long the trucks should last? They know the mileage; they know the beating trucks take every day; they know something about the company's policy for cleaning and repairing the trucks. What if management comes in and makes a decision to extend the depreciable life from 5 years to 12 years when the rest of the industry is at about 6 years. Does this make sense? See the *Focus on Fraud* discussion of Waste Management which illustrates the type of fraud that can be committed when auditors are not prepared to review the economics of such decisions. While the auditor cannot always make a decision as to whether 5 years is better than 6, the auditor needs to be in an position to understand that 5 years is much closer to economic reality than 12 years.

There are three relatively simple analytical techniques that the auditor can use to supplement the business understanding described earlier:

- Review gains/losses on disposals of equipment (gains indicate depreciation lives are too short, losses indicate the opposite).
- Tour the plant and note the amount of idle equipment.
- Perform an analytical estimate of depreciation.

The auditor can utilize spreadsheets to develop estimates of depreciation based on costs of assets, estimated lives, and salvage value. Assuming the auditor agrees with the client's estimate of useful life and salvage value, the depreciation estimate can be compared with recorded depreciation as a starting point to determine if additional work is needed.

Integrated Audit of Fixed Assets and Related Expenses

The relative strengths of the client's internal controls have a significant impact on the audit of fixed assets and related expenses. The weak control environments at WorldCom and Waste Management (see the two *Focus on Fraud* features)

FOCUS ON FRAUD

Waste Management and Arthur Andersen

Waste Management, Inc. is the nation's largest waste disposal company. The company grew though extensive acquisitions—seemingly all dependent on ever-increasing sales and net income that fueled higher stock prices. Waste Management's previous management recognized the importance of stock prices to pay for more acquisitions, but the company was losing its profitability. They struck on a new way to increase reported net income—simply increase the estimated lives of all the depreciable assets. The auditors never questioned the change even though the change accounted for virtually all of Waste Management's increase in earnings over a period of years. Finally, the SEC stepped in and said these lives simply are not realistic. Prior to Enron, this was the largest suit that had taken place against Arthur Andersen. Waste Management had misstated earnings by a whopping $3.5 billion. Arthur Andersen paid fines of $220 million and the SEC fined the auditors on the engagement.

resulted in material misstatements in fixed assets and related expenses. The weaknesses in the control environments led to override of other controls and to large frauds.

Evaluating Control Risk and Control Effectiveness

Practical Point

Company plans change, economic conditions change. These changes affect the value of the company's assets and should lead to periodic assessments of asset impairments.

For fixed assets, controls should be designed to:

- Identify existing assets, inventory them, and reconcile the physical asset inventory with the property ledger.
- Ensure that all purchases, including acquisitions of other companies, are authorized and properly valued.
- Appropriately classify new equipment according to their expected use and estimates of useful lives.
- Periodically reassess the appropriateness of depreciation categories.
- Identify obsolete or scrapped equipment and write the equipment down to scrap value.
- Safeguard the assets.
- Prevent unauthorized journal entries to the account balances.
- Periodically review management strategy and systematically assess the impairment of assets.

The auditor must know the company strategy in order to assess whether the carrying value of fixed assets has been impaired. If the client's controls are effective, analytical procedures can be used to estimate depreciation expense and accumulated depreciation. A property ledger should uniquely identify each asset and provide details on cost of the property, acquisition date, depreciation method used for both book and tax, estimated life, estimated scrap value (if any), and accumulated depreciation to date.

Controls for Intangible Assets

For intangible assets, controls should be designed to:

- Ensure that decisions are appropriately made as to when to capitalize or expense research and development expenditures.
- Develop amortization schedules that reflect the remaining useful life of patents or copyrights associated with the asset.
- Identify and account for intangible asset impairments.

Management should have a monitoring process in place to review valuation of intangible assets. For example, a pharmaceutical company should have sophisticated models to predict the success of newly developed drugs, and monitor actual performance against expected performance to determine whether a drug is likely to achieve expected revenue and profit goals. Similarly, a software company should have controls in place to determine whether capitalized software development costs will be realized. The auditor should assess both the existence and effectiveness of these controls in determining which direct tests of account balances need to be performed.

Practical Point

Generalized audit software is useful in summarizing journal entries made to particular account balances and helps organize data for the auditor to analyze and to test.

The auditor of a public company will need to test the controls over fixed assets. Many of the tests can be used to substantiate the changes in account balances during the year such as reviewing the control over purchases and establishing that new purchases have been recorded correctly and have been classified properly for depreciation. The auditor may also test the depreciation process and the controls surrounding that process. However, as clearly indicated in the WorldCom and Waste Management cases, the auditor must be alert to problems in the control environment and must develop a process to examine all important adjusting entries to the accounts at year-end.

If the auditor finds that internal controls are effective, then direct tests of account balances can be limited to analytic procedures that corroborate the auditor's assessment of the effectiveness of controls. If the analytical procedures do not corroborate the auditor's expectations, more tests have to be performed. In addition, if the controls are not found to be effective, the auditor will need to perform more direct tests of the account balances.

Basic Audit Procedures and Impact of Auditor's Assessment of Internal Controls

We now focus on the basic audit procedures and how they are impacted by the auditor's assessment of the client's internal controls. A comprehensive audit program for the audit of equipment is shown in Exhibit 14.2. In addition to providing evidence concerning the fairness of the account balance, the audit program is designed to gather information that will assist in auditing tax depreciation and the deferred tax liability because much of the tax difference is due to timing differences associated with depreciation methods. The remainder of the audit examines the approach that underlies the audit program, starting with the evaluation of internal controls over assets.

EXHIBIT 14.2 Audit Program: Manufacturing Equipment

Audit Procedures	Done by	W/P Refer.
Overall Concerns		
1. Review client accounting manuals to determine the existence of unique accounting issues associated with the client's industry.	________	________
2. If a first-year audit, make arrangements to review the working papers of the predecessor auditor to verify the beginning account balances.	________	________.
3. Review procedures used by the organization to requisition and approve fixed-asset purchases. Determine whether capital projects are reviewed by a capital budgeting committee and approved by the board of directors.	________	________
4. Make inquiries of the client as to major differences between book and tax depreciation. Determine that the client has a system to identify and support timing differences that will become a part of the deferred tax liability.	________	________
5. Determine if the company has a process in place to, at least annually, examine the potential impairment of assets.	________	________
Existence		
6. Inquire of management about the existence of significant additions or disposals of property, plant, or equipment during the year.	________	________
7. Request the client to prepare a list of fixed-asset additions and disposals for the year. Foot the schedule and trace selected items to entries in the property ledger.	________	________
8. Trace the beginning balance per the schedule to prior-year working papers ending balance.	________	________
9. Inquire of management about the existence of significant new leases or the conversion of leases into purchases during the year. Determine management's approach to capitalizing leases and the appropriateness of the accounting used by management.	________	________
10. Tour the client's major manufacturing facilities, noting the following:	________	________
• Addition of significant new product lines or equipment		
• Disposal of significant product lines or equipment		
• Equipment that has been discarded, is damaged, or is idle		
11. Inquire about methods used by the client to identify and assess the impairment of assets. Review the data gathered by management to test for impairment and determine if the data and the approach are reasonable.	________	________

(continued)

EXHIBIT 14.2 Audit Program: Manufacturing Equipment (*continued*)

Audit Procedures	Done by	W/P Refer.
12. Inquire of management about methods used to physically observe and count equipment on a periodic basis, and reconcile with the PPE ledger.	________	________
Completeness		
13. Select a representative sample of larger acquisitions and examine receiving reports or physically observe the asset. Determine that all items have been recorded in the correct time period (see step 17).	________	________
14. Review repair and maintenance expense, as well as the Lease Expense account, to determine whether some items should have been capitalized.	________	________
Rights and Obligations		
15. Inquire whether assets have been pledged as collateral, or whether obligations have been assumed in connection with purchases.	________	________
Equipment Account Valuation		
16. For assets identified earlier that no longer have economic value, determine that they have properly been written down to their impaired value.	________	________
17. Select a sample of additions over $________ or a PPS sample and examine invoices, construction billings, work orders, etc., to determine that the assets have been valued at cost and are recorded in the proper account. Determine that all trade-ins have been properly valued, and that tax liabilities associated with the trade-in have been properly recognized.	________	________
18. Select a sample of asset disposals, recompute the gain or loss (and tax obligations) on the disposal, and trace the gain or loss to the appropriate income or expense account.	________	________
19. Inquire about changes in the estimated useful life of assets. Determine whether changes are recognized in accordance with GAAP. Determine that all new equipment has been properly classified as to its useful life.	________	________
20. Review management's process to measure impaired assets, or to classify property as discontinued operations. Test management's estimate of impaired value through reference to economic plans, evidence of fair market value, estimated cash flow, and so forth.	________	________
21. Review the accounts for self-constructed assets. Ask the client to develop a schedule of capitalized costs. Determine the methods used to identify the costs, and examine supporting documents for selected entries.	________	________
22. For new equipment additions, examine the client's determination of economic life and residual value. Evaluate the choices by (a) comparing the choice with previous estimates of economic life and whether those estimates were accurate; (b) developing an understanding of technological changes in the assets and whether the changes will increase or decrease expected life; and (c) comparing the choices with companies in similar industries—either in our audit files or available in public reports.	________	________
23. Review all non-recurring journal entries (depreciation expense should be the only recurring entry) to both the equipment account and to the accumulated depreciation account. For all material journal entries, trace back to the underlying support for the entry to determine whether the entry is correct. Use generalized audit software to summarize all journal entries affecting the property accounts and associated depreciation.	________	________
24. If the company has multiple sites for its equipment, or if the company has multiple sites in which the accounting is done, analyze the potential risk and determine whether we should visit additional sites to physically observe the existence of the assets (on high-risk companies).	________	________
Overall Audit and Economic Review		
25. Evaluate the audit analysis of fixed assets to ensure we have gained satisfaction as to the following: • The assets reflect the economic life and intended business use for the assets. • The depreciation method approximates the actual usage of the assets.		

EXHIBIT 14.2 Audit Program: Manufacturing Equipment (*continued*)

Audit Procedures	Done by	W/P Refer.
• The assets deployed are consistent with management's business plan.		
• The assets are used efficiently and there is no further impairment that should be recognized.		
• We fully understand all of the significant accounting entries made to the asset and asset-related accounts during the year.	________	________
26. Document our understanding of the above factors (number 25) in a memo.	________	________
Depreciation and Accumulated Depreciation		
27. Review the client's depreciation policy and:		
a. Determine whether the approach is consistent with the type of equipment purchased. Determine whether there is a need to revise depreciation policies based on technological changes or the client's experience with similar assets.	________	________
b. Determine whether the depreciation approach has been used consistently.	________	________
c. Select a few additions and recompute first-year depreciation according to the proper classification of the property.	________	________
28. Prepare an estimate of depreciation expense by updating the depreciation worksheet for additions and disposals during the year.	________	________
29. Develop a schedule of timing differences between tax depreciation and book depreciation. Take the schedule forward to use in determining changes in the deferred tax liability and in tax expense for the year.	________	________
Presentation and Disclosure		
30. Review classification of property accounts and determine that all items are actively used in producing goods or services.	________	________
31. Review note disclosure to determine that depreciation methods and capitalization methods are adequately disclosed.	________	________
32. Document management's representations concerning the existence and valuation of the assets in the management representation letter.	________	________

The scope and extent of testing on each program will vary with the complexity of assets utilized, the difficulty in estimating useful life, and the risk associated with the client. The auditor must challenge the client's entries and computations with a reality check—do the accounting numbers reflect the economic use of the assets and the business plan being executed by the company.

Tests of Property Additions and Disposals

If the beginning balance is established through previous audit work, the test of property accounts can be limited to selected tests of property additions and disposals during the year.

Additions The auditor can usually test existence, rights, and valuation by the same procedures. The following procedures are designed to determine that all fixed-asset additions have been properly:

- *Authorized* by examining purchase agreements, board of directors minutes for major acquisitions, and approval by a capital budgeting committee
- *Classified* based on their function, expected useful life, and established depreciation schedule
- *Valued* by examining purchase documents such as invoices or construction billings

This work can easily be performed in conjunction with the internal control work as part of the integrated audit. One way to be efficient is to concentrate on the entries made during the year including a schedule of additions usually prepared by the client. After the schedule is agreed to the general ledger, the auditor should select a few items to test the controls, and vouch the items to vendor invoices and other supporting documentation. Exhibit 14.3 presents an example of typical audit documentation testing fixed-asset additions. Thus, while the account balance may be large, the audit work can be done efficiently by concentrating on the additions, and then adjusting the estimates of depreciation expense and accumulated depreciation for changes made during the year.

Visually Inspecting Existence Normally, the auditor will not visually inspect every addition. However, when there are large additions, e.g., the construction of a new plant, the acquisition of new facilities, or weaknesses in the control environment or deficiencies in the control activities over fixed-asset purchases and disposals, the auditor will want to physically verify that the asset exists. The risk is usually higher in remote locations where the auditor does not normally visit. If those sites show large additions of fixed assets and there are deficiencies in controls, the auditor should adjust the audit program to ensure that such sites are visited. If there are other situations that indicate high risk, e.g., assets that are difficult to visually observe, the auditor may want to verify the existence of contracts with bona fide contractors and, on a selected basis, accompany personnel to sites to observe the processes they have in place to monitor the installation of the assets.

For many manufacturing companies, these tests are supplemented by a tour of the factory to observe the general layout and condition of equipment, as well as the existence of idle equipment. The auditor's knowledge of the client's strategic plans and industry changes is used to determine whether additional work should be performed in evaluating whether some assets should be written down to their net realizable value.

Misclassifying Expenses as Assets WorldCom overstated earnings by capitalizing the costs they paid to other carriers for using their lines on individual calls. The auditor needs to summarize all journal entries to fixed-asset additions from any source other than a purchase of an asset and then gather independent evidence to verify the validity of the entries.

For many companies there are often judgments made as to whether a particular expenditure should be capitalized or expensed as a repair. Understand that a company can have different motivations. While we think about large companies wanting to maximize earnings and therefore capitalize most items, there are a number of smaller companies that want to minimize reported earnings to minimize their tax bills. The auditor should be alert to the possibility that management may be manipulating earnings by inappropriately expensing capital items or inappropriately capitalizing expense items. If the auditor believes such a risk is high and there are deficiencies in controls, the auditor will ask the client to prepare a schedule of both fixed-asset additions and repair and maintenance expense transactions. Selected transactions from both schedules can be vouched to vendor invoices, work orders, or other supporting evidence to determine their proper classification.

Consider the Risk

Small businesses may be motivated to minimize profits. The auditor should understand the motivations of each company and its management to identify the risks of misstatements. The audit procedures should be adjusted for the risks.

Disposals and Fully Depreciated Equipment Many organizations do not have the same level of controls over asset disposal or idle assets as they have for asset acquisition. For example, the disposal of scrapped equipment might not be recorded. Therefore, special procedures are often used by auditors to determine whether disposals of equipment have been recorded properly. One approach is to use generalized audit software to prepare a printout of fully depreciated (or nearly fully depreciated) equipment, which the auditor can attempt to locate. Or, trade-ins noted during the audit of property additions

Practical Point

The amount of work performed in analyzing disposals or fully depreciated assets depends on whether the company has an established process to account for trade-ins and fully depreciated assets.

EXHIBIT 14.3 Fixed-Asset Audit Documentation—Equipment, December 31, 2007

PBC
Work Performed by AMT
Date 1/28/2008

		COST				ACCUMULATED DEPRECIATION			
Description	Date Purchased	Beginning Balance	Additions	Disposals	Ending Balance	Beginning Balance	Depreciation Expense	Disposals	Ending Balance
Beginning balance	Various	124,350			124,350	33,429	12,435*		45,864
Additions:									
40" lathe	10/30/07	–0–	9,852†		9,852	–0–	1,250‡		1,250
1040 press	3/25/07	–0–	18,956†		18,956	–0–	1,895‡		1,895
60" lathe	5/29/07	–0–	13,903†		13,903	–0–	950‡		950
Disposals:									
Fork lift	6/2/97			7,881§	(7,881)			3,753	(3,753)
Computer	7/2/97			3,300§	(3,300)			2,625	(2,625)
Totals		124,350@	42,711**	11,181**	155,880**††	33,429@	16,530**	6,378**	43,581**††

* Estimated from last year; includes one-half year depreciation for assets disposed of during the year. See Working Paper PPE-4 for calculation of the estimate.
† Examined invoice or other supporting document, noting cost and appropriate categorization for depreciation purposes.
‡ Recalculated, noting that depreciation is in accordance with company policy and asset classification estimated economic life.
§ Traced to asset ledger and verified that equipment had been removed. Examined sales document or scrap disposal document for the disposal of the asset.
@ Traced to December 31, 2006 audit documentation.
** Footed/cross footed.
†† Traced to trial balance.

ACL can be used to extract a list of fully depreciated, or near fully depreciated assets for further analysis.

can be traced to the removal of the old equipment from the books. Inquiries can be made of client personnel about any assets that have been removed. Alternatively, a sample of property can be taken and traced to the physical assets to determine their existence.

Decommissioning Costs Some assets, most notably atomic power plants, must be decommissioned upon completion of their life. The company should be accruing a liability for the decommissioning cost as the asset is being used, so that upon its retirement, the liability represents the present value associated with the decommissioning process. The decommissioning expense should be recognized over the life of the asset.

Asset Impairment

In most cases, long-lived assets are used over their expected physical life, or if there is significant technological change, the asset lives may be revised to reflect a shorter expected economic life. In some cases, however, management may believe that a whole class of assets is overvalued, but the company does not wish to dispose of the assets. The issue of **asset impairment** presents three difficult, and often conflicting, audit problems:

1. Normally, management is not interested in identifying and writing down such assets.
2. Sometimes, management wants to write every potentially impaired asset down to a minimum realizable value to enhance the balance sheet for future earnings.
3. Determining asset impairment, especially for intangible assets such as goodwill, requires a good information system and a great deal of judgment.

The auditor must periodically assess management's approach to identifying impaired assets and writing them down to their current economic value. Thus the auditor needs an up-to-date knowledge of changes taking place in the client's industry as well as a thorough understanding of management's strategies and plans in order to make estimates of impaired assets. The auditor should look for management controls in the area including:

- A systematic process to identify assets that are not currently in use
- Projections of future cash flows, by reporting unit, that is based on management's strategic plans and economic conditions
- Current market values of similar assets
- Current market value of the company's stock (often used as part of a goodwill impairment test)

Consider the Risk

Knowledge of business conditions is crucial to identifying the potential impairment of assets.

Unfortunately, many companies that have excellent controls over transaction processing do not have the same level of controls over periodic assessments of impairment. Thus, a major audit task is to develop a systematic approach to continuously review the overall composition of an entity's asset base in light of current and planned production and technological and competitive developments in the client's industry. The financial reporting objective is to value assets at their economic benefit to the organization, and when that value has been impaired, to write down the assets when there is a permanent decline in economic value of the asset.

If there is evidence that an asset has been impaired, the auditor needs to address the valuation issue. The general concept of valuing impaired assets has been developed by the FASB and consists of two major approaches:

1. Estimating the future economic benefits to be derived from the asset
2. Obtaining an independent assessment of the value of the asset

The first approach is most often used with assets such as goodwill, but could be used for fixed assets such as electric power plants or other assets where the company had developed a capital budget plan to justify the purchase or development

of the asset. The first step is a recoverability test to determine if the net future cash flows from the asset exceed the carrying value of the asset. If they do, the FASB has determined there is no impairment for accounting purposes. On the other hand, if the undiscounted future cash flows do not exceed the carrying value, the company has an impairment. The expected cash inflows may be less than the carrying value because of competitor actions or a change in the regulatory environment. If there is a change in the estimate of cash flows, the new cash flows should be discounted back to the net present value using the current risk free interest rate to determine the asset value. The value would be compared to the carrying cost of the asset to determine the amount of the impairment to be recognized.

The second approach, often used for equipment, is to look at replacement cost as a measure of asset impairment. The two approaches the auditor will use are the following:

1. Obtain current market values, where applicable, or if not applicable, obtain an independent appraisal from a reputable, independent, and qualified appraisal firm.
2. Review current transactions to determine if there has been a decrease in purchase price.

If the auditor uses market value for the estimate, it is important to determine that the information comes from a market that is orderly and is liquid.

Practical Point

An auditor must gather corroborating evidence of the asset impairment. The first step is a recoverability test. If the asset passes the recoverability test, there is no impairment.

Discontinued Operations

Periodically, management decides to discontinue a particular line of operations by shutting down and dismantling production or, more likely, by announcing they will sell the line of business to another company. The accounting treatment for discontinued operations continues to evolve, but when a decision is made to discontinue, the company should write down the net assets (including an estimate for liabilities associated with a line of business, if applicable) to a best estimate of net realizable value. In assessing the fair market value, management will normally:

- Request an estimate of value from an investment banker and examine the assumptions and methodology used in making the estimate.
- Examine assumptions made about future net cash flows from the operations and discount them to the current time to develop an independent estimate of value.

The assets will be written down only if the company expects a loss on the disposal of assets. The company will not anticipate and record a gain. Further, the company is not allowed to book expected future operating losses from operating the line of business between the current time and the sale time as an impairment of the assets. The nature of the discontinuance decision and the amount of write-down should be fully disclosed in a note to the financial statements. The auditor needs to determine that management's approach is thorough and the evidence is objective.

Consider the Risk

Auditors are normally concerned that clients do not write down impaired assets. However, there is evidence that some companies have written off properly valued assets in years of good earnings to help smooth earnings. Accounting should be neutral and based on convincing evidence of impairment.

Depreciation Expense and Accumulated Depreciation

The specific procedures used by the auditor to test depreciation of fixed assets depends on the internal controls and the risk associated with the engagement and the account balances. Recall, risk is increased when a company takes a very convoluted approach to a simple accounting issue, as was done by WorldCom.

Low Risk: Analytical Procedures In most situations, the auditor is able to test the controls over depreciation as part of the integrated audit and may determine that the only additional audit procedure to be performed is an analytical procedure to determine that depreciation expense is consistent with the expectations developed from the control testing. Many audit firms use a spreadsheet to estimate changes in depreciation expense. The current estimate of depreciation on assets continuing in the business is calculated and then modified for assets added or disposed of during the year.

The worksheet should incorporate a number of ratios and an overall test of reasonableness to help determine the reasonableness of current charges to the accounts. The ratios might include the following:

- Current depreciation expense as a percentage of the previous-year depreciation expense
- Fixed assets (by class) as a percentage of previous-year assets—the relative increase in this percentage can be compared with the relative increase in depreciation as a test of overall reasonableness
- Depreciation expense (by asset class) as a percent of assets each year—this ratio can indicate changes in the age of equipment or in depreciation policy
- Accumulated depreciation (by class) as a percent of gross assets each year—this ratio provides information on the overall reasonableness of the account and may indicate problems of accounting for fully depreciated equipment
- Average age of assets (by class)—this ratio provides additional insight on the age of assets and may be useful in modifying depreciation estimates

If the corroborating factors do not support the auditor's estimation, detailed testing should be performed on various fixed-asset classifications.

The data needed for these analyses can be easily derived from client records using ACL.

High Risk: Test the Details In situations where controls are not sufficient, or when there is high risk associated with the client, the auditor will need to perform detailed tests of depreciation by starting with the fixed asset ledger that contains a list of all of the assets, their estimated useful life, salvage value, and depreciation method. Because the company is considered high risk, the auditor should use audit software to foot the ledger and agree it to the general ledger, take a sample of items contained in the detailed property ledger, and then recalculate depreciation for the sample of items chosen. The sampling procedure should be based on the same criteria introduced in Chapter 10, i.e., the auditor considers materiality, risk, and takes a PPS sample based on recorded depreciation (rather than asset value). Differences should be projected to the population as a whole. If there are significant differences the auditor should investigate to determine the "root cause" of the problem and have the client fix the problem. Finally, the auditor should use software to identify all entries into the depreciation and accumulated depreciation accounts that come from other than the normal depreciation entries and asset disposals.

Evaluating Changes The auditor should make sure that the depreciation methods used are consistent with the prior year unless the client has reasonable justification for changing. The footnotes should be carefully read to be sure all relevant information is disclosed.

First-Time Audits

ACL can download fixed-asset account detail and select a sample to physically examine and verify costs.

On the first-time audit of a new client, the auditor may not have the advantage of audited opening balances for the fixed-asset accounts. If the client has been audited before, the predecessor auditor should be contacted to determine whether evidence can be gained from the prior audits as to beginning balances. If the auditor cannot use the predecessor auditor's documentation, or if it is the first audit for the client, a statistical sample should be taken to observe existence and to review original invoices to verify cost and ownership. Depreciation expense and accumulated depreciation should also be recalculated. If the client's records are not adequate, the client may have to take a complete fixed-asset physical inventory.

Consider the Risk

Intangibles related to ethical drug development, new software, or patents are significant to many companies, but especially to start-up companies. The auditor must spend more time assessing the economic viability of the assets.

Intangible Assets

Some organizations have significant amounts of intangible assets. Drug companies have significant patent costs. For example, the intangible asset, franchise licenses, makes up over half of the total assets of Coca Cola. Management must determine if there has been any impairment as discussed earlier in this chapter.

Intangible assets should be recorded at cost. However, the determination of cost is not as straightforward as it is for tangible assets, such as equipment. A particularly troublesome area is the cost of a patent. For example, research and development costs related to new products, such as drugs or software, should be expensed as incurred up until the point that there is a viable product and a plan to bring the product to market. Legal costs for obtaining and defending a patent are capital expenditures if the defense is successful. If it is not successful, the patent has no value and any related costs should be expensed. Patents purchased from another company are capital costs. The cost of patents should be amortized over the lesser of their legal life or useful life. Minor changes to the patented item and getting a new patent for it often extend its legal life.

As with tangible fixed assets, management must have procedures in place to determine if the book values of patents and other intangible assets have been impaired. Auditors must be sure these procedures are proper and effective based on knowledge of the industry, competition, expectations of future cash flows, and new product introductions as discussed earlier in this chapter. Chapter 15 covers goodwill and its impairment.

Natural Resources

Natural resources present unique problems for the auditor. First, it is often difficult to identify the costs associated with discovery of the natural resource. The oil industry debated for years whether all costs incurred in searching for oil (including drilling numerous dry wells) should be capitalized as part of the cost of obtaining a successful well (*the full-cost approach*), or whether only the costs associated with drilling a specific successful well should be capitalized (*the successful efforts approach*). Second, once the natural resource has been discovered, it is often difficult to estimate the amount of commercially available resources to be used in determining a depletion rate. Third, the company may be responsible for restoring the property to its original condition (reclamation) after the resources are removed. Reclamation costs may be difficult to estimate.

Most established natural resource companies have developed procedures for identifying costs, and use geologists to establish an estimate of the reserves contained in a new discovery. The auditor normally has experience with the quality of the client's estimates but may want to use a specialist to review the geological analysis of new discoveries as a basis for establishing the reserves. Most organizations periodically reassess the amount of reserves as more information becomes available during the course of mining, harvesting, or extracting resources. The auditor should review these estimates and determine their impact on revisions of the depletion rate. The importance of these procedures can be seen in the *Focus on Fraud* feature.

FOCUS ON FRAUD

Shell Oil Estimates of Oil Reserves

Estimates of proven oil reserves are an important disclosure required by the SEC. In some aspects, the SEC believes the information is important because the future cash flow of the company is dependent on the amount of reserves the company currently owns. Bids to take over other oil companies are often based on the amount of oil reserves a company owns as some companies find it easier to buy existing reserves than to discover new reserves.

In the late 1990s the geologist in charge of estimating oil reserves for Shell Oil systematically overestimated the reserves (a known misstatement) in order to enhance the value of the company's stock. Subsequently, the geologist became the CEO of the company. However, when the SEC discovered the systematic overstatement of the reserves by amounts that were material to the company, the company was fined. More importantly, many stockholders and mutual fund investors began questioning the ethics of the CEO and the control environment of the company. The Company suffered a large loss of market value and the pressures by investors led to the resignation of the CEO and a restructuring of the Board.

Practical Point

Changing prices for natural resources causes accounting issues for companies and their auditors. A few years ago, the price of gold was so low that companies shut down many of their mining operations. As prices came up, companies reopened some of those mines because they could now profitably extract the gold. Was there an impairment a few years ago? Or is it just the nature of fluctuating prices?

Practical Point

Reclamation or restoration costs are not unique to mining. Electrical utilities must restore atomic energy plants to a non-threatening position at the completion of their economic life.

The audit procedures for determining the cost of natural resources are similar to those for other fixed assets. The auditor should test the capitalization of all new natural resources and should verify the costs by examining documents, including the client's own process of documenting all the costs of exploration and drilling.

Depletion expense should be based on the items extracted during the year using the units of production method. The company should have production records of daily extractions. In addition, the auditor will be able to substantiate the amount of items sold during the year. Further, the company should have procedures to estimate any changes in reserves in order to update the depletion procedures.

Estimation of Reclamation Expenses Environmental protection regulations have increased corporate responsibility to restore land used in mining to an agreed-upon more natural state. In addition, many state laws require safeguards to protect the environment while the natural resource mining or harvesting takes place. All costs associated with restoring the property to its original state should be estimated and accrued. The auditor should examine the reasonableness of the procedures used by management to estimate such expenses. Reclamation expenses should be amortized against the use of the natural resources as part of the depletion expense.

Leases: A Special Consideration

Motivation to Lease

Companies engage in leasing transactions for a variety of reasons. Most of the reasons are economic, but in some cases, achieving a particular financial statement treatment motivates the lease transaction. Some of the reasons for leases include the following:

- To finance the use of the asset instead of making an outright purchase
- To acquire the use of the asset for relatively short periods of time without having to buy and then sell it
- To acquire the use of the asset for an extended period of time, but keep the asset and related liability off of the balance sheet
- To maintain a flexible operating profile, i.e., substitute short-term variable costs for fixed costs

Assume that a company wishes to acquire the services of an automobile for a period of time between three and five years. We will make an additional assumption that the economic life of the car is five years. Alternatives include the following:

- Borrow the necessary funds and purchase the automobile.
- Sign a lease to rent a new automobile for a one-year period. At the beginning of the second year and again at the beginning of the third year, sign lease agreements to rent a new automobile for each of those years.
- Sign a three-year lease.
- Sign a five-year lease.

Clearly, the second option gives the owner more alternatives. They can get another car next year. Most would expect to keep a purchased car for 3–5 years, or more.

The choices also affect accounting. The financial reporting effects of these alternatives, according to current accounting standards, are as follows:

Alternative	Assets	Liabilities	Income Statement
1 Purchase	Automobile	Loans Payable	Depreciation and Interest Expense
2 One-year lease	None	None	Rent Expense
3 Three-year lease	None	None	Lease Expense
4 Five-year lease	Automobile	Lease Obligation	Depreciation and Interest Expense

In most instances, the least costly approach for the company is to purchase the asset. But, that may not be economically viable, or may not be consistent with the company's business strategy. The choice affects both the economics and the accounting treatment. If the company uses the purchase option (number 1 in the preceding table), the company records both the asset and the loan liability. It depreciates the asset over its economic life, which may be greater than three years, and recognizes interest expense on the liability.

For the leasing options, we have assumed three choices. Under the one-year rental option (number 2 in the preceding table), there is no accounting recognition at the time of signing. The company simply records rent expense each year. The rental payments are usually higher, but the company has a great deal of flexibility. If a company signs a longer-term lease (number 3 in the preceding table), but for less than the economic life of the asset, the company must disclose the lease obligations, but does not record the asset or the liability. On the other hand, if the company signs a lease that is nearly equal to the economic life of the asset (number 4 in the preceding table), the company records the present value of the lease as an asset and liability. It records depreciation and interest expense. This alternative is, in substance, an installment purchase of the automobile.

Practical Point

Leasing is often used to keep assets and liabilities off the balance sheet, thereby making a company appear to be less leveraged, or to increase its return on investment. The FASB has undertaken a project that may require all lease obligations that are greater than one year in length to be capitalized.

The risks of ownership (obsolescence, physical deterioration) are usually built into the pricing model by the lessor or the seller. Many companies want to have control of the assets for the economic life, but want to structure the purchase contract so that it looks like a lease thereby keeping the assets and liabilities off the balance sheet. Although there is disclosure of the lease obligations, the company still keeps the asset and liability off the balance sheet. While accounting has not yet moved to a complete "principles-based" approach, the guidance is that the economic substance of transactions, not its form, should guide accounting. However, as seen below, the form still plays a major part in accounting for leases.

Proper Accounting Treatment

Consider the Risk

Auditors must be alert to the possibility of management using leases for improper off-balance sheet financing of asset acquisition.

Current accounting principles in the United States require that leases should be capitalized if they meet at least one of four conditions:

1. The present value of the minimum lease payments is at least equal to 90% of the asset's fair market value.
2. The lessee can acquire title to the asset at the end of the lease for a bargain purchase price.
3. The lease term covers at least 75% of the useful life of the asset.
4. The lease transfers ownership to the lessee by the end of the lease term.

Capitalized leases are initially recorded at the present value of the future minimum lease payments. The cost of the asset is amortized in the same way as purchased assets. Periodic lease payments include interest expense and reduction of principle. If the lease does not meet one of the above tests, it is accounted for as an operating lease, in which case only rent expense is recorded.

Audit Approach

The audit approach for leases starts, as it does for all other accounts, with an analysis of controls the company uses to ensure proper recording of leases. If the controls are not well established, or if there is high risk with the company, the audit should proceed as follows:

1. Obtain copies of lease agreements, read the agreements, and develop a schedule of lease expenditures, bargain purchases, etc.
2. Review the lease expense account, then select entries to the account and determine if there are entries that are not covered by the leases identified in step 1. Review to determine if the expenses are properly accounted for.
3. Review the four criteria from SFAS #13 (see the preceding list) and determine if any of the leases meet the requirement of capital leases.
4. For all capital leases, determine that the assets and lease obligations are recorded at their present value. Determine the economic life of the asset. Calculate amortization expense and interest expenses, and determine any adjustments to correct the financial statements. Consider bargain purchase agreements to determine the economic life for depreciation purposes.
5. Develop a schedule of all future lease obligations, or test the client's schedule by reference to underlying lease agreements to determine that the schedule is correct.
6. Review the client's disclosure of lease obligations to determine that it is in accordance with GAAP.

Summary

The audit of long-lived assets is usually straightforward—test the changes in account balances during the year. However, the auditor should be alert to the possibility management is managing earnings by changing the related estimates without justification, capitalizing costs that should be expensed, or otherwise manipulating related accounts. The major challenge that will continue to exist is measuring the impairment of assets and correctly recording depreciation that fits the economic life of the asset.

Special care needs to be taken to ensure that leases are properly recorded as either capital or operating leases. The auditor should read the footnotes to be sure that all relevant information is disclosed.

Significant Terms

asset impairment A term used to describe management's recognition that a significant portion of fixed assets is no longer as productive as had originally been expected. When assets are so impaired, the assets should be written down to their expected economic value.

depletion Expense associated with the extraction of natural resources. The units of production method are normally used.

Review Questions

14-1 Explain how management could manage earnings through manipulation of fixed-asset accounts.

14-2 Identify the major elements of internal controls over fixed assets. For specific control procedures identified, indicate their importance to the audit.

14-3 How would an integrated audit of fixed assets differ from a traditional balance sheet audit of the fixed assets?

14-4 Identify the analytical procedures that may be most effective in performing an audit of depreciation expense. Indicate also how the procedures may provide information on the accuracy of asset accounts. Identify situations in which the performance of the analytic procedures as the major approach to evaluating depreciation would not be appropriate.

14-5 Explain how the auditor could use generalized audit software in auditing a client's property account.

14-6 What audit procedures might an auditor use to identify fully depreciated equipment? How might the auditor determine that such equipment is properly valued?

14-7 Why does an auditor ask the client to prepare a schedule of repair and maintenance expenditures that exceeds some predetermined limit? Why might a company want to expense an item rather than capitalize it?

14-8 During the audit of a new client, you uncover an accounting policy stating that all purchases of equipment or other items under $1,000 will be expensed, regardless of their nature. When you ask the controller about this policy, she says it is a practical way of handling items that are not material. She indicates that the policy saves a tremendous amount of work because the items are not inventoried, capitalized, or depreciated. How would the existence of such a policy affect the audit?

14-9 A client has a policy manual that categorizes equipment by type and assigns a depreciation life based on the categorization of the equipment. All equipment in a category is depreciated using the same depreciation method. How does the auditor determine the reasonableness of the client's approach?

14-10 What responsibility does the auditor have to determine the estimated life of a new asset that has been acquired by the company? How might an auditor go about determining whether the estimate of depreciable life by the company is reasonable?

14-11 What is meant by *asset impairment*? What are the major audit issues related to asset impairment that must be addressed on an audit?

14-12 What is a recoverability test as used in the context of testing for an asset impairment?

14-13 What evidence might an auditor gather to determine the proper valuation of an impaired asset?

14-14 Assume that a company obtains an appraisal for equipment that may be impaired. Does the auditor need to test the appraisal? What work should the auditor perform to determine that the appraisal should be relied upon as a best estimate of the value of the assets?

14-15 What are the major audit problems related to patents?

14-16 What major audit problems are associated with the audit of natural resources? To what extent do auditors utilize specialists in the audit of a natural resources company? Explain, using a specific example from a natural resources company.

14-17 Explain why a company might choose to lease assets rather than purchase the asset.

14-18 Some managers believe there are positive financial reporting benefits to leasing assets for a period of time that is less than their economic life. What are those benefits? How might the leasing presentation affect key performance ratios for the company?

14-19 What criteria should the auditor examine to help determine whether leases should be capitalized?

14-20 Does the auditor have to determine the economic life of a leased asset? Explain.

14-21 Describe the basic approach to auditing leases.

Multiple-Choice Questions

14-22 Which of the following is not a risk related to fixed-asset accounts?
a. Failing to record asset disposals.
b. Capitalizing repairs and maintenance expense.
c. Treating capital leases as if they were operating leases.
d Changing depreciation estimates to manage earnings.
e. All of the above are risks.

***14-23** Which of the errors or questionable practices is most likely to be detected by a tour of the production facility?
a. Insurance coverage on the facility has lapsed.
b. Overhead had been overapplied.
c. Necessary facility maintenance has not been performed.
d. Depreciation expense on fully depreciated machinery has not been recognized.

***14-24** A company keeps its fixed-asset records on a computer system. A unique, nine-digit, fixed-asset identification number identifies each record in the file. The remaining fields describe the asset, its acquisition date, cost, economic life, depreciation method, and accumulated depreciation. Which of the following audit procedures could not be performed using generalized audit software?
a. Select a sample of assets to be used in verifying existence of the asset.
b. Recompute accumulated depreciation.
c. Verify economic life by determining it is in the proper asset class.
d. Foot the cost and accumulated depreciation fields, and trace the totals to the client's general ledger.

†14-25 A weakness in internal control over recording retirements of equipment may cause an auditor to:
a. Inspect certain items of equipment in the plant and trace those items to the accounting records.
b. Foot the subsidiary ledger and agree it to the general ledger.
c. Trace additions to the "other assets" account to search for equipment that is still on hand but no longer being used.
d. Select certain items of equipment from the accounting records and locate them in the plant.

†14-26 The auditor may conclude that depreciation charges are insufficient by noting:
a. Large amounts of fully depreciated assets
b. Continuous trade-ins of relatively new assets
c. Excessive recurring losses on assets retired
d. Insured values greatly in excess of book values

14-27 Which of the following would not indicate possible asset impairment?
a. Unexpected obsolescence
b. Replacement costs have increased

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*All problems marked with an asterisk are adapted from the Certified Internal Auditor Examination.

†All problems marked with a dagger are adapted from the Uniform CPA Examination.

c. Significant change in planned production
d. Damage caused by a natural disaster

14-28 In auditing patents, an intangible asset, an auditor most likely would review or recompute amortization and determine whether the amortization period is reasonable in support of management's financial statement assertion of:
a. Valuation
b. Existence
c. Completeness
d. Rights

14-29 Which of the following is true of capitalized leases as compared to operating leases?
a. Only rent expense is reflected in the income statement.
b. The leased asset does not appear on the balance sheet.
c. Liabilities include the lease obligation.
d. Future minimum lease obligations are not required to be disclosed.

Discussion and Research Questions

14-30 **(Integrated Audit of Fixed Assets)**

Required

The following questions might be addressed in an evaluation of internal controls for fixed assets. For each question:
a. Indicate the purpose of the control.
b. Indicate the impact on the audit if the answer to the question is no.

Internal Control Questions

1. Does the client periodically take a physical inventory of property and reconcile to the property ledger?
2. Does the client have a policy manual to classify property and assign an estimated life for depreciation purposes to the class of assets?
3. Does the client have a policy on minimum expenditures before an item is capitalized? If yes, what is the minimum amount?
4. Does the client have a mechanism to identify pieces of equipment that have been designated for scrap? If yes, is it effective?
5. Does the client have an acceptable mechanism to differentiate major renovations from repair and maintenance? If yes, is it effective?
6. Does the client regularly self-construct its own assets? If yes, does the client have an effective procedure to appropriately identify and classify all construction costs?
7. Does the client systematically review major classes of assets for potential impairment?
8. Is management motivated to write down assets for any particular reason? If yes, what is the reason?
9. Does management periodically review asset disposal or the scrapping of assets as a basis for reviewing the assignment of estimated life for depreciation purposes?

14-31 **(Generalized Audit Software on Equipment Audit)** This is the first-year audit of a company that wants to register with the SEC in the near future. The company has been very successful and uses a fixed-assets database to manage its fixed assets. The auditor had received review reports (but not audits), performed by other auditors in previous years, and the auditor did not note unusual fluctuations in either the depreciation or equipment accounts in previous years. The client implemented the database program only two years ago and has recently taken a physical inventory of property and has used the physical inventory to adjust

the database. Through planning, the auditor was able to observe the taking of the equipment inventory and was satisfied that was done properly.

The database contains the following information for each asset:

- Property identification number
- Property description
- Date acquired
- Cost
- Class of assets
- Depreciation method
- Salvage value (if applicable)
- Current-year depreciation—book
- Accumulated depreciation—book
- Current-year depreciation—tax
- Accumulated depreciation—tax
- Any adjustments such as write-downs or renovations
- Expected life of asset
- Location of property
- Department or person requesting purchase of item

Required

a. Write an audit program to audit the equipment account for the year. Indicate where and how you would use generalized audit software in your audit. (Ignore tax considerations at this point.)
b. Describe how generalized audit software might be used in the audit of property for this client.
c. What audit procedures would have been mandated had the client not taken a physical inventory of property?

14-32 **(Analytical Procedures—Depreciation)** The audit senior has asked you to perform analytical procedures to estimate the reasonableness of recorded depreciation expense of the delivery vehicles of a client. Changes in the account occurred pretty much evenly during the year. The estimated useful life is 6 years. Estimated salvage value is 10% of original cost. Straight-line depreciation is used. Additional information:

Delivery Equipment (per General Ledger)

Beginning balance	$380,500
Additions	154,000
Disposals	(95,600)
Ending balance	$438,900

Current year depreciation expense per books—$60,500

Required

Estimate the amount of depreciation expense for the year using analytical procedures. Is the recorded depreciation expense acceptable? Explain, including a discussion of how precise an analytical procedure has to be to support an account balance.

14-33 **(Audit Evidence and Conclusions)** The following conclusions were taken from a staff auditor's summary worksheet for fixed assets and the worksheet for prepaid insurance.

Required

a. For each conclusion or situation listed, identify the type of audit evidence needed to support the auditor's conclusion.
b. Briefly indicate the audit implications if the auditor's conclusion is justified.

Audit Conclusions or Situations

1. The choice of eight years for straight-line depreciation of the company's trucks appears unreasonable. I would suggest that the client change to a six-year life and use DDB depreciation.

2. Insurance coverage appears to be inadequate because the client has chosen to carry only liability insurance on the cement trucks. There is no provision for collision or damage done to the trucks.
3. The client acquired a substantial piece of real estate from the town of Baraboo to build a warehouse in the town's new industrial complex. The land was donated to the company provided it maintains operations for a minimum of 10 years and pays real estate taxes on its appraised value. The land is carried on the books at the fair market value at the time of donation of $250,000.
4. Several pieces of idle equipment were noted. It is recommended that the equipment be written down to the scrap value of $50,000 from the current net book value of $185,000.
5. The company has self-constructed the warehouse located in the town of Baraboo. It has capitalized all payroll expense directly related to construction of the project. The adjusting entry debited Building for $73,000 and credited Payroll Expense for the same amount.
6. The company completely overhauled 10 of its trucks at a significant cost. The overhaul should extend the life of the trucks by at least three years. Because the company performs similar overhauls each year, the cost has been properly charged to repairs and maintenance.
7. The company sold 15 of its old trucks to Virgin Distributors, a new company owned by the brother of the company's chief executive officer. The equipment was old, and a gain of $70,000 on the sale was credited to income.

14-34 **(Risks and Property—WorldCom Fraud)** WorldCom engaged in a fraud that involved fixed assets. Assume we know the following about the fixed-asset account called telecommunications equipment:

Beginning Balance	$3.8 billion
Additions	$2.1 billion
Disposals	$1.6 billion
Ending Balance	$4.9 billion

We also know that the company swapped some of its line capacity—fiber optic capacity—with other carriers such as Global Crossing and Sprint. The effect of those swaps is included. The swaps include an exchange, but only in physical assets, of the rights to use Sprint's lines for a percentage of their capacity, e.g., lines in the Midwest. In return, WorldCom allowed (at least ostensibly) Sprint to use a portion of their line capacity in the Eastern part of the United States.

Required

Identify the specific assertions for the audit of the telecommunications equipment and line capacity account for WorldCom. Identify the evidence you would gather, or look at, in addressing each assertion. Use the format that follows:

Telecommunications and Line Capacity
WorldCom
December 2007

Detailed Assertions for the Audit of This Account	Audit Evidence to be Gathered

14-35 **(Fraud at WorldCom)** WorldCom is one of the largest bankruptcies in U.S. economic history. Much of the fraud was carried out by capitalizing operating expenses such as payment to other companies for line rental, as fixed assets. All of the entries were made via journal entry at the company's headquarters in Mississippi even though property accounting records were located in Dallas.

Required

1. Would it normally be considered unusual to find debits to fixed assets coming from a journal entry source rather than a purchase journal? Explain.
2. Would it be normal to find entries to accumulated depreciation and depreciation expense to come from a journal entry source rather than another source?
3. Assume you were auditing WorldCom and in your sample of debits to fixed assets, you find an entry for $500,000 with the following notation:

"Capitalization of line capacity per CFO, amounts were originally incorrectly recorded as an expense."

Explain what you would do to complete the audit of this item. What evidence would you need to see to either corroborate or question the entry?

14-36 **(Analysis of Property Changes)** You are performing the year-end audit of Halvorson Fine Foods, Inc. for December 31, 2007. The client has prepared the following schedule for the fixed assets and related allowance for depreciation accounts. You have compared the opening balances with your prior-year audit working papers. The following information is found during your audit:

1. All equipment is depreciated on a straight-line basis (no salvage value taken into consideration) based on the following estimated lives: buildings, 25 years; all other items, 10 years. The corporation's policy is to take one-half year's depreciation on all asset acquisitions and disposals during the year.
2. On April 1 of this year, the corporation entered into a 10-year lease contract for a die-casting machine with annual rentals of $5,000, payable in advance every April 1. The lease is cancelable by either party (60 days' written notice is required), and there is no option to renew the lease or buy the equipment at the end of the lease. The estimated useful life of the machine is 10 years with no salvage value. The corporation recorded the die-casting machine in the Machinery and Equipment account at $40,400, the present value at the date of the lease, and $2,020, applicable to the machine, has been included in depreciation expense for the year.
3. The corporation completed the construction of a wing on the plant building on June 30 of this year. The useful life of the building was not extended by this addition. The lowest construction bid received was $17,500, the amount recorded in the Buildings account. Company personnel were used to construct the addition at a cost of $16,000 (materials, $7,500; labor, $5,500; and overhead, $3,000).
4. On August 18, Halvorson paid $5,000 for paving and fencing a portion of land owned by the corporation for use as a parking lot for employees. The expenditure was charged to the Land account.
5. The amount shown in the Retirements column for the machinery and equipment asset represents cash received on September 5, on disposal of a machine purchased in July 1998 for $48,000. The bookkeeper recorded depreciation expense of $3,500 on this machine in 2007.
6. Crux City donated land and building appraised at $10,000 and $40,000, respectively, to Halvorson for a plant. On September 1, the corporation began operating the plant. Because no costs were involved, the bookkeeper made no entry for the foregoing transaction.

Halvorson Fine Foods, Inc.
Analysis of Fixed assets
For the Year Ended December 31, 2007

Description	Final Balance, December 31, 2006	Additions	Retirements	Per Books, December 31, 2007
Assets:				
Land	$ 22,500	$ 5,000		$ 27,500
Buildings	120,000	17,500		137,500
Machinery and equip.	385,000	40,400	$26,000	399,400
	$527,500	$ 62,900	$26,000	$564,400
Allowance for depreciation:				
Building	$ 60,000	$ 5,150		$ 65,150
Machinery and equip.	173,200	39,220		212,470
	$233,250	$ 44,370		$277,620

Required

a. In addition to inquiring of the client, explain how you found each of the described items of information during the audit.
b. Prepare the adjusting journal entries with supporting computations that you would suggest at December 31, 2007, to adjust the accounts for the listed transactions. Disregard income tax implications.

14-37 **(Audit of Natural Resources Company)** Red Lake Mining Co. engages in the search and mining of gold in North America, principally Canada. During the year, it discovered a substantial new source of gold, which it estimates holds 15.5 million troy ounces of gold. At the time of discovery, gold was selling for $400 per ounce, and it is estimated that the cost of mining the gold will approximate $250 an ounce. There is little doubt that all of the gold will be sold at market prices. The company estimates that the cost of discovering the ore was approximately $25 million, and that it will cost another $225 million to construct a plant to mine the gold.

Required

a. Because there is a ready market for gold, the controller has proposed that the discovery be valued at the market value, or net market value, of the gold discovered. He says that such a valuation better informs investors as to the real value of the company. Would such a valuation be acceptable?
b. How would the auditor verify the estimate of 15.5 million troy ounces of gold?
c. The controller suggests that a depletion schedule be established based on the $250 million of discovery and plant construction. The audit senior suggests that a depletion allowance be established on the $25 million discovery cost, not the $250 million. Would a depletion allowance based on $250 million be acceptable? Explain.

14-38 **(Leases)** While performing analytical procedures on Merrill Traders, Inc., the auditor discovered a substantial increase in lease expense and a corresponding decrease in both the fixed-asset accounts and related depreciation. On further inquiry, the auditor discovered that a substantial amount of equipment and one piece of property were sold to an outside leasing company. The company then leased the property back and leased similar equipment from the lessor. The controller shows the auditor that the lease was contractually constructed so that it would not be considered a sale and leaseback. The proceeds of the sale were used to pay down long-term debt.

The auditor is puzzled that economically there appears to be no change in the company's operations, but it may have incurred higher

future costs because the lease agreement terms do not appear to be as economically favorable as did the past ownership. For example, the company leases equipment for three years when the expected life is five years, but is responsible for all maintenance on the equipment.

Required

a. What role do substance vs. form decisions play in the audit of a client and in a situation such as that described?
b. What audit procedures should be performed to finish the analysis of the lease expense account?

14-39 **(Audit Program for Leases)** The Rousch Racing Company is in the business of building NASCAR race cars. They also have an engineering department that builds components for other racing teams, as well as for specialty cars built for major manufacturers such as Ford Motor Company. Rousch has three lease-related accounts on their books as follows:

	Balance	Last Year
Leasehold Improvement	$4,583,000	$3,600,000
Leased Equipment	1,287,000	832,000
Lease Expense	624,000	515,000

Required

1. Identify the nature of each of the above accounts, i.e., asset, liability, and expense.
2. What would cause the accounts to increase during the year?
3. What is the relationship between the first two accounts and the lease expense account?
4. Write an audit program to audit the three accounts for this year. In the process, identify procedures that might be common between the audit of the accounts.

14-40 **(Proper Lease Accounting)** Tiger, Inc. signed a lease for equipment on July 1, 2007. The lease is for 10 years (the useful life of the asset). The first of 10 equal annual payments of $500,000 was made on July 1, 2007. The established list selling price for the equipment was $3,375,000. Tiger can borrow money at 12%. Tiger treated this lease as an operating lease and recorded $250,000 rent expense for 2007. You have determined that this is a capital lease and the asset and related obligation should have been recorded at $3,164,125 on July 1, 2007.

Required

Assuming the use of straight-line amortization and no salvage value, what are the amounts of amortization expense and interest expense the client should have recorded for 2007 for this lease?

Cases

†14-41 **(Operational Audit of Fixed Assets)** A corporation operates a highly automated flexible manufacturing facility. The capital-intensive nature of the corporation's operations makes internal control over the acquisition and use of fixed assets important management objectives.

A fixed-asset budget that indicates planned capital expenditures by department is established at the beginning of each year. Department managers request capital expenditures by completing a fixed-asset requisition form, which must be approved by senior management. The firm has a written policy that establishes whether a budget request is to be considered a capital expenditure or a routine maintenance expenditure.

A management committee meets each month to review budget reports that compare actual expenditures made by managers to their

budgeted amounts and to authorize any additional expenditures that may be necessary. The committee also reviews and approves as necessary any departmental request for sale, retirement, or scrapping of fixed assets. Copies of vouchers used to document department requests for sale, retirement, or scrapping of fixed assets are forwarded to the accounting department to initiate removal of the asset from the fixed-asset ledger.

The accounting department is responsible for maintaining a detailed ledger of fixed assets. When a fixed asset is acquired, it is tagged for identification. The identification number, as well as the cost, location, and other information necessary for depreciation calculations, is entered into the fixed-asset ledger. Depreciation calculations are made each quarter and are posted to the general ledger. Periodic physical inventories of fixed assets are taken for purposes of reconciliation to the fixed-asset ledger as well as appraisal for insurance purposes.

Required

Develop four audit objectives and three related work steps for each objective to evaluate internal controls over fixed assets at the corporation.

14-42 **(Asset Impairment)** Your firm has been the auditor of Cowan Industries for a number of years. The company manufactures a wide range of lawn care products and typically sells to major retailers. In recent years, the company has expanded into ancillary products, such as recreation equipment, that use some of the same technology. The newer lines of business, while successful, have not been particularly profitable. The company's stock price has languished and management has recently been replaced.

The new management team announces that it will close two factories and will phase out one of the newer lines of business. They plan to expand existing products and increase marketing efforts. Even though there is no technological obsolescence of existing products, the new management does not believe the company has a competitive advantage. They indicate they want to take a "one-time hit" to the balance sheet and income statement of $15.3 million (about one-third of total assets) as a reserve for the shut-down of the plants and the disposal of the lines of business. They also plan on severance pay for employees at the two plants.

Required

a. Define the term "impairment of assets" and the proper accounting treatment for asset impairments.
b. Is management typically motivated to understate or overstate the write-down due to asset impairment? Explain.
c. What information should the auditor gather to develop evidence on the proper valuation of the asset impairment? In answering your question, address the following:
   - Should the factory assets be treated as individual assets or as a group in determining the realizable value?
   - What are the major liabilities the company should consider when shutting down operations and phasing out of a line of business? Should those liabilities be considered as part of the "impairment of asset" cost?
   - Because the actual disposal of the plants or the costs of shutting them down are estimates, how should the auditor treat material differences in estimates generated by the auditor vs. those generated by management? Should the differences be disclosed or otherwise accounted for?

Biltrite Bicycles, Inc.

Module XI, substantive testing of plant asset additions and disposals, may be completed at this time.

Module XI: Plant Asset Additions and Disposals

In Module IV, you applied PPS sampling procedures in evaluating the correctness of a subset of debits to the "Factory Equipment" account. You will recall that the debits to account 1530 totaled $89,860,000 for 2007. You also will recall that Derick decided to stratify the population of debits such that $77,260,000 of major additions, representing replacements of worn-out equipment, was to be audited in detail. In Module XI, you will analyze this subset of additions, as well as disposals. You also will be asked to complete the "Plant Assets" lead schedule.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Plant." Locate the following documentation in this file:
   - WP 11—Plant assets and accumulated depreciation—lead schedule (note that AJE 1 from Module IV has already been posted)
   - WP 11.4—Factory equipment—additions and disposals

   Scroll to WP 11.4, "Factory Equipment—Additions and Disposals." What is the nature of the "underlying documentation" referred to in the explanation of audit legends E and W?
2. In recording the 2007 disposals, Janel James, Biltrite's plant assets accountant, miscalculated the accumulated depreciation on the assets sold and thereby overstated the gain on disposal by $3,090,000. Draft Audit Adjustment 10 at the bottom of WP 11.4 to correct for this misstatement. In addition, James did not change the standard journal entry for monthly depreciation to reflect additions and disposals during the year. As a result depreciation expense for the year is understated by $800,000. Biltrite depreciates factory equipment on a straight-line basis over a ten-year estimated useful life with zero salvage value. One-half year's depreciation is taken on all additions and disposals. Draft Audit Adjustment 11 at the bottom of WP 11.4 to reflect the depreciation understatement. In recording the underdepreciation, debit account 5300, "Cost of Goods Sold—Pike's Peak Mountain Bike," inasmuch as all overhead accounts have been closed. Any further adjustments, therefore, must be reflected in the cost of sales accounts. Although in Module IV we allocated the adjustment to the five product cost of sales accounts, the present adjustment is less significant in amount, and therefore we will reflect the entire amount in account 5300. (*Note*: Don't forget to enter Audit Adjustments 1, 10, and 11 in the body of the document to arrive at correct adjusted balances.)
3. Scroll to WP 11, "Plant Assets and Accumulated Depreciation—Lead Schedule." Post Audit Adjustments 10 and 11 to the lead schedule.
4. Print documentation 11 and 11.4.

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CHAPTER 15

Audit of Acquisitions, Related Entity Transactions, Long-Term Liabilities, and Equity

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. By thoroughly studying this chapter, you will be able to:

- Identify the risks associated with mergers and acquisitions.
- Identify the unique accounting and audit issues associated with acquisitions.
- Identify the approaches the auditor should take in testing goodwill for impairment.
- Identify the types of related-entity transactions, describe the proper accounting, and develop an audit approach for related-entity transactions.
- Describe liabilities that require special audit attention because of the subjectivity in determining proper valuation.
- Discuss the audit approaches to audit bonds and owners' equity.

CHAPTER OVERVIEW

Many accounting areas require a significant amount of informed estimates by management. These include such areas as potential impairment of assets, restructuring of the company, the valuation of assets acquired as part of an acquisition, and significant liabilities such as pensions, other post-retirement liabilities, and warranty obligation. The auditor must understand the contracts that affect these subjective areas and the information system the client has (or hopefully has) to develop estimates for accounts that may be influenced by management's subjective judgments; and in some cases their desire to influence the amount of reported earnings.

This chapter presents an overview of complex accounting issues and develops a framework for the integrated audit approach for areas that often include subjective management judgments. Three major themes are emphasized throughout the chapter: (1) the accounting for many of these areas is still evolving and the auditor is going to have to understand the complexities in current accounting standards; (2) companies should have, but often do not have, well-developed information systems that should improve the quality of accounting estimates; and (3) auditors will often have to consult specialists for objective evidence regarding most of the valuation issues covered in this chapter. The auditor must be satisfied the specialists that are relied upon are independent of the organization and are objective.

Business Risk and Business Environment

Performing Audits

- Risks of Material Misstatements
- Substantive Tests
- Conclusions

A significant number of the mergers and acquisitions in the past 20 years have been economic failures. Companies often overpaid for acquisitions, did not perform due diligence on the acquisitions, and the combined entity seldom achieved the synergies hoped for at the time of the acquisition. The largest merger failure was the merger of AOL with Time-Warner in which the company had to take a $94 billion loss on the goodwill associated with the merger (the equivalent of approximately 20 years of earnings). Other valuation issues are also present in acquisitions, such as valuing fixed and intangible assets. Further, there may be some problems in determining whether the acquired company is fully integrated into the company or continues to operate as a separate unit.

Many companies have set up special purpose entities (SPE) to achieve financial reporting goals. While the most egregious SPEs were those used by Enron, the use of SPEs are not limited to Enron, or even the energy field. Many companies are setting up joint ventures or separate research and development entities that may carry risks to the parent.

Finally, auditors have found that there is high inherent risk in estimating accounts that are primarily subjective in nature. These have normally included accounts such as warranty estimates, or the allowance for uncollectible accounts. More recently, many of the subjective estimates relate to retirement costs for pensions and health benefits. The areas identified in this chapter are some of the riskiest that an auditor faces during most audits.

Mergers and Acquisitions

Mergers and acquisitions are a normal part of the business landscape. They present unique accounting and audit challenges. Although the term *mergers* continues to be used, under current accounting all combinations of entities involve an acquisition, i.e., there is one company that is determined to be the acquirer. Further, all acquisitions must be accounted for under the purchase basis of accounting—even if the acquisition is carried out 100% as a stock transaction.

There are three major valuation issues associated with acquisitions:

1. Valuing the assets and associated liabilities upon acquisition
2. Measuring restructuring charges and recognition of the liability
3. Measuring impairment of assets after operation begins

***Practical* Point**

The accounting for most areas covered in this chapter continues to evolve. The auditor must be up-to-date on changes in accounting to identify the audit implications.

Acquisition—Asset Valuation Issues

Most acquisitions involve one company acquiring either another company or an operating division of another company. For example, Koch Corporation of Kansas City acquired the consumer products division of DuPont (roughly about 25% of DuPont); AOL, on the other hand, acquired all of Time-Warner Company including its vast movie library, its magazine brands and production staff, and its cable business and movie studios. The complexity of such acquisitions is matched only by the strategic risk of combining the businesses to achieve the synergy of operations contemplated. See the *Auditing in Practice* box for a summary of the "hoped-for" synergies that had been identified in the decision for AOL and Time-Warner to merge.

AUDITING IN PRACTICE

The AOL/Time-Warner Merger

At the time of the merger, AOL was the dominant Internet Service Provider in the country. The company had recovered from questionable accounting practices and had marketed its brand nationally. (Who hasn't received a copy of AOL version 9.0 in the mail?) Time-Warner had acquired Turner Broadcasting including the movie studio and a movie library that had started with Warner Brothers and went back to the start of movie production. The company had anticipated extraordinary synergies: movies would be offered over the Internet; magazines would primarily be read online; television, especially sporting events, could be offered on an anywhere, anytime basis; and cost savings would occur through staff developing content that could be delivered over multiple media.

The question: If the synergies looked so good at the front, why did AOL/Time-Warner write off an impairment charge of $94 billion? The answer is that the strategy was seriously flawed:

- Internet delivery of movies, television, or even magazines requires fast downloading and broadband connections; AOL grew by being the premier dial-up provider of services.
- Dial-up services did not support the delivery mechanisms anticipated in the merger.
- The management cultures of the two entities were vastly different (AOL more informal, Time-Warner more analytic and formal).
- There was no strategic plan for integration or management leadership.
- Consumers did not flock to the Internet to read magazines or download movies; other media such as DVD movies were developed.

In sum, what looked great to "dreamers" lacked a fundamental strategy. Without carefully analyzing the strategy the companies were setting themselves up for failure. The auditor must understand the strategies and the likelihood of their success to evaluate the valuation of assets acquired—and to address the most vexing problem of all: *What do you do if management simply overpays for the purchase?*

The major issues associated with valuing an acquisition are as follows:

- Determining the cost of the acquisition
- Valuing the identifiable tangible and intangible assets and liabilities
- Valuing the goodwill

Determining the Cost of the Acquisition Normally, determining the cost of an acquisition is fairly straightforward—it is the amount paid to acquire the company. There are a number of factors that often make the assessment more complicated. These include acquisitions:

- Made via stock rather than cash
- The ultimate price of which is contingent upon the value of the assets received (post-audit)
- The final price is contingent on the performance of the acquired company or division

The first item is usually the easiest, but is dependent on the marketability of the stock issued. Some contracts simply specify the number of shares issued while others require the company to transfer shares equal to a specified market value at a given date.

Most purchase transactions have a "good faith" clause in which the purchaser has the right to "offset" against the purchase price the value of assets that were represented to exist, but do not exist. For example, a company might show $1.3 million in accounts receivable, but after 180 days, the company has collected only $600,000 and supporting material for the remaining $700,000 cannot be located. In some instances the contract will allow the offset of the $700,000 against the purchase price while others may not. The auditor will have to know the contract and the procedures the company will utilize to resolve disputes on the existence of assets in order to reach a final purchase price.

In many acquisitions, the acquiring company may want the management of the acquired company to stay on and run the business. This occurs many times when a small business is acquired. The managers know the business, have contacts with the customers, and their cooperation may be crucial to the effective integration of the companies. Often, in these situations, the companies reach an agreed-upon price

with significant contingency payments that will be based upon the newly acquired company reaching prespecified performance objectives. The auditor and the client must assess the likelihood of the acquired entity meeting those performance objectives and determine when to recognize the contingency payments as part of the cost of the acquired company. If the probability is highly likely that the company will meet the contingency performance objectives, the full cost should be recognized at the time of acquisition.

Valuing Identifiable Tangible and Intangible Assets The acquiring company needs to bring all the specifically identifiable tangible and intangible assets on the books at their "fair market value" at the time of acquisition. The fair market value of the assets may differ significantly from the book value of those assets. Usually, the company will hire an independent appraiser to value the tangible assets, e.g., property, machinery, and office equipment. The intangible assets, such as patents or copyrights, may be more difficult to value. However, they should normally be valued at the net present value of future (net) cash flows associated with the asset. For example, the copyright to a book might be valued at the net present value of future positive cash flows associated with sales of the book minus the cash outflows to produce and market the book. These estimates may be more difficult to obtain, but can often be estimated based on the company's history with similar books.

The use of a specialist to value the tangible assets presents some unique challenges to the auditor. Remember, the auditor cannot simply accept the appraisal and management's assessment of the fair value of the assets. Rather, the auditor must gather independent evidence to determine whether the assessed values are appropriate. In gathering the evidence, the auditor should:

1. Evaluate the qualifications of the specialist; ascertaining whether the specialist is certified, experienced, and reputable.
2. Determine if the specialist is sufficiently independent of management that they will not be influenced by management's objectives (remember, the specialist is paid by management).
3. Review the methodology used by the specialist to determine if it is sound; for example, determine if the specialist identifies sales prices for comparable land or property, reconstruction costs for buildings, etc.

Depending on the auditor's review of the credentials, independence, and methodology used by the specialist, the auditor may rely on the specialist's work for the valuation. However, in many situations, the auditors may want to hire their own specialist to evaluate a sample of the assets, i.e., take a sample and have another specialist determine the fair market value of the assets as of the purchase date.

Integrated Audit of Goodwill In concept, the valuation of **goodwill** is fairly straightforward: it is the excess of purchase cost over the fair market value of identifiable net tangible and intangible assets acquired during the purchase. However, with SFAS 142, the FASB requires that goodwill be specifically identified with an operating unit or a reporting unit. By definition, these units must be of sufficient identity that they can be managed as a unit, or may be separately identified and sold as a unit. Otherwise, they become a part of the overall company operations. The distinction is important for subsequent valuation where goodwill is tested for impairment on a yearly basis.

Practical Point

The acquisition of a company should not be approached any differently than the decision to build a new factory. There should be a strategic plan and a net present value analysis of the investment to support the purchase price, including the goodwill.

The valuation and future testing of **goodwill** for potential **impairment** is facilitated if the company utilized a capital budgeting process to determine the justification for the purchase. The company should have estimated future cash flows, cost savings, and stratigic plans to estimate the value of the acquisition. Those future cash flows should have been discounted and compared to the cost of capital in making a decision about the acquisition. If the acquiring company develops such a model (a) it will likely make better business decisions and (b) it will serve as a model that can be used for testing goodwill for potential impairment.

Testing for Goodwill Impairment

Goodwill must be tested by management for impairment every year. However, if not done properly, the testing for impairment may result in too many subjective estimates.

The tests for goodwill impairment are greatly facilitated if:

1. The company develops a price for the acquired company that is based on a capital budgeting model, i.e., it analyzes the purchase in a systematic fashion that includes an analysis of future cash flows and the company's cost of capital.
2. The company clearly defines a reporting unit for which the goodwill is associated. The company keeps records that show the progress of the reporting unit subsequent to acquisition.

The reporting unit is usually defined as an operating unit that (a) provides separate accounting; (b) is managed as a separate segment; or (c) could be easily separated from the company, such as by a sale of the segment. The concept of the reporting unit usually focuses on the acquired company or segment. On the other hand, the company as a whole may be the reporting unit if the operations are fully integrated. For example, the AOL/Time-Warner merger focused on the synergies of the integrated entity, not on the separate value of the Time-Warner business unit. The determination of the operating unit should be made at the time of acquisition.

Current accounting standards require the company to determine the fair value of the reporting unit and compare it to the reporting unit's carrying value (including goodwill). If the fair value is less than the carrying value, it is inferred that goodwill has been impaired and must be written down.

SFAS 142 requires the impairment of goodwill to be evaluated by the client in a two-step process:

Step 1—The fair value of the reporting unit as a whole is compared to the book value of the reporting unit (including goodwill) and, if a deficiency exists, impairment would need to be calculated.

Step 2—The impairment is measured as the difference between the implied fair value of goodwill and its carrying amount. The implied fair value of goodwill is the difference between the fair value of the reporting unit as a whole less the fair value of the reporting unit's individual assets and liabilities, including any unrecognized intangible assets.

Exhibit 15.1 illustrates an interesting example of the accounting that takes place when the **reporting entity** is the company as a whole. The exhibit shows a company that the market thought had great prospects, then the market soured on the company's prospects forcing a write-down in value of the company, and then subsequently the market saw great promise in the company and its products.

Impairment Test When Reporting Unit Is the Company In many instances, such as Maxim and AOL/Time-Warner, the reporting unit is the combined company. If the company is a public company, the current fair value can be estimated by examining the current market capitalization of the stock. Using the formula developed by the FASB, the company then compares:

Fair Value >< Carrying Value (book value)

If fair value is less than carrying value, an impairment of goodwill is inferred and goodwill is written down to the point where fair value equals carrying value. Exhibit 15.2 shows a computation of the goodwill impairment.

Impairment Test When Reporting Unit Is a Separate Sub-Unit of the Company When the company as a whole is not the reporting unit, the auditor must gather other evidence to assess potential goodwill impairment. Other sources of information include any negotiations to sell the reporting unit, current profitability of the reporting unit, projected cash flows compared with cash flow projections made at the time of acquisition, and management's strategic plans

EXHIBIT 15.1 Maxim Pharmaceuticals and Goodwill-Maxim Pharmaceuticals

Maxim Pharmaceuticals was a start-up company headquartered in San Diego. It had a number of promising drugs in development and in clinical trials that are proving to be effective in treating some types of cancer such as melanoma. It also has other promising drugs including one that has been found to be effective in addressing SARS. The development and approval process for new drugs may take up to ten years before the FDA and other regulatory agencies in Europe will approve a drug to be marketed. For Maxim, virtually all of their drugs are in the development stage.

The early prognoses for Maxim's products were outstanding. Their stock went from $6 a share to approximately $72 per share. Near the market's peak, the company made an important acquisition of another company that had ten drug patents, using the stock to pay for the acquisition. The prognosis for the combined company was excellent. Maxim subsequently sold two of the patents at amounts greater than they paid for the whole acquisition to generate needed cash flow for the company. The company had accounted for goodwill under the previous accounting standards and was amortizing it over 15 years.

At the end of 2001, the market became impatient with Maxim and its stock price dropped to $4 per share. At $4 per share, the total market value of the company was less than the carrying value (book value) of the company including approximately $28 million of unamortized goodwill. The market capitalization of the stock showed that the market placed a zero value on goodwill. Consequently, the company took an impairment charge of $28 million during the last quarter of 2001 to recognize the impairment of the goodwill. *The market assessment of Maxim's prospects as reflected in the stock price thus led the company to recognize a loss in the financial statements that would not have been present if the company had continued the old accounting of amortizing goodwill.*

Since 2001, Maxim has obtained approval on some of its drugs. The stock price has more than quintupled from its low showing that the market places a much higher value on the company and its acquisitions than it did previously. The drugs associated with the previously acquired company appear to have very high promise and the market values those prospects. However, at the end of 2001, the market did not value the prospects nearly as highly. Since impairment is an annual test, the company had to recognize the impairment in 2001.

The subsequent change in market value is not considered; the company is not allowed to write up goodwill to previous levels. *The point: Market value can be an elusive and fickle concept. However, it is the best estimate of fair value for the entity as a whole when the company's reporting segment is the whole entity and is required to test impairment on an annual basis. Subsequent events may show that the market was not accurate at a given date; the price may go up or go down. If market price goes down, the company will again test for goodwill impairment the next year*.

for using the assets. The client is required to consider the approaches identified to develop an estimate of asset impairment. The auditor must evaluate (a) management's methodology for assessing impairment and (b) whether an objective evaluation of the evidence supports the client's conclusion.

Exhibit 15.3 provides an overview of factors the auditor should consider when assessing goodwill impairment.

EXHIBIT 15.2 Calculating Goodwill Impairment—Maxim Pharmaceuticals

A company has total assets and liabilities as follows (book values in millions):

Assets—excluding goodwill	$125.1
Goodwill	$ 28.0
Total	$153.1
Liabilities	$ 8.0
Stockholder's Equity	$145.1
Total	$153.1

The total market capitalization of the company at fiscal year end is $112 million. Therefore:

Fair Value	$112.0
Carrying Value	$145.1
Excess CV > FV	$ 33.1
Amount of Goodwill	$ 28.0
Amount of goodwill considered to be impaired:	$ 28.0

If the excess of CV > FV would have been less than $28 million, the amount of goodwill impairment would have been that amount.

EXHIBIT 15.3 Overview of Factors Affecting Goodwill Impairment Valuations

Factors to be Evaluated	Evidence Issues	Potential Audit Problems
Current Fair Market Value of the Entity	Determine Fair Market Value (FMV) of the total entity	Readily available if publicly traded, but not readily available if not publicly traded
		Market valuation may be volatile. A temporary decline in market value may not be a good indicator of FMV.
	Determine FMV of the operating segment	FMV might not exist. Might require independent appraisals by investment bankers or estimates using cash flow and discounted present value factors.
		Assumptions must be made about competition, economic development, product placement, and so forth. These assumptions will be difficult to verify.
Operating Segment Must Be Clearly Defined	If the acquired company remains intact after the acquisition, it is defined as the operating segment.	No particular problem
	The purpose of most acquisitions is to integrate the newly acquired business into the operation of the existing business.	The company must set up a systematic methodology to clearly define the operating segment and trace it over time.
	Operating segments may change over time as acquisitions are made. The acquired operating unit may not be distinguishable after a period of time.	Goodwill arising from many acquisitions can be netted into one test at the operating segment level, but not netted at the company level.
Current FMV of Assets and Liabilities of Non-Goodwill Assets	Assets: could be measured by estimated NRV or estimated replacement costs.	Assets are used as a group of assets. It is difficult to estimate FMV of a group because there may be a limited number of buyers for the group.
		Replacement cost data may be difficult and costly to obtain, and the data must be adjusted for usage.
	Liabilities: could be estimated by discounted cash flows using current interest rates properly adjusted for risk.	Interest rates must be adjusted for risk and term.
Goodwill Impairment	The impairment is measured by the difference between market value of the operating segment and the FMV of net assets.	All the difficulties identified previously come into play.
		Estimates are hard to verify because they are based on assumptions.
		Can be subject to manipulation by management

Annual Audits: Risk Factors and Goodwill Impairment The impairment tests of goodwill constitute a significant audit problem and auditor judgment must absolutely be tied to the auditor's knowledge of business strategy and business risk. The following guidelines have been provided by the FASB to deal with goodwill impairment:

- The impairment tests should be performed at least annually.
- Goodwill within operating segments can be offset (netted); however, goodwill that exists in different operating segments cannot be offset.
- The FMV of assets and liabilities must be independently calculated at the same time that goodwill impairment is tested.
- Clear objective evidence must be gathered to record the goodwill impairment.

Situations may arise, other than the annual review, in which the impairment of goodwill should also be addressed. These situations include the following:

- A significant adverse change in legal factors or the business environment
- An adverse action or assessment by a regulator
- Competition that significantly reduces the value of the company's products
- A significant loss of key personnel
- An expectation that a reporting unit or a significant portion thereof will be sold or otherwise disposed of in the near future
- A significant asset group within a reporting unit has a significant decline in operations
- A goodwill impairment loss that is recognized by a subsidiary that issues separate GAAP financial statements and is a component of the reporting (parent) company

An example of how the factors may come together to signal an impairment of goodwill is shown in the *Auditing in Practice* feature.

AUDITING IN PRACTICE

Evaluating Impairment of Goodwill

XYZ Company was a publicly traded manufacturer of low-cost office furniture. Its board decided to diversify and hired new management to lead the diversification. Prior to diversification, the company had assets of approximately $18 million. New management decided to diversify by buying four separate companies—all in the defense industry—over a period of three years. Although the companies were high-tech, most of the technology was well established, including a company that made gyroscopes.

In the first acquisition, XYZ Company assigned most of the excess of purchase price over fair value of net assets to an account called Purchased Technology and amortized the intangible asset over a period of nine years. It reasoned that the company had purchased technology that would allow it to compete for the next few years, but that new technology would have to be developed to ensure future growth. Only a small amount was allocated to goodwill. In the second acquisition, almost identical in cost and nature, XYZ allocated the excess cost to goodwill rather than to purchased technology. The rationale used by management was that such an allocation was generally acceptable.

The amounts were material in each case, with approximately one-half of the total purchase price allocated to either goodwill or purchased technology. For the two other acquisitions, XYZ allocated about half of the total purchase price to goodwill. The company's assets grew from $18 million to $32 million.

Recall that goodwill is supposed to represent superior earnings power of the acquired company. Thus, profitability of the acquired company is necessary to show the existence of goodwill. Over a period of five years, only one of the newly acquired companies was profitable (even before considering the amortization of goodwill), and that profit was fairly negligible. Since the prognosis for future profitability was not good, the board of directors directed management to look into selling the acquired companies and to concentrate on its furniture business. Management solicited outside investment advice. The investment bankers suggested that the newly acquired businesses could be sold for approximately their book value (before considering corporate goodwill). After a two-year period, XYZ Company sold the companies at a loss. The evidence would clearly suggest that goodwill had been impaired.

The audit tests for goodwill, and other asset impairments, will require considerable judgment and business knowledge on the part of the auditor. However, the difficulty in making the judgments requires that the auditor develop a systematic review of business processes and market values.

Restructuring Charges: Good Business or an Opportunity to Manipulate Reported Earnings

Whenever an acquisition takes place, the first thing usually heard from management is that they will (a) restructure operations to achieve efficiencies and (b) reduce the workforce by X%. This is usually followed by an estimate of future cost savings. As an example, in the merger of J.P. Morgan and Bank One in 2004, the company announced that workforce would be reduced by approximately 10,000, branches would be consolidated, as would back-office work, resulting in combined cost savings of $2 – $3 billion per year. The merger would lead the company to restructure its operations.

Practical Point

Accounting for acquisitions and goodwill is being refined by the FASB. The auditor should always visit recent FASB pronouncements before auditing acquisitions.

Companies restructure their operations continuously and those costs are reflected in current operating earnings. However, if a company makes a decision to restructure operations and develops a plan for restructuring that often includes severance pay for employees, disposal of property, and so forth, accounting standards before 2003 required that the cost associated with the restructuring be recognized at the time the decision is made and a liability be recognized for the future costs associated with the restructuring. For example, if the company chooses to eliminate the jobs of 1,000 white-collar workers and provides them with an average of $100,000 severance pay to be paid out over the next 18 months, GAAP would require the liability to be recognized at the time of occurrence, i.e., when the decision is made. The expense was also recognized as a separate line item. SFAS 146 now requires the restructuring to be accounted for when the plan is put into action, e.g., when there is a definite commitment to a specific individual. The estimated costs of disposals of property are still recognized when there is a definite plan to dispose of the assets.

If not calculated correctly, the restructuring charges can be used to fraudulently manipulate income. Companies often used operations restructuring at the time of acquisition as a charge to the purchase price of the company. See the *Focus on Fraud* feature that describes how restructuring charges and reserves were used by WorldCom to fraudulently inflate reported earnings.

The auditor should be prepared to audit the development of restructuring charges. The auditor cannot rely on conservatism as an excuse to let the client overestimate the reserve for restructuring because the subsequent reversal of

FOCUS ON FRAUD

The Case of WorldCom's Restructuring Reserves

WorldCom grew from a small telephone company that emphasized data transmissions to a company that acquired MCI, then the country's second largest long-distance telephone carrier—a company that was significantly larger than it. WorldCom grew through numerous acquisitions that were used to fuel growth and stock market value. In practically every acquisition, WorldCom would set up a restructuring reserve for the expected future costs associated with the integration of the operations into WorldCom and used the offsetting debit to increase goodwill rather than expenses.

As a practice, WorldCom always estimated the restructuring costs to be significantly higher than the company expected, thus creating a large amount of "Restructuring Reserves" on the balance sheet. The subsequent expenses associated with the restructuring were significantly less than the reserve that was established. The Bankruptcy Trustee report on WorldCom indicated that WorldCom would systematically "release" (debit) these reserve (liability) accounts and credit expenses thereby increasing reported earnings for the period. Clearly the entries crediting expenses were fraudulent. However, they were enhanced because the auditing firm never questioned the amounts of reserves established in the first place because of an attitude that creating a liability is conservative. They did not consider the effect on future income when the company would choose to take the liability off the balance sheet.

the liability will affect future income. The audit procedures should include the following:

1. Review current FASB pronouncements and EITF statements to determine if changes have occurred in accounting for restructuring.
2. Review the detail developed by the company in determining their estimate; this should include the identification of specific assets to be disposed of, number of people to be terminated, union contracts on termination, and planned severance pay.
3. Review specific steps taken to date that would indicate that management has moved beyond a "plan" to terminate to the identification of specific parties or operations that will be affected by the plan. There must be specific parties or operations identified before a liability can be recognized.
4. Review and independently test the estimates by reviewing (a) contracts, (b) appraisals for property or estimates from investment bankers, (c) severance contracts, and so forth.
5. Mathematically test the estimates.
6. Develop an overall conclusion on the reasonableness of the liability and the appropriateness of the accounting utilized by the client.

Transactions with Related Entities

Many companies have transactions with other companies or people that may be related to it. These are often referred to as "related-party transactions." However, the term *party* often refers to individuals. Therefore, we use the term *related entity* to convey the broader sense that entities, as well as parties, may be related. Thus related-entity transactions occur between parents and subsidiaries; between an entity and its owners; between an entity and other organizations in which it has part ownership, such as joint ventures; and between an entity and an assortment of special purpose entities, such as those designed to keep debt off the balance sheet.

The financial frauds of the past decade have led to a realization that related-entity transactions can be used to manipulate financial reporting. The FASB and Congress have pushed the profession to improve the transparency of financial reporting. By transparency, users are saying that they want the financial statements to fully and fairly portray the economic substance of its transactions—including a full and fair disclosure of all transactions that are not made at "arms length" or are not independent of management of the organization. Users also want to ensure that the corporate governance structure is acting on their behalf. Thus, for all related-entity transactions, the auditor should gain assurance that the board of directors is aware of all related-entity transactions and that they have approved (a) the development of the special entities and (b) the transactions with the entity. As an example of the problems with related entities, read the *Focus on Fraud* feature regarding Enron and Special Purpose Entities (SPEs).

Accounting for Transactions with Related Entities

The accounting for related-entity (party) transactions is straightforward: since related-entity transactions are not "arms-length" transactions with outside parties, they need to be either (a) eliminated upon the development of consolidated

FOCUS ON FRAUD

Acquisition Accounting and Fraud

Transactions with related parties or related entities are not fraudulent per se; however, such transactions present opportunities to manipulate earnings or balance sheet presentation.

FOCUS ON FRAUD

Enron and SPEs

During the 1980s and 1990s, companies found that they could develop Special Purpose Entities (SPEs) to hide problems in a company. Enron was the master of SPEs. Enron discovered that they could use a little known part of an ETIF on leases that would allow them to create SPEs to keep debt off the balance sheet. Lenders would make loans to the SPEs as long as the loans were collateralized first by the assets of the SPE and second by Enron stock.

Enron set up SPEs to accomplish three objectives:

1. Keep debt off the balance sheet of Enron
2. Meet cash flow needs
3. Increase earnings

Enron accomplished these three objectives by selling assets Enron held such as stocks in other companies, receivables, or physical plants to the Special Purpose Entities. The SPEs were controlled by Andy Fastow, Enron's CFO. Most often, Enron would recognize a gain on the sale of the assets and would record the cash as income from the sale, not as a loan. Over a period of time, Enron used the SPEs to increase cash flow, recognize millions of dollars in earnings, and keep billions of debt off the balance sheet. Enron thus portrayed a financial picture of health that belied the real problems that the company was experiencing.

Enron had a half-page footnote on related-entity transactions in which it disclosed that the company occasionally had transactions with special entities that were designed to improve the company's borrowing capacity and profitability. None of the details were disclosed.

In one case, Enron had used a SPE to develop a joint venture with Blockbuster to deliver on-demand movies over broadband. Enron then sold all the anticipated profits associated with the future delivery of movies to customers to the SPE and recognized over $100 million in profits. Enron never sold a single movie because the pilot test never met the feasibility threshold and Blockbuster pulled out of the deal.

financial statements, where applicable, or (b) fully disclosed. Full disclosure requires a description of:

- Nature of the relationship of the related entities
- Dollar amount and nature of transactions
- Purpose of the transactions
- Future contractual obligations
- Terms of the transactions, manner of settlement, and amounts due to or from related parties

Normally, the company will not make any statements regarding whether the transactions would have been consummated with any other party at the same price and terms. The auditor discourages such comments because it is difficult to obtain evidence that transactions are at the same price as would have otherwise been obtained. The SEC requires that all related party transactions with senior management be disclosed, including loans or the use of personal assets that might be construed as income. An example of egregious use of corporate assets for personal use is seen in the *Focus on Fraud* feature about Tyco and its CEO, Dennis Kozlowski.

Related-Entity Transactions and Small Businesses

Practical Point

Related-entity transactions are common in many small businesses.

Related-entity transactions occur fairly often with smaller, privately held businesses. As an example, a construction company might lease all its equipment from another entity that is owned by the owner of the construction company. The owner may have developed the other company because of tax purposes. The auditor must be alert to the nature of these transactions because the small business owner may want to hide these transactions from the banker or other outside users.

Audit Approach for Related-Entity Transactions

The client should have an information system to identify all related entities and to account for all related-entity transactions. The auditor should begin with an understanding of the information system developed by the client to identify such

FOCUS ON FRAUD

TYCO, Dennis Kozlowski, and Parties

During the 1990s TYCO was one of the great growth stories on Wall Street. The company grew through expansion and was dominant in a number of niche markets ranging from fire detectors to plastic hangers. The company was driven to grow by its CEO, Dennis Kozlowski, a person who envisioned himself the "Jack Welch" of conglomerates (Welch was a highly successful CEO of General Electric).

In a court case in 2004, Kozlowski and the CFO were charged with looting the company of millions of dollars, none of which were disclosed. The looting included:

- Spending over $1 million on his wife's birthday party
- Works of art for his apartment in New York
- Domestic help put on the payroll of Tyco
- Personal use of company planes and watercraft

Kozlowski also found a way to influence his underlings to develop loyalty to him and his approach to use of corporate assets. He would approve significant loans to high-level managers ranging anywhere from $100,000 to $3 million. He reserved for himself the right to cancel the loans at any time thereby providing a gift to the employee. Although the Board of Directors should have approved such loans, as well as any forgiveness of the loans, Kozlowski chose to treat the corporation's assets as if they were his own. Board approval was never sought for the actions that the CEO reserved for himself.

transactions. In many cases, the client may not want to have all the transactions with related entities discovered. Thus, the approach taken by the auditor will be similar to an approach that might be used to look for the existence of fraud. The audit approach is divided into two complementary sets of procedures:

1. Obtain a list of all related entities; then develop a list of all transactions with those parties during the year.
2. Carefully examine all unusual transactions, especially those near the end of the quarter or the end of the year, to determine whether the transactions occurred with related entities.

Once all related entities are identified, the auditor can utilize generalized audit software (discussed in Chapter 8) to read the client files and list all transactions that occurred with the parties. The auditor then investigates the transactions to determine if they had been properly recorded. Finally, the auditor determines the appropriateness of management's disclosures.

The other approach focuses on transactions that appear to be unusual. An example might be a large sale of goods near the end of the year at a price that is higher than normal, or that has extended terms. The auditor might investigate and find that the transaction has occurred with a brother-in-law or an entity controlled by a related party.

An overview of an audit program for related-entity transactions is shown in Exhibit 15.4.

Variable Interest Entities

The term *variable interest entities* is used to describe a wide variety of ownership relationships a company may have with another entity. As business has become more complex, many businesses develop joint ventures with other entities to develop products utilizing the technologies of both entities in a creative fashion. These types of entities have existed for some time and include companies such as Dow Corning—a 50% joint venture of Dow Chemical and Corning Glass works. The pharmaceutical industry utilizes joint ventures to develop and/or distribute new drugs. In some situations, companies will use a variable interest entity to perform research and development with the sponsoring company maintaining a right to purchase any patents or processes developed by the entity. The entity may borrow most of the funds for development with collateralization coming in the form of patents developed and secured by the sponsoring entity's stock or guarantee. The entities

EXHIBIT 15.4 Related-Entity Transactions

AUDIT OBJECTIVE: Determine if related-entity transactions occurred during the year and whether they are properly (a) authorized and (b) disclosed in the financial statements.

AUDIT PROCEDURES

1. Inquire of the client of processes used to identify related-entity transactions and their approach to accounting for related-entity transactions.
2. Ask the client to prepare a list of all related entities. Supplement that list with disclosures that have been made to the SEC of top officers and directors in the company. For smaller businesses, supplement the list with a listing of known relatives who may be active in the business or related businesses.
3. Ask the client for a list of all related entity transactions, including those with Special Purpose Entities or variable interest entities, that occurred during the year.
4. Discuss the appropriate accounting for all identified related-entity transactions with the client and develop an understanding of the appropriate disclosure for the financial statements.
5. Inquire of the client and its lawyers as to whether the client is under any investigation by regulatory agencies or law officials regarding related-entity transactions.
6. Review the news media and SEC filings for any investigations of related-entity transactions of the client.
7. Use GAS to read the client's files and prepare a list of all transactions that occurred with related entities per the lists identified above. Compare the list to that developed by the client to help determine the quality of the client's information system.
8. Identify all unusual transactions using information specific to the client including information on (a) unusually large sales occurring near the end of a period, (b) sales transactions with unusual terms, (c) purchase transactions that appear to be coming from customers, and (d) any other criteria the auditor might consider useful.
9. Review the transactions and investigate whether or not the transactions occurred with related entities. If related entities can be identified, determine the purpose of the transactions and consider the appropriate financial statement disclosure.
10. Determine whether any of the transactions were fraudulent, or were prepared primarily to develop fraudulent financial statements. If there is intent to deceive, or if there is misuse of corporate funds, report the fraud or misuse to the Board of Directors. Follow up to determine if appropriate action is taken. If such action is not taken, consult with legal counsel.
11. Determine the appropriate accounting and footnote disclosure. Prepare a memorandum on findings.

Practical Point

Accounting for variable interest entities continues to evolve as the FASB deals with the tough issue of determining control for consolidation purposes. Control often occurs with ownership significantly less than 50%.

may be structured such that the sponsor may have control but may not technically have 50% of the ownership (see Enron example earlier) to avoid the requirement for consolidation. The sponsoring company is thus able to keep debt related to research and development "off the books."

The audit approach for all these variable interest entities is similar to that for related-entity transactions in Exhibit 15.4 and includes the following:

- Develop an understanding of the business purpose of all variable interest ownership relationships.
- Examine all contractual relationships associated with the entity, including those guaranteeing loans and rights to assets.
- Determine the proper accounting for the entity.
- Review the current financial status of the entity to determine if it creates any contingent liabilities for the organization.
- Summarize findings and review financial statement disclosure.

Disclosure of Significant Relationships

Organizations are continuing to develop close working relationships with suppliers, customers, and in some cases competitors. For example, most companies have "approved vendor lists" and a purchasing agent may purchase only from that list. SC Johnson—the maker of Pledge, Windex, RAID, Off mosquito repellant, and a number of other household products—has a working relationship with Wal-Mart where they are given the responsibility for managing the inventory in the household cleaner sections of Wal-Mart stores. In exchange for the preferential treatment

AUDITING IN PRACTICE

The Lollipop Manufacturer and Wal-Mart

The lollipop company was a small company that landed a lucrative contract with Wal-Mart and became one of the largest hard candy companies in the United States because of this special relationship. It was a family-owned business that thrived as it grew until Wal-Mart accounted for approximately 85% of its sales volume.

Wal-Mart is well known for its ability to hold prices down by putting pressure on its vendors to cut costs. Wal-Mart informed the lollipop company that it had to cut one-half cent off the cost of each lollipop. The company continued to produce the products but could not cut its own costs to sell the lollipops profitably at the new price and informed Wal-Mart. Shortly thereafter Wal-Mart notified the company that it had found a new supplier. Subsequently the lollipop company went out of business because it did not have a diverse customer base and was not able to make up for the volume that was lost to Wal-Mart. It had increased its scale of operations such that it could not scale down and return to being the small candy company that existed before Wal-Mart.

in deciding where their goods are going to be displayed, as well as managing the inventory levels, SC Johnson agrees that the inventory at the store will be held on consignment by Wal-Mart until the goods are sold. In other words, SC Johnson acquires advantages in displaying their products in the world's largest retailer in exchange for incurring all the carrying costs for the inventory held in the Wal-Mart stores and their distribution centers. The prognosis is that many companies will continue to evolve to closer relationships—in some cases dependency relationships with other entities that may require footnote disclosure or recognition of contingent liabilities.

The SEC requires disclosure of all customer relationships in which one customer accounts for more than 10% of the sales of a company. The purpose of the disclosure is to inform users of potential economic dependencies that may affect the future of the company. An example of such dependencies is seen in the *Auditing in Practice* feature on a lollipop manufacturer. The auditor must determine that the client has an information system that identifies sales by major customer in order to meet this requirement.

Audits of Long-Term Liabilities and Owner's Equity

Most of the accounting for long-term liabilities is straightforward. Bonds need to be shown at unamortized issue price and are not adjusted to market unless the company is calling the bonds or in the process of converting the bonds to equity. However, there are a number of liabilities that require extensive and subjective judgments by the client and the auditor. We turn our attention to a few of these liabilities next.

Liabilities with Significant Subjective Judgments

There are a number of liability accounts for which it is difficult to determine the correct balance sheet amount because they require significant judgments and assumptions about future events. These include the following:

- Restructuring reserves (discussed earlier in the chapter)
- Warranty reserves
- Pension obligations
- Other post-retirement benefits—especially health care

We will demonstrate the difficulty of auditing these accounts by briefly discussing the last three items.

Warranty Reserves The warranty reserve or liability represents the expected future cost related to the sales of a company's product. The audit program should recognize the past experience of the company, but should adjust the estimate of the liability for the following factors:

1. Changes in the product, including manufacturing that either enhances or decreases the quality of the product
2. Changes in the nature of the warranty
3. Changes in sales volume, for example, if more sales were made during the last quarter this year than in previous years
4. Changes in the average cost of repairing products under warranty

The cost to fulfill the warranty claim is estimated and recorded at the time the product is sold. For example, every time Ford sells a new vehicle, it has to estimate the average cost it expects to incur in meeting their 3-year 36,000-mile warranty. The warranty expense and liability are recorded on each sale. Costs incurred to meet the warranty are charged against the liability. The client should be continuously monitoring warranty claims to determine whether there is an unanticipated number of claims because of a failing part or product and the cost of those claims. If the amounts are significantly different than expected, the client should adjust the warranty liability. The auditor can audit the account by testing the information system used by the client and/or developing an estimate based on the factors identified earlier.

The auditor should inquire as to the veracity of the information system used to track warranty items and take action that will mitigate expenses. A proper control will allow a company to take effective action to prevent a potential problem with its products. For a real-world example involving the automobile industry, see the *Auditing in Practice* feature on Ford and General Motors.

Practical Point

Controls exist to mitigate risks. In the Ford Motor Case highlighted below, the risk was potential litigation brought against Ford by failure of a supplier's product. The control was to assume responsibility for the liability to gain access to the data needed to analyze problems and take protective action.

Pension Obligations Pensions represent an amalgamation of many items that are difficult to estimate:

- Projected lifetime of pensioners
- Future earnings of employees prior to retiring
- Earnings rate on invested pension assets

AUDITING IN PRACTICE

Ford and General Motors: The Case of the Rolling-Over SUV

In early 2000, a plaintiff lawyer became involved in a lawsuit in which his clients were injured when a Ford Explorer rolled over after a right rear tire had "blown out." In preparing for the case, the lawyer noted that there were a number of other cases where the same tire appeared to blow out at high highway speeds in warm temperatures. The lawyer subsequently brought a class action suit against Ford Motor Company. It appears that Ford did not notice the pattern of mishaps because the warranty for tires rested with its supplier, Firestone Tire Company. Before Ford could take proper action such as issuing a notice that the tires should be inflated to a higher pressure, the company lost millions of dollars in lawsuit damages, severed an almost 100-year relationship with its major tire supplier, and worst, lost the public's confidence in its vehicles. The loss in confidence resulted in a dramatic drop in the value of used Ford SUVs, and significantly increasing the cost of owning a Ford product vs. other brands. The loss in value and prestige led to dramatic sales and profitability decreases for Ford's largest selling and most profitable vehicle.

General Motors, on the other hand, recognized the risk of defects in their automobiles that might be caused by a supplier's product. In order to ensure that it was aware of potential patterns of failures of tires (and other products), General Motors decided that it would provide the warranty for all products associated with its vehicles, including the tires. They decided that assuming the liability was good risk management practice because it would provide a database that the company could analyze and take action to minimize costs. They established an agreement with their suppliers that General Motors would pass the warranty expense on to the suppliers, or in the case of tires, require that warranties be processed at the tire company's service stores.

- Long-term interest rates to discount future costs back to present value
- Changes in pension plans

The client will usually engage an actuarial firm to help them make the estimates. The auditor must determine that the actuarial firm is independent, competent, and has sufficient reliable information to develop the liability estimates. There is strong evidence that companies have used the pension obligations as a basis to smooth earnings or to manage earnings by changing the assumed long-term discount rate or the earnings rate.

Other Post-Retirement Benefits Many companies furnish medical insurance coverage as part of their **post-retirement benefits.** The rising cost of medical care has been termed a "crisis" by many candidates running for public office. The cost of the medical services is difficult for a company or auditor to estimate. The difficulties of making pension estimates are more severe for medical payments unless the company has a plan that limits the actual medical reimbursements each year.

The magnitude of other post-retirement benefits can be seen in a report by Delphi Corp. in 2004. See the *Auditing in Practice* feature.

Bonds and Stockholder's Equity

An organization has an almost infinite number of ways to meet its long-term financing needs. The two most common are issuing capital stock (equity) and bonds (debt). In the remainder of this chapter, we present a brief overview of audit considerations involved with these two financing methods. Many financing instruments are more complex than the ones we describe here and will require extra care when they are encountered. Other accounts the auditor may encounter in auditing financing activities include the following:

- Notes payable
- Mortgages payable or contracts payable
- Special bonds:
  - Payment-in-kind bonds (pay interest in the form of the issuance of more bonds with a stipulated date on which cash interest must be paid)
  - Convertible bonds, which are convertible into equity
- Mandatory redeemable preferred stock (preferred stock with a mandatory redemption date)
- Stock options and warrants
- Stock options as part of an employee stock compensation program

Bonds Bonds are issued to finance major expansions or to refinance existing debt. The transactions are few, but each transaction is highly material to the

AUDITING IN PRACTICE

Delphi Corp.—Anticipated Reduction in Retiree-Benefits Obligation

The company had approximately $8.5 billion in retiree-benefit obligations as of December 1, 2003. In early 2004, the company reported that it was going to reduce its expense and its deposits to the post-retiree benefit plans by $500 million. The reduction was directly related to a Medicare supplement plan passed by Congress in 2003. Essentially, the law was designed to encourage companies to retain prescription drug coverage for their employees. To encourage the continued coverage, the law (which will not be effective for two years and is subject to change) would reimburse companies for 28% of the cost of prescription drug costs over $250 per year, up to a subsidy of $1,300, per retiree per year.

How does the law affect the liability account? Delphi argued that if it took $1,300 per year from its estimate of future cash payments associated with the plan, it would reduce the liability by $500 million. It therefore booked a decrease in the liability and a decrease in expense for the same amount.

financial statements. Some major considerations in auditing bonds or other long-term debt include the following:

- Proper valuation and amortization of premium or discount
- Correct computation of interest expense
- Proper accounting for gains or losses on refinancing debt
- Proper disclosure of major restrictions contained in the bond indentures

Bond Issuance and Amortization Schedules Most bonds are marketed through an underwriter with the proceeds going to the issuer after deducting the underwriter's commission. Proceeds from the bond issuance can be traced to a bank deposit. The authorization to issue a bond is usually limited to the board of directors, and the proper authorization should be verified during the year of issuance. A bond premium/discount amortization spreadsheet can be set up that the auditor can use each year.

Periodic Payments and Interest Expense Most companies have agreements with bond trustees to handle the registration of current bondholders and to make the periodic interest payments. The bond issuer makes semiannual interest payments to the trustee, plus a fee for the trustee's service, and the trustee disburses the individual payments to the bondholders. There is usually no need to verify the existence of the liability with the bondholder. Rather, the auditor may verify the current payments with the trustee or vouch the payments to the trustee and update the amortization schedule spreadsheet.

Disclosure: Examination of Bond Indenture Bond indentures are written to protect bondholders against possible financial decline or against the subordination of the value of the debt by the issuance of other debt. Because violation of the bond indenture agreements makes the bonds currently due and payable, the auditor must clearly understand the important provisions of the agreement to determine whether (1) there is violation of the agreement and (2) the material restrictions are disclosed. Common restrictions include maintenance of a minimum level of retained earnings before dividends can be paid, maintenance of a minimum working-capital ratio, specification of a maximum debt-equity ratio, and specific callable provisions that identify procedures for calling and retiring debt at prespecified prices and dates. Copies of the bond indenture agreement or its highlights are normally maintained in the permanent audit file.

Common Stock and Owner's Equity The following are the major transactions affecting stockholders' equity that should be addressed during an audit:

- New stock issuances
- Purchase of treasury stock
- Payment of stock dividends or issuance of stock splits
- Sale of treasury stock and proper accounting for the proceeds
- Addition of donated capital through tax incremental financing
- Declaration and payment of cash dividends
- Transfer of net income to retained earnings
- Recording prior-period or comprehensive income adjustments to retained earnings

Although all the assertions apply to the audit of owner's equity, the valuation and disclosure assertions receive the most attention.

Valuation Most stock issuances do not present valuation problems because most stock is issued for cash. However, not all stock is issued for cash. Most states have passed laws to guard against "watered stock," meaning the stock is valued at amounts substantially greater than the value of the assets transferred to the corporation.

Valuation difficulties can occur in determining (1) whether the market value of the stock issued or the market value of the asset acquired is a better representation of value, and (2) the proper accounting for an exchange of stock to acquire another business.

Treasury stock transactions should be examined to determine whether they are recorded in accordance with the board of directors' authorization and state corporation laws and are properly valued. Finally, the auditor should verify that the client has made an accurate distinction between stock and capital in excess of par or stated value.

Disclosure Disclosure includes a proper description of (1) each class of stock outstanding and the number of shares authorized, issued, and outstanding and special rights associated with each class; (2) stock options outstanding; (3) convertible features; and (4) existence of stock warrants. The potential dilutive effect of convertible debt or preferred stock, stock options, and warrants should be disclosed in accordance with APB No. 15 in computing primary and fully diluted earnings per share. Any restrictions or appropriations of retained earnings should be disclosed, as well as prior-period adjustments, and other comprehensive income adjustments.

An example of a comprehensive audit program for stockholders' equity is shown in Exhibit 15.5.

EXHIBIT 15.5 Audit Program for Stockholders' Equity

OBJECTIVES

A. Determine that all transactions and commitments (options, warrants, rights, etc.) are properly authorized and classified.
B. Determine that all transactions and commitments are recorded at correct amounts in the proper period.
C. Determine that all transactions and balances are presented in the financial statements in conformity with GAAP.

Procedure	Done by	W/P
I. Stockholders' Equity		
A. Capital stock and additional paid-in capital—substantive test procedures		
1. For each class of stock, identify the number of authorized shares, par or stated value, privileges, and restrictions.	________	________
2. Obtain or prepare an analysis of the activity in the accounts; trace opening balances to the balance sheet as of the close of the year (period) previously audited.	________	________
3. Examine minutes, bylaws, and articles of incorporation for provisions relating to capital stock and support for all changes in the accounts including authorization per minutes of board of directors and stockholders' meetings, and correspondence from legal counsel.	________	________
4. Account for all proceeds from stock issues (including stock issued under stock option and stock purchase plans):		
a. Recompute sales price and applicable proceeds.	________	________
b. Determine that proceeds have been properly distributed between capital stock and additional paid-in capital.	________	________
5. If the company does not keep its own stock record books		
a. Obtain confirmation of shares outstanding from the registrar and transfer agent.	________	________
b. Reconcile confirmation with general ledger accounts.	________	________
6. For stock options and stock option plans, trace the authorization to the minutes of the board of directors' meetings and review the plan and the option contracts. Obtain or prepare and test the analyses of stock options that include the following information:		
a. *For option plans*, the date of the plan, the number and class of shares reserved for option, the method for determining the option price, the period during which		

(continued)

EXHIBIT 15.5 Audit Program for Stockholder's Equity (*continued*)

Procedure | **Done by** | **W/P**

options may be granted, and the identity of persons to whom options may be granted. ________ ________

b. *For options granted*, the identity of persons to whom granted, the date of grant, the number of shares under option, the option price, the number of shares as to which options are exercisable, and the market price and value of shares under option as of the date of grant or measurement—first date on which are known both (1) the number of shares the individual is entitled to receive and (2) the option of purchase price, if any. ________ ________

c. *For options outstanding*, the number of shares subject to option at the beginning of the period, the activity during the period (additional shares subjected to option, the number of shares exercised under options, the number of shares associated with options that expired during the period), and the number of shares subject to option at year end (period end).

d. Determine fair market value of options at time of issuance. ________ ________

7. Identify all stock rights and warrants outstanding as of the balance sheet date, including the number of shares involved, period during which exercisable, and exercise price; determine that the amounts are properly disclosed. ________ ________

8. Obtain or prepare an analysis of the treasury stock account and
   a. Inspect the paid checks and other documentation in support of the treasury stock acquisitions. ________ ________
   b. Examine the treasury stock certificates; ascertain that the certificates are in the company's name or endorsed to it. ________ ________
   c. Reconcile treasury stock to the general ledger. ________ ________

9. Ascertain amount of dividends in arrears, if any, on cumulative preferred shares. ________ ________

B. Retained earnings

1. Analyze activity during the period; trace the opening balance to the balance sheet as of the end of the year (period) previously audited; trace net income to financial statement assembly sheets; and trace unrealized loss on noncurrent investments to investment working papers. ________ ________

2. Determine that dividends paid or declared have been authorized by the board of directors and
   a. Examine paid checks and supporting documents for dividends paid (selected checks to shareholders or to a dividend disbursing agent). ________ ________
   b. Recompute amounts of dividends paid and/or payable. ________ ________

3. Investigate any prior-period adjustments and comprehensive income adjustments to determine whether they were made in accordance with GAAP. ________ ________

4. Examine supporting documents and authorization for all other transactions in the account, such as treasury stock transactions, considering conformity with GAAP. ________ ________

5. Determine the amount of restrictions, if any, on retained earnings at end of period that results from loans, other agreements, or state law. ________ ________

Summary

The topics covered in this chapter are complex because: (a) they represent significant measurement and valuation issues; (b) the accounting is often complex; (c) they often require the use of market value that is different than historical cost in estimating values; (d) they often involve the use of specialists—some of whom may not be qualified or work to the same independence standards as the accounting

profession; and (e) management is often motivated to use accounting in the areas discussed to portray financial results that differ from economic reality. For that reason, experienced auditors are most often assigned to audits that involve significant estimates or determinations of market value other than historical costs.

Many of the frauds of the past decade have involved estimates of the types covered in this chapter. The audit approach must be objective and challenging and therefore cannot rely simply on management's assessments.

Significant Terms

goodwill The excess of the net purchase price for an economic entity over the sum of the fair market values of specifically identifiable tangible and intangible assets; can arise only in connection with the purchase of an organization and identifies superior earning power associated with the entity.

goodwill impairment The decrease in the value of goodwill. Measured by comparing the fair value of the reporting entity with the carrying value of entity. If fair value is less than carrying value (including goodwill), the presumption is that goodwill has been impaired. Goodwill should be written down to an amount that would cause fair value to be no more than carrying value.

post-retirement benefits All post-retirement benefits, other than pensions. Must be identified and measured by the company. The accounting treatment is conceptually the same as pensions.

reporting entity For accounting purposes, it is the acquired segment or operating segment to which the goodwill from the acquisition is assigned. Tests for goodwill impairment are performed at the operating unit level.

Review Questions

15-1 Why do audits of acquisitions and mergers contain high amounts of inherent risk? Have most mergers and acquisitions been successful?

15-2 How does a company measure the cost of an acquisition of a company? What factors often complicate the determination of actual cost? Explain how each factor complicates the calculation of cost and the steps the auditor has to take to reach a conclusion about the cost of the acquisition.

15-3 How is the amount of goodwill determined at the time of acquisition?

15-4 An audit client has acquired another company and accounted for the acquisition as a purchase. An independent real estate appraiser has been hired to value the assets of the acquired company. What are the audit requirements regarding use of the specialist?

15-5 Does the auditor need to engage another independent specialist to test the work of the specialist hired by the company to determine the value of the tangible and intangible assets other than goodwill? Explain.

15-6 How does an auditor test for the impairment of goodwill? What are the significant judgment issues that must be addressed?

15-7 What factors might signal the likelihood that goodwill may be impaired? Explain and indicate how the auditor would be aware of each of these factors.

15-8 How does an auditor determine the fair value of goodwill if:
- The reporting entity is the total company and the company is publicly traded.
- The reporting entity is the total company and the company is not publicly traded.
- The reporting entity is an operating segment.

15-9 Assuming the company's stock price goes down in a bear market that occurs at the end of the year. However, the stock price more than doubles in the next year. The company recognized a goodwill impairment at

the end of the year when the stock price was low. Because the market decline was temporary, should the goodwill be written back up to its original value? What are the problems in using temporary market values?

15-10 What is a related entity? What is the proper accounting for transactions with related entities?

15-11 The FASB has used the term "variable-interest" entities to describe a company's relationship with other entities. Ownership may vary from none, to less than 50%, to a 50-50 joint venture, to majority owned. Explain how the ownership interest in a related entity may vary and the effect of the ownership on the accounting used in preparing financial statements.

15-12 What is a special purpose entity (SPE)? Explain how Enron used SPEs to commit financial reporting fraud.

15-13 What are the broad approaches used to identify and audit related-entity transactions? What are the audit risks associated with related-entity transactions?

15-14 Companies may have significant relationships with other entities that do not involve ownership interests, but may involve control issues. What is the nature of these relationships? What disclosures are required of these relationships?

15-15 What is the required disclosure if management uses company resources for personal purposes, e.g., entertainment, birthday parties, decorating apartments, etc.?

15-16 What are the significant estimates that must be made with the following liability accounts?
- Restructuring reserves
- Warranty reserves
- Pension obligations
- Other post-retirement liabilities other than pensions

15-17 Explain how outside specialists are used in auditing pension obligations.

15-18 Explain how General Motors believed it had a better control over its warranty risks by assuming the warranty liability for supplier's parts, e.g., tires, than Ford Motor Company did by having their tire manufacturing service the warranty claims for tires.

15-19 What information should the auditor note when reading a bond indenture? How is the information used in the audit?

15-20 Assume that common stock of a publicly held company is issued to acquire the operating assets of another company (but not the other company). What information should be used to determine the value of the transaction?

15-21 A company declared a 5% stock dividend. Identify the evidence the auditor would examine to determine if the stock dividend was accounted for properly.

15-22 Explain how a bond amortization spreadsheet might be used to audit interest expense over the life of a bond.

Multiple-Choice Questions

15-23 The audit client has acquired another company by purchase. Which of the following would be the best audit procedure to test the appropriateness of the allocation of cost to tangible assests?

a. Determine whether assets have been recorded at their book value at the date of purchase.

b. Evaluate procedures used to estimate and record fair market values for purchased assets.
c. Evaluate the reasonableness of recorded values by using replacement-cost data for similar new assets.
d. Evaluate the reasonableness of recorded values by discussion with operating personnel.

15-24 An audit client will often utilize a specialist to assist in the valuation of selected assets and liabilities. Which of the following is *not* an accurate description of the auditor's responsibilities for evaluating the work of a specialist?
a. The auditor must gather evidence that pertains to *both* the competence and independence of the specialist.
b. The auditor must evaluate the reasonableness of the specialist's evidence even if the specialist is certified.
c. The auditor must test the underlying information on which the specialist develops the estimates in order to determine the reliability of the information.
d. The auditor should evaluate the assumptions made by the specialist to determine the reasonableness of the assumptions and the effect on the estimates developed.
e. All of the above.

15-25 In accounting for an acquisition, the auditor must determine that there are separate valuations for all of the following except:
a. All the specifically identifiable intangible assets, including an estimate of remaining useful life
b. Goodwill associated with the reporting unit
c. Warranty expense for the previous year
d. The useful life of physical assets that were acquired

15-26 In determining the potential impairment of goodwill, which of the following would *not* be an appropriate methodology to estimate the fair value of a reporting entity? Assume the reporting entity is not the company as a whole.
a. Determine the fair market value of the entity based on current stock price of the company.
b. Obtain a "fairness" letter from an investment banker as to the value of the reporting entity if it were to be sold to another company.
c. Evaluate current profitability and cash flow in comparison with the capital budgeting model used in acquiring the company.
d. Obtain outside financial analysts' reports of the company's prospects that include a specific discussion of the reporting entity's prospects.

15-27 If a company overpays for the purchase of another company, as was the assertion when the merger of AOL and Time-Warner took place, what steps should the client take to be sure the results are fairly portrayed in the financial statements?
a. Review financial analysts' reports; write the excess payment off to owner's equity at the time of acquisition.
b. Increase the value of tangible assets to cover the amount of overpayment since these are amounts that were paid to acquire the assets.
c. Record the excess amount to goodwill, but shorten the estimated life of goodwill for amortization purposes.
d. Record the excess amount as goodwill but test goodwill for impairment annually.

***15-28** When auditing related-party transactions, an auditor places primary emphasis on:
a. Confirming the existence of the related entities
b. Verifying the valuation of the related-entity transactions
c. Evaluating the disclosure of the related-entity transactions
d. Determining the rights and obligations of the related entities

15-29 Which of the following statements is correct regarding transactions between a company and a major customer that accounts for more than 10% of the company's sales?
a. The profit from such transactions should be shown as a separate line item on the financial statements.
b. There is no disclosure required.
c. Disclosure of the nature of the relationship with the related-entity and amounts due to and from each entity is required for all companies.
d. Disclosure of the amounts of such transactions must be disclosed for publicly traded companies, but not for privately-held companies.

15-30 Which of the following is not a procedure that an auditor would use in performing an audit designed to identify and account for related-entity transactions?
a. Send confirmations to all customers inquiring whether they are related entities.
b. Obtain a list of all related entities from the client.
c. Review all large, unusual transactions to determine if they took place with related entities.
d. Review SEC filings to obtain a list of related entities.

***15-31** The auditor's program for the examination of long-term debt should include steps that require:
a. Verification of the existence of the bondholders
b. Examination of the bond trust indenture
c. Inspection of the accounts payable master file
d. Investigation of credits to the Bond Interest Income account

***15-32** When a client does not maintain its own stock records, the auditor should obtain written confirmation from the transfer agent and registrar concerning:
a. Restrictions on the payment of dividends
b. The number of shares issued and outstanding
c. Guarantees of preferred stock liquidation value
d. The number of shares subject to agreements to repurchase

Discussion and Research Questions

15-33 **(Mergers and Acquisitions)** Research has shown that mergers and acquisitions during the past two decades have met with mixed success—with a majority appropriately labeled as ineffective.

Required
a. What processes should an organization have in place to evaluate the economics of a proposed acquisition?
b. What are the implications to the audit if the processes identified above are not in place?
c. What are the difficulties associated with a merger? More specifically, why is it so difficult to make mergers work the way they were intended to work? What factors should the auditor look at to determine if it appears that a merger is coming together successfully?

15-34 **(Purchase Accounting)** Romenesko Conglomerate Co. recently acquired Teasedale Cosmetic Company through a tender offer for all the common stock of Teasedale Cosmetic. Teasedale stock had been trading on the market at $25 per share, but the tender offer was made at $35 per share for all 2 million of the company's shares.

Teasedale had a book value of $17 per share at the time of the acquisition. Romenesko gave each shareholder $10 in cash, 1/2 of a share of Romenesko common stock (trading at $30 per share), and 1/10 of a share of an $8 preferred stock not previously issued for each

share owned. Teasedale's condensed balance sheet was as follows before the acquisition (in thousands):

• Cash	$ 300
• Other current assets	3,000
• Property and equipment	22,000
• Intangibles exclusive of goodwill	2,500
• Goodwill	5,000
• Total assets	$32,800
• Current liabilities	$ 4,000
• Pension obligation	3,000
• Long-term debt	8,000
• Deferred taxes	800
• Stockholders' equity	17,000
• Total liabilities and equity	$32,800

Required

a. What are the unique valuation problems the auditor must address in connection with Romenesko's purchase of Teasedale Cosmetics?
b. How should the auditor use a specialist in the valuation of the purchase transaction?
c. What happens to the goodwill that was on Teasedale's books? Explain.
d. What happens to the other intangibles that were on Teasedale's books? Explain.
e. What happens to the deferred income tax liability on Teasedale's books once the purchase is completed?
f. Assume that the client uses a specialist who does not change the value assigned to current assets or liabilities, but reduces the pension obligation to $1,500 and values the PPE at $30 million and other intangibles at $5 million. Additionally, the current market value of Teasedale's long-term debt is $5 million, but its face value remains at $8 million (also its maturity value). What is the amount of goodwill to be recorded?

15-35 **(Goodwill Impairment)** In 2006, Nelson Communications purchased a controlling interest in Telnetco that resulted in goodwill in the 2006 consolidated financial statements of $4,500,000. There are no other intangible assets. Telnetco continues to be listed on NASDAQ. Near the end of 2007, Nelson estimated that the fair market value of Telnetco was $50,500,000 based on the present value of its future cash flows. Using the assistance of a professional appraisal firm, it was determined that the fair market value of its net tangible assets was $46,900,000, resulting in a goodwill write-down of $900,000.

Required

a. Describe the inherent risks to this write-down.
b. Describe the audit evidence needed to evaluate the fairness of this write-down.
c. How might a specialist be of help?

15-36 **(Goodwill Impairment)** Merrill Publishing Company has operated primarily as a printer for catalogs, SEC filings, and phone books. During the past few years, it has:

- Expanded into a new product line in magazine publishing through the purchase of Wausau Printing Company,
- Developed a professional web site that makes all the information in the printed documents available on a subscription basis to the companies that come to it for printing,
- Purchased St. Paul Labels, which makes labels for canned products

- Purchased Consumer Custom Design (CCD), which develops designs for cardboard food products, for example, Wheaties cereal, and other food products that are delivered in cardboard-type containers. The designs are developed on the Web and are downloaded to companies for printing on their packaging products.

The company recorded goodwill of $15 million, $12 million, and $8 million, respectively, for the Wausau, St. Paul Labels, and Consumer Customer Design purchases.

Required

a. Define an operating segment. Identify the criteria that Merrill might use to define an operating segment. Identify when the decision should be made to classify a purchase as part of an operating segment.
b. Assume that Merrill merges the operations of St. Paul Labels and Consumer Custom Design into one operating segment, which it has labeled as food product print design. The segment has been successful, but the operations relating to cardboard design, after three years, continues to fall below expectations. Because the operations are integrated, how would the client and the auditor measure the possible impairment of goodwill in the segment? In other words, it appears the operations generated from St. Paul Labels are strong while the operations integrated from CCD have been weak.
c. What are the problems associated with measuring the impairment of goodwill for the food product print design segment?
d. How would the auditor test for goodwill impairment for the purchase of Wausau Printing Company assuming that it remains an identifiable segment? Also assume that cash flow and profitability continue to exceed the budget utilized in determining a purchase price. Does the company still need to obtain an independent assessment of the fair market value of the total company and the operating entity on an annual basis? Discuss the rationale for your answer.

15-37 **(Restructuring Reserves)** Many acquisitions require a restructuring of operations to integrate the acquired entity into the acquiring company's business structure.

Required

a. What actions does a company typically take in restructuring the organization following an acquisition? What are the advantages of restructuring operations?
b. Assume a company plans to shut down three factories, lay off 5,000 workers, and eliminate one line of business of an acquired company. How does the company compute the cost for disposing of the line of business? What information needs to be gathered to audit the restructuring reserve?
c. Explain how WorldCom used restructuring reserves (liabilities) to manipulate reported earnings.
d. Assume that the company had more than a plan; it had specifically identified parties that would be affected by the restructuring. Therefore, the company accrued a restructuring reserve and recognized the expense as an unusual expense below operating income. What should be the proper accounting for future costs associated with the restructuring?
e. How does a company decide that a restructuring plan is complete? What is the proper accounting for a restructuring reserve that remains on the books, but for which the restructuring has been completed?

15-38 **(Restructuring and Smoothing Earnings)** Maxair Corporation has a reputation of acquiring a number of companies. They managed

earnings by estimating high reserves for merger-related activity such as terminating employees and closing plants. The actual costs incurred were significantly less than was estimated.

Required

a. What is the proper journal entry that should be made when the company closes a plant and lays off workers and the cost was substantially less than they had estimated?
b. In the WorldCom case, what did the company do with the reserves when the actual costs of closing plants, terminating employees, etc. were less than anticipated?
c. Why would management deliberately overestimate (at the time the merger is consummated) the estimate of the future cost of closing plants and consolidating activities associated with a merger?
d. Identify three pieces of evidence the auditor should look at during the merger transaction to determine if the cost of terminating a line of business, closing down a plant, and selling the plant is reasonable. In other words, how would the auditor go about evaluating the original liability estimate?

15-39 **(Related-Entity Transactions)** It is common for an entity to have transactions with related entities—some of which are fully owned, some of which share common ownership, but are not otherwise related, and others where ownership is small but there is control.

Required

a. Define related-entity transactions and describe the appropriate accounting for related-entity transactions. In your answer consider the following:
   - Parent-subsidiary transactions
   - Affiliated entity transactions—owned by same owner (not a corporation)
   - Joint venture transactions
   - Special purpose entity transactions
   - Entity transactions with CEO (other than payroll)
b. There are two basic approaches to auditing related-entity transactions. Describe the approaches and evaluate the strengths and weaknesses of each approach.
c. Tyco is a conglomerate organization that had $36 billion in revenue. In a court trial, it was alleged that the CEO of the organization used corporate funds:
   - For a private birthday party (over $1 million)
   - To lavishly furnish an apartment in New York City
   - To pay domestic help for taking care of the apartment
   - To make loans to key executives that were subsequently forgiven by the CEO
     (1) What audit procedures would have identified these transactions?
     (2) Is it reasonable to expect an audit to uncover these types of transactions in a $36 billion company?
     (3) Should the auditor look for these types of transactions in every audit? Is it reasonable for auditors to look for such transactions?
     (4) What controls should an organization like Tyco implement to ensure that such transactions do not take place in the future?

15-40 **(Related-Entity Transactions)** Eisenhower Construction, a privately-held company, used to own all of its construction equipment used for highway work (bulldozers, cranes, graders, cement trucks). The company recently sold all of the equipment to the owner's son. The son is a 25% stockholder in Eishenhower Construction. The son's new business, Construction Rental, Inc., is 75% owned by the son and

25% owned by the father (75% owner of Eisenhower Construction). Construction Rental has grown dramatically such that less than 20% of its construction rental business is done with Eisenhower Construction. Further, Eisenhower Construction rents about 60% of its equipment from Constructional Rental and leases another 40% from FabCo, an independent company.

You have been assigned to perform the audit of Eisenhower Construction Company

Required

a. What is the proper accounting and disclosure of the sale of the equipment during the year on the books and in the financial statements of Eisenhower Construction Company?
b. What is the required disclosure of the rental equipment that was rented from Constructional Rental?
c. It turns out that the construction company also does water and sewer work and rents most of the smaller equipment from a daughter of the company's president. However, these rentals were not disclosed to the auditor. What audit procedures would have uncovered the existence of this other related-entity transaction?

15-41 **(Related-Entity Transactions)** The relationship between successful organizations is changing. In some cases, competitors even combine efforts to jointly develop new products. In other situations, companies license their products to other companies.

Required

a. What is a related-entity transaction? What distinguishes a licensing transaction from a related-entity transaction? For example, Merck licenses Proctor & Gamble to sell all Prilosec OTC drugs because Proctor & Gamble has greater knowledge in how to market to the consumer. Is the license a related-entity transaction? If not, why not?
b. How would the auditor normally find out about licensing transactions, joint venture transactions, and Special Purpose Entity transactions?
c. Explain why the Special Purpose Entities and the transactions that were entered into with those entities by Enron violated GAAP? What would have been the proper accounting for those transactions?

Group Activity

15-42 **(Warranty Estimates)** You have been assigned to the audit of Oshkosh Truck Corporation. The company is the leading manufacturer of fire trucks and heavy duty army trucks. All of the basic components are warranted for 100,000 miles or 4 years, whatever comes first. There is a different warranty if the trucks are used in desert lands and that warranty is for 40,000 or 18 months, whatever comes first.

Required

a. Identify the components of an information system that Oshkosh Truck should establish to develop an estimate of the warranty liability and warranty expense.
b. Assume the company established an information system to your specifications described in part (a). Write an audit program to audit the accuracy of the process that would provide audit evidence on the reasonableness of the warranty expense and warranty liability account.
c. Assume that last year, 60% of the trucks sold to the army were designated for use in the Middle East and thus only carried the 40,000 miles or 18-month warranty. Explain how this change would affect the recognition of the warranty expense and liability account.
d. Assume that the warranty liability has been growing over the past few years because actual warranty expenditures have been significantly less than estimated. Assume there has been no significant decline in the quality of the vehicles produced.

(i) What information would the auditor gather to determine whether or not the liability might be materially overstated?
(ii) If the auditor concludes the liability is materially overstated, what is the proper accounting? The company proposes to reduce the warranty expense this year and in coming years until the warranty liability is not overstated.

15-43 **(Drug Benefits and Post-Retirement Liabilities)** The text talks about Delphi Company reducing its other post-retirement benefits by approximately $500 million because of a change in the law. The federal government will not reimburse companies for prescription drug benefits that it provides to its employees who are of Medicare age. The reimbursement is 28% of all prescription drug benefits in excess of $250 per person per year, up to a maximum of $1,300 per person.

Required

a. Identify the process the company would use to identify the liability for post-retirement drug benefits. Assume this was done prior to the new federal law. Identify the data the company would need to make the estimate. Identify how the auditor might audit the data.
b. Explain how the auditor would verify the $500 million reduction in liability due to the new federal law.

15-44 **(Bond Indentures and Bond Liabilities)** The auditor should review the bond indenture at the time a bond is issued and any time subsequent changes are made to it.

Required

a. Briefly identify the information the auditor would expect to obtain from a bond indenture. List at least five specific pieces of information that would be relevant to the conduct of the audit.
b. Because auditors are especially concerned with the potential understatement of liabilities, should they confirm the existence of the liability with individual bondholders? State your rationale.
c. A company issued bonds at a discount. Explain how the amount of the discount is computed and how the auditor could determine whether the amount is properly amortized each year.
d. Explain how the auditor could verify that semiannual interest payments are made on the bond each year.
e. The company has a 15-year, $20 million loan that is due on September 30 of next year. It is the company's intent to refinance the bond before it is due, but it is waiting for the best time to issue new debt. Because its intent is to issue the bond next year, the company believes that the existing $20 million bond need not be classified as a current liability. What evidence should the auditor gather to determine the appropriate classification of the bond? The FASB has recently dealt with the debt refinancing. What is their recommended approach?

***15-45** **(Bond Covenants and Audit Actions)** The following covenants are extracted from a bond indenture. The indenture provides that failure to comply with its terms in any respect automatically advances the due date of the loan to the date of noncompliance (the maturity date is 20 years hence).

Required

Identify the audit steps that should be taken or reporting requirements necessary in connection with each one of the following:

a. The debtor company shall endeavor to maintain a working capital ratio of 2 to 1 at all times, and, in any fiscal year following a failure to maintain said ratio, the company shall restrict compensation of the CEO and executive officers to a total of no more than $500,000. Management for this purpose shall include the chairman of the board

of directors, the president, all vice presidents, the secretary, and the treasurer.

b. The debtor company shall insure all property that is security for this debt against loss by fire to the extent of 100% of its actual value. Insurance policies securing this protection shall be filed with the trustee.

c. The debtor company shall pay all taxes legally assessed against the property that serves as security for this debt within the time provided by law for payment without penalty and shall deposit receipted tax bills or equally acceptable evidence of payment of same with the trustee.

d. A sinking fund shall be deposited with the trustee by semiannual payments of $300,000, from which the trustee shall, at her discretion, purchase bonds of this issue.

15-46 **(Audit of Stockholders' Equity)** A CPA firm is engaged in the examination of the financial statements of Zeitlow Corporation for the year ended December 31, 2007. Zeitlow Corporation's financial statements and records have never been audited by a CPA.

The stockholders' equity section of Zeitlow Corporation's balance sheet at December 31, 2007, follows:

Stockholders' Equity:	
Capital stock—10,000 shares of $10 par value authorized:	
5,000 shares issued and outstanding	$ 50,000
Capital contributed in excess of par value of capital stock	58,800
Retained earnings	105,000
Total stockholders' equity	$213,800

Founded in 1985, Zeitlow Corporation has 10 stockholders and serves as its own registrar and transfer agent. It has no capital stock subscription contracts in effect.

Required

a. Prepare the detailed audit program for the examination of the three accounts composing the stockholders' equity section of Zeitlow Corporation's balance sheet. (Do not include in the audit program the verification of the results of the current year operations.)

b. After all other figures on the balance sheet have been audited, it might appear that the retained earnings figure is a balancing figure and requires no further verification. Why would an auditor still choose to verify retained earnings? Discuss.

15-47 **(Audit of Long-Term Debt)** The long-term debt documentation (indexed K-1) on pages 000 was prepared by client personnel and audited by AA, an audit assistant, during the calendar year 2007 audit of American Widgets, Inc., a continuing audit client. The engagement supervisor is thoroughly reviewing the working papers.

Overall Conclusions

Long-term debt, accrued interest payable, and interest expense are correct and complete at 12/31/07.

Required

Identify the deficiencies in the audit documentation that the engagement supervisor should discover.

Cases

15-48 **(Ethical Decisions in Lease Transactions)** You are part of an audit team working on the audit for one of the largest clients in the office. This public client is growing and in the past year has increased its use

American Widgets, Inc.
Long-term Debt
December 31, 2007

Index	K-1	
	Initials	Date
Prepared by	AA	3/22/08
Approved by		

Lender	Interest Rate	Payment Terms	Collateral	Balance December 31, 2006	2007 Borrowings	2007 Reductions	Balance December 31, 2007	Interest Paid to	Accrued Interest Payable December 31, 2007	Comments
First Commercial Bank*	12%	Interest only on 25th of month, principal due in full 1/1/11 no prepayment penalty	Inventories	$ 50,000†	$300,000‡ 1/31/07	$100,000§ 6/30/07	$ 250,000‖	12/25/07	$2,500**	Dividend of $80,000 paid 9/2/07 (W/P N-3) violates a provision of the debt agreement, which thereby permits lender to demand immediate payment; lender has refused to waive this violation
Lender's Capital Corp.*	Prime plus 1	Interest only on last day of month, principal due in full 3/5/11	2nd mortgage on Park St. building	100,000†	50,000‡ 2/29/07	—	200,000††	12/31/07	—	Prime rate was 8% to 9% during the year
Gigantic Building & Loan Assoc.*	12%	$5,000 principal plus interest due on 5th of month, due in full 12/31/08	1st mortgage on Park St. building	720,000†	—	60,000‡‡	660,000††	12/5/07	5,642§§	Reclassification entry for current portion proposed (See RJE-3)
J, Lott, majority stockholder*	0%	Due in full 12/31/07	Unsecured	300,000†	—	100,000‖‖ 12/31/07	200,000††	—	—	Borrowed additional $100,000 from J. Lott on 1/7/06
				$1,170,000†	$350,000	$260,000	$1,310,000	T/B	$8,142***	
				†††	†††	†††	†††		†††	

††† Readded, foots correctly
†† Confirmed without exception, W/P K-2
‖ Confirmed with exception, W/P K-3
** Does not recompute correctly
‡ Agreed to loan agreement, validated bank deposit ticket, and board of directors' authorization, W/P W-7
‡‡ Agreed to canceled checks and lender's monthly statements
‖‖ Agreed to cash disbursements journal and canceled check dated 12/31/07, clearing 1/8/08
*** Traced to working trial balance
† Agreed to 12/31/06 working papers
* Agreed interest rate, term, and collateral to copy of note and loan agreement
§ Agreed to canceled check and board of directors' authorization, W/P W-7

Interest costs from long-term debt

Interest expense for year	$ 281,333***
Average loan balance outstanding	$1,406,667§§
Five-year maturities (for disclosure purposes)	
Year-end 12/31/08	$ 60,000
12/31/09	260,000
12/31/10	260,000
12/31/11	310,000
12/31/12	60,000
Thereafter	360,000
	$1,310,000
	†††

of leases for equipment. In conducting the audit program for the old and new leases, it appears that both the new leases, as well as the previously recorded leases, meet lease capitalization criteria. The team has had several meetings to review their analysis to ensure that they have the correct answer. The team has concluded that the client will have to capitalize the leases and that prior years' financial statements likely will have to be restated. The client will not be happy about this.

The team had raised this as a potential issue earlier in the audit with the senior manager overseeing the audit. He is swamped with other parts of the audit as well as with responsibilities for other audits. At that time, he suggested another approach to the issue based on a materiality argument, i.e., simply say that the issue is not material and then it becomes a "non-issue." The team explores this and feels it is not the right way to go. The deadline for completing the audit is fast approaching. To date, no one has apprised the client of the dilemma and the increasingly likely prospect that the company will have to report the leases as liabilities and announce a restatement. At the next team meeting you raise the issue of whether it is time to let the client know. The team agrees it is time to have that conversation.

You advise your senior manager of the group's recommendation to alert the client to the problem. He is taken aback as he had not adequately gauged the extent of the problem. He knows that the partner who oversees this client account will have serious problems about this outcome—reporting significantly higher liabilities on the balance sheet and a restatement—especially when the audit firm had signed off on the lease accounting in prior audits. It is well known that this is one of the more important audit clients in the office, as well as the most important client for which this partner is responsible. The senior manager says that he is overcommitted with other crucial projects. He again pushes the materiality "solution" to the problem. That is, like in prior years, it can be argued that although the accounting is wrong, the adjustment is not material and can therefore be ignored. You and the team are very uncomfortable with this response and you begin to wonder if the partner shares the senior manager's view.

You are vividly aware of the reputation this partner has for being tough on managers who bring bad news. Thus, you are not at all sure that he will buy the team's recommendation. Yet, it is the team's conviction that failing to notify the client of the problem in a timely manner may lead to a serious breach in the client's relationship with the firm, and possibly to accusations of negligence.

Required

a. Summarize the ethical difficulty posed in this case scenario.
b. What are the options for approaching the partner in this situation without undermining the engagement team's relationship with the senior manager?
c. What arguments would you make that appeal to the partner's values?

The following substantive testing assignments from the Biltrite audit practice case may be completed at this time:

Module XII: Estimated liability for product warranty
Module XIII: Mortgage note payable and note payable to Bank Two

Module XII: Estimated Liability for Product Warranty

All Biltrite products are sold under a one-year warranty covering all parts and labor. Repairs are performed locally, either by the dealer who sold the bicycle or by local entities licensed as official Biltrite bicycle repair shops. Biltrite reimburses the dealers and shops for labor and parts. Reimbursement is based on work orders submitted by the repairing agency. The customer signs the work orders, and the serial number of the product repaired also appears on each work order. Defective parts or products replaced must be returned with the accompanying work order. The parts and products are received and logged in on color-coded receiving reports designed for returns.

At the end of each month, the following standard journal entry is posted as an adjustment to estimated product warranty.

8330 Product Warranty Expense
2070 Estimated Product Warranty Liability

For 2007, the company applied 0.5% to cost of goods sold in determining the amount of the monthly adjustment. Debits to account 2070 are for reimbursements and for product and parts replacements. Defective parts and products are "zero valued" and placed in the rework department. Derick has asked you to analyze product warranty and determine the appropriate balance in the liability account. He already has provided you with a partially completed document and a client-prepared analysis of returns over the past four years. You have completed the document and are now ready to evaluate the adequacy of the balance.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Warranty." Examine the document carefully and comment on its adequacy and completeness. (Note that the 12/31/07 audited balances appear to be unreasonable because you have not yet selected an appropriate provision percentage based on the "data from client-prepared analysis of warranty claims.")
2. Scroll to the bottom of WP 20 and enter audit adjustments already made in previous modules that affect cost of goods sold for 2007. You should identify the following adjustments. (If you weren't assigned the respective modules, ask your instructor for details regarding amounts and accounts.)
   - AJE No. 1 (Module IV correction of repairs expense capitalized as factory equipment)
   - AJE No. 3 (2007 purchase recorded in 2008, detected in completing Module VI)
3. What comprises the documentation examined by the auditor (audit legend E) supporting the debits to account 2070?
4. How would you audit the client-prepared analysis of warranty claims? (See "Year of Claim/Year of Sale" analysis in the middle of WP 20.)
5. Enter equations in cells C44, D44, and E44 that will calculate the percentage of warranty claims to cost of goods sold for each of the three years 2004–2006.

6. Note the percentage that now appears in cell B46 and the resulting adjustment to product warranty expense.
7. Draft AJE No. 12 on the document.
8. Print the document.
9. Shelly Ross, the other assistant auditor on the engagement, asks why you didn't adjust the prior years under provision through beginning retained earnings. What is your response?

Module XIII: Mortgage Note Payable and Note Payable to Bank Two

In addition to a deferred tax liability relating to temporary book and tax depreciation differences, Biltrite's long-term liabilities consist of the following:

- 10% mortgage note payable to Dallas Dollar Bank—$60 million
- 12% note payable to Bank Two—$45 million

In 2002, Biltrite upgraded its manufacturing facilities at a cost of $150 million. The project was financed by issuing 2 million shares of common stock at $25 per share, and by issuing a $100 million 10% mortgage note payable to Dallas Dollar Bank. The mortgage agreement requires repayment in ten annual installments of $10 million each. Interest on the unpaid principal is payable on the first day of each month. The principal installments are due on January 1. The next payment is due on 1/1/08.

The 12% note payable to Bank Two was issued to alleviate the effects of the liquidity problems encountered in 2007. This note is unsecured and requires repayment in ten equal annual installments. Unlike the Dollar Bank mortgage loan, interest on the Bank Two loan is payable annually. The first principal installment, together with interest, is due 3/1/08. This note contains restrictive covenants, as described earlier, relating to a $10 million compensating balance requirement and restrictions regarding further borrowing and dividend payments.

Derick has asked that you analyze the long-term notes payable, being particularly alert to any violations of the restrictive covenants contained in the Bank Two loan agreement.

Requirements

1. Using the spreadsheet program and downloaded data, retrieve the file labeled "Notes." Locate the following documentation in this file:

- WP 14—Notes payable and accrued interest—lead schedule
- WP 14.3—Notes payable—long-term

Scroll to WP 14.3, "Notes Payable—Long-Term." What are the audit objectives in the examination of long-term notes payable? Has the evidence provided in the document achieved them?

2. Record Reclassification Journal Entry C for the current portion of both notes as of 12/31/07, and enter the amounts in WP 14.3. Now scroll up to WP 14, the lead schedule for notes payable and interest. Post your reclassifications to the lead schedule.
3. Print documentation 14 and 14.3.
4. What is the probable nature of the adjustment to "notes payable—trade" and to "interest payable" appearing in the adjustments column of the lead schedule?

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CHAPTER 16

Completing the Audit

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. By thoroughly studying this chapter, you will be able to:

- Use analytical procedures to help assess the overall presentation of the financial statements.
- Explain the importance of a concurring partner review of the audit.
- Describe the auditor's responsibilities and sources of evidence concerning contingencies.
- Explain the purpose of disclosure checklists.
- Explain the purposes and content of a management representation letter, and distinguish it from a management comment letter.
- Evaluate the effect of substantive testing results on the financial statements and internal control reports.
- Describe the auditor's responsibility for evaluating the going concern assumption.
- Describe how to audit estimates.
- Describe the nature of communications with the audit committee.
- Describe the different types of subsequent events and the related audit requirements.

CHAPTER OVERVIEW

This chapter covers several activities that complete the audit. Applying basic analytical procedures to the income statement and balance sheet accounts may bring to light unexpected results for which the auditor has not yet obtained sufficient competent evidence. Before issuing the audit report, the auditor needs to: (1) perform a final review of the audit to be sure the financial statements are fairly presented and the audit documentation supports the audit report, (2) assess the ability of the client to continue as a going concern, and (3) make a final review of the auditor's assessment of internal control based on evidence gathered and any material misstatements identified in the financial statement audit. In addition to the final review by the audit team, there should be an independent review by a concurring partner or a review department before the audit is signed off. A concurring partner review is required for all SEC clients. The purpose of the independent review is to ensure that the financial statements and audit documentation are evaluated by someone knowledgeable about the industry and its accounting practices who can objectively determine whether there are any issues that should be addressed before the audit report is issued. As the SEC continues to provide more scrutiny of accounting practices, this final review from within the audit firm may become the most important part of completing the audit engagement.

The auditor must be sure that the disclosures are adequate and that certain matters are discussed with the audit committee that will help them fulfill their responsibilities over financial reporting. The auditor should review information that becomes available after the balance sheet date but prior to issuing the audit report to see if amounts should be revised or additional disclosures made.

Assessing the Quality of the Audit

Performing Audits

Risks of Material Misstatements
Substantive Tests
Conclusions

Analytical Review of the Audit and Financial Statements

Analytical procedures help auditors assess the overall presentation of the financial statements. Auditing standards require the use of analytical procedures in both the planning phase and the final review phase of the audit to assist in analyzing account relationships that are unusual. At the conclusion of the audit, the audit team analyzes the data from a business perspective. The reviewers are not only looking at the trends and ratios, but they are asking hard questions about whether the company's results make sense in relationship to industry and economic trends.

Revenue and Expenses Analytical procedures performed on the income statement items provide evidence on whether certain relationships make sense in light of the knowledge obtained during the audit. Such procedures may indicate that further audit work needs to be performed before rendering an opinion. Ratio analysis, common-size analysis, and analysis of the dollar and percent change of each income statement item from the previous year are useful for this purpose. The auditor should have accumulated sufficient competent evidence during the audit to explain any unusual changes, such as changes when none are expected, no changes when they are expected, or changes that are not of the expected size or direction. For example, if the client paid more attention to quality control and order processing during the current year, then sales returns and allowances should have decreased as a percent of sales. In another example, if a client increased its market share by substantially reducing prices for the last three months of the year and undertaking a massive advertising campaign, a decrease in the gross profit margin should be expected. If these expected changes are not reflected in the accounting records, the audit documentation should contain adequate evidence, supplementing the explanations of management, to corroborate those explanations.

Analytical procedures should include the relationship of income statement changes to pertinent balance sheet accounts. For example, WorldCom decreased line rental cost below the industry norm, but the change was accompanied by a significant increase in fixed assets.

Practical Point

It is important to review the audit for completeness and quality *before* issuing the audit report to the client for distribution to the public and SEC.

Concurring Partner Review

The CPA firm should have policies and procedures in place for conducting an internal quality review of each audit before issuing the audit report. An experienced audit partner who was not a part of the audit team, but who has appropriate technical expertise and knowledge of the industry, should perform this independent review, referred to as a **concurring partner review.** The Sarbanes-Oxley Act *requires concurring partner reviews* for audits of public companies. The purpose is to help assure that the audit and audit documentation are complete and support the audit opinion on the financial statements and, for public companies, on the client's internal controls.

Some of the procedures the concurring partner should perform are as follows:

- Discussing with the lead audit partner significant matters related to the financial statements and internal controls including the audit team's identification of material control deficiencies and audit of significant risks
- Reviewing the related audit documentation to determine its sufficiency

- Reading the financial statements, management's report on internal control, and auditor's report
- Confirming with the lead audit partner that there are no significant unresolved matters

Partner Rotation Another requirement of the Sarbanes-Oxley Act is there must be a new lead audit partner and concurring review partner at least every five years. They can be reassigned to the client after a five-year "time-out" period. The purposes are to help assure auditor independence and to periodically provide a fresh approach to the audit. This rotation requirement does not apply to small audit firms with fewer than ten partners and five public company audit clients.

Other Considerations in the Final Review Stage of the Audit

Contingencies

SFAS No. 5, "Accounting for Contingencies," provides the standard for accruing and disclosing three categories of contingent loss: those for which an unfavorable outcome is (1) probable, (2) reasonably possible, and (3) remote. It requires the accrual and disclosure of probable contingent losses that can be reasonably estimated. It also requires the disclosure of probable contingencies that are not accrued, those that are reasonably possible, and those remote contingencies that are disclosed because of common practice, such as the guarantee of another company's debt. Contingencies include the following:

- Threat of expropriation of assets in a foreign country
- Litigation, claims, and assessments
- Guarantees of debts of others
- Obligations of banks under standby letters of credit
- Agreements to repurchase receivables that have been sold
- Purchase and sale commitments

Responsibilities Related to Contingencies Management is responsible for designing and maintaining policies and procedures to identify, evaluate, and account for contingencies. Auditors are responsible for determining that the client has properly identified, accounted for, and disclosed material contingencies. Contingencies are not just for footnote disclosure. If a contingency is probable and reasonably capable of estimation, it meets the criteria for financial statement recording.

Sources of Evidence of Contingencies The *primary source* of information concerning contingencies is the client's management. The auditor should obtain the following from management:

- A description and evaluation of contingencies that existed at the balance sheet date or that arose prior to the end of the fieldwork and the lawyer(s) consulted
- Assurance in the management representation letter that the accounting and disclosure requirements of *SFAS No. 5* have been met

Practical Point

Management is the primary source of information about contingencies. The client's legal counsel provides corroborative evidence about contingencies.

The auditor should also examine related documents in the client's possession, such as correspondence and invoices from lawyers. Additional sources of evidence are the corporate minutes, contracts, correspondence from governmental agencies, and bank confirmations. While auditing sales and purchases,

the auditor should be alert to any commitments that could result in a loss. For example, consider a situation in which management signed a purchase commitment for raw materials at a fixed price and the materials are to be delivered after year end. If a loss on this commitment exists because of a decline in the market price by year end, the loss should be accrued and the details should be disclosed in the footnotes.

Letter of Audit Inquiry The primary source of *corroborative evidence* concerning litigation, claims, and assessments is the client's legal counsel. The auditor should ask the client to send a **letter of audit inquiry** to their legal counsel asking their legal counsel to confirm information about asserted claims and those claims that are probable of assertion. Attorneys are hesitant to provide much information to auditors. They know that the auditors will document that information and the information is not protected by privileged communication in most states. Information that is not privileged can be subpoenaed by a court of law and serve as evidence against the client. Attorneys usually have privileged communications with their clients. As a result, the American Bar Association and the AICPA have agreed to the following procedures. The letter of audit inquiry should include the following:

- Identification of the company, its subsidiaries, and the date of the audit
- Management's list (or a request by management that the lawyer prepare a list) that describes and evaluates the contingencies to which the lawyer has devoted substantial attention
- A request that the lawyer furnish the auditor with the following:
    1. A comment on the completeness of management's list and evaluations
    2. For each contingency:
        a. A description of the nature of the matter, the progress to date, and the action the company intends to take
        b. An evaluation of the likelihood of an unfavorable outcome and an estimate of the potential loss or range of loss
    3. Any limitations on the lawyer's response, such as not devoting substantial attention to the item or that the amounts are not material

Legal counsel should be instructed by the client to respond directly to the auditors as close to the end of audit fieldwork as possible. The auditor and client should agree on what is material for this purpose. Exhibit 16.1 is an example of a letter of audit inquiry. The lawyer's response should be sent directly to the auditor.

Effect of Contingency on Audit Report A lawyer's refusal to furnish the requested information either orally or in writing is a scope limitation precluding an unqualified opinion. However, the lawyer may be unable to form a conclusion on the likelihood of an unfavorable outcome or the amount of potential loss because of inherent uncertainties. Such a response is not considered a scope limitation. If the effect of the matter could be material to the financial statements, the auditor may choose to emphasize the matter by adding an explanatory paragraph to the audit report (covered in the next chapter).

Adequacy of Disclosures

The auditor's report covers the basic financial statements, which include the balance sheet, income statement, statement of cash flows, a statement of changes in stockholders' equity or retained earnings, and the related footnotes. According to the third standard of reporting, when the auditor determines that informative disclosures are not reasonably adequate, the auditor must state in the auditor's report.

EXHIBIT 16.1 Letter of Audit Inquiry

Nature Sporting Goods Manufacturing Company
200 Pine Way, Kirkville, WI 53800
(608) 255–7820

January 10, 2008

John Barrington
Barrington, Hunt, & Wibfly
1500 Park Place
Milwaukee, WI 52719

In connection with an audit of our financial statements at December 31, 2007, and for the year then ended, management of the Company has prepared and furnished to our auditors, Rittenberg & Schwieger, CPAs, 5823 Monticello Business Park, Madison WI 53711, a description and evaluation of certain contingencies, including that set forth below involving matters with respect to which you have been engaged and to which you have devoted substantive attention on behalf of the Company in the form of legal consultation or representation. Management of the Company regards this contingency as material. Materiality for purposes of this letter includes items involving amounts exceeding $75,000 individually or in the aggregate.

PENDING OR THREATENED LITIGATION

The Company is being sued by General Materials for failure to pay amounts it claims are due it under a purchase agreement dated March 31, 2005. The suit was filed May 23, 2007, claiming we owe it $140,000 for material we purchased January 29, 2007. This material was defective, and we had received written approval from General Materials to destroy it, which we did. General Materials now claims that its management did not properly authorize the approval. The case has gone through the deposition stage and trial is set for April 19, 2008. We believe that General Materials' claim is without merit and that we will prevail in the suit.

Please furnish to our auditors such explanation, if any, that you consider necessary to supplement the foregoing information, including an explanation of those matters as to which your views may differ from those stated and an identification of the omission of any pending or threatened litigation, claims, and assessments, or a statement that the list of such matters is complete.

There are no unasserted claims of which we are currently aware. We understand that should you have formed a professional conclusion that we should disclose or consider disclosure concerning an unasserted possible claim or assessment, as a matter of professional responsibility to us, you will so advise us and will consult with us concerning the question of such disclosure and the applicable requirements of Statement of Financial Accounting Standards No. 5. Please specifically confirm to our auditors that our understanding is correct.

RESPONSE

Your response should include matters that existed as of December 31, 2007 and during the period from that date to the effective date of your response. Please specifically identify the nature of and reasons for any limitation on your response.

Our auditors expect to have the audit completed on February 28, 2008, and would appreciate receiving your reply by that date with a specified effective date no earlier than February 23, 2008.

OTHER MATTERS

Please also indicate the amount we were indebted to you for services and expenses on December 31, 2007.

Very truly yours,

Joleen Soyka

Controller
Nature Sporting Goods Manufacturing Company

EXHIBIT 16.2 Partial Disclosure Checklist

E. Inventories	Yes	No	N/A
1. Are the major classes of inventory disclosed (e.g., finished goods, work in process, raw materials)?	____	____	____
2. Is the method of determining inventory cost (e.g., LIFO, FIFO) disclosed?	____	____	____
3. If LIFO is used, do the statements adequately disclose FIFO cost?	____	____	____
4. Is the basis for stating inventory disclosed (e.g., lower of cost or market) and, if necessary, the nature of a change in basis for stating inventory and the effect on income of such a change?	____	____	____
5. Are valuation allowances for inventory losses shown as a deduction from the related inventory?	____	____	____

Disclosures can be made on the face of the financial statements in the form of classifications or parenthetical notations and in the notes. Placement of the disclosures should be dictated by the clearest manner of presentation.

The auditor must be sure that:

- Disclosed events and transactions have occurred and pertain to the entity.
- All disclosures that should have been included are included.
- The disclosures are understandable to users.
- The information is disclosed accurately and at appropriate amounts.

Confidential information should not be disclosed without the client's permission unless it is required by accounting or auditing standards or is considered necessary for fair presentation. Checklists, such as the partial example in Exhibit 16.2, are available to remind the auditor of matters that should be considered for disclosure. Many checklists provide references to the source of the disclosure requirements. There may be items that should be disclosed that are not covered by the checklist. The auditor, therefore, should not blindly follow a checklist but use good audit judgment when there are unusual circumstances of which the users should be aware.

Practical Point

Disclosure checklists help auditors identify items needing disclosure.

The auditor should consider matters for disclosure while gathering evidence during the course of the audit, not just at the end of the audit. While auditing cash, for example, evidence should be gathered concerning compensating balances or any other restrictions on the use of cash. During the audit of receivables, the auditor should be aware of the need to separately disclose receivables from officers, employees, or other related parties, and the pledging of receivables as collateral for a loan.

One of the key disclosures is a summary of significant accounting policies used by the company. In evaluating this summary, the auditor is guided by the evolving nature of business as opposed to simply reviewing FASB statements. As an example, the method of revenue recognition may be the most important disclosure for evolving types of business such as online auction and reservation sites.

Management Representations

Management Certification of Financial Statements The Sarbanes-Oxley Act requires the CEO and CFO to certify that the financial statements are fairly presented in accordance with generally accepted accounting principles. Most CEOs and CFOs have improved internal processes to help them meet their primary responsibility for the reliability of the financial statements. Some

companies require divisional or subsidiary managers and controllers to certify their financial reports that become part of the consolidated financial statements. The auditor should review management's processes for certification. Remember, the financial statements are management's, not the auditor's. Therefore, it is logical that management should develop procedures to ensure that the financial statements are reliable and should not rely on the audit function to detect material misstatements.

Management Representation Letter Auditors should obtain a **management representation letter** (see Exhibit 16.3) at the end of each audit. Management's refusal to provide such a letter is considered a scope limitation sufficient to preclude the issuance of an unqualified opinion. The letter is a part of audit evidence but is not a substitute for audit procedures that can be performed to corroborate the information contained in the letter. The purposes of the letter are as follows:

- It reminds management of its responsibility for the financial statements.
- It confirms oral responses obtained by the auditor earlier in the audit and the continuing appropriateness of those responses.
- It reduces the possibility of misunderstanding concerning the matters that are the subject of the representations.

The letter is prepared on the client's letterhead, is addressed to the auditor, and should be signed by the chief executive officer and the chief financial officer. It should be dated as of the audit report date so that it covers all of the matters up

EXHIBIT 16.3 Management Representation Letter

Nature Sporting Goods Manufacturing Company
200 Pine Way, Kirkville, SI 53800
(608) 255-7820

February 28, 2008 (Audit Report Date)

To Rittenberg and Schwieger, CPAs

We are providing this letter in connection with your audits of the consolidated balance sheets of Nature Sporting Goods Manufacturing Company as of December 31, 2007 and 2006 and the related consolidated statements of income, cash flows, and stockholders' equity for the years then ended for the purpose of expressing an opinion as to whether the consolidated financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows of Nature Sporting Goods Manufacturing Company in conformity with accounting principles generally accepted in the United States of America. We confirm that we are responsible for the fair presentation in the consolidated financial statements of financial position, results of operations, and cash flows in conformity with generally accepted accounting principles.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm, to the best of our knowledge and belief, as of February 28, 2008, the following representations made to you during your audits:

1. The financial statements referred to above are fairly presented in conformity with accounting principles generally accepted in the United States of America.
2. We have made available to you all:
   a. Financial records and related data
   b. Minutes of the meetings of stockholders, directors, and committees of directors, or summaries of actions of recent meetings for which minutes have not yet been prepared

EXHIBIT 16.3 Management Representation Letter (*continued*)

3. There have been no communications from regulatory agencies concerning noncompliance with or deficiencies in financial reporting practices.
4. There are no material transactions that have not been properly recorded in the accounting records underlying the financial statements.
5. We believe that the effects of the uncorrected financial statement misstatements summarized in the accompanying schedule are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.
6. There are no significant deficiencies, including material weaknesses, in the design or operation of internal controls that could adversely affect the entity's ability to record, process, summarize, and report financial data. [1]
7. We acknowledge our responsibility for the design and implementation of programs and controls to prevent and detect fraud.
8. We have no knowledge of fraud or suspected fraud affecting the entity involving:
   a. Management
   b. Employees who have significant roles in internal control
   c. Others where the fraud could have a material effect on the financial statements
9. We have no knowledge of any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, analysts, regulators, short sellers, or others.
10. The entity has no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
11. The following have been properly recorded or disclosed in the financial statements:
    a. Related-party transactions, including sales, purchases, loans, transfers, leasing arrangements, and guarantees, and amounts receivable from or payable to related parties
    b. Guarantees, whether written or oral, under which the company is contingently liable
    c. Significant estimates and material concentrations known to management that are required to be disclosed in accordance with the AICPA's Statement of Position 94-6, *Disclosure of Certain Significant Risks and Uncertainties* (Significant estimates are estimates at the balance sheet date that could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets or geographic areas for which events could occur that would significantly disrupt normal finances within the next year.)
12. There are no:
    a. Violations or possible violations of laws or regulations whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency
    b. Unasserted claims or assessments that our lawyer has advised us are probable of assertion and must be disclosed in accordance with Financial Accounting Standards Board Statement No. 5, *Accounting for Contingencies*
    c. Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by FASB Statement No. 5
13. The entity has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged as collateral.
14. The entity has complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
15. To the best of our knowledge and belief, no events have occurred subsequent to the balance-sheet date and through the date of this letter that would require adjustment to or disclosure in the aforementioned financial statements.

John Edgerton

John Edgerton, CEO

Rene Bollum

Rene Bollum, CFO

[1] Additional representations should be included in audits of public companies related to the audit of internal control. Otherwise, a separate representation letter should be obtained relating to internal controls.

to the end of the audit fieldwork. The auditor usually prepares the letter for the client to read and sign. The contents depend on the circumstances of the audit and the nature and basis of presentation of the financial statements. It may be limited to matters that are considered material to the statements, and include representations about known fraud involving management or employees.

The auditor may receive separate representation letters from other corporate officials. The corporate secretary, for example, may be asked to sign a letter representing that all of the corporate minutes (which are usually listed by date) or extracts from recent meetings have been made available to the auditor.

Practical Point

The management representation letter does not replace the need to obtain appropriate evidence.

Modifications for Small Business Clients The content of the letter should be tailored to each audit situation. For example, a small business client may not have retained legal counsel. The auditor normally relies on the review of internally available information and modifies the wording of the management representation letter. The wording of item 12(b) in Exhibit 16.3 could be changed to read as follows:

> We are not aware of any pending or threatened litigation, claims, or assessments or unasserted claims or assessments that are required to be accrued or disclosed in the financial statements in accordance with *Statement of Financial Accounting Standards No. 5,* and we have not consulted a lawyer concerning litigation, claims, or assessments.

Other modifications for small business clients include a statement that management has recorded the audit adjustments, and that business and personal transactions have been properly segregated.

Management Letter

Practical Point

A management letter shares the auditor's observations on how to improve controls or the efficiency of financial processing.

Auditors often notice things that could help management do a better job. The auditor generally reports these observations in a **management letter** directed to management as a constructive part of the audit. Such a letter should not be confused with a *management representation letter.* The management letter is not required, but makes significant operational or control recommendations to the client. Staff auditors are encouraged to make notes during the course of the audit on areas of potential improvements. Many of these observations relate directly to control deficiencies or operational matters. Many audit firms consider management's inattention to addressing comments in the letter to be an important risk factor in subsequent-year audits.

Evaluating the Effects of Substantive Testing Results

Uncorrected misstatements detected during the audit should be summarized and evaluated to determine whether they could be material in the aggregate and are the result of a material weakness in internal controls.

Summarizing Possible Adjustments Misstatements are likely to be detected that individually are not material, and the auditor may temporarily pass on asking the client to make those adjustments. They should not be forgotten, however. Most public accounting firms use a schedule to accumulate the known and projected misstatements and the carryover effects of prior year uncorrected misstatements (see Exhibit 16.4).

In this exhibit, the first adjustment reflects a pricing error detected by confirming a sample of receivables. The known error is $972 as shown in the first section of the schedule. But when projected to the population, the unknown projected error was $13,493 as shown in the second section of the schedule. If these were corrected, both sales and accounts receivable would be reduced by $14,465 ($972 + $13,493), resulting in a reduction of pretax earnings and current assets. The second adjustment involves an unrecorded check for $1,500. The third adjustment involves the carryover effects of understating last year's accrued

EXHIBIT 16.4 Summary of Possible Adjustments

W/P Ref	Account/Description	DEBIT (CREDIT) ASSETS Current	Noncurrent	LIABILITIES Current	Noncurrent	Retained Earnings	Net Earnings
	Uncorrected Known Errors						
B-4	Sales						972
	Accounts Receivable	(972)					
	Error from A/R confirmations ($972 known error and $13,493 additional projected error)						
A-1	Accounts Payable			1,500			
	Cash	(1,500)					
	Unrecorded check # 14,389						
	Unknown Projected Errors						
B-4	Sales						13,493
	Accounts Receivable	(13,493)					
	Projected pricing errors from sample						
	Carryover Effect of Prior Year Errors						
U-3	Retained earnings					6,900	
	Salary Exp.						(6,900)
	Under accrual of prior year's salaries						
	Subtotal: Income before taxes						7,565
	Tax Adjustment						
	Income Taxes Payable (14,465 x 0.34)			4,918			
	Income Tax Expense (7,565 x 0.34)					(2,572)	
	Retained Earnings (6,900 x 0.34)						(2,346)
	Total Likely Error	(15,965)	0	6,418	0	4,554	4,993
	Balance from Trial Balance	19,073,000	1,997,000	(3,346,000)	(13,048,000)	(4,676,000)	1,678,000
	Total Likely Error as % of Balance	0.08%	0.0%	0.19%	0.0%	0.1%	0.3%

Conclusion: In my opinion, the total likely errors are not material to the financial statements taken as a whole, and correcting the above errors is not necessary.

Marginal tax rate: 34%

PREPARED BY: BJS DATE 10-17-08

REVIEWED BY: LER DATE 10-22-08

salaries and salary expense ($6,900). Because the carryover effect is to overstate this year's salary expense, the correction is shown as a reduction in the current year's salary expense, thereby resulting in an increase in pretax earnings and a reduction in the beginning balance of retained earnings.

The income tax effects are then entered into the schedule to show the total effects of correcting these errors. Near the end of the audit, these possible adjustments should be reviewed in the aggregate to determine whether their combined effect is material. The auditor compares the total likely misstatements (the sum of known and projected misstatements) to each significant segment of the financial statements, such as total current assets, total non-current assets, total

current liabilities, total non-current liabilities, owner's equity, and pretax income, to determine if they are, in aggregate, material to the financial statements. In the example in Exhibit 16.4, the total likely error as a percentage of these segments is clearly immaterial, and that conclusion is noted in the document.

Materiality Considerations Planning materiality should be modified for any information that comes to the auditor's attention during the audit that indicates a different materiality threshold is more appropriate. For example, when planning the audit, the auditor may not have been aware of a loan provision requiring the client to maintain a current ratio of at least 1.75 to 1 at each year end. If the current ratio is close to that requirement, a misstatement smaller than the planning materiality may cause the client to violate that provision. The auditor should then assess the known and likely misstatements in light of a reduced materiality threshold. It may be necessary to do more audit work or ask the client to make some correcting entries before an unqualified opinion can be given.

A different materiality threshold may be used for the balance sheet and income statement. A $100,000 overstatement of accounts receivable caused by a bad cash receipts cutoff (an asset misclassification mistake), for example, is not as important to users as a $100,000 overstatement of receivables caused by a bad cutoff of sales (misstatement of income) because of the latter's effect on net income.

Practical Point

Misstatements detected during the audit that were initially deemed to be immaterial should be summarized to determine their aggregate effects.

The SEC has expressed concern over the practice of "passing" immaterial adjustments. The SEC's position is that if management resists making the adjustment, then, by definition, it is material. The SEC's position, which is consistent with the AICPA's position, is that the best estimate (the auditor's best prediction of errors in the account balance) is the basis for making the materiality judgments. Further, the financial statements should be adjusted for all known misstatements.

Effect on the Internal Control Report If substantive testing results indicate material misstatements, either individually or in the aggregate, the auditor should consider whether these misstatements are the result of material internal control weaknesses. Material weaknesses must be reported to the audit committee and management and, if it is a public client, will result in an adverse opinion on the client's internal controls over financial reporting.

Evaluating the Going Concern Assumption

Business failures result from a variety of causes, such as inadequate financing, cash flow problems, poor management, product obsolescence, natural disasters, loss of a major customer or supplier, and competition. Investors become upset when a business fails, particularly when it happens shortly after the auditor has issued an unqualified opinion. An audit opinion is not a guarantee that the business is a going concern. Auditors are required, however, to evaluate the likelihood of each client continuing as a going concern for a reasonable period, not to exceed one year from the balance sheet date. The going concern evaluation is based on information obtained from normal audit procedures performed to test management's assertions; no separate procedures are required unless the auditor believes that there is substantial doubt about the client's ability to continue as a going concern. However, because the public expects auditors to evaluate the going concern assumption, many auditing firms regularly use bankruptcy prediction models in analyzing whether a particular client might represent a going concern problem. If there is substantial doubt about the ability of the client to remain a going concern, the auditor should identify and assess management's plans to overcome the problems facing the client and reassess the ability to continue its operations.

Indicators of Potential Going Concern Problems Management will naturally resist a going concern modification, often making the argument that such a qualification will cause investors, lenders, and customers to lose faith in the business and thus cause it to fail. The auditor must carefully analyze all the factors that may indicate a

EXHIBIT 16.5 Altman Z-Score Models

Z-SCORE FOR PUBLICLY-OWNED MANUFACTURING COMPANIES		Z-SCORE FOR PUBLIC AND PRIVATE SERVICE AND MANUFACTURING COMPANIES	
Weight	**Ratio**	**Weight**	**Ratio**
1.2 x	Working capital to total assets	6.56 x	Working capital to total assets
+ 1.4 x	Retained earnings to total assets	+ 3.26 x	Retained earnings to total assets
+ 3.3 x	Return on total assets	+ 6.72 x	Earnings before interest and taxes to total assets
+ 0.99 x	Sales to total assets		
+ 0.6 x	Market value of equity to total debt	+ 1.05 x	Net worth to total liabilities
	Interpretation of Z-Score		
< 1.81	High potential for bankruptcy	< 1.1	High potential for bankruptcy
> 2.99	Little potential for bankruptcy	> 2.6	Little potential for bankruptcy

going concern problem and determine if management has a viable plan to address the problems. Potential indicators of going concern problems include the following:

- Negative trends, such as recurring losses, working-capital deficiencies, negative cash flows from operating activities, and adverse key financial ratios
- Internal matters, such as loss of key personnel, employee strikes, outdated facilities and products, and uneconomic long-term commitments
- External matters, such as new legislation, pending litigation, loss of a key franchise or patent, loss of a principal customer or supplier, and uninsured or underinsured casualty loss
- Other matters, such as default on a loan, inability to pay dividends, restructuring of debt, violation of laws and regulations, and inability to buy from suppliers on credit

Risk Linkage

The risk of a client remaining in business needs to be assessed, and any auditor reservations need to be communicated to financial statement users.

A number of studies of bankruptcies have shown that certain combinations of ratios have good predictive power in indicating the likelihood of bankruptcy. Altman developed two combinations of weighted ratios to produce a score of potential bankruptcy (called the **Altman Z-score**), a five-ratio model for publicly owned manufacturing companies and a four-ratio model for public or privately owned manufacturing and service companies.[2] His work has been replicated, and newer models represent only slight variations of his original model. The Z-scores are calculated as shown in Exhibit 16.5. Z-scores falling below 1.81 in the five-ratio model or below 1.1 in the four-ratio model indicate high potential for bankruptcy. Scores above 2.99 in the five-ratio model or above 2.6 in the four-ratio model indicate very little potential for bankruptcy. For example, using the four-ratio model, a company that has a strong working-capital position, has accumulated significant retained earnings, and is profitable would score above the 2.6 threshold and be unlikely to have a going concern problem. While a low Z-score (or a similar score using a different bankruptcy prediction model) does not in itself indicate that the company will fail, it does provide presumptive evidence that there is a going concern problem. Research has shown that the models are better predictors of problems than are the auditor's qualifications of audit reports. The auditor must consider all relevant factors in determining whether to modify the audit report. A summary of the auditor's decision process regarding going concern reporting is shown in Exhibit 16.6.

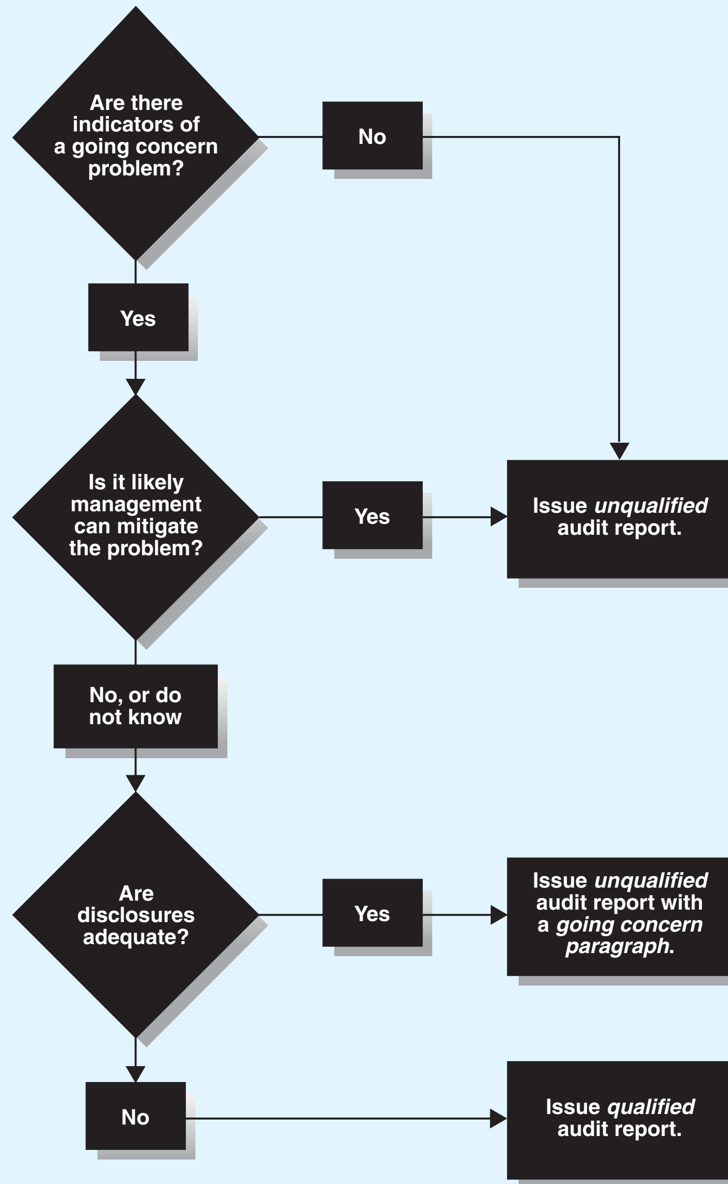
Practical Point

Going Concern Indicators. Researchers have developed other indicators of going concern difficulties. Audit firms may choose to use a variety of these predictors.

Mitigating Factors If the auditor concludes that there may be a going concern problem, management's plans to overcome this problem should be identified and assessed. Management may plan to sell nonessential assets, borrow money or

[2] E. Altman, *Corporate Financial Distress* (New York: John Wiley & Sons, 1983).

EXHIBIT 16.6 Going Concern Process



restructure existing debt, reduce or delay unnecessary expenditures, and/or increase owner investments. The auditor should identify those factors that are most likely to resolve the problem and gather independent evidence to determine the likely success of such plans. For example, if financial projections are an integral part of the solution, the auditor should ask management to provide that information and the underlying assumptions. The auditor should then consider the adequacy of support for the major assumptions. See the *Auditing in Practice* feature for an example of management's disclosure of their plans to overcome going concern problems.

Effects on the Financial Statements If the auditor continues to believe that there is substantial doubt about the client continuing as a going concern for a reasonable period of time, not to exceed one year beyond the date of the financial statements being audited, the adequacy of the related disclosures should be evaluated. Such disclosures might include the conditions causing the going concern doubt, management's evaluation of the significance of those conditions and

AUDITING IN PRACTICE

Going Concern Reporting at Eagle Broadband Inc. FYE 2006

Note 22-Financial Condition and Going Concern

The company's financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The company has negative working capital of $10,613,000, has incurred losses of $26,933,000 and $57,010,000 during 2006 and 2005, and there is substantial doubt as to the company's ability to achieve profitable operations.

There are no assurances that the company will be able to either (1) achieve a level of revenues adequate to generate sufficient cash flow from operations or (2) obtain additional financing through either private placement, public offerings, and/or bank financing necessary to support the company's working capital requirements. No assurance can be given that additional financing will be available, or if available will be on terms acceptable to the company. If adequate working capital is not available, the company may be required to discontinue its operations. The financial statements do not include any adjustments that might be necessary should the company be unable to continue as a going concern. The company is not currently in default on any of its payment obligations, and management is addressing the company's current financial condition and obligations by implementing its plans for the upcoming year including:

- Focusing significant sales efforts on securing large municipal WiFi contracts
- Revising additional operating capital through public and/or private debt and equity offerings
- Reducing debt obligations through the issuance of common stock
- Closely monitoring gross margin performance for all core businesses to ensure the company is on track to attain profitability
- Closely monitoring operating expenditures to ensure the company remains within its express budget

its plans to overcome the problem, and information about the effect on amounts and classification of assets and liabilities. When the auditor believes that management's plans are likely to alleviate the problem, disclosure of the conditions that initially led to the going concern doubt should be considered.

Effects on the Audit Report An explanatory paragraph should be added to the auditor's report when the auditor concludes that substantial doubt remains about the client's ability to continue as a going concern for a reasonable period of time. The paragraph describing the auditor's concern should be added to the standard unqualified audit report. However, the auditor is not precluded from issuing a disclaimer if it is believed to be a better way to communicate the concern. The paragraph should include reference to a footnote in which management describes the financial problem(s) and its plans in more detail. A qualified audit report would normally be issued if the auditor believes the client's disclosure is inadequate.

Review of Significant Estimates

Some companies "manage" earnings by creating hidden reserves in unusually good years that can be used in years when real profits do not meet expectations. Many of the SEC's criticisms of the accounting profession in the past few years have focused on account balances for which estimates are used extensively. The auditor is responsible for providing reasonable assurance that:

- Management has an information system to develop all estimates that could be material to the financial statements.
- The estimates are reasonable.
- The estimates are presented in conformity with GAAP.

Examples of accounting estimates include the following: net realizable values of inventory and receivables, property and casualty insurance loss reserves, revenues from contracts accounted for by the percentage-of-completion method, warranty expenses, depreciation and amortization methods, impairment of depreciable assets and goodwill, useful lives and residual values of productive facilities, natural resources and intangibles, valuation and classification of financial instruments, pensions and other post-retirement benefits, and compensation in stock option plans.

Accounting estimates are based on management's knowledge and experience about past and current events, as well as its assumptions about conditions that it expects to exist and courses of action it expects to take. Estimates are based on subjective as well as objective factors. There is potential for bias in both factors.

In evaluating the reasonableness of an estimate, the auditor normally concentrates on key factors and assumptions that are:

- Significant to the accounting estimate
- Sensitive to variations
- Deviations from historical patterns
- Subjective and susceptible to misstatement and bias
- Inconsistent with current economic trends

Practical Point

Estimates are sometimes used to manage earnings. Auditors must take care to ensure significant estimates are reasonable.

The auditor should consider the historical experience of the entity in making past estimates. However, changes in facts, circumstances, or the entity's procedures may cause factors different from those considered in the past to become significant to the estimate. For example, economic changes may occur that increase or decrease the ability of customers to make timely payments; or the company may have changed its credit policies, providing for a longer or shorter time before payment is due or higher or lower sales discount rates. Auditors may be reluctant to challenge management estimates that result in current-period reductions in income (e.g., increases in bad debt expense) and associated increases in reserve accounts (e.g., allowance for doubtful accounts). However, it is important for auditors to remember that management may try to "tap into" these reserves in the future to improve an otherwise weak level of earnings.

Events or transactions occurring after the balance sheet date, but before the completion of fieldwork, can be useful in identifying and evaluating the reasonableness of estimates. Examples of these events include collection of receivables, sale of inventory or financial instruments, and the purchase of inventory under a purchase commitment for which an estimated loss was or should have been accrued.

Communicating with the Audit Committee

There are several items that the auditor should discuss with the audit committee to help it fulfill its responsibility to oversee the financial reporting processes of the entity.

Accounting and Audit Issues

- *Auditor's Responsibility under Generally Accepted Auditing Standards*—It is important that members of the audit committee understand that audits provide reasonable, but not absolute, assurance about the fairness of the financial statements.
- *Management Judgments and Accounting Estimates*—Accounting estimates are based on judgments. The audit committee needs to be aware of the processes used by management in developing sensitive estimates and how the auditor determined the reasonableness of those estimates. Many frauds have been engineered though manipulation of estimates.
- *Audit Adjustments*—The auditor should report any audit adjustments that could have a material effect on the financial statements and that may not have been detected except through the audit.
- *Uncorrected Misstatements*—Material misstatements should be corrected by management. Otherwise the auditor will have to modify the audit opinion. Immaterial misstatements that are not corrected should be reported to the audit committee.
- *Accounting Policies and Alternative Treatments*—Members of the audit committee must be informed about the initial selection of and changes in significant accounting policies during the current period and the reasons therefore. They also need to be informed about the methods used to account for significant unusual transactions and controversial or emerging areas for which there is a lack of authoritative guidance.

Special Issues for Public Companies For audits of public companies subject to SEC regulation, the auditor should also report:

1. The client's critical accounting policies and practices, why they are considered critical to the financial statements, and the adequacy of their disclosures
2. The acceptable alternative accounting policies and practices and the treatment preferred by the auditor
3. The auditor's judgments about the quality, not just the acceptability, of the client's accounting policies

The auditor should document the reasoning process in judging the quality of the client's accounting policies. The audit documentation should consider the economic substance of significant transactions and contractual agreements, the consistency of application, and the correspondence with FASB concepts.

Practical Point

For public companies, the auditor must reach a conclusion on the most appropriate accounting treatment for a transaction or estimate. The auditor's conclusion must be communicated to the audit committee even if the company chose another acceptable accounting treatment and the auditor issued an unqualified opinion on the financial statements.

Other Issues Related to the Conduct of the Audit Other matters to communicate to the audit committee include the following:

1. Major accounting and reporting disagreements with management, even if eventually resolved
2. Management's discussion with other public accounting firms regarding the treatment of potentially controversial accounting issues
3. Difficulties encountered in performing the audit
4. Copies of significant written communications between the auditor and management such as the engagement letter, management representation letter, and reports of significant deficiencies and material weaknesses in internal controls over financial reporting

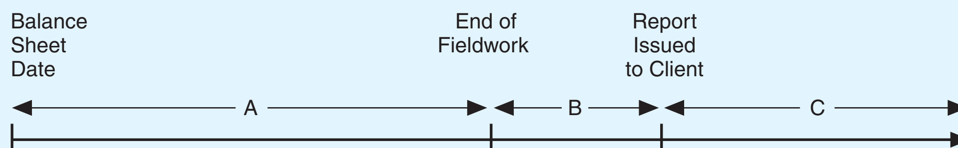
Subsequent Events

This section presents three situations relating to events occurring after the balance sheet date that require special audit attention:

1. Review of events occurring prior to issuance of the audit report, which is a normal part of each audit
2. Subsequent discovery of facts existing at the date of the auditor's report but not discovered during the audit
3. Consideration of omitted audit procedures that come to the auditor's attention after the auditor's report has been issued

The timeline in Exhibit 16.7 illustrates these situations. Every audit includes procedures to review events and transactions that occur during the subsequent period, which is the period between the balance sheet date and the end of audit fieldwork (period A in Exhibit 16.7). The auditor has no responsibilities to continue obtaining audit evidence after the end of the fieldwork (periods B and C).

EXHIBIT 16.7 Subsequent Periods



The exception to this general rule exists when the client is filing a registration statement with the SEC preparatory to selling new securities. In that case, the auditor must perform a **subsequent events review** up to the effective date of the registration statement. The **effective date** is the date the SEC indicates to the client that it may begin trying to sell the new securities. This date may be several months after the end of normal fieldwork.

Normal Review of Subsequent Events Two types of events have been identified in the professional literature (AU 560) as *subsequent events* that may require dollar adjustments to the financial statements and/or disclosure. *Type I* applies to evidence about the correctness of the financial statements as of the balance sheet date. For example, accounting estimates are an integral part of financial reporting and should be based on the best information available at the time the financial statements are prepared for distribution. The auditor should review events and transactions that occur before the end of fieldwork (period A in Exhibit 16.7) to ensure that the estimates are based on the best available information and that other evidence supports recorded book values. *Type II events* occur after the balance sheet date and do not directly affect the financial statement numbers, but they may require disclosure in the footnotes to help users interpret the financial statements.

Practical Point

The financial statements are prepared as of a specific date, such as December 31. Important events affecting the company may occur after that date but do not affect the financial position of the company on December 31.

Type I Subsequent Events *Type I subsequent events* provide evidence about conditions that *existed at the balance sheet date.* The financial statement numbers *should be adjusted* to reflect this information. Footnote disclosure may also be necessary to provide additional information. The following are examples:

- A major customer files for bankruptcy during the subsequent period because of a deteriorating financial condition, which the client and auditor were unaware of until learning about the bankruptcy filing. This information should be considered in establishing an appropriate amount for the allowance for doubtful accounts and in making an adjustment if the allowance is not sufficient to cover this potential loss.
- A lawsuit is settled for a different amount than was accrued.
- A stock dividend or split that takes place during the subsequent period should be disclosed. In addition, earnings-per-share figures should be adjusted to show the retroactive effect of the stock dividend or split.
- A sale of inventory below carrying value provides evidence that the net realizable value was less than cost at year end.

Type II Subsequent Events *Type II subsequent events* indicate conditions that *did not exist* at the balance sheet date but may require disclosure. The events that should be considered for disclosure are financial in nature, material, and normally disclosed. The following are examples:

- An uninsured casualty that occurred after the balance sheet date causes a customer's bankruptcy during the subsequent period. Because the customer was able to pay at the balance sheet date, the allowance for doubtful accounts should not be adjusted, but the information should be disclosed.
- A significant lawsuit is initiated relating to an incident that occurred after the balance sheet date.
- Due to a natural disaster such as fire, earthquake, or flood, a firm loses a major facility after the balance sheet date.
- Major decisions are made during the subsequent period, such as to merge, discontinue a line of business, or issue new securities.
- A material change occurs in the value of investment securities.

The financial statement account balances *should not be adjusted* for these events, but they should be *considered for disclosure.*

Audit Procedures Some of the procedures discussed in previous chapters relate to subsequent events, such as cutoff tests, review of subsequent collections of receivables, and the search for unrecorded liabilities. Additional procedures include the following:

- Read the minutes of the meetings of the board of directors, stockholders, and other authoritative groups. The auditor should obtain written assurance that minutes of all such meetings through the end of the fieldwork have been made available. This can be included in the management representation letter described earlier in this chapter.
- Read interim financial statements and compare them to the audited financial statements, noting and investigating significant changes.
- Inquire of management concerning:
    1. Any significant changes noted in the interim statements;
    2. The existence of significant contingent liabilities or commitments at the balance sheet date or date of inquiry, which should be near the end of the fieldwork;
    3. Any significant changes in working capital, long-term debt, or owner's equity;
    4. The status of items for which tentative conclusions were drawn earlier in the audit;
    5. Any unusual adjustments made to the accounting records after the balance sheet date.
- Inquire of management and its legal counsel concerning contingencies (discussed earlier in this chapter).
- Obtain a management representation letter (also discussed earlier in this chapter).

Dual Dating When the auditor becomes aware of an event that occurs after the end of the fieldwork but before the issuance of the audit report to the client (period B in Exhibit 16.7), and the event is disclosed in the footnotes, the auditor has two options for dating the audit report:

1. Use the date of this event as the date of the audit report.
2. "Dual date" the report, using the dates of the end of the fieldwork and the date of the event, to disclose the work done only on that event after the completion of fieldwork.

As an example, consider the situation in which the auditor completed the audit on February 27, 2008, and a fire destroyed the client's main manufacturing plant and warehouse on March 2, 2008. This event is disclosed in Note 14 to the financial statements. The audit report was issued to the client on March 5. The auditor may date the report March 2, 2008 or dual-date it as "February 27, 2008, except for Note 14, as to which the date is March 2, 2008." The auditor is assuming less responsibility by dual-dating the report. The only event occurring after the end of the fieldwork for which the auditor is taking responsibility is disclosed in Note 14. The auditor would be taking responsibility for all events occurring during period B if the report were dated March 2, 2008, and should perform audit procedures to identify other significant subsequent events that occurred between February 27 and March 2.

Practical Point

The audit process ends as of the date of the auditor's report. No subsequent audit work is necessary under ordinary circumstances.

Subsequent Discovery of Facts Existing at the Date of the Auditor's Report Facts may come to the auditor's attention after the audit report has been issued (period C in Exhibit 16.7) that indicate the financial statements and auditor's report would have been affected had the facts been known at the time of issuance. Such facts may come to the auditor's attention through news reports, performing another service for the client, other business contacts, or a subsequent

audit. If such facts would have been investigated had they been known at the report date, the auditor should determine the following:

- The reliability of the new information
- Whether the development or event had occurred by the report date; issuance of revised financial statements and audit report is not required when the development or event occurs after the report date
- Whether users are likely to still be relying on the financial statements; consideration should be given to the length of time the statements have been outstanding
- Whether the audit report would have been affected had the facts been known to the auditor at the report date

If the auditor decides that steps should be taken to prevent further reliance on the financial statements and audit report, the client is advised to make appropriate and timely disclosure of these new facts. The key action is to notify users as soon as possible so they do not continue to rely on information that is now known to be incorrect (see the *Auditing in Practice*—Yale Express Case feature). The appropriate action depends on the circumstances:

- If the revised financial statements and audit report can be quickly prepared and distributed, the reasons for the revision should be described in a footnote and referred to in the auditor's report.
- Revision and explanation can be made in the subsequent-period audited financial statements if their distribution is imminent.
- If it will take an extended amount of time to develop revised financial statements, the client should immediately notify the users that the previously distributed financial statements and auditor's report should no longer be relied on, and that revised statements and report will be issued as soon as possible.

The auditor should be sure the client takes the appropriate action. If the client will not cooperate, the auditor should:

- Notify the client and any regulatory agency having jurisdiction over it, such as the SEC, that the audit report should no longer be associated with the client's financial statements.
- Notify users known to the auditor that the audit report should no longer be relied on. Auditors typically do not know all of the users who received the report. Therefore, the appropriate regulatory agency should be requested to take whatever steps are needed to disclose this situation.

Practical Point

The auditor has a responsibility to the public for his or her opinion on the audited financial statements even if information is discovered after the financial statements are issued. The responsibility to the public transcends the responsibility to the client.

Subsequent Events and Restatements The most common subsequent event in recent history has been "restated financial statements." Many restatements have occurred because of SEC investigations. These investigations have led the SEC to develop accounting bulletins that better synthesize the underlying concepts of financial reporting. As an example, the SEC bulletin on revenue recognition

AUDITING IN PRACTICE

Yale Express Case

Auditing standard AU 561, "Subsequent Discovery of Facts Existing at the Date of the Auditor's Report," was the result of a lawsuit against the auditors of Yale Express. During 1963, the auditors were performing a management service related to the manner of recognizing revenues and expenses. While performing that service, they discovered that the prior year audited financial statements contained a material error. An unqualified opinion had been issued on those statements, showing a $1.1 million net income that should have been a $1.9 million net loss. Users were not notified of this until the subsequent year's audited financial statements were issued several months later. The stockholders, upset that they had not been promptly notified, sued the auditors. The court held that auditors could be held liable in such situations. This auditing standard was then issued to provide guidance for auditors.

caused many companies to change their revenue recognition policies and to restate their financial statements issued in previous years. While the companies seldom state that their previous statements were misstated, they indicate that the newly adopted accounting principle is consistent with the SEC's (or other authoritative body's) recommended accounting treatment.

Consideration of Omitted Procedures Discovered after the Report Date
After the audit report has been issued, the auditor may discover that an important audit procedure was not performed. Such an omission may be discovered when audit documentation is reviewed as part of an external or internal peer review program. According to AU 390, the auditor should decide whether the previously issued audit report can still be supported in light of the omitted procedures. If not, the omitted or alternative procedures should be promptly performed and documented.

For example, if the auditor failed to confirm receivables when that should have been done, it may be too late to confirm now. In that case, the auditor could extend the previous work done on subsequent collections to help determine that the receivables were bona fide and properly valued. If the results indicate that the previously issued statements and audit report should be modified, the guidance in the previous section of this chapter should be followed. Otherwise, no further action is necessary.

Summary

Before issuing an audit opinion, the auditor must determine whether the financial statements are presented fairly in all material respects, whether they contain adequate disclosures, and whether they properly reflect events that have occurred up to the end of the fieldwork. The going concern issue must be addressed in each audit. The auditor should be sure that audit risk has been kept at an appropriately low level. An internal quality review program can help ensure that no major audit procedures have been left out, and that the documentation supports the audit opinion. Auditors must be sure the audit committee is informed about matters that will help them fulfill their responsibilities for financial reporting.

Significant Terms

Altman Z-score A combination of weighted ratios to produce a score of potential bankruptcy, developed using a regression model to predict companies that have a high potential for bankruptcy.

concurring partner review A review at the end of each audit conducted by an experienced auditor, usually a partner, who was not a part of the audit team, but who has appropriate technical expertise and knowledge of the industry. The purposes are to help ensure that the audit and audit documentation are complete and support the audit opinion on the financial statements and, for public companies, on the client's internal controls.

effective date The date the SEC indicates to the client that it may begin trying to sell the new securities described in a registration statement.

letter of audit inquiry A letter that the auditor asks the client to send to its legal counsel to gather corroborative evidence concerning litigation, claims, and assessments.

management letter A letter from the auditor to the client identifying any problems and suggested solutions that may help management improve its effectiveness or efficiency.

management representation letter A letter to the auditors that is required to be signed by the client's chief executive and chief financial officer in order to remind management of its responsibility for the financial statements and confirm oral responses given to the auditor during the audit.

subsequent events review A review of events occurring in the period between the balance sheet date and the end of audit fieldwork to determine their possible effect on the financial statements.

Review Questions

16-1 What is the purpose of performing analytical procedures on revenue and expenses at the end of the audit?

16-2 What are the purposes of the concurring partner review?

16-3 What is the primary source of information about litigation, claims, and assessments?

What is the primary source of corroborative evidence?

16-4 Why might lawyers be hesitant to disclose information to auditors?

16-5 Who sends the letter of audit inquiry to the lawyers? To whom should the lawyer send the response to that letter?

16-6 What is the effect on the auditor's report of a lawyer's refusal to furnish the information requested in the letter of audit inquiry?

16-7 How is a disclosure checklist helpful? What precautions should the auditor take when using such a checklist?

16-8 What is a management representation letter? Who prepares it? Who should sign it? When should it be dated? How does if differ from the CEO and CFO certification of financial statements?

16-9 How does a summary of possible adjustments help the auditor determine whether the financial statements are fairly presented? What information might it contain? How might an analysis of the summary affect an internal control report on a public company?

16-10 Are auditors required to evaluate the likelihood of each audit client being a going concern as a part of each audit? What types of conditions and factors should auditors look for to help make this evaluation?

16-11 An Altman Z-score indicates the possibility that a client will go bankrupt. What effect will this have on the audit report? Explain.

16-12 Why should the auditor take special care concerning accounting estimates?

16-13 What items should the auditor discuss with the audit committee near or at the end of the audit? Why is this important?

16-14 What types of subsequent events should the auditor identify as part of a normal audit? Give an example of each type of subsequent event. How should each type be handled in the financial statements?

16-15 With one exception, auditors do not have a responsibility to continue their review of subsequent events beyond the audit report date. What is that exception?

16-16 What audit procedures should be performed to search for subsequent events?

16-17 What is meant by "dual dating"? Explain how dual dating limits the auditor's responsibility for subsequent events.

16-18 Explain the auditor's responsibilities when it is discovered that facts existed at the date of the audit report but were not known to the auditor.

16-19 During an internal peer review, it was discovered that the auditors failed to perform a significant audit procedure on an audit completed five months earlier. What steps should the auditors take?

Multiple-Choice Questions

16-20 Analytical procedures performed in the overall review stage of an audit suggest that several accounts have unexpected relationships. These results most likely would indicate that:
a. Internal control activities are not operating effectively.
b. Fraud exists among the relevant account balances.
c. Additional tests of details are required.
d. The communication with the audit committee should be revised.

***16-21** Auditors should request that an audit client send a letter of inquiry to those attorneys who have been consulted concerning litigation, claims, or assessments. The primary reason for this request is to provide:
a. Information concerning the progress of cases to date
b. Corroborative evidential matter
c. An estimate of the dollar amount of the probable loss
d. An expert opinion regarding whether a loss is possible, probable, or remote

***16-22** In an audit of contingent liabilities, which of the following procedures would be least effective?
a. Reviewing a bank confirmation letter
b. Examining customer confirmation replies
c. Examining invoices for professional services
d. Reading the minutes of the board of directors

16-23 Which of the following matters would an auditor most likely include in a management representation letter?
a. Communications with the audit committee concerning weaknesses in the internal control structure
b. The completeness and availability of minutes of stockholders' and directors' meetings
c. Plans to acquire or merge with other entities in the subsequent year
d. Management's acknowledgment of its responsibility for the detection of employee fraud

***16-24** Which of the following statements ordinarily is included among the written client representations obtained by the auditor?
a. Management acknowledges that there are no material weaknesses in the internal control structure.
b. Sufficient evidential matter has been made available to permit the issuance of an unqualified opinion.
c. The financial statements are fairly presented in conformity with generally accepted accounting principles.
d. Management acknowledges responsibility for illegal actions committed by employees.

***16-25** An auditor accepted an engagement to audit the 2007 financial statements of EFG Corporation and began the fieldwork on September 30, 2007. EFG gave the auditor the 2007 financial statements on January 17, 2008. The auditor completed the fieldwork on February 10, 2008 and delivered the report on February 16, 2008. The management representation letter normally would be dated
a. December 31, 2007
b. January 17, 2008
c. February 10, 2008
d. February 16, 2008

* All problems marked with an asterisk are adapted from the Uniform CPA Examination.

16-26 Cooper, CPA, believes there is substantial doubt about the ability of Zero Corp. to continue as a going concern for a reasonable period of time. In evaluating Zero's plan for dealing with the adverse effects of future conditions and events, Cooper most likely would consider, as a mitigating factor, Zero's plans to

a. Make credit terms for sales on account more lenient.
b. Strengthen internal controls over cash disbursements.
c. Purchase production facilities currently being leased from a related party.
d. Postpone expenditures for research and development projects.

***16-27** Which of the following audit procedures would most likely assist an auditor in identifying conditions and events that may indicate that there could be substantial doubt about an entity's ability to continue as a going concern?

a. Review compliance with the terms of debt agreements.
b. Confirm accounts receivable from principal customers.
c. Reconcile interest expense with debt outstanding.
d. Confirm bank balances.

***16-28** Six months after issuing an unqualified opinion on audited financial statements, an auditor discovered that the engagement personnel failed to confirm several of the client's material accounts receivable balances. The auditor should first:

a. Request the permission of the client to undertake the confirmation of accounts receivable.
b. Perform alternative procedures to provide a satisfactory basis for the unqualified opinion.
c. Assess the importance of the omitted procedures to the auditor's ability to support the previously expressed opinion.
d. Inquire whether there are persons currently relying, or likely to rely, on the unqualified opinion.

***16-29** Which of the following procedures would an auditor most likely perform to obtain evidence about the occurrence of subsequent events?

a. Confirming a sample of material accounts receivable established after year end.
b. Comparing the financial statements being reported on with those of the prior period.
c. Investigating personnel changes in the accounting department occurring after year end.
d. Inquiring as to whether any unusual adjustments were made after year end.

Discussion and Research Questions

16-30 **(Analytical Procedures)** The audit of Humbird Company, a manufacturer of bicycle racks and golf carts, is almost finished. Gene Beam is the most experienced auditor on this audit and is in charge of performing analytical procedures.

Required

a. Why is it important that analytical procedures be performed by experienced auditors?
b. What are some analytical procedures that Beam might perform?
c. How can these procedures be useful at this stage of the audit?

16-31 **(Altman Z-Score)** Refer to the Biltrite financial statements in the Biltrite Practice Case (Exhibits BR.3 and BR.5 in the introduction to the Biltrite case in Chapter 4).

Required

a. Calculate the Altman Z-score for Biltrite for 2007 using the model for public and private service and manufacturing companies (Exhibit 16.5, right-hand column). What does this score tell you about the potential for bankruptcy?
b. Calculate the Altman Z-score assuming that the total amounts for current assets and current liabilities are reversed as are the total amounts of net worth and total liabilities. What does this score tell you about the potential for bankruptcy?

16-32 **(Contingencies)** An audit client is being sued for $500,000 for discriminatory hiring practices.

Required

Indicate the appropriate action the auditor should take for each of the following independent responses to the letter of audit inquiry:

a. The lawyer stated that the client had a "meritorious defense."
b. The lawyer stated that there is only a remote chance that the client will lose. The client did not accrue any contingent loss or disclose this situation.
c. The lawyer stated the client will probably lose, and the amount of loss could be anywhere between $250,000 and $500,000, with no amount within that range being more likely than another. The client disclosed this situation but did not accrue a loss.
d. The lawyer stated that there is a reasonable possibility that the client will lose. The client disclosed this situation but did not accrue a loss.
e. The lawyer stated the client will probably lose between $250,000 and $500,000, but most likely will lose $400,000. The client accrued a $250,000 contingent loss and disclosed the situation.

16-33 **(Contingencies)** Each of the following is an independent situation related to a contingency:

1. The lawyer refused to furnish the requested information.
2. The lawyer was unable to form an opinion on the probability or amount of a pending lawsuit, but the auditor believes that the amount could be material.
3. The client stated that it had not consulted lawyers during the past year.
4. The client refuses to accrue for, or disclose, a pending lawsuit related to the infringement of a patent that is the basis of its major product. It is afraid that it will lose customers. The plaintiff is suing for $2,500,000, which represents 50% of owner's equity. The lawyer believes that the case can be settled for less than the damages claimed.

Required

What should the auditor do in each case?

16-34 **(Summary of Possible Adjustments)** During the course of the audit of Nature Sporting Goods for the year ended December 31, 2007, the auditor discovered the following:

The accounts receivable confirmation work revealed one pricing error. The book value of $12,955.68 should be $11,984.00. The projected error based on this difference is $14,465.

Nature Sporting Goods had understated the accrued vacation pay by $13,000. A review of the prior year documentation indicates the following uncorrected errors:

a. Accrued vacation pay was understated by $9,000.
b. Sales and accounts receivable were overstated by an estimated $60,000 due to cutoff errors.

Required

Prepare a summary of a possible adjustments schedule like the one in Exhibit 16.4, and draw your conclusion about whether the aggregate

effect of these errors is material. Nature Sporting Goods has made no adjustments to the trial balance numbers shown in Exhibit 16.4. (Note that the retained earnings balance is the beginning balance.) Ignore the errors shown in the exhibit. The income tax rate is 40% for the current and prior year.

16-35 **(Going Concern)** A staff auditor has just returned from a continuing professional education workshop on current auditing standards. One of her managers has asked her to prepare a training session for the rest of the staff. In particular, he wants her to discuss the standard related to the client's ability to continue as a going concern.

Required

a. Describe the auditor's responsibility for assessing each client's ability to continue as a going concern.
b. Describe the effect on the financial statements and on the auditor's report for each of the following independent situations:
   1. The auditor has substantial doubt as to whether the client is a going concern.
   2. The auditor believes the footnote describing the going concern problem is inadequate.
   3. In the prior year statements, a going concern problem had been disclosed and was referred to in the auditor's prior year report, but the uncertainty has been eliminated this year. Comparative statements will be issued.
   4. The auditor concludes that the client is likely to continue in existence for at least one more year. The same conclusion had been reached in prior years.
   5. The client was forced into bankruptcy by creditors after year end but before the audit was completed.

16-36 **(Going Concern)** This is the third year of an audit of GreenLawns.com. The company has carved out a new market niche for the delivery of lawn and garden supplies, including links with local companies that provide lawn services. The company issued stock two years ago and raised sufficient capital to continue operations through this year. The company is currently trading at 5 times revenue. The company has shown no profits in its first three years. Revenue growth has been 100%, 65%, and 30%, respectively, over the last three years. The current year revenue is at $220 million. The auditor has examined current cash flow and has serious reservations about the ability of the company to remain a going concern. The company has responded with the following management plan:

- Another public offering of stock to raise $200 million in capital. The stock offering will be equal to 30% of the existing stock outstanding.
- Sign an agreement with at least 50 more local distributors during the year.
- Improve warehousing and distribution to cut at least 20% off the distribution costs.
- Increase sales by 50% through more advertising, coupons, and better marketing to existing customers.
- Improve profit margins by using its purchase power to sign more attractive purchase agreements with vendors, but stay away from major brand vendors such as Scott's, Ortho products, and so on.

Required

a. What is the auditor's responsibility to evaluate the effectiveness of management's plan? What action does the auditor take if he or she does not believe management's plan will be effective?
b. Assume that the auditor modifies the opinion on the financial statements. What does this action say to the users of the financial statements

about the confidence in management's ability? Is the auditor engaged to attest to the quality of management?

c. What is the required disclosure regarding management's plans?
d. For each element in management's plan, indicate the auditor's responsibility to assess the element. Indicate audit procedures that should be performed to assess each part of management's plans.

16-37 **(Accounting Estimate)** An alfalfa co-op has an agreement with its farmers to purchase alfalfa at a price that is currently above the existing market price. In addition, the co-op has agreed to pay the farmers interest at 2% for each month delivery is delayed beyond December 31, 2006. Management expects that at least 14,500 tons will be delivered sometime after the balance sheet date.

Required

a. What factors should be considered in making an estimate of the loss accrual?
b. What information should management disclose in the footnotes to the financial statements concerning this purchase commitment?

16-38 **(Accounting Estimates)** Consider the following areas in which estimates are made in the preparation of financial statements:

Group Activity

- Pension obligation
- Other post-retirement benefits
- Warranty liability
- Reserve for uncollectible loans (financial institution)
- Allowance for doubtful accounts (manufacturing company)
- Allowance for returned goods (catalog company like Land's End or L.L. Bean that have a guaranteed-period warranty on catalog sales)

Required

For each area:

1. Identify the factors inherent in the account that might significantly affect the dollar estimate of the account balance.
2. For each factor identified, briefly discuss the importance of the item to the overall account estimate. For example, how important is the interest rate assumption to the overall estimate of the pension liability? Hint: You may want to perform a sensitivity analysis to assess the importance of each factor.
3. For each factor identified, briefly describe audit evidence that should be gathered to determine how the factor should be used in making the accounting estimate. For example, how should the auditor determine the proper interest rate assumption in estimating the account balance?
4. Assuming there are differences between the auditor's estimate and management's estimate, indicate how the auditor can determine whether management is attempting to "manage" or "smooth earnings" or whether there is a genuine disagreement on the correct factor to be used in making the estimate.

16-39 **(Audit Communications)** Several communications involve the client and auditor.

Required

For each of the following communications, indicate who signs the letter, who receives it, whether it is required or optional, when it should be sent, and its purpose:

a. Lawyer's response to a letter of audit inquiry
b. Management representation letter
c. Engagement letter
d. Management letter

***16-40** **(Subsequent Events)** Milton Green, CPA, is auditing the financial statements of Taylor Corporation for the year ended December 31, 2007. Green plans to complete the fieldwork and sign the auditor's report about March 10, 2008. He is concerned about events and transactions occurring after December 31, 2007 that may affect the 2008 financial statements.

Required

a. What are the general types of subsequent events that require Green's consideration and evaluation?
b. What are the auditing procedures Green should consider performing to gather evidence concerning subsequent events?

16-41 **(Subsequent Events)** The auditor is auditing financial statements for the year ended December 31, 2007 and is completing the audit in early March 2008. The following situations have come to the auditor's attention:

1. On February 12, 2008, the client agreed to an out-of-court settlement of a property damage suit resulting from an accident caused by one of its delivery trucks. The accident occurred on November 20, 2007. An estimated loss of $30,000 was accrued in the 2007 financial statements. The settlement was for $50,000.
2. Same facts as in part (1), except the accident occurred January 1, 2008, and no loss was accrued.
3. The client is a bank. A major commercial loan customer filed for bankruptcy on February 26, 2008. The bankruptcy was caused by an adverse court decision on February 15, 2008 involving a product liability lawsuit initiated in 2007 arising from products sold in 2005.
4. The client purchased raw materials that were received just before year end. The purchase was recorded based on its estimated value. The invoice was not received until January 31, 2008, and the cost was substantially different than was estimated.
5. On February 2, 2008, the board of directors took the following actions:
   (a) Approved officers' salaries for 2008.
   (b) Approved the sale of a significant bond issue.
   (c) Approved a new union contract containing increased wages and fringe benefits for most of the employees. The employees had been on strike since January 2, 2008.
6. A major customer was killed in a boating accident on January 25, 2008 in Mexico. The customer had pledged his boat as collateral. The boat, which was destroyed in the accident, was not insured. The allowance for doubtful accounts is not adequate to cover the anticipated loss.

Required

For each of the preceding independent subsequent events (which are to be considered material):

a. Indicate and explain whether the financial statements should be adjusted only, adjusted and disclosed, disclosed only, or neither adjusted nor disclosed.
b. Describe how the auditor would have learned about each of these situations.

16-42 **(Subsequent Discovery of Omitted Procedures)** During the course of an interoffice quality review, it was discovered that the auditors had failed to consider whether inventory costs of a wholesale client exceeded their market value. The review took place six months after the audit report had been issued. Some prices had apparently been falling near year end. Inventory is a major item in the financial

statements, but the auditor does not know whether the market price declines were material.

Required

a. What procedures could the auditor now perform to resolve this audit problem?
b. What should the auditor do if it turns out that inventory was materially overstated?

Cases

***16-43** **(Letter of Audit Inquiry)** Cole & Cole, CPAs, are auditing the financial statements of Consolidated Industries Co. for the year ended December 31, 2006. On February 20, 2007, Cole asked the client to draft an inquiry letter to J. J. Young, Consolidated's outside attorney, to corroborate the information furnished to Cole by management concerning pending and threatened litigation, claims, and assessments; and unasserted claims and assessments. On March 6, 2007, C. R. Brown, Consolidated's chief financial officer, gave Cole a draft of the inquiry letter for Cole's review before mailing it to Young.

Required

Describe the omissions, ambiguities, and inappropriate statements and terminology in Brown's letter.

J. J. Young, Attorney at Law
123 Main Street
Anytown, USA

March 6, 2008

Dear J. J. Young:

In connection with an audit of our financial statements at December 31, 2007, and for the year then ended, management of the Company has prepared, and furnished to our auditors, Cole & Cole, CPAs, 456 Broadway, Anytown, USA, a description and evaluation of certain contingencies, including those set forth below involving matters with respect to which you have been engaged and to which you have devoted substantive attention on behalf of the company in the form of legal consultation or representation. Your response should include matters that existed at December 31, 2007. Because of the confidentiality of all these matters, your response may be limited.

In November 2007, an action was brought against the company by an outside salesman alleging breach of contract for sales commissions and pleading a second cause of action for an accounting with respect to claims for fees and commissions. The causes of action claim damages of $300,000 but the company believes it has meritorious defenses to the claims. The possible exposure of the company to a successful judgment on behalf of the plaintiff is slight.

In July 2004, an action was brought against the company by Industrial Manufacturing Co. (Industrial) alleging patent infringement and seeking damages of $20,000,000. The action in U.S. District Court resulted in a decision on October 16, 2007, holding that the company infringed seven Industrial patents and awarded damages of $14,000,000. The company vigorously denies these allegations and has filed an appeal with the U.S. Court of Appeals for the Federal Circuit. The appeal process is expected to take approximately two years, but there is some chance that Industrial may ultimately prevail.

Please furnish to our auditors such explanation, if any, that you consider necessary to supplement the foregoing information, including an explanation of those matters as to which your views may differ from those stated and an identification of the omission of any pending or threatened litigation, claims, and assessments or a statement that the list of such matters is completed. Your response may be quoted or referred to in the financial statements without further correspondence with you.

You also consulted on various other matters considered pending or threatened litigation. However, you may not comment on these matters because publicizing them may alert potential plaintiffs

to the strengths of their cases. In addition, various other matters probable of assertion that have some chance of an unfavorable outcome, as of December 31, 2006, are unasserted claims and assessments.

C. R. Brown
Chief Financial Officer

16-44 **(Related-Entity Transactions, Fraud, and Professional Conduct)** The facts of this case are drawn from the SEC's Accounting and Auditing Enforcement Release No. 2076 (August 5, 2004).

The Company Perpetrating the Fraud The case involves a fraud perpetrated by MCA Financial Corporation, which was incorporated in 1989 as a holding company for four wholly owned subsidiaries with 45 branch offices in seven states. MCA primarily was involved in the residential mortgage-banking business. MCA's fraudulent scheme was accomplished through related-party transactions and involved the following steps. MCA purchased distressed rental properties in the city of Detroit, sold them to the Related Limited Partnerships at inflated prices, advanced the Related Limited Partnerships small down payments (usually 10% or 20%), and accepted executed mortgages or land contracts for the remainder of the purchase prices. MCA established the prices at which it sold the rental properties to the Related Limited Partnerships by calculating the value each property would have after substantial rehabilitation, even though rehabilitation work had not been completed or even begun. MCA then recognized the entire gain on each sale as revenue even though MCA knew that the Related Limited Partnerships could not afford to pay for the properties because of the inflated sales prices and the prevailing rental rates. In fact, the Related Limited Partnerships failed to make most of the required loan payments to MCA for the properties.

MCA recorded the money owing from the Related Limited Partnerships as a result of advancing the down payments on the asset side of its balance sheet under the heading of "Accounts Receivable-Related Parties." MCA carried those receivables without any valuation allowance despite the Related Limited Partnerships' inability to repay the receivables. MCA fraudulently sold some related-party mortgages and land contracts to the pools and carried the remainder at cost or with an inadequate allowance for loan losses under the headings of "Mortgages Held for Resale" or "Land Contracts Held for Resale" despite the Related Limited Partnerships' inability to repay and the inadequate collateral. The collateral for these mortgages and land contracts was the real estate that MCA had sold to the Related Limited Partnerships at inflated prices. As a result, MCA knew that foreclosing on the collateral would not result in MCA receiving the full principal amount of the loans. MCA did not disclose in its financial statements that a material amount of its mortgages and land contracts held for resale were related-party mortgages and land contracts.

The Auditors Grant Thornton LLP was one of two firms that jointly provided audit services to MCA and jointly signed reports containing unqualified opinions on MCA's annual financial statements from 1993 through 1998. Doeren Mayhew & Co. P.C., a Michigan accounting firm, was the other firm that jointly provided audit services to MCA and jointly signed reports containing unqualified opinions on MCA's annual financial statements from 1993 through 1998.

Peter Behrens is a CPA who served as an engagement partner for Grant Thornton's joint audits of MCA. Marvin Morris is a CPA who served as an engagement partner for Doeren Mayhew's joint audits of MCA. Benedict Rybicki is a CPA who served as the engagement

manager for Doeren Mayhew's joint audits of MCA. Morris obtained personal mortgages through MCA in July 1994 for approximately $344,000 and in July 1995 for approximately $200,000. The 1994 mortgage was discharged when the 1995 mortgage was executed. Morris did not review the auditors' workpapers for several key portions of the 1998 MCA audit, including the workpapers for mortgages and land contracts held for resale and gains on sale of real estate. As late as 2001, Morris stated that he had only ever read the first 13 of the approximately 150 Statements of Financial Accounting Standards. Reading the Statements of Financial Accounting Standards was not "what [Morris did] for a living." Rather, he considered himself a "salesperson."

As the engagement manager, Rybicki signed a workpaper in connection with the 1998 MCA audit: (a) confirming that the entire MCA engagement had been performed in accordance with professional standards; (b) confirming that related parties or unusual transactions and relationships were properly disclosed and documented in MCA's financial statements; and (c) agreeing with the issuance of the report containing an unqualified opinion. Rybicki socialized with Alexander Ajemian, MCA's controller, while Doeren Mayhew acted as one of MCA's auditors. Rybicki first met Ajemian in approximately 1987 when both were staff accountants at the Detroit office of Pannell Kerr & Forster. Rybicki and Ajemian both played on Pannell Kerr's softball team. They continued playing on the same team even after each had left Pannell Kerr, including while Ajemian was MCA's Controller and Rybicki was the engagement manager for the MCA audits. Rybicki, Ajemian, and the remainder of the softball team often ate and drank together after the games.

Between 1993 and 1998, Rybicki and Ajemian occasionally spent weekends in Petosky, Michigan, where they stayed at a lakefront condominium owned by MCA. During the same time period, Rybicki and Ajemian spoke socially on the telephone, ate together, water skied, and traveled to the Kentucky Derby. After MCA filed for bankruptcy in 1999 and Ajemian pled guilty in 2001 to federal criminal charges in connection with his conduct at MCA, Rybicki and Ajemian continued socializing. They dined together, attended sporting events, played on the same softball team, and traveled together. While acting as MCA's auditors, Doeren Mayhew and Grant Thornton personnel, including Behrens, Morris, and Rybicki, sometimes attended a party held by Ajemian annually at his home and paid for by MCA known as the "Bean Counters Bash." This party was held to celebrate the completion of the annual audit. MCA executives provided Doeren Mayhew and Grant Thornton auditors with free tickets to Detroit Red Wings hockey games and University of Michigan football games. MCA executives also invited the auditors to tailgate parties paid for by MCA at the football games. Rybicki obtained a personal mortgage through MCA for approximately $59,000 to purchase his house in the early 1990s. During the 1998 MCA audit, Behrens, Morris and Rybicki knew that millions of dollars of the mortgages and land contracts held for resale reported in MCA's 1998 annual financial statements consisted of related-party mortgages and land contracts. Behrens, Morris and Rybicki obtained this knowledge through their preparation of the 1998 MCA audit plan, their review of the 1998 audit workpapers and other materials, their performance of audit procedures during the 1998 audit, their communications with MCA executives, and/or their knowledge of MCA's business from prior audits.

Specifically with respect to the workpapers, Behrens and Rybicki reviewed workpapers as part of the 1998 MCA audit which showed that MCA sold approximately $10.8 million in real estate to the Related Limited Partnerships in fiscal year 1998. Those workpapers also showed

that MCA advanced the Related Limited Partnerships a small down payment for the real estate and accepted an executed mortgage or land contract for the remaining portion of the purchase price. Those workpapers further calculated that approximately $4.9 million of those related-party mortgages and land contracts had not been sold as of MCA's balance sheet date and thus were included in the total mortgages or land contracts held for resale as reported in MCA's 1998 annual financial statements. Rybicki prepared, and Behrens and Morris reviewed, a workpaper in connection with the 1998 MCA audit entitled "Audit Planning." In this workpaper, Rybicki assessed the audit risk on the MCA engagement as "high." Later in the workpaper, Rybicki noted that the reasons for the high risk assessment were that MCA had "significant and/or frequent difficult to audit transactions or balances" and "material, related-party transactions on a recurring basis." Behrens and Rybicki also reviewed workpapers as part of the 1998 MCA audit which contained balance sheets for the Related Limited Partnerships reflecting approximately $57.3 million in liabilities under the heading of "Mortgages and Land Contracts Payable." Behrens and Rybicki additionally reviewed workpapers as part of the 1998 MCA audit that showed that approximately $4.0 million of MCA's land contracts held for resale, those that had been pledged as collateral for one of MCA's debenture offerings, were related-party land contracts. During the 1998 MCA audit, Behrens, Morris and Rybicki read MCA's 1998 annual financial statements. Those financial statements did not disclose any related-party mortgages or land contracts held for resale or state the total amount of such mortgages and land contracts held for resale. Grant Thornton and Doeren Mayhew issued a report, dated April 28, 1998, containing an unqualified opinion on MCA's 1998 annual financial statements even though Behrens, Morris and Rybicki knew that MCA had failed to disclose material, related-party mortgages, and land contracts.

Required

a. Summarize the nature of the fraud perpetrated by MCA involving related-entity transactions.
b. Summarize the nature of the inappropriate relationships between MCA and its auditors.
c. Discuss how the concepts of auditor independence and ethics relate, with an emphasis on the facts in this case. Discuss the issue of what personal relationships are or are not acceptable between an audit firm and the client.
d. Recommend changes that these audit firms should make to improve their quality control procedures.

16-45 (Ethical Decisions Regarding Summarizing Possible Adjustments) One of the fundamental changes that occurred upon passage of the Sarbanes-Oxley Act of 2002 is that the audit profession is no longer allowed to be self-regulatory. Now, the Public Company Accounting Oversight Board (PCAOB) has the authority to assess whether audit firms are conducting high quality audits. To make that assessment, the PCAOB conducts formal inspections of audits completed by audit firms registered with the PCAOB, and the result of those inspections is made public on the PCAOB's web site (http://www.pcaobus.gov and follow the links to inspection reports). The inspection teams select certain higher-risk areas for review and inspect the engagement team's work papers and interview engagement personnel regarding those areas. In addition, the inspection teams analyze potential adjustments to the issuer's financial statements that had been identified during the audit but not recorded in the financial statements.

The reports that have been released to the public contain a variety of examples of audit engagements in which auditors have had difficulty

in dealing with potential adjustments to client financial statements. One example of such an audit quality problem is evident in the inspection report of Ernst & Young LLP (November 17, 2005), which states:

> The Firm proposed a judgmental audit adjustment (which the issuer recorded) to increase the issuer's reserve for excess and obsolete inventory, even though the Firm's work papers did not include documentation supporting percentages used to estimate this reserve. After the Firm proposed this audit adjustment, the issuer's chief executive officer proposed an adjustment to increase the value of inventory received in a bankruptcy settlement, which was contrary to the issuer's earlier conclusion that the bankruptcy settlement accounting would result in no gain or loss. This adjustment was equal to and offset the excess and obsolete inventory adjustment described above. The Firm failed to assess, or failed to include evidence in the work papers that it assessed, whether the offsetting adjustments described above and another set of offsetting year-end adjustments relating to the accounting for major construction contracts (which in total approximated 24% of the issuer's pre-tax income) indicated a bias in management's estimates that could result in material misstatement of the financial statements, and/or a need for the Firm to reevaluate planned audit procedures.

Required

a. Comment on the PCAOB's inspection process, focusing on (1) why it may be needed to assure audit quality and (2) how it may improve audit quality.
b. Review the issue outlined in the inspection report above. Summarize the actions of the client, and the corresponding actions of Ernst & Young. Discuss the income statement implications of the journal entries that are at the center of this inspection comment.
c. Why do you think that the PCAOB was concerned about this issue?
d. Assume that you were the audit manager on the Ernst & Young audit engagement detailed in the inspection report. Assume also that you knew that the audit partner had agreed to allow the client to pursue the offsetting series of journal entries that are the subject of this case. Using the ethical decision-making framework (which is based on Utilitarian Theory and Rights Theory) from Chapter 3, develop an appropriate course of action to pursue.

As part of completing the audit, you may now complete Module XIV.

Module XIV: Working Trial Balance

Upon completion of substantive audit testing, the auditor should post all audit adjustments and reclassification entries to the working trial balance and extend the audited balances. The extended balances then form the nucleus for the audited financial statements.

Selected analytical procedures also should be applied at the conclusion of the audit field work. The results may be compared with those developed during the audit-planning phase. This approach provides added support for audit conclusions contained in the documentation.

Derick has asked you to post the adjustments and reclassifications, and to perform the review phase analytical procedures.

Requirements

1. The instructor's CD contains a file labeled "AJE" (adjusting journal entries). It contains all of the audit adjustments and reclassifications that you developed in prior modules of this practice case. At this time your instructor will supply you with a printout of this file. Review the adjustments. These adjustments will be presented to the client as proposed audit adjustments. Derick has set the following materiality thresholds:

Income statement	$ 435,000
Balance sheet	$1,542,270

   Given these thresholds and referring to the proposed audit adjustments and reclassifications, determine whether the potential adjustments equal or exceed the income statement or balance sheet materiality threshold in the aggregate. Treat income overstatements and income understatements separately. Do *not* net understatements against overstatements. That is, if aggregate overstatements are $600,000 and aggregate understatements are $500,000, the adjustments should be proposed to Biltrite management, inasmuch as both exceed the income statement materiality threshold.

2. Retrieve the file labeled "WTB." Post the adjustments and reclassifications to the working trial balance. Observe the following rules in making your postings:
   a. Post account increases as positive amounts, and post account decreases as negative amounts;
   b. Postings are in "thousands of dollars," whereas the adjustments and reclassifications are rounded to the nearest dollar. Therefore, in posting the adjustments and reclassifications, round to the nearest $1,000.
   c. Enter AJE numbers as text by typing a single quote before the number "1" so that they do not get included in the final balance.
   d. Do *not* foot the adjustments and reclassifications columns (they will automatically be reflected in the audited column as you post them).
3. Save your file under the title "WTB," then print it.
4. Retrieve the file labeled "AUDBS." Using your printout of the working trial balance, enter the amounts from the audited column in the 2007 balance sheet. Calculate the percentages of individual balance sheet items and components relative to totals for 2007.
5. Calculate the new ratios for 2007 based on the audited financial statements. What is the purpose of applying analytical procedures in the evaluation and review phase of the audit?
6. Print the comparative audited balance sheets together with the related ratios. Compare them with the balance sheets and ratios that you developed and printed in requirement (5b) of Module I. What conclusions can you draw regarding the comparison?

7. Retrieve the file labeled "Budget," which you reviewed as part of your assignment in Module I. You will recall that the purpose for this review was to identify significant budget variances that could be the result of under- or overbudgeting, misstatements in recording data, or intentional misstatement. The auditor, of course, is concerned with the latter two possibilities.
   a. Substitute the audited amounts from your adjusted working trial balance for the unaudited figures in the "Actual 12/31/07" column. Save your file, as revised, under a new file name (for example, "Biltbudg"), so as not to lose the original Module I file. Print the revised budget/actual comparison.
   b. Do significant variances still exist? If so, are you satisfied that the audit has resolved the causes of the significant variances? (*Hint:* Compare the variances resulting from this analysis with those calculated in Module I.)
   c. If you continue to have concerns about certain of the variances, what additional evidence gathering and evaluation procedures do you suggest?

CHAPTER 17

Communicating Audit and Attestation Results

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. By thoroughly studying this chapter, you will be able to:

- Describe the types of audit reports and the circumstances in which the standard audit report is modified.
- Describe the requirements for reporting on the financial statements of U.S. companies to be used by investors in other countries.
- Explain the differences among audit, review, and compilation engagements in terms of procedures, the degree of responsibility taken by the accountant, and reports rendered.
- Explain the nature of "special reports," when they might be used, and their unique reporting requirements.
- Explain the procedures and reporting requirements for interim financial information.
- Describe the nature of reports on prospective and pro forma financial information and on compliance and agreed-upon procedures engagements.
- Be aware of the evolving nature of assurance services and the reports that may be issued in conjunction with these new services.

CHAPTER OVERVIEW

Public accounting firms issue formal reports that describe three basic levels of assurance:

- Positive assurance—a statement as to whether the items are fairly presented, such as an audit opinion on historical financial statements, prospective, and pro forma financial information.
- Limited (negative) assurance—a statement that nothing has come to the CPA's attention to indicate that information is incorrect, such as in reviews of annual or interim financial information.
- Disclaimer of assurance—a statement providing no assurance, such as when compiling financial information.

In most states, only certified public accountants licensed by the state are permitted to provide any level of assurance on financial information. The reports range from positive assurance, for which the auditor has gathered sufficient evidence to render an opinion on the fairness of presentation, to no assurance, for which the auditor is obligated only to compile the financial statements. Even though "no assurance" reports disclaim any assurance, the market sees some value, because the CPA looks at the information to see if there are any obvious violations of GAAP. Reviews and compilations are considered accounting services, not audit services, because the auditor is not providing positive assurance to third parties.

Among the ten generally accepted auditing standards introduced in Chapter 2 are four reporting standards (emphasis added):

1. The auditor must state in the auditor's report *whether* the financial statements are *presented in accordance with generally accepted accounting principles* (GAAP).
2. The auditor must identify in the auditor's report those circumstances in which such principles *have not been consistently observed* in the current period in relation to the preceding period.
3. When the auditor determines that *informative disclosures* are not reasonably adequate, the auditor must so state in the auditor's report.
4. The auditor must either *express an opinion* regarding the financial statements, taken as a whole, or state that an opinion cannot be expressed in the auditor's report. When the auditor cannot express an overall opinion, the auditor should state the reasons therefore in the auditor's report. In all cases in which an auditor's name is associated with financial statements, the auditor should clearly indicate the character of the auditor's work, if any, and the degree of responsibility the auditor is taking in the auditor's report.

In this chapter we expand on these standards and cover the more common reporting situations and the evolving nature of assurance services.

Auditor Reporting

Financial Statement Opinions
Internal Control Opinions
Other Communication

Audit Reports

Certified Public Accountants have traditionally reported on historical financial statements. The services range from audits to reviews to compilations. In this section we describe the types of audit reports that can be issued. The audit is designed to facilitate an unambiguous opinion by the auditor. The expectation of both the auditor and the client is that the report will be unqualified; that is, the auditor has no reservations about the fairness of presentation. However, there may be reasons that the auditor may have reservations about the fairness of presentation, or the auditor may have been precluded from gathering sufficient information to render an opinion.

Audit reports are designed to promote clear communication between the auditor and the financial statement reader by clearly delineating:

- What was audited and the relative responsibilities of the client and the auditor for the financial statements (introductory paragraph)
- The nature of the audit process (scope paragraph)
- The auditor's opinion on the fairness of the financial statements (opinion paragraph)
- When appropriate, the reason why a standard unqualified opinion cannot be expressed (explanatory paragraph)

Expression of an Opinion

The fourth reporting standard requires auditors to express either an unqualified opinion on the entire set of financial statements and related footnotes, including all years presented for comparative purposes, or state the reasons that such an opinion cannot be expressed. If the auditor has reservations about the fairness of presentation, the reason(s) must be stated in the auditor's report. Further, if there is a departure from GAAP, the auditor should explicitly state the nature of the departure and the dollar effects (if such amounts are determinable by the auditor), so that a user can appropriately modify the financial statements to determine the result if they had been fairly presented.

Association with Financial Statements

When a public accounting firm is associated with financial statements, it must provide a report on those statements. This requirement is designed to prevent any misinterpretation of the nature of the service that was provided or the degree of responsibility the firm assumes. A CPA firm is associated with financial statements whenever it consents to the use of its name in a report, document, or written communication containing the statements, with the exception of tax returns. The requirement also clearly conveys an obligation to report the auditor's findings: an auditor cannot withdraw simply because the auditor's opinion is not what the client wanted.

Types of Audit Reports

There are five basic types of financial statement audit reports:

1. *Standard unqualified report*
2. *Unqualified report with an explanatory paragraph*—the explanatory paragraph may explain the following:
   - A change in accounting principles
   - Substantial doubt about the client being a going concern
   - A justified departure from GAAP
   - The emphasis of some matter, such as unusually important subsequent events, risks, or uncertainties associated with contingencies, significant estimates, or concentrations
3. *Qualified report* because of:
   - A material unjustified departure from GAAP
   - Inadequate disclosure
   - A scope limitation
4. *Adverse report* because of:
   - A pervasive and material unjustified departure from GAAP
   - Lack of important disclosures
5. *Disclaimer of opinion report* because the auditor either lacked independence or was unable to obtain sufficient evidence to form an opinion on the overall fairness of the financial statements. This may occur because of:
   - A scope limitation
   - Substantial doubt about the client being a going concern
   - The CPA firm not being engaged to perform an audit

The standard unqualified audit report following the Public Company Accounting Oversight Board's reporting standards is illustrated in Exhibit 17.1. Reference is made to a separate report on internal controls. A separate report on internal controls is shown in Exhibit 17.2 in Chapter 7. Such a report can be issued only if:

1. There are no material violations of GAAP.
2. Disclosures are adequate.
3. The auditor was able to perform all of the necessary procedures.
4. There was no change in accounting principles that had a material effect on the financial statements.
5. The auditor determines that there are no material weaknesses in internal controls over financial reporting.
6. The auditor does not have significant doubt about the client remaining a going concern.
7. The auditor is independent.

The fourth paragraph in Exhibit 17.1 summarizes and refers to a separate report on the client's internal controls, which in this case expresses an unqualified

EXHIBIT 17.1 Unqualified Report on an Integrated Audit

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
NSG Manufacturing Company, Inc.

We have audited the accompanying consolidated balance sheets of NSG Manufacturing Company, Inc. and subsidiaries as of January 28, 2008 and January 29, 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended January 28, 2008. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of NSG Manufacturing Company, Inc. and subsidiaries as of January 28, 2008 and January 29, 2007, and the results of their operations and their cash flows for each of the years in the three-year period ended January 28, 2008, in conformity with U.S. generally accepted accounting principles.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of NSG Manufacturing Company, Inc.'s internal control over financial reporting as of January 28, 2006, based on criteria established in *Internal Control–Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 21, 2008 expressed an unqualified opinion on the effective operation of internal control over financial reporting.

As discussed in Note 1 to the Consolidated Financial Statements, the Company adopted the provisions of the Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment" in fiscal year 2007.

KPMG LLP

Dallas, Texas
March 21, 2008

opinion on the client's internal controls over financial reporting. Notice that in an integrated audit, the auditor expresses opinions on the financial statements, and on internal controls. The fifth paragraph brings the reader's attention to a material change in accounting principles required by a new FASB standard. This is required for both public and non-public companies. Reporting on internal controls is covered Chapter 7.

For a non-public client, the standard unqualified audit report would contain the first three paragraphs and refer to the auditing standards generally accepted in the United States of America rather than PCAOB's standards. If there was a material change in accounting principles, a paragraph similar to the fifth paragraph in Exhibit 17.1 would be added.

Practical Point

The profession has developed standardized audit reports to ensure consistent communication to users.

Modifications of the Standard Unqualified Report

There are several situations in which the auditor wishes, or is required, to alter the wording of the standard report. Some of the alterations are informational only; others affect the type of opinion expressed. These require changed wording and many require an additional paragraph.

Modifications Not Affecting the Opinion

In the following situations, the auditor changes the wording of the standard report but still issues an unqualified report:

- Justified departure from GAAP
- Inconsistent application of GAAP
- Going concern doubt
- Emphasis of a matter
- Reference to other auditors

Justified Departure from GAAP In rare circumstances, the client may have a justified departure from GAAP. Rule 203 of the AICPA Code of Professional Conduct permits the auditor to issue an unqualified opinion when there has been a material departure from GAAP if the client can demonstrate, and the auditor concurs, that, *due to unusual circumstances,* the financial statements would have been misleading had GAAP been followed. What constitutes unusual circumstances is a matter of professional judgment. Examples include new legislation or the evolution of a new form of business transaction. An unusual degree of materiality or the existence of a conflicting industry practice does not ordinarily justify a departure from GAAP.

An informational paragraph should be added, either before or after the opinion paragraph, to describe the departure from GAAP, its approximate effects (if they can be practicably determined), and the reasons for which compliance with GAAP would result in misleading statements. An unqualified opinion is appropriate in these circumstances. Exhibit 17.2 shows such a report for Oak Industries.

Inconsistent Application of GAAP Changes in accounting principles should be fully disclosed so that a reader can make comparisons over time and between companies. A change in accounting principles includes a change from one GAAP to another, such as from FIFO to LIFO, and certain changes in the reporting entity. A change from non-GAAP to GAAP—such as from the cash basis to the accrual basis—is accounted for as a correction of an error, but is treated by

EXHIBIT 17.2 Report Stating a Justified Departure from GAAP

[Standard introductory and scope paragraphs followed by these explanatory and opinion paragraphs.]

As described in Note 3, in May 2001, the company exchanged shares of its common stock for $5,060,000 of its outstanding public debt. The fair value of the common stock issued exceeded the carrying amount of the debt by $466,000, which has been shown as an extraordinary loss in the 2001 statement of operations. Because a portion of the debt exchanged was convertible debt, a literal application of Statement of Financial Accounting Standards No. 84, "Induced Conversions of Convertible Debt," would have resulted in a further reduction in net income of $3,611,000 which would have been offset by a corresponding $3,611,000 credit to additional paid-in capital; accordingly, there would have been no net effect on stockholders' investments. In the opinion of company management, with which we agree, a literal application of accounting literature would have resulted in misleading financial statements that do not properly portray the economic consequences of the exchange.

In our opinion, the consolidated financial statements referred to above present fairly in all material respects the financial position of Oak Industries Inc. and subsidiaries as of December 31, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002, in conformity with generally accepted accounting principles.

PricewaterhouseCoopers
San Diego, California
February 10, 2003

the auditor as a change in accounting principles. In recent years, the audit reports for many companies contain an explanatory paragraph of accounting changes because of new FASB statements. Changes in accounting estimates and accounting for new transactions are not considered changes in accounting principles.

If the client has changed an accounting principle, has reasonable justification for the change, and has followed GAAP in accounting for and disclosing this change, the explanatory paragraph serves as a flag directing the reader's attention to the relevant footnote disclosure. This flag can be very useful. For example, a company that reported a 22% increase in net income highlighted the increase several times in its annual report to shareholders. But only by noting the additional paragraph in the auditor's report and carefully reading the financial statements and footnotes would the reader have seen that the increase in net income would have been only 6% had there not been a change in an accounting principle. The additional paragraph in the auditor's report is illustrated in the fifth paragraph of Exhibit 17.1 for J.C. Penney. The auditor's reference to the accounting change is brief because the detail is presented in the client's footnotes.

If the change in accounting principles is not justified or accounted for correctly, or there is inadequate disclosure, the auditor is dealing with a departure from GAAP. As we note later in this section, a GAAP departure will lead to either a qualified audit opinion (see Modifications Affecting the Opinion) or, in some cases, an adverse audit opinion.

Going Concern Doubt In every audit, the auditor has a responsibility to evaluate whether there is substantial doubt about the client's ability to continue as a going concern for up to one year following the balance sheet date. If there is substantial doubt about the client's ability to remain a going concern, the auditor should issue an unqualified opinion that contains an explanatory paragraph following the opinion paragraph, as illustrated in Exhibit 17.3 for PG&E Corporation and Pacific Gas and Electric Company. The explanatory paragraph should be clearly worded to indicate the auditor *has substantial doubt* about the client continuing as a going concern and refer to management's footnote(s) explaining the problems and their plans to overcome the problems. There may be situations in which the auditor does not feel comfortable expressing any opinion. In such cases, the auditor may issue a disclaimer of opinion. Finally, if the auditor is convinced that the company will be liquidated, then the auditor should indicate that liquidation values would be more appropriate.

EXHIBIT 17.3 Unqualified Report with a Going Concern Paragraph

[The audit report on the 2002 financial statements of PG&E Corporation and Pacific Gas and Electric Company contains the standard introductory, scope, and opinion paragraphs followed by the following going concern explanatory paragraph.]

The accompanying consolidated financial statements have been prepared on a going concern basis of accounting. As discussed in Notes 1 and 2 of the Notes to the Consolidated Financial Statements, the Utility, a subsidiary of the Company, has incurred power purchase costs substantially in excess of amounts charged to customers in rates. On April 6, 2001, the Utility sought protection from its creditors by filing a voluntary petition under provisions of Chapter 11 of the U.S. Bankruptcy Code. Additionally, as discussed in Note 3 of the Notes to the Consolidated Financial Statements, PG&E National Energy Group, a subsidiary of the Company, has defaulted on various debt and financing obligations. These matters *raise substantial doubt* about the ability of the Company and of the Utility to continue as going concerns. Managements' plans in regard to these matters are also described in Notes 2 and 3 of the Notes to the Consolidated Financial Statements. The respective consolidated financial statements do not include any adjustments that might result from the outcome of these uncertainties.

DELOITTE & TOUCHE LLP
San Francisco, California
February 24, 2003

[Emphasis added]

Emphasis of a Matter Auditors have the option of attaching a paragraph to an unqualified opinion to emphasize a matter regarding the financial statements. The choice to emphasize a matter is strictly one of auditor judgment. Examples of such matters that have been emphasized by auditing firms in their reports include:

- Significant transactions with related entities
- Important subsequent events, such as a board of director decision to divest a major segment of the business
- Important risks or uncertainties associated with contingencies or significant estimates

Accounting pronouncements, including the AICPA's SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties,* have improved the disclosure of risks and uncertainties in financial statements. **Uncertainties** involve situations that are dependent on the outcome of some future event, such as a court decision on pending litigation. Even if the client properly discloses, accounts for, and makes reasonable estimates concerning risks and uncertainties, the auditor may decide, because of its importance, to bring the financial statement user's attention to the matter by adding a paragraph to the unqualified report. Exhibit 17.4 illustrates an added paragraph for (1) emphasis of an unusually important event and (2) a change in accounting principle for the Cendant Corporation. The previous method of accounting for revenue precipitated the litigation and change in accounting principle.

Other Auditors—Shared Report The audit client may have branches, warehouses, factories, or subsidiaries at various locations around the country or overseas. Another audit firm may perform part of the audit. The other firm may be hired by the client or by the principal auditor. The principal auditor needs to decide whether to mention the other auditors in the overall audit report. Whether another auditor is mentioned in the overall audit report, the principal auditor needs to be satisfied with the independence and reputation of the other firm. Each firm is always responsible for its part of the audit work.

Most firms require that they audit the whole entity, or will refrain from accepting the client. Care must be taken when relying on other auditor's reports because inadequate audits performed by the other auditors can lead to legal and regulatory action against the principal auditor as well as the other firm (see the *Auditing in Practice*—Problems with Shared Audits feature).

If the principal audit firm chooses to mention the other firm in the audit report, the wording of all three paragraphs of the standard report is modified, but no additional paragraph is needed. This is often referred to as a **shared report.**

EXHIBIT 17.4 Unqualified Report with Emphasis of Important Matters

UNUSUALLY IMPORTANT MATTER AND CHANGE IN ACCOUNTING PRINCIPLE

[This paragraph followed the opinion paragraph in Deloitte & Touche's unqualified report on Cendant's 1998 financial statements.]

As discussed in Note 18 to the consolidated financial statements, the Company is involved in certain litigation related to the discovery of accounting irregularities in certain former CUC International Inc. business units. Additionally, as discussed in Note 2, effective January 1, 1997, the Company changed its method of recognizing revenue and membership solicitation costs for its individual membership business.

Deloitte & Touche LLP
Parsippany, New Jersey
March 17, 1999

AUDITING IN PRACTICE

Problems with Shared Audits

Grant Thornton has found itself in trouble on both sides of shared audits.

Grant Thornton as the Subsidiary Auditor.

In the Parmalat case, Grant Thornton had been the auditor for several years until Italian law required the rotation of audit firms. Parmalat then hired Deloitte as the principal auditor but Grant Thornton was used to audit some of the subsidiaries because of its familiarity with the businesses involved. Much of the fraud was hidden in these subsidiaries including the $3.2 billion in cash that did not exist in an off-shore subsidiary. It appears that Deloitte's reliance on Grant Thornton's audits and audit reports was not justified and both firms are facing legal and regulatory actions. Grant Thornton International has taken action to remove the Italian firm from the Grant Thornton group of audit affiliates.

Grant Thornton as the Principal Auditor

The SEC has instituted fraud action against Grant Thornton and a smaller public accounting firm in conjunction with the audit of MCA Financial Corporation's 1998 financial statements. The SEC claims Grant Thornton "rented" out its name and prestige to the audit work of the smaller firm that did most of the audit work on MCA without taking adequate care to ensure that the audit was properly staffed and performed. MCA had utilized numerous related party transactions to inflate their books. Once discovered, the fraud resulted in millions of dollars of losses by public investors. The SEC claims the auditors were staring at related-party transactions that were not disclosed by MCA and failed to take appropriate actions.

The resulting opinion is unqualified unless there are other reasons for expressing a different opinion.

The most extensive change appears at the end of the introductory paragraph to indicate the shared responsibility for the overall opinion, including the magnitude of the amounts audited by the other firm. The wording at the end of the scope paragraph and at the beginning of the opinion paragraph is also modified to show the shared responsibility. The name of the other audit firm is mentioned only with its express permission and if its report is also included in the document.

If the other auditor's report is qualified, the principal auditor must consider whether the subject of the qualification is of such nature and significance in relation to the overall financial statements that it would affect the overall opinion. What was material to the segment audited by the other auditor may not be significant to the overall statements.

Modifications Affecting the Opinion

Occasionally, circumstances are such that the auditor cannot issue an unqualified opinion. There may be an unjustified GAAP violation, or inadequate disclosures, or the auditor may not be able to obtain sufficient competent evidence (scope limitation). When there is substantial doubt about the client being a going concern, the auditor has an option to issue either an unqualified opinion with an added paragraph as described above or issue a disclaimer. In rare situations in which the auditor is not independent, a disclaimer must be issued.

The issuance of other than unqualified opinions is unusual. In a recent survey of opinions, over 99% were unqualified. The SEC, with limited exceptions, will not accept financial statements on which the opinion is modified because of client-imposed scope limitations, inadequate disclosures, or GAAP violations. As a result, the auditor has significant clout to encourage the client not to limit the scope, to present adequate disclosure, and to correct any material departures from GAAP.

Unjustified Departure from GAAP The first reporting standard requires the auditor to tell the reader *whether* the client followed GAAP. In some cases, the client uses a comprehensive basis of accounting other than GAAP, such as the cash or income tax basis. Audit reports on these non-GAAP based financial statements are called special reports and are discussed later in this chapter.

EXHIBIT 17.5 Qualified Opinion Due to a GAAP Violation

[Standard introductory and scope paragraphs followed by these explanatory and opinion paragraphs.]

As more fully described in Note 10 to the financial statements, the Company expenses the acquisition of appliances. In our opinion, generally accepted accounting principles require that appliances be capitalized and depreciated over their estimated useful lives. The effects of this non-GAAP accounting overstated pre-tax income by $1.5 million (20% of pre-tax income) and understated net fixed assets by $1.5 million.

In our opinion, *except for the effect of the recording of appliances as discussed in the preceding paragraph,* the financial statements referred to above present fairly, in all material respects, the financial position of Friendly Village, Inc., as of December 31, 2007 and 2006 and the results of its operations and its cash flows for the years ended December 31, 2007, 2006, and 2005 in conformity with accounting principles generally accepted in the United States of America.

Rittenberg & Schwieger, LLP
February 5, 2008

[Emphasis added.]

Practical Point

Most clients will avoid qualified or adverse reports. The choice of whether a qualified opinion or an adverse opinion is given as a matter of auditor judgment is based on both the nature and magnitude of the misstatements. Basing it only on the magnitude of the departure is not appropriate.

Material departures from GAAP result in either a qualified or adverse opinion:

- *Qualified opinion*—If the departure from GAAP can be isolated to one item, a qualified opinion can usually be expressed. For example, if a client expensed the acquisition cost of some assets that should have been capitalized and depreciated over their useful lives, a qualified opinion would be appropriate (see Exhibit 17.5).
- *Adverse opinion*—An adverse opinion should be expressed when the auditor believes that the financial statements taken as a whole are *not presented fairly* in conformity with GAAP. This can happen when a significant number of items in the financial statements violate GAAP. For example, if the auditor believes the client is no longer a going concern, GAAP may require the financial statements to reflect liquidation values. If the items are presented in accordance with normal going concern accounting, the statements are not fairly presented (see Exhibit 17.6). Such opinions are very rare.

The choice between a qualified opinion and an adverse opinion is based on the auditor's judgment. This is sometimes a difficult decision.

Practical Point

Adequate disclosure is required. If disclosure is not adequate there is a material departure from generally accepted accounting principles.

Inadequate Disclosures It is presumed that financial statements include all the necessary disclosures to comply with both GAAP and GAAS, and perhaps more importantly, include disclosures designed to keep the financial statements from potentially being misleading. If the client refuses to make the disclosures, the auditor should express a qualified or adverse opinion, depending on the significance of the omitted disclosures, and provide the information in the audit report, if practicable. The auditor is not, however, required to prepare and present a basic financial statement, such as an omitted cash flow statement or segment information.

The introductory and scope paragraphs are not affected by this situation. The explanatory paragraph should describe the nature of the omitted disclosures, and the opinion paragraph should be modified. Exhibit 17.7 is an example of the qualified opinion for Honda Motor Co., LTD.

Scope Limitation An unqualified opinion can be given only when the auditor has been able to conduct the audit in accordance with GAAS. Restrictions on the scope of the audit, whether imposed by the client or by circumstances beyond the auditor or client's control, may require the auditor to qualify or disclaim an opinion. Examples of circumstances that may limit the audit scope are the timing of the fieldwork such as being engaged to do the audit after year end, the inability to gather sufficient competent evidence, or an inadequacy in the accounting

EXHIBIT 17.6 Adverse Opinion

To the Board of Directors
NECO Enterprises Inc.

We have audited the accompanying consolidated balance sheets of NECO Enterprises, Inc. and its subsidiaries as of December 31, 1995 and 1994, and related consolidated statements of loss, deficit and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

Except as discussed in the following paragraph, we conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, the Company has presented its consolidated financial statements on the going concern basis, which states assets and liabilities at historical amounts. Because of the magnitude and complexity of the matters discussed in Note 2 (certain of which are not within the direct control of the Company), including the Company's losses from operations, net stockholders' capital deficiency, defaults or other violations of debt covenants, restrictions on its access to the use of a significant proportion of its remaining liquid assets, its present financial inability to complete development of its land held for resale and land held for rental, and the lack of a significant market for its land held for resale and land held for rental, we believe that the Company can no longer carry out its plans and intentions, which are also discussed in Note 2, and cannot convert or otherwise dispose of its assets in the normal course of its business operations. In these circumstances, it is our opinion that generally accepted accounting principles require the Company's assets and liabilities to be stated at their liquidating values. The effect of this departure from generally accepted accounting principles cannot be reasonably determined; however, amounts ultimately received upon liquidation of the assets and amounts ultimately paid to settle liabilities may be different from the amounts stated in the accompanying consolidated financial statements.

In our opinion, *because of the effects of the matters discussed in the preceding paragraph,* the consolidated financial statements *do not present fairly,* in conformity with accounting principles generally accepted in the United States of America, the financial position of NECO Enterprises, Inc. and its subsidiaries at December 31, 1995 and 1994 or the results of their operations or their cash flows for the years then ended.

Lefkowitz, Garfinkel, Champi & Defrienzo
February 7, 1996

[Emphasis added.]

EXHIBIT 17.7 Opinion Qualified Because of Inadequate Disclosure

[Standard introductory and scope paragraphs followed by these explanatory and opinion paragraphs.]

The Company's consolidated financial statements do not disclose certain information required by Statement of Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and Related Information." In our opinion, disclosure of this information is required by U.S. generally accepted accounting principles.

In our opinion, *except for the omission of the segment information referred to in the preceding paragraph,* the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Honda Motor Co., Ltd. and subsidiaries as of March 31, 2005 and 2006, and the results of their operations and their cash flows for each of the years in the three-year period ended March 31, 2006 in conformity with U.S. generally accepted accounting principles.

/S/ KPMG AZSA & Co.
Tokyo, Japan
June 23, 2006

[Emphasis added.]

EXHIBIT 17.8 Opinion Qualified Because of a Scope Limitation

To the Board of Directors
Sound Money Investors Inc.

I have audited the accompanying statement of assets, liabilities and stockholder's equity of Sound Money Investors, Inc. as of December 31, 1995 and the related statements of income, changes in stockholder's equity and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. My responsibility is to express an opinion on these financial statements based on my audits.

Except as discussed in the following paragraph, I conducted my audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. I believe that our audits provide a reasonable basis for our opinion.

As discussed in Notes 5 and 6, the Company has purchased certain assets from a corporation wholly owned by two major stockholders and officers of the Company at management's estimate of their values at the date of acquisition. I have been unable to obtain adequate documentation to support the basis and purchase price of such assets.

In my opinion, *except for the effects of such adjustments, if any, as might have been determined to be necessary had I been able to obtain adequate documentation to support the basis of such assets,* the financial statements referred to above present fairly, in all material respects, the financial position of Sound Money Investors, Inc. as of December 31, 1995 and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Chaslaur, Inc. (CPA)
June 2, 1996

[Emphasis added.]

records. As an example, when a company is audited for the first time, the audit firm is often appointed during the year to be audited. In such a case, the auditor may not be able to obtain sufficient, competent evidence concerning the fairness of the beginning inventory, which affects the current year's income, or of the accounting principles used in the prior year. This may be a scope limitation that is beyond the auditor's control. If the auditor can gather sufficient evidence without being engaged prior to the beginning of the year, then the scope limitation no longer exists and the auditor can render whatever would be the appropriate audit opinion.

- *Qualified opinion*—Exhibit 17.8 presents an opinion that is qualified because of possible errors that might have been discovered had the scope of the audit not been limited. The scope paragraph refers to the scope limitation, which is then described in an explanatory paragraph. *Note that the exception in the opinion paragraph refers to the possible adjustments rather than to the scope limitation itself.*
- *Disclaimer*—When the client imposes substantial restrictions on the scope of the audit, there is a significant risk that the client is trying to hide important evidence, and the auditor should ordinarily disclaim an opinion. If scope limitations caused by circumstances are such that it is not possible to form an opinion, a disclaimer should also be issued. The wording of the introductory paragraph is modified for a scope limitation, *the scope paragraph is omitted*, an additional paragraph is inserted to describe the scope limitation(s), and the last paragraph clearly states that no opinion can be expressed. Exhibit 17.9 illustrates such a disclaimer.

Practical Point

Under most circumstances, the auditor can never accept a limitation on the scope of audit procedures performed. This is true even if the client will not approve an increase in the audit fee to cover the additional work performed.

Disclaimer Due to Going Concern Doubt In some reporting situations, doubt about the client continuing as a going concern is such that the auditor is uncomfortable just adding an additional paragraph to an unqualified opinion. In such cases, the auditor may issue a disclaimer of opinion. Such was the case in the

EXHIBIT 17.9 Disclaimer of Opinion Due to Scope Limitation

We were *engaged to audit* the accompanying consolidated balance sheet of Alternative Distributors Corporation and its Subsidiary as of February 29, 1996 and the related consolidated statements of income, accumulated deficit, cash flows, and statement of stockholders' equity (deficit) for the year then ended. These financial statements are the responsibility of the Company's management.

[Reference to the auditor's responsibility to express an opinion is eliminated because no opinion is expressed.]

[The standard scope paragraph is omitted.]

Detailed accounts receivable records have not been maintained and certain records and supporting data were not available for our audit. Therefore, we were not able to satisfy ourselves about the amounts at which accounts receivable and allowance for doubtful accounts are recorded in the accompanying balance sheet at February 29, 1996 (stated at $1,450,000 and $350,000, respectively), and the amount of net sales and bad debt expense for the year then ended (stated at $7,842,778 and $350,244, respectively).

Because of the significance of the matters discussed in the preceding paragraph, the scope of our work was not sufficient to enable us to express, and *we do not express, an opinion* on the financial statements referred to in the first paragraph.

Gordon, Harrington & Osborn
June 4, 1996, except for Note 2, for which the date is June 12, 1996

[Emphasis added.]

auditor's report on the 1995 financial statements of Alloy Computer Products, Inc. that contained the paragraphs shown in Exhibit 17.10.

Practical Point

Even though a disclaimer is sometimes used when the auditor has going concern reservations, the auditor is still responsible for ensuring that the items in the financial statements are appropriately valued according to GAAP.

Auditor Lacks Independence When auditors lack independence with respect to a client, they, by definition, cannot perform an audit in accordance with GAAS, and are precluded from expressing an opinion on the financial statements. In such cases, a one-paragraph disclaimer should be issued stating their lack of independence but omitting the reasons for it. By omitting the reasons for the lack of independence, the auditor is avoiding the possibility of the reader second-guessing the auditor as to independence or lack thereof. The following is an example of such a disclaimer:

> We are not independent with respect to Macro-Vac Company. The accompanying balance sheet as of December 31, 2007, and the related statements of income, retained earnings, and cash flows for the year then ended were not audited by us and, accordingly, we do not express an opinion on them.

EXHIBIT 17.10 Disclaimer for Going Concern Doubt

We were engaged to audit the balance sheet of Alloy Computer Products, Inc. as of December 31, 1996 and the related statements of income, cash flows, and retained earnings for the year then ended. These financial statements are the responsibility of the Company's management.

[Reference to the auditor's responsibility to express an opinion is eliminated because no opinion is expressed.]

[The standard scope paragraph was included, except the sentence referring to the audit providing a reasonable basis for the opinion is left out.]

As discussed in Notes 1 and 8 to the financial statements, the Company has suffered recurring losses from operations and negative cash flows and there is significant outstanding litigation against the Company. These issues raise substantial doubt about the ability of the Company to continue as a going concern.

Because of the significance of the uncertainty regarding the Company's ability to continue as a going concern, we are *unable to express, and do not express, an opinion* on these financial statements.

[Emphasis added.]

Such a situation should rarely occur. It could happen, for example, when it is discovered late in the audit that one of the auditors on the engagement had a financial interest in the client.

Opinions on Internal Controls of Public Companies Auditors must publicly report on their assessment of the client's internal controls over financial reporting. The auditor could believe that there are no material weaknesses. In that case, the auditor would issue an unqualified opinion on internal controls. If the auditor believes there are material weaknesses, the auditor would issue an adverse opinion on internal controls.

The existence of a material weakness in internal control does not automatically lead to a material misstatement in the financial statements. It does lead to doing more audit work to ensure the fairness of the statements. Therefore, an unqualified opinion on the financial statements may be issued even if there are material weaknesses in the internal controls. For example, the following material weaknesses were found in the internal controls of General Motors Corporation (GM): (1) management did not design and maintain adequate controls over the preparation, review, presentation and disclosure of amounts included in the consolidated statements of cash flows, which resulted in misstatements therein, and (2) a material weakness was identified related to the fact that GM's management did not adequately design the control procedures used to account for GM's portfolio of vehicles on operating lease with daily rental car entities, which was impaired at lease inception and prematurely revalued to reflect increased anticipated proceeds upon disposal.

Deloitte was able to express an unqualified opinion on the financial statements but expressed the following opinions on internal controls:

> **In our opinion**, because of the effect of the material weaknesses described above on the achievement of the objectives of the control criteria, **the Corporation has not maintained effective internal control over financial reporting** as of December 31, 2005, based on the criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Reports on Comparative Statements

GAAP strongly recommends, but does not require, that the financial statements be presented on a comparative basis. Companies under the jurisdiction of the SEC *must* present comparative balance sheets for two years and the other statements for three years. The fourth reporting standard requires the expression of opinion on the financial statements *taken as a whole.* If the statements are comparative, the continuing auditors should **update** their report on the financial statements of the prior year(s) that they had previously audited. Updating the report involves considering information that comes to the auditor's attention during the current year's audit, but is related to any prior year statements presented. The report date should be the end of the current year fieldwork.

It is possible that the circumstances related to the prior year(s) statements have changed, and the auditor now wishes to give a different opinion from the one expressed in the prior year(s). For example, the auditor may have expressed a qualified opinion on the prior year's statements because of a GAAP violation, but a new management team has revised those statements to bring them into conformity with GAAP. The auditor can now express an unqualified opinion on them. In such a case, the auditor should add a paragraph to explain the change in the opinion on the prior year's statements.

When another audit firm (the predecessor) audited one or more of the prior year statements, the client may ask the other firm to **reissue** the report so that

all financial statements presented are covered by auditors' reports. Their report is reissued rather than updated because the predecessor firm has done no audit work since the original issuance of its report. Thus, there will be two auditor's reports: (1) the predecessor firm's report that covers the year(s) it audited, and (2) the successor firm's report covering the year(s) it audited. If the predecessor's report is not presented, the successor should indicate the following in the introductory paragraph of its report:

- That financial statements of the previous period(s) were audited by other auditors
- The date of that report
- The type of report previously issued
- The substantive reasons therefore if the report was other than unqualified

International Reporting

Because of the evolution of a global financial market, investors in other countries use financial statements of U.S. companies. Investors in the United States use financial statements of foreign companies. Because different countries may have different accounting and auditing standards, it is sometimes difficult for investors in the international securities market to compare financial statements and understand the significance of the auditor's opinion. It should be noted that the FASB, and the AICPA's Auditing Standards Board are working with their international counterparts to harmonize accounting and auditing standards. The following discussion applies to U.S. public accounting firms auditing U.S. clients.

General and Fieldwork Standards A public accounting firm may audit a U.S. client's financial statements that are prepared in conformity with the accounting standards of another country. For example, the financial statements of the U.S. entity may be prepared for inclusion in the consolidated financial statements of a non-U.S. parent. A U.S. entity may also have non-U.S. investors or may decide to raise capital in another country. The audit should be performed in accordance with the general and fieldwork standards of GAAS. Auditing procedures may need to be modified to accommodate the foreign accounting standards. For example, many countries require some form of inflation accounting, and the auditor will develop audit procedures to test that information. The public accounting firm may be requested to apply the auditing standards of another country requiring the performance of certain procedures in addition to those required by GAAS.

Reporting Standards

- *For use solely outside the United States*—If the financial statements that are prepared in conformity with another country's accounting standards are to be used solely outside the United States, the auditor may report using either:
  - A U.S.-style report modified to report on the accounting principles of another country
  - The report form of the other country (see Exhibit 17.11)[1]

  These financial statements and audit report may also be distributed on a limited basis to parties such as banks and institutional investors in the United States that deal directly with the entity if the statements are to be used in a manner that permits such parties to discuss differences from GAAP and their significance with the reporting company's management and/or auditors.

[1] The report should include a reference to a footnote that describes the basis of accounting used and an identification of the nationality of the accounting principles. It should also include an opinion on the fairness of the statements in accordance with the basis of accounting described (AU 534 .09).

- *For use both inside and outside the United States*—If financial statements of a company are to be used in both another country and the United States, the auditor may report on dual sets of statements for the client: one prepared in conformity with the accounting standards of the other country and the other prepared in conformity with GAAP. In some instances, the client may choose not to prepare dual financial statements. If such financial statements have more than limited use in the United States, the auditor should modify the opinion for domestic use if there are material GAAP violations. For example, the standards of the other country may not require the disclosure of segment information as required by GAAP (refer to the auditor's report on Honda Motor Co., Ltd. in Exhibit 17.7).

EXHIBIT 17.11 Report Form for the United Kingdom

Report of independent registered public accounting firm to the members of The Royal Bank of Scotland Group plc

We have audited the financial statements of The Royal Bank of Scotland Group plc ("the company") and its subsidiaries (together "the Group") for the year ended 31 December 2005 which comprise the accounting policies, the balance sheets as at 31 December 2005 and 2004, the consolidated income statement, the cash flow statements, the statements of recognised (sic) income and expense for each of the two years in the period ended 31 December 2005 and the related Notes 1 to 47. These financial statements have been prepared under the accounting policies set out therein. We have also audited the information in the part of the directors' remuneration report that is described as having been audited.

Respective responsibilities of directors and auditors

As described in the 'Statement of directors' responsibilities', the company's directors are responsible for the preparation of the financial statements in accordance with applicable United Kingdom law and International Financial Reporting Standards ("IFRS") as adopted for use in the European Union. They are also responsible for the preparation of the other information contained in the 2005 Annual Report including the directors' remuneration report. Our responsibility is to audit the financial statements and the part of the directors' remuneration report described as having been audited in accordance with relevant United Kingdom legal and regulatory requirements and International Standards on Auditing (UK and Ireland).

We report to you our opinion as to whether the financial statements give a true and fair view in accordance with the relevant framework and whether the financial statements and the part of the directors' remuneration report described as having been audited have been properly prepared in accordance with the Companies Act 1985 and Article 4 of the IAS Regulation. We also report to you if, in our opinion, the directors' report is not consistent with the financial statements, if the company has not kept proper accounting records, if we have not received all the information and explanations we require for our audit, or if information specified by law regarding directors' remuneration and transactions with the company and other members of the Group is not disclosed.

We also report to you if, in our opinion, the company has not complied with any of the four directors' remuneration disclosure requirements specified for our review by the Listing Rules of the Financial Services Authority. These comprise the amount of each element in the remuneration package and information on share options, details of long term incentive schemes, and money purchase and defined benefit schemes. We give a statement, to the extent possible, of details of any non-compliance.

We review whether the corporate governance statement reflects the company's compliance with the nine provisions of the Combined Code specified for our review by the Listing Rules of the Financial Services Authority, and we report if it does not. We are not required to consider whether the Board's statements on internal control cover all risks and controls, or form an opinion on the effectiveness of the Group's corporate governance procedures or its risk and control procedures.

We read the directors' report and the other information contained in the 2005 Annual Report as described in the contents section including the unaudited part of the directors' remuneration report and consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the financial statements.

Basis of audit opinion

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board and with the standards of the United States Public Company Accounting Oversight Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements and the part of the directors' remuneration report described as having been audited. The Group is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the Group's internal controls over financial reporting. Accordingly, we express no such opinion. It also includes an assessment of the significant

EXHIBIT 17.11 Report Form for the United Kingdom (*continued*)

estimates and judgements made by the directors in the preparation of the financial statements and of whether the accounting policies are appropriate to the circumstances of the company and the Group, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements and the part of the directors' remuneration report described as having been audited are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion, we also evaluated the overall adequacy of the presentation of information in the financial statements and the part of the directors' remuneration report described as having been audited.

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UK opinion

In our opinion:

- the Group financial statements give a true and fair view, in accordance with IFRS as adopted for use in the European Union, of the state of the Group's affairs as at 31 December 2005 and of its profit and cash flows for the year then ended;
- the company financial statements give a true and fair view, in accordance with IFRS as adopted for use in the European Union as applied in accordance with the requirements of the Companies Act 1985, of the state of affairs of the company as at 31 December 2005;
- the financial statements and the part of the directors' remuneration report described as having been audited have been properly prepared in accordance with the Companies Act 1985 and Article 4 of the IAS Regulation.

Separate opinion in relation to IFRS

As explained in the Accounting policies, the Group, in addition to complying with its legal obligation to comply with IFRS as adopted for use in the European Union, has also complied with the IFRS as issued by the International Accounting Standards Board. In our opinion the financial statements give a true and fair view, in accordance with IFRS, of the state of the Group's affairs as at 31 December 2005 and of its profit for the year then ended.

US opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Group as at 31 December 2005 and 2004 and the results of its operations and its cash flows for each of the two years in the period ended 31 December 2005 in conformity with IFRS.

IFRS vary in certain significant respects from accounting principles generally accepted in the United States of America. Information relating to the nature and effect of such differences is presented in Note 46 to the financial statements.

Deloitte & Touche LLP
Chartered Accountants and Registered Auditors
Edinburgh, United Kingdom
27 February 2006

Summary of Audit Report Modification

Exhibit 17.12 summarizes the major conditions leading to audit report modification. Deciding on the type of opinion is a matter that should not be taken lightly. This is particularly true of the decisions based on the materiality level and pervasiveness of GAAP violations, the significance of scope limitations, and the likelihood of the entity being a going concern. Issuing an inappropriate opinion can lead to legal problems. Because of its importance, the decision is often made after consultation with other professionals.

Reviews and Compilations

Sometimes a client does not need an audit, but wants to use a different level of service at a lower cost. Practitioners can perform fewer procedures and report a lower level of assurance on the fairness of the financial statements, or simply prepare financial statements from the client's records and provide no assurance. The

EXHIBIT 17.12 Summary of Audit Report Modifications

Condition (Exhibit Number)	OPINION Unqualified	Qualified	Adverse	Disclaimer
Inconsistent application of GAAP (17.1)	1			
Justified departure from GAAP (17.2)	1 or 2			
Going concern doubt (17.3,10)*	1			2
Emphasis of a matter (17.4)	1 or 2			
Other auditors—shared report	3			
Unjustified GAAP violation (17.5, 6)**		2	2	
Inadequate Disclosure (17.7)**		2	2	
Scope limitation (17.8, 9)***		2 & 4		2 & 5
Auditor lacks independence				6

1 Explanatory paragraph **after** opinion paragraph
2 Explanatory paragraph **before** opinion paragraph
3 Modify wording of all three paragraphs
4 Modify scope paragraph
5 Modify introductory paragraph and replace scope paragraph with explanatory paragraph
6 One paragraph disclaimer

* The explanatory paragraph in an unqualified report is adequate. However, the auditor is not precluded from issuing a disclaimer.

** The choice depends on materiality and pervasiveness considerations.

*** The choice depends on the importance of the omitted procedures to the auditor's ability to form an opinion. If it is a significant scope limitation imposed by the client, a disclaimer should ordinarily be issued.

most common of these services are referred to as reviews and compilations. Standards for these services to non-public companies were first issued in 1979 (see the *Auditing in Practice*—The Evolution of Compilation and Review Standards feature).

Practical Point

Reviews and compilations are not as extensive as audits. The presumption is that a user has access to the company if they decide to utilize a review report or a compilation report. Therefore, such reports are only allowed for non-public companies.

Public/Non-Public Companies

Note that these standards apply only to compilations and reviews of financial statements of *non-public companies*. Reporting on reviews of interim financial statements of public companies is covered later in this chapter.

The standards for compilations and reviews of the financial statements of non-public entities are called *Statements on Standards for Accounting and Review Services* (SSARSs). The Accounting and Review Services Committee of the AICPA issues these standards, which is separate from the Auditing Standards Board (ASB) that develops auditing standards. Exhibit 17.13 is a summary of the basic procedures performed and standard reports issued in audits, reviews, and compilations.

Procedures Common to All Levels of Service

It is important that the CPA establish an understanding with the entity, preferably in the form of a written engagement letter, regarding the services to be performed. A written engagement letter will avoid any misunderstanding that may arise. When engaged to provide any service related to financial statements, the CPA should have an appropriate level of knowledge of the accounting principles and practices of the industry in which the entity operates.

EXHIBIT 17.13 Summary of Basic Procedures and Standard Reports for Audits, Reviews, and Compilations

Procedure	Audit	Review*	Compilation*
Assess control risk.	X		
Perform substantive tests of transactions and balances.	X		
Perform analytical procedures.	X	X	
Make inquiries of client personnel to verify or corroborate information supplied by the client.	X	X	
Obtain knowledge of client's organization, assets, liabilities, revenues, expenses, operations, locations, and transactions with related parties.	X	X	
Obtain knowledge of the accounting principles and practices of the industry.	X	X	X
Obtain knowledge of the client's transactions, form of accounting records, qualifications of accounting personnel, the accounting basis to be used for the financial statements, and the form and content of the statements (inquiry & prior experience).	X	X	X
Standard report.	Unqualified opinion	Disclaimer and limited assurance	Disclaimer

* These standards relate to reviews and compilations of **non-public** companies only.

Reviews

A **review** is an accounting service that involves performing inquiry and analytical procedures to provide a reasonable basis for expressing *limited assurance* that there are no material modifications that should be made to the financial statements for them to be in conformity with GAAP or, if applicable, with another comprehensive basis of accounting. Reviews may be useful to bankers and vendors, for example, who are familiar with the client's business and do not need—or are not willing to demand—an audit, but want some assurance from the client's CPA.

Review Procedures A review requires more knowledge and evidence than does a compilation, but is significantly less in scope than an audit. In performing this level of service, the CPA should obtain a general understanding of the entity's organization; operating characteristics; types of transactions, assets, and liabilities; compensation methods; types of products and services; operating locations; and related parties. The CPA should also obtain a management representation letter near the end of the engagement, the content of which is very similar to that illustrated in Chapter 16 for an audit.

Standard procedures for conducting a review include the following:

- Inquire concerning actions taken at meetings of the board of directors, stockholders, and other decision-making bodies.
- Inquire whether the financial statements have been consistently prepared in conformity with GAAP or other comprehensive basis of accounting.
- Inquire about any changes in the business activities or accounting principles and practices, and events subsequent to the date of the financial statements that would have a material effect on the financial statements.

AUDITING IN PRACTICE

The Evolution of Compilation and Review Standards

Before the issuance of the compilation and review standards in 1979, there were only two levels of assurance a CPA could provide on a company's financial statements: positive assurance (an audit) or no assurance (a disclaimer). In many situations, small, privately-held businesses used the financial reports for internal use and to give to the local banker, who might be quite familiar with the company and its management. The company may have wanted its financial statements to be looked at by a CPA but did not need a full audit. In some cases, the CPA would do extensive work in analyzing the company's financial reports; in other cases, the CPA simply verified that the financial statements agreed with the general ledger and were put together in good form but did not perform any procedures to gain assurance about the numbers in the financial statements. But both levels of service received the same assurance from the CPA, that is, a disclaimer of opinion.

The compilation and review standards were developed to address this particular constituency and to recognize that CPAs often did a considerable amount of work, although less in scope than an audit, on privately-held businesses that received disclaimers of opinions. The work was not sufficient to provide audit assurance, but it was reasoned that the work was sufficient to provide *some assurance* that reflected the limited amount of work performed by the CPA. That negative assurance is now captured in the review report in which a CPA undertakes specific analytic procedures to search for obvious misstatements in a company's financial statements, but not enough work to provide assurance that the statements are fairly presented. Thus, the CPA can communicate only that based on the procedures performed, nothing has come to his or her attention that the financial statements are misstated.

Why would a company and its users be interested in such a report? First, it is less costly. Most reviews cost about one-half of that of an audit. Second, reviews are generally considered higher margin services by the CPA firms. Third, there is less legal liability associated with the report. Thus, if the company has a bank that will accept a review report as a basis for making a loan, it effectively makes the loan less expensive for the company.

- Obtain or prepare a trial balance of the general ledger, and foot and reconcile it to the general ledger.
- Trace the financial statement amounts to the trial balance.
- Perform basic analytical procedures such as comparing current financial statement amounts with those of prior period(s) and with anticipated results, such as budgets and forecasts, and studying the relationships of elements of the financial statements that would be expected to conform to a predictable pattern based on the entity's experience, such as interest expense to interest-bearing debt.
- Obtain explanations from management for any unusual or unexpected results and consider the need for further investigation.
- Read the financial statements to determine whether they appear to conform with GAAP.

Inquiries and analytical procedures should be performed for each of the significant amounts in the financial statements. To give you an idea of these additional procedures, Exhibit 17.14 lists some of the inquiries and analytical procedures that might be performed for accounts in the revenue cycle. Note that they are significantly less in scope than audit procedures. There is no assessment of the internal control over financial reporting and there are no substantive tests of transactions or balances, such as the confirmation of receivables, review of subsequent cash collections, cutoff tests, or tests of sales transactions processed during the period.

If evidence obtained from such inquiries and analytical procedures does not support the financial statements, the CPA should perform additional procedures, and if the additional evidence indicates material misstatements, have the client correct them. For example, if inquiries concerning proper cutoff of sales leads the CPA to question the client's timing of revenue recognition, the CPA may deem it necessary to perform a cutoff test of sales to determine whether there is a material misstatement. If there is a material misstatement but the client will not correct it, the CPA should modify the review report to bring the misstatement to the reader's attention.

EXHIBIT 17.14 Inquiries and Analytical Procedures for the Revenue Cycle

INQUIRIES

1. What is the entity's revenue recognition policy? Is the policy proper and consistently applied and disclosed?
2. Are revenues from sales of products and rendering of services recognized in the appropriate reporting period?
3. Were any sales recorded under a "bill and hold" arrangement? If yes, have the criteria been met to record the transaction as a sale?
4. Has an adequate allowance for doubtful accounts been properly reflected in the financial statements?
5. Have receivables considered uncollectible been written off? Is the amount written off consistent with prior experience, changes in the economy, or trends in the industry?
6. Is the accounts receivable subsidiary ledger reconciled to the general ledger account balance on a regular basis?
7. Are there receivables from employees or other related parties? Have receivables from owners been evaluated to determine if they should be reflected in the equity section of the balance sheet?
8. Have there been significant numbers of sales returns or credit memoranda issued subsequent to the balance sheet date?

ANALYTICAL PROCEDURES

1. Compute number of days' sales in ending receivables and compare with that for prior years.
2. Compute aging percentages of accounts receivable and compare with those for prior years.
3. Compute bad debt expense as a percent of sales for the year and compare with that for prior years.
4. Compare sales growth with information about industry sales growth. Seek an explanation about significant differences between the company's growth rate and that of the industry as a whole.
5. Compare sales results by product line with previous years. Reconcile changes to information available about client strategy.
6. Compute gross margin. If there are significant changes in gross margin, follow up to determine if the changes may be due to revenue recognition or inventory changes.

Standard Review Report The standard review report for non-public companies is shown in Exhibit 17.15. It has three paragraphs. The first paragraph identifies what was reviewed. It states that the AICPA's review standards (SSARSs) were followed, and that the financial statements are the representations of the company's management. The second paragraph describes a review, states that it is less in scope than an audit, and disclaims an opinion. The third paragraph expresses what is referred to as **limited assurance.** It tells the reader that the accountant is not aware of any reporting problems based on the review procedures performed. If

EXHIBIT 17.15 Standard Review Report

To the Shareholders of Apple Grove Company

We have reviewed the accompanying balance sheet of Apple Grove Company as of December 31, 2007, and the related statements of income, retained earnings, and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. All information included in these financial statements is the representation of the management of Apple Grove Company.

A review consists principally of inquiries of company personnel and analytical procedures applied to financial data. It is substantially smaller in scope than an examination in accordance with generally accepted auditing standards, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, *we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with generally accepted accounting principles.*

Rittenberg & Schwieger, CPAs
March 1, 2008

[Emphasis added.]

there is a reporting problem, such as a departure from GAAP, the limited assurance paragraph should be modified to refer to an additional paragraph that explains the departure. If the client will not provide the CPA with a signed management representation letter, or the CPA is unable to obtain the evidence necessary to provide limited assurance, the CPA is precluded from issuing a review report and will ordinarily withdraw from the engagement.

Compilations

Compilations can be performed only for *non-public entities* and involve presenting, in the form of financial statements, information that is the representation of management (owners) without undertaking to express any assurance on the statements. A client may request its CPA to compile financial statements because it does not have the in-house expertise to prepare the statements, or because its banker feels more comfortable with statements prepared by the CPA from the client's records.

Procedures The CPA should have a general knowledge of the client's industry, the nature of the client's accounting records, the accounting basis to be used (GAAP or another comprehensive basis of accounting), and the form and content of the financial statements. Such an understanding is obtained through continuing professional education, experience with the client, regular reviews of industry developments, and inquiry of the client's personnel. The CPA is not required to make inquiries or perform procedures to verify, corroborate, or review information provided by the client. However, if the CPA believes that such information may be incorrect, incomplete, or otherwise unsatisfactory, additional or revised information should be obtained. If the client refuses to provide this information, the CPA should withdraw from the engagement. The CPA should read the financial statements, including footnotes, to make sure that they are appropriate in form and free from obvious material misstatement, such as clerical errors or violations of GAAP.

Standard Compilation Report The standard compilation report is shown in Exhibit 17.16. The standards referred to in the first paragraph are the SSARSs. The second paragraph describes a compilation as taking management's information and putting it into the form of financial statements. The CPA does not take any responsibility for the fairness of the financial statements.

EXHIBIT 17.16 Standard Compilation Report

To J. R. Race, President
Race Company

We have compiled the accompanying balance sheet of Race Company as of December 31, 2007, and the related statements of income, retained earnings, and cash flow for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting in the form of financial statements information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, *do not express an opinion or any other form of assurance on them.*

Rittenberg & Schwieger, CPAs
January 29, 2008

[Emphasis added.]

Even though no assurance is provided, many users believe that because the CPA's name is associated with the statements, obvious material misstatements would have been mentioned in the CPA's report. Therefore, it is important that the CPA be careful when preparing the statements to be alert to any obvious misstatement(s). If there is a material misstatement that is not corrected by management, it should be described in the report following the disclaimer paragraph.

Omission of Disclosures for Compilations The client may request the accountant to compile financial statements that omit substantially all of the required disclosures. This request may be honored if the CPA believes that such omission is not undertaken with the intention of misleading the users. An additional paragraph should be added to the standard compilation report, stating:

> The company has elected to omit substantially all of the disclosures required by GAAP. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the company's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

CPAs often assist clients by performing computerized record-keeping services that are used to prepare monthly financial statements without all of the disclosures for use by the client. The CPA is not expected to provide the missing disclosures in the compilation report unless a comprehensive basis of accounting other than GAAP is used. In that case, the basis used must be disclosed in a footnote or in the CPA's report.

Compilation Report Not Required CPAs may prepare the financial statements without a compilation report when they are intended for use by the client only. In such cases, the auditor should include in a written engagement letter a statement that the financial statements are intended solely for the use of specified members of management and should not be used by any other party.

CPA Lacks Independence If the CPA is not independent of the client, a separate paragraph should be added to the compilation report stating:

> "I am [We are] not independent with respect to [client's name]."

This does not change the level of assurance provided since none is given. However, if the CPA lacks independence regarding an audit or a review client, the level of assurance is reduced to a disclaimer. Therefore, a CPA lacking independence should ordinarily accept only compilation engagements for non-public companies.

Reports on Other Financial Information

CPAs issue a wide variety of reports in addition to those described in the preceding sections. We do not cover all such reports in this section, but provide an overview of the major reports.

Special Reports

The term **special reports** has specific meaning in the auditing standards and refers to the following types of reporting situations:

- Reporting on financial statements prepared in conformity with a comprehensive basis of accounting other than GAAP, often referred to as OCBOA (other comprehensive basis of accounting) statements
- Reporting on specified elements, accounts, or items of a financial statement
- Reporting on compliance with aspects of contractual agreements or regulatory requirements *related to audited financial statements*

- Reporting on special-purpose financial presentations to comply with contractual agreements or regulatory provisions
- Reporting on financial information presented in prescribed forms or schedules

Comprehensive Basis of Accounting Other Than GAAP The first standard of reporting requires the auditor to state *whether* the financial statements are presented in accordance with GAAP. The SEC requires public companies to follow GAAP. Some non-SEC companies, however, prepare their financial statements on a comprehensive basis of accounting other than GAAP. Some regulatory agencies, such as state insurance commissions, require the preparation of financial statements that conform to prescribed regulatory accounting. Auditing standards permit the auditor to issue opinions on such non-GAAP financial statements as long as the accounting basis used is one of the following:

- A cash or modified cash basis
- The basis of accounting used for preparing the income tax return
- The accounting is required for reporting to a governmental regulatory agency
- A basis with a definite set of criteria, substantial support, and applicability to all material items appearing in the financial statements

Practical Point

Many smaller businesses often use OCBAs because they are less costly. However, they also do not measure financial results in the same manner as does GAAP.

It is important to recognize that these financial statements are not GAAP statements, and a standard unqualified audit opinion on the fairness of the statements in accordance with GAAP cannot be issued. However, the auditor can give an opinion on whether the statements are fairly presented in accordance with the alternative comprehensive basis of accounting. To minimize the cost of record keeping, some companies prepare their financial statements using a cash, modified cash, or income tax basis so they do not have to maintain two sets of records, one for tax reporting and the other for financial reporting. Lending institutions sometimes accept audited financial statements prepared on such a basis.

Applicability of GAAS All ten of the generally accepted auditing standards apply to audits of OCBOA financial statements. Thus, an audit of an OCBOA financial statement does not differ in approach or concept from that of a GAAP-based financial statement. The major difference is that the auditor first must determine that the client's proposed OCBOA has authoritative support, and then determine whether the financial statements are fairly presented according to the criteria associated with the alternative basis.

Report Requirements Recall that auditing involves testing assertions in relationship with prescribed criteria. Thus, auditors may issue opinions on the fairness of the financial statements in accordance with the OCBOA used. It is important that the titles of the financial statements clearly indicate that these are not GAAP-based statements, such as "Statement of Assets, Liabilities, and Capital—Income Tax Basis" and "Statement of Revenue and Expenses—Income Tax Basis." Using such titles as "Balance Sheet" and "Income Statement" without modifiers implies the use of GAAP and should be avoided for these special reports. The reporting requirements are the same as for audit reports on GAAP-based statements except for bringing the reader's attention to the basis of accounting used.

An example of an audit report on financial statements prepared on a modified cash basis is presented in Exhibit 17.17. The titles of the financial statements are different from those for GAAP-based statements. The scope paragraph is the same as for an unqualified audit report on GAAP-based statements. There is, however, an added paragraph referring to a footnote that more fully describes the basis of accounting used and how that basis, in general, departs from GAAP. For the report in Exhibit 17.17, the auditors expressed an unqualified opinion that the financial statements are presented fairly, in all material respects, *on the cash basis of accounting as more fully described in the note.*

EXHIBIT 17.17 Report on Modified Cash Basis Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

UNIT HOLDERS OF SABINE ROYALTY TRUST AND BANK OF AMERICA, N.A., TRUSTEE

We have audited the accompanying statements of assets, liabilities and trust corpus of Sabine Royalty Trust (the "Trust") as of December 31, 2005 and 2004, and the related statements of distributable income and changes in trust corpus for each of the three years in the period ended December 31, 2005. These financial statements are the responsibility of the Trustee. Our responsibility is to express an opinion on these financial statements based on our audits.

[Standard scope paragraph]

As described in Note 2 to the financial statements, these statements were prepared on a modified cash basis of accounting, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, such consolidated financial statements present fairly, in all material respects, the assets, liabilities and trust corpus of the Trust at December 31, 2005 and 2004, and the distributable income and changes in trust corpus for each of the three years in the period ended December 31, 2005, on the basis of accounting described in Note 2.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Trust's internal control over financial reporting as of December 31, 2005, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 10, 2006 expressed an unqualified opinion on Trustee's assessment of the effectiveness of the Trust's internal control over financial reporting and an unqualified opinion on the effectiveness of the Trust's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

Dallas, Texas
March 10, 2006

In evaluating the adequacy of the disclosures in OCBOA statements, the auditor should apply essentially the same criteria as for GAAP-based statements; the statements, including the accompanying notes, should include appropriate disclosures. The standards require a note summarizing the comprehensive basis of accounting used and a broad indication of how the statements differ from GAAP. In addition to the summary of significant accounting policies, footnotes typically cover areas such as debt, leases, pensions, related-party transactions, and uncertainties. Distribution of reports on statements required for reporting to a regulatory agency should be restricted to the client and that agency.

Specified Elements, Accounts, or Items Auditors are sometimes asked to express an opinion on one or more specific elements, accounts, or items of financial statements. Such items may be presented in the auditor's report or in a document accompanying the report. The audit may be undertaken as a separate engagement or in conjunction with the audit of financial statements. An audit client may be a retail company, for example, that leases a store. Part of the lease payments are based on the amount of revenues of the store, and the lease agreement may require that an independent auditor provide a report expressing an opinion on whether the revenue is reported to the lessor in accordance with the lease agreement.

Applicability of GAAS With the exception of the first standard of reporting, all of the auditing standards are applicable to audits of specified elements. The first standard of reporting—which requires that the auditor's report state whether the financial statements are presented in conformity with GAAP—is, however, applicable if the subject of the auditor's report is intended to be presented in conformity with GAAP.

Report Requirements The audit report (see Exhibit 17.18) should identify the specific elements, accounts, or items of a financial statement (the subject) and, if

EXHIBIT 17.18 Report on Specified Elements of a Financial Statement

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANT FIRM

To the Trustee on Behalf of Unit holders of Sabine Royalty Trust:

We have audited the accompanying Statements of Fees and Expenses (as defined in Exhibit C to the Sabine Royalty Trust Agreement) paid by Sabine Royalty Trust to Bank of America, N.A., (the "Trustee"), as trustee and escrow agent, for the years ended December 31, 2005, 2004, and 2003. These statements are the responsibility of the Trustee's management. Our responsibility is to express an opinion on these statements based on our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the Statements of Fees and Expenses are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Statements of Fees and Expenses. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note 3, the Statements of Fees and Expenses were prepared on a modified cash basis of accounting, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, the Statements of Fees and Expenses referred to above present fairly, in all material respects, the fees and expenses paid by Sabine Royalty Trust to Bank of America, N.A., as trustee and escrow agent, for the years ended December 31, 2005, 2004, and 2003, on the basis of accounting described in Note 3.

/s/ PRICEWATERHOUSECOOPERS LLP

PricewaterhouseCoopers LLP
Dallas, Texas
March 10, 2006

applicable, indicate that the audit was made in conjunction with an audit of the company's financial statements. It should describe the basis on which the item or element is presented and, when applicable, any agreements specifying the basis of presentation if it is not in conformity with GAAP. If considered necessary, the report should include a description of significant interpretations made by the company's management regarding the relevant agreements. If the item or element is prepared to comply with the requirements of a contract or an agreement that results in a presentation that is not in conformity with either GAAP or OCBOA, a paragraph should be added restricting the distribution of the report to those within the entity and the parties to the contract or agreement.

The auditor is not required to do so, but may describe specific auditing procedures in a separate paragraph. The other reporting requirements are the same as for audit reports on GAAP-based financial statements, including the expression of an opinion.

Compliance with Contractual Agreements or Regulatory Requirements

Auditors are sometimes requested to furnish a report on the client's compliance with specific contractual agreements or regulations. Auditors may issue such reports as long as the covenants of the agreement or regulatory requirement are *based on information from audited financial statements.* In other words, before a compliance report may be issued, the auditor must have assurance that the financial information that is subject to the covenants is fairly presented. A bond indenture, for example, may require the bond issuer to maintain a minimum current ratio, to make minimum payments into a sinking fund, or limit dividends to a certain percent of net income. If such requirements or restrictions are violated, the bonds may become payable on demand of the bondholders rather than at their scheduled maturity date.

Report Requirements A compliance report normally contains *negative assurance* and may be given in a separate report or with the auditor's report accompanying

EXHIBIT 17.19 Report on Compliance with a Contractual Agreement

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors and Management Actup Company and First National Bank of Brace:

We have audited, in accordance with generally accepted auditing standards, the balance sheet of Actup Company as of December 31, 2007, and the related statements of income, retained earnings, and cash flows for the year then ended, and have issued our report thereon dated February 27, 2008.

In connection with our audit, nothing came to our attention that caused us to believe that the company failed to comply with the terms, covenants, provisions, and conditions of sections 25 to 33, inclusive, of the Indenture dated July 23, 2006, with First National Bank of Brace insofar as they relate to accounting matters. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance.

This report is intended solely for the information and use of the boards of directors and management of Actup Company and First National Bank of Brace and should not be used for any other purpose.

/s/ Rittenberg & Schwieger, CPAs

Madison, WI
March 3, 2008

the financial statements. Recall that a negative assurance report simply indicates that the auditor did not find anything that would lead the auditor to conclude that the report is not fairly stated. The report (see Exhibit 17.19) should include a reference to the audited financial statements, specific covenants, and a statement of negative assurance.

Circumstances Requiring Explanatory Language in a Special Report Explanatory language should be added to any of the special reports described in the previous sections when:

- There has been a change in accounting principles that materially affected the subject of the report.
- The auditor has substantial doubt about the organization's ability to continue as a going concern.
- The auditor makes reference to the report of another auditor as a basis, in part, for his or her opinion.
- The auditor expresses an opinion on prior-period information that is different from the opinion previously expressed on that same information.

Interim Financial Information

The SEC requires publicly owned companies to (1) file quarterly financial information with the SEC on Form 10-Q within 60 days (in future years, 45 days) 45 days after the end of each of the first three quarters of the fiscal year and provide their shareholders with quarterly reports, and (2) include certain quarterly information in the annual reports to the SEC (Form 10-K) and in the annual reports to shareholders. The SEC requires publicly owned corporations to have their quarterly financial information reviewed by their independent auditors before it is issued, but does *not require* that the auditor's review report be included with the quarterly information, although many companies do include the auditor's report.

Review Procedures The auditor should perform review procedures on the quarterly information contained in the annual report to shareholders and when engaged to review the quarterly information issued at the end of each of the first three quarters of the fiscal year. These procedures are much the same as those

required by the SSARSs for reviews of financial statements of non-public companies (covered earlier in this chapter):

- Making inquiries
- Performing analytical procedures
- Reading the minutes of board of directors' meetings
- Reading the interim information to consider whether it appears to conform with GAAP

In addition, the auditor should obtain written representations from management concerning such things as its responsibility for the financial information, the completeness of the minutes, and subsequent events (not required by the SSARSs). The standards also require auditors to understand the client's accounting and financial reporting practices *and its related internal controls over annual and quarterly reports*, normally obtained while auditing the prior-year financial statements and updated as those controls change. If it is a new client, the auditor must perform the necessary procedures to obtain such an understanding.

Reporting on Interim Statements Presented Separately The standard report on a review of separately issued interim statements *of public companies* is shown in Exhibit 17.20. It identifies the information reviewed, indicates that the standards of the PCAOB were followed in performing the review, explains the nature of a review, disclaims an opinion, and provides negative assurance that the auditor is not

EXHIBIT 17.20 Review Report on Interim Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of 3M Company:

We have reviewed the accompanying consolidated balance sheet of 3M Company and its subsidiaries as of March 31, 2006 and the related consolidated statements of income and of cash flows for the three-month periods ended March 31, 2006 and 2005. These interim financial statements are the responsibility of the Company's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, *we are not aware of any material modifications that should be made* to the accompanying consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2005, and the related consolidated statements of income, of changes in stockholders' equity and comprehensive income, and of cash flows for the year then ended, management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2005, and the effectiveness of the Company's internal control over financial reporting as of December 31, 2005; and in our report dated February 13, 2006, we expressed unqualified opinions thereon. The consolidated financial statements and management's assessment of the effectiveness of internal control over financial reporting referred to above are not presented herein. In our opinion, the information set forth in the accompanying consolidated balance sheet as of December 31, 2005, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived. As discussed in Note 1, the Company changed its accounting policy for stock-based compensation awards exchanged for employee services and accordingly the accompanying December 31, 2005 balance sheet reflects adjustments relating to this change. We have not audited the accompanying balance sheet.

PricewaterhouseCoopers LLP

Minneapolis, Minnesota
April 25, 2006

[Emphasis added.]

aware of any material departures from GAAP. If the client is a *non-public company*, the title would not include the word "Registered" if the CPA firm is not registered with PCAOB and the reference is to the "standards established by the American Institute of Certified Public Accountants."

The disclosure and reporting requirements for interim financial statements differ from those for annual statements. Accruals, such as estimates of bad debt and income tax expenses, are not usually as precise on interim dates as they are at year end. It is assumed that those who receive the interim statements also received the latest annual statements. Information disclosed in the latest annual statements does not have to be repeated in the interim statements except for continuing contingencies and other uncertainties. There should be disclosures of events that occurred since the latest year end, such as changes in accounting principles or estimates and significant changes in financial position.

The negative assurance should be modified when there is a material departure from GAAP or inadequate disclosure. In such situations, a paragraph should be added preceding the negative assurance paragraph describing the problem. The negative assurance paragraph would then read as follows:

> Based on our review, *with the exception of the matter described in the preceding paragraph,* we are not aware of any material modifications that should be made to the accompanying financial statements for them to be in conformity with generally accepted accounting principles.
> [Emphasis added.]

Reporting on Interim Financial Information That Accompanies Audited Annual Financial Statements The SEC requires public companies to present selected quarterly financial information in their annual reports and certain other documents filed with the SEC. Other companies may voluntarily present such information. The auditor's report on the financial statements ordinarily does not need to be modified to refer to the review of the interim information unless:

- The information is required by the SEC but is omitted or has not been reviewed.
- The information is presented in the footnotes but is not clearly labeled "unaudited."
- The information does not conform to GAAP.
- The information is presented voluntarily, is not reviewed by the auditor, and is not appropriately marked as not reviewed.

Financial Reports on the Internet

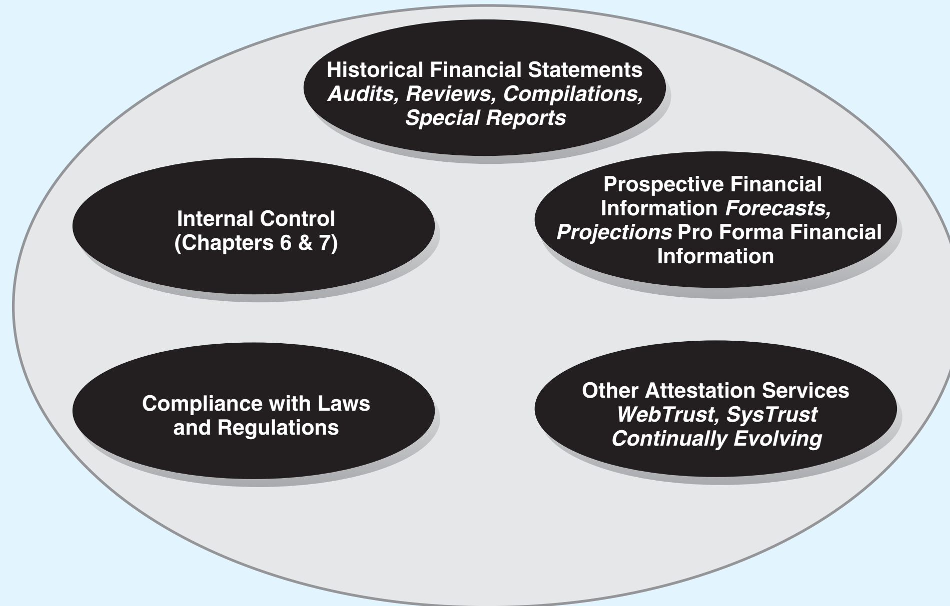
Many companies provide a variety of information—including annual, quarterly, and even monthly financial information—through their home pages on the Internet. Even if the auditor's report is included with this information, auditors are not yet required to read or consider the consistency of the other information provided by the company with the audited information.

The World of Attestation Services

The world of attestation services provided by CPAs is constantly growing. The most common of these services is providing assurance on historical financial information. However, the public accounting profession continues to develop criteria and standards to meet the changing needs of the business community. Many of the approaches developed in this textbook for planning, gathering evidence, and reporting are applicable to this wider scope of services. Exhibit 17.21 shows today's world. The diagram portrays the richness of reporting. The expansion of assurance services includes the following:

- Assurance area: financial, non-financial, business operations, or business processes
- Time frame: historical, current, pro-forma, or projected
- Degree of assurance provided: positive, limited, no assurance

EXHIBIT 17.21 The World of Attestation Services



Attestation Standards AT 101 provides standards for attestation engagements for which there is a commonality in reporting and evidence-gathering procedures (see Exhibit 2.7 page 48). For example, the auditor might attest to some aspect of a company's operations, such as whether the company meets ISO 9000 criteria. Because the area of reporting is so broad, it is better to have broad standards rather than develop specific standards for each area. As a further example, both the WebTrust and SysTrust engagements are performed and reported on, under the attestation standards.

The following are examples of additional reporting situations.

Reports on Other Financial and Non-Financial Information

Certified Public Accountants provide assurance services on other historical and prospective financial information as well as non-financial information. For example, they may report on prospective financial statements, pro forma financial information, and compliance with laws and regulations. They may be asked by clients to perform and report on agreed-upon procedures. The following is an overview of these services.

Reports on Prospective Financial Statements Prospective financial statements are of two types—forecasts and projections. Forecasts are based on management's expected financial position, results of operations, and cash flows. Projections are "what if" statements; "If we get the loan to expand, this will be the expected financial position, results of operations, and cash flows." CPAs may compile or examine prospective financial statements.

Compilations involve assembling the prospective statements based on management's assumptions. The compilation report provides *no assurance* about the financial statements or the reasonableness of the assumptions.

Examinations (the highest level of service) involve evaluating the preparation of the statements, the support underlying the assumptions, and the presentation

of the statements. The examination report includes an *opinion* on the statements and underlying assumptions.

Reports on Pro Forma Financial Information Pro forma financial information is historical "what if" information. For example, stockholders will be provided pro forma information concerning a proposed merger or acquisition of another company or disposition of a significant portion of the existing business. The pro forma information shows what the significant effects might have been had a consummated or proposed transaction (or event) occurred at an earlier date. CPAs may review or examine pro forma information.

Review reports provide *negative assurance* and *examination reports* include an *opinion* about management's assumptions, related adjustments, and application of those adjustments to the historical financial statements.

Reports on Compliance During the course of a normal audit, the auditor tests compliance with laws and regulations that could have a direct, material effect on the financial statements, such as those related to income taxes. As described earlier in this chapter, CPAs may be asked to provide a "special report" on compliance based solely on an audit of financial statements.

There are other situations in which a client engages the CPA to specifically report on either (a) an entity's compliance with requirements of specified laws, regulations, rules, contracts, or grants or (b) the effectiveness of an entity's internal control over compliance with specified requirements. Compliance requirements may be either financial or non-financial in nature. Such reports do not provide a legal determination of an entity's compliance but may be useful to legal counsel or others in making such determinations. CPAs may perform an examination engagement or an agreed-upon procedures engagement on compliance.

An *examination report* includes an opinion on compliance with the specified requirements based on specified criteria.

The objective of the *agreed-upon procedures engagement* is to present specific findings to assist users in evaluating an entity's compliance with specified requirements or the effectiveness on the related internal controls. Agreed-upon procedure reports are covered in the next section.

Reports on Agreed-Upon Procedures CPAs may be engaged by clients to issue a report of findings based on procedures specified by the client and CPA that are believed to be appropriate to the client's needs. Such an engagement is less in scope than an audit or review.

Reports on agreed-upon procedures include a list of the procedures performed, related findings, and a restriction on the use of the report to specified parties. No assurance is provided in these engagements.

Summary

Practitioners provide a variety of services on which they must report. Three basic levels of assurance are contained in those reports: positive assurance (an opinion), negative/limited assurance, and no assurance (disclaimer). Users of these reports do not have access to the audit documentation of the evidence gathered. Therefore, it is extremely important that practitioners be very careful when preparing the reports. Failure to do so can lead to lawsuits and a loss of public confidence in the profession.

Significant Terms

compilation A level of service that involves presenting, in the form of financial statements, information that is the representation of management and results in a disclaimer (no assurance about the fairness of the financial statements). Such a service can be provided only to nonpublic companies.

limited or negative assurance A statement by the accountant in a report that nothing has been detected to indicate that the information needs to be changed to bring it into conformity with the appropriate criteria, such as GAAP.

other comprehensive basis of accounting (OCBOA) Financial statements prepared on a cash or modified cash basis, the basis of accounting used for preparing the income tax return, the basis of accounting required for reporting to a governmental regulatory agency, or some other basis that has a definite set of criteria that have substantial support and apply to all material items appearing in the financial statements.

reissue To reissue a previously issued audit report on which no audit work has been done after the original report date. A reissued report contains the original report date.

review A level of service related to financial statements that involves making inquiries and performing analytical procedures, resulting in limited assurance about the fairness of the financial statements.

shared report An audit report that indicates that other auditors performed part of the audit.

special reports Reports on the following types of situations in which the client engages the auditor to perform specific procedures: to report on financial statements prepared in conformity with a comprehensive basis of accounting other than GAAP; to report on specified elements, accounts, or items of a financial statement; or to report on compliance with aspects of contractual agreements or regulatory requirements related to audited financial statements.

uncertainties Situations in which the outcome of some matter cannot be determined as of the end of the audit fieldwork, such as the results of pending litigation.

update Regarding the audit report, the process of considering information that comes to the auditor's attention during the current-year audit but is related to prior-year statements presented for comparative purposes. The report date should be the end of the current-year fieldwork.

Review Questions

17-1 Identify the five basic types of financial statement audit reports, and explain the circumstances under which each report is appropriate.

17-2 What is the difference between a scope limitation and an uncertainty? Give an example of each.

17-3 What types of opinions will the SEC not accept? How does this affect the auditor's reporting environment?

17-4 What factors must the auditor consider when determining whether the financial statements are presented in conformity with generally accepted accounting principles?

17-5 Under what circumstances may an auditor express an unqualified opinion when the related financial statements contain a material departure from a FASB or GASB standard?

17-6 Under what circumstances must the auditor's report refer to the consistency, or the lack of consistency, in the application of GAAP? What is the purpose of such reporting?

17-7 Under what circumstances must the auditor of a public company express an adverse opinion on the client's internal controls over fianancial reporting?

17-8 Why should the auditor ordinarily disclaim an opinion when the client imposes significant limitations on the audit procedures?

17-9 Under what circumstances might the auditor not refer to other auditors who worked on a part of the audit? What is a shared report? If the other auditors did not use due professional care and they are mentioned in the audit report, who is ultimately responsible, the principal auditor or the other auditors?

17-10 Are comparative financial statements required by GAAP? Explain.

17-11 The fourth standard of reporting states that the auditor should express an opinion on the financial statements as a whole.
a. Does this mean that the auditor must express the same opinion on all of the financial statements for a particular year? Explain.
b. Does this mean that the auditor must express an opinion on all of the years presented with the current year for comparative purposes if the same public accounting firm audited all years?
c. Explain how the successor's audit report on comparative financial statements should be presented if the predecessor auditor:
1. Reissues the report on prior years
2. Does not reissue the report on prior years

17-12 How should the auditor report on financial statements of a company whose financial statements are prepared in conformity with another country's accounting principles if such statements are to be used:
a. Solely outside the United States
b. Both outside and inside the United States

17-13 What is:
a. A compilation
b. A review

17-14 Compare audits, reviews, and compilations in terms of:
a. The types of procedures performed
b. The level of assurance expressed by the accountant
c. In which situation would an accountant's standard report be least affected by a lack of independence—an audit, review, or compilation? Explain

17-15 What is a special report? When might a special report be issued? What is meant by *other comprehensive basis of accounting?*

17-16 How does an audit report containing an unqualified opinion on financial statements prepared on the cash basis differ from one issued on GAAP-based financial statements?

17-17 Why would a client want to issue OCBOA financial statements when it is specifically noted that they are not prepared in accordance with GAAP?

17-18 What level of assurance is provided in a public accountant's review report on interim financial statements?

17-19 Under what circumstances would the auditor's report have to be modified because of the interim information contained in the annual report to shareholders?

17-20 Describe the nature of reports on:
a. Prospective financial information
b. Pro forma financial information
c. Compliance engagements
d. Agreed-upon procedures engagements

17-21 Should reports on agreed-upon procedure engagements be widely distributed? Explain.

Multiple-Choice Questions

***17-22** In which of the following circumstances would an auditor be most likely to express an adverse opinion?
a. Information comes to the auditor's attention that raises substantial doubt about the entity's ability to continue as a going concern.

*All problems marked with an asterisk are adapted from the Uniform CPA Examination.

b. The chief executive officer refuses the auditor access to minutes of board of directors' meetings.
c. Tests of controls show that the entity's internal control structure is so poor that it cannot be relied on.
d. The financial statements are not in conformity with FASB statements regarding the capitalization of leases.

***17-23** Tech Company has an uncertainty due to pending litigation. The auditor's decision to issue a qualified opinion rather than an unqualified opinion most likely would be determined by the:
a. Lack of sufficient evidence
b. Inability to estimate the amount of loss
c. Entity's lack of experience with such litigation
d. Adequancy of the disclosures

***17-24** In which of the following situations would an auditor ordinarily issue an unqualified audit opinion without an explanatory paragraph?
a. The auditor wishes to emphasize that the entity had significant related-party transactions.
b. The auditor decides to refer to the report of another auditor as a basis, in part, for the auditor's opinion.
c. The entity issues financial statements that present financial position and results of operations but omits the statement of cash flows.
d. The auditor has substantial doubt about the entity's ability to continue as a going concern, but the circumstances are fully disclosed in the financial statements.

17-25 Comparative financial statements include the prior-year statements that were audited by a predecessor auditor whose report is not presented. If the predecessor's report were unqualified, the successor should:
a. Express an opinion on the current-year statements alone and make no reference to the prior-year statements.
b. Indicate in the auditor's report that the predecessor auditor expressed an unqualified opinion.
c. Obtain a letter of representation from the predecessor concerning any matters that might affect the successor's opinion.
d. Request that the predecessor auditor reissue the prior-year report.

17-26 Eagle Company's financial statements contain a departure from GAAP because, due to unusual circumstances, the statements would otherwise be misleading. The auditor should express an opinion that is:
a. Unqualified, but not mention the departure in the auditor's report
b. Unqualified, and describe the departure in a separate paragraph
c. Qualified, and describe the departure in a separate paragraph
d. Qualified or adverse, depending on materiality, and describe the departure in a separate paragraph

17-27 Tread Corp. accounts for the effect of a material accounting change prospectively when the inclusion of the cumulative effect of the change is required in the current year. The auditor would choose a (an):
a. Qualified opinion or a disclaimer of opinion
b. Disclaimer of opinion or an unqualified opinion with an explanatory paragraph
c. Unqualified opinion with an explanatory paragraph or an adverse opinion
d. Qualified opinion or adverse opinion

17-28 In which of the following circumstances would an auditor usually choose between issuing a qualified opinion or a disclaimer of opinion?
a. Departure from GAAP
b. Inadequate disclosure of accounting policies

c. Inability to obtain sufficient competent evidential matter
d. Unreasonable justification for a change in accounting principle

17-29 The auditor of a public company believes there is a material weakness in the client's internal controls over financial reporting. Which of the following is true?
a. Such a weakness will require an adverse opinion of the financial statements.
b. The auditor should express an adverse opinion on internal controls only if they resulted in a material misstatement in the financial statements.
c. The auditor should express an adverse opinion on the internal controls even though no material misstatements were found in the financial statements.
d. The auditor is not required to express an opinion on internal controls.

***17-30** Before reporting on the financial statements of a U.S. entity that have been prepared in conformity with another country's accounting principles, an auditor practicing in the United States should:
a. Understand the accounting principles generally accepted in the other country.
b. Be certified by the appropriate auditing or accountancy board of the other country.
c. Notify management that the auditor is required to disclaim an opinion on the financial statements.
d. Receive a waiver from the auditor's state board of accountancy to perform the engagement.

***17-31** During a review of the financial statements of a nonpublic entity, an accountant becomes aware of the lack of adequate disclosure that is material to the financial statements. If management refuses to correct the financial statement presentations, the accountant should:
a. Issue an adverse opinion.
b. Issue an "except for" qualified opinion.
c. Disclose this departure from GAAP in a separate paragraph of the report.
d. Express only limited assurance on the financial statement presentations.

***17-32** Before issuing a report on the compilation of financial statements of a nonpublic entity, the accountant should:
a. Apply analytical procedures to selected financial data to discover any material misstatements.
b. Corroborate at least a sample of the assertions management has embodied in the financial statements.
c. Inquire of the client's personnel whether the financial statements omit substantially all disclosures.
d. Read the financial statements to consider whether they are free from obvious material errors.

***17-33** Laura Baker, CPA, was engaged to review the financial statements of Hall Company, a nonpublic entity. Evidence came to Baker's attention that indicated substantial doubt regarding Hall's ability to continue as a going concern. The principal conditions and events that caused the substantial doubt have been fully disclosed in the notes to Hall's financial statements. Which of the following statements best describes Baker's reporting responsibility concerning this matter?
a. Baker is not required to modify the accountant's review report.
b. Baker is not permitted to modify the accountant's review report.
c. Baker should issue an accountant's compilation report instead of a review report.
d. Baker should express a qualified opinion in the accountant's review report.

***17-34** Which of the following statements should be included in an accountant's standard report based on the compilation of a nonpublic entity's financial statements?

a. A compilation consists principally of inquiries of company personnel and analytical procedures applied to financial data.
b. A compilation is limited to presenting in the form of financial statements information that is the representation of management.
c. A compilation is not designed to detect material modifications that should be made to the financial statements.
d. A compilation is substantially smaller in scope than an audit in accordance with GAAS.

***17-35** When an accountant is engaged to compile a nonpublic entity's financial statements that omit substantially all disclosures required by GAAP, the accountant should indicate in the compilation report that the financial statements are:

a. Not designed for those who are uninformed about the omitted disclosures
b. Prepared in conformity with a comprehensive basis of accounting other than GAAP
c. Not compiled in accordance with Statements on Standards for Accounting and Review Services
d. Special-purpose financial statements that are not comparable to those of prior periods

***17-36** An auditor's report on financial statements prepared on the cash receipts and disbursements basis of accounting should include all of the following except:

a. A reference to the note to the financial statements that describes the cash receipts and disbursements basis of accounting
b. A statement that the cash receipts and disbursements basis of accounting is not a comprehensive basis of accounting
c. An opinion as to whether the financial statements are presented fairly in conformity with the cash receipts and disbursements basis of accounting
d. A statement that the audit was conducted in accordance with GAAS

***17-37** The objective of a review of interim financial information of a public entity is to provide an accountant with a basis for reporting whether:

a. Material modifications should be made to conform to GAAP.
b. A reasonable basis exists for expressing an opinion regarding the financial statements that were previously audited.
c. Condensed financial statements or pro forma financial information should be included in a registration statement.
d. The financial statements are presented fairly in accordance with GAAP.

Discussion and Research Questions

17-38 **(Types of Engagements and Reports)** The fourth standard of reporting states: "The auditor must either *express an opinion* regarding the financial statements, taken as a whole, or state that an opinion cannot be expressed in the auditor's report. In all cases where an auditor's name is associated with financial statements, the report should contain a clear-cut indication of the character of the auditor's work, if any, and the degree of responsibility the auditor is taking."

Required

In each of the following independent situations, indicate how the CPA responds to this standard.

a. The CPA is engaged to prepare the financial statements for a non-public entity without performing an audit or review.
b. The CPA is engaged to compile and review the financial statements of a nonpublic company.
c. The CPA is engaged to prepare the federal and state income tax returns. No other services are provided.
d. The CPA is engaged to audit the annual financial statements of a public company.
e. The CPA's name is contained in the client's registration statement that includes audited financial statements for the year ended December 31, 2007, and unaudited financial statements for the three months ended March 31, 2008. The SEC requires the CPA to include in the registration statement consent to the use of the public accounting firm's name in that statement.

17-39 **(Implications of Risk in Standard Audit Report)** What words and phrases in an unqualified audit report imply that there is a risk that the financial statements may contain a material misstatement?

17-40 **(Critique an Audit Report Qualified for a Scope Limitation)** You are a senior auditor working for Rittenberg & Schwieger, CPAs. Your staff assistant has drafted the following audit report. You believe the scope limitation is significant enough to qualify the opinion, but not to disclaim an opinion.

To Joseph Halberg, Controller
Billings Container Company, Inc.

We have audited the accompanying balance sheet of Billings Container Company and the related statements of income, retained earnings, and statement of changes in financial position as of December 31, 2007. These financial statements are the responsibility of the Company's management.

Except as discussed in the following paragraph, we conducted our audit in accordance with accounting principles generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain assurance about whether the financial statements are free of misstatement. An audit includes examining evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion. We were unable to obtain sufficient competent evidence of the fair market value of the Company's investment in a real estate venture due to the unique nature of the venture. The investment is accounted for using the equity method and is stated at $450,000 and $398,000 at December 31, 2007 and 2006, respectively.

In our opinion, except for the above-mentioned limitation on the scope of our audit, the financial statements referred to above present fairly the financial position of Billings Container Company as of December 31, 2007 and 2006, and the results of its operations and its cash flows for the year then ended in conformity with auditing standards generally accepted in the United States of America.

/s/Bradley Schwieger, CPA

St. Cloud, MN
December 31, 2007

Required

Identify the deficiencies in this draft, and state how each deficiency should be corrected. Organize your answer around the components of the audit report (introductory paragraph, scope paragraph, and so on).

17-41 **(Choosing the Type of Opinion)** Several independent audit situations are presented here. Assume that everything other than what is described would have resulted in an unqualified opinion.

Required

Indicate the type of opinion you believe should be expressed in each situation and explain your choice. If an explanatory paragraph is needed, indicate whether it should precede or follow the opinion paragraph.

a. The auditor was unable to obtain confirmations from two of the client's major customers that were included in the sample. These customers wrote on the confirmation letters that they were unable to confirm the balances because of their accounting systems. The auditor was able to become satisfied by other audit procedures.
b. The client treated a lease as an operating lease, but the auditor believes it should have been accounted for as a capital lease. The effects are material.
c. The client changed from FIFO to LIFO this year. The effect is material.
    1. The change was properly accounted for, justified, and disclosed.
    2. The change was properly accounted for and disclosed, but was not properly justified.
d. The client restricted the auditor from observing the physical inventory. Inventory is a material item.
e. The client is engaged in a product liability lawsuit that is properly accounted for and adequately described in the footnotes. The lawsuit does not threaten the going concern assumption, but an adverse decision by the court could create a material obligation for the client.
f. The status of the client as a going concern is extremely doubtful. The problems are properly described in the footnotes.
g. One of your client's subsidiaries was audited by another audit firm, whose opinion was qualified because of a GAAP violation. You do not believe that the GAAP violation is material to the consolidated financial statements on which you are expressing an opinion.
h. You are convinced that your client is violating another company's patent in the process of manufacturing its only product. The client will not disclose this because it does not want to wave a red flag and bring this violation to the other company's attention.
i. The client, with reasonable justification, has changed its method of accounting for depreciation for all factory and office equipment. The effect of this change is not material to the current year financial statements, but is likely to have a material effect in future years. The client's management will not disclose this change because of the immaterial effect on the current-year statements. You have been unable to persuade management to make the disclosure.

17-42 **(Audit Reports)** The following are independent audit situations for which you will recommend an appropriate audit report from the types listed. For each situation, identify the appropriate type of audit report and briefly explain the rationale for selecting the report:

a. Unqualified, standard
b. Unqualified, explanatory paragraph
c. Qualified opinion because of departure from GAAP
d. Qualified scope and opinion
e. Disclaimer
f. Adverse

Audit Situation

1. An audit client has a significant amount of loans receivable outstanding (40% of assets), but has an inadequate internal control

system over the loans. The auditor cannot locate sufficient information to prepare an aging of the loans or to identify the collateral for about 75% of the loans, even though the client states that all loans are collateralized. The auditor sent out confirmations to verify the existence of the receivables, but only 10 of the 50 sent out were returned. The auditor attempts to verify the other loans by looking at subsequent payments, but only eight had remitted payments during the month of January, and the auditor wants to wrap up the audit by February 15. If only 10 of the 50 loans were correctly recorded, the auditor estimates that loans would need to be written down by $7.5 million.

2. During the audit of a large manufacturing company, the auditor did not observe all locations of physical inventory. The auditor chose a random number of sites to visit, and the company's internal auditors visited the other sites. The auditor has confidence in the competence and objectivity of the internal auditors. The auditor personally observed only about 20% of the total inventory, but neither the auditor nor the internal auditors noted any exceptions in the inventory process.
3. During the past year Network Computer, Inc. devoted its entire research and development efforts to develop and market an enhanced version of its state-of-the-art telecommunications system. The costs, which were significant, were all capitalized as research and development costs. The company plans to amortize these capitalized costs over the life of the new product. The auditor has concluded that the research to date will likely result in a marketable product. A full description of the research and development, and the costs, is included in a note. The note also describes that basic research costs are expensed as incurred, and the auditor has verified the accuracy of the statement.
4. During the course of the audit of Sail-Away Company, the auditor noted that the current ratio had dropped to 1.75. The company's loan covenant requires the maintenance of a current ratio of 2.0 to 1.0, or the company's debt is all immediately due. The auditor and the company have contacted the bank, which is not willing to waive the loan covenant because the company has been experiencing operating losses for the past few years and has an inadequate capital structure. The auditor has substantial doubt that the company can find adequate financing elsewhere and may encounter difficulties staying in operation. Management, however, is confident that it can overcome the problem. The company does not deem it necessary to include any additional disclosure because management members are confident that an alternative source of funds will be found by pledging their personal assets.
5. The Wear-Ever Wholesale Company has been very profitable. It recently received notice of a 10% price increase for a significant portion of its inventory. The company believes it is important to manage its products wisely and has a policy of writing all inventory up to current replacement cost. This ensures that profits will be recognized on sales sufficient to replace the assets and realize a normal profit. This operating philosophy has been very successful, and all sales people reference current cost, not historical cost, in making sales. Only inventory has been written up to replacement cost, but inventory is material because the company carries a wide range of products. The company's policy of writing up the inventory and its dollar effects is adequately described in a footnote to the financial statements. For the current year, the net effect of the inventory write-up increased reported income by only 3%, and assets by 15% above historical cost.

6. The audit of NewCo was staffed primarily by three new hires and a relatively inexperienced audit senior. The manager found numerous errors during the conduct of the audit and developed very long "to-do" lists for all members of the audit to complete before the audit was concluded. Although the manager originally doubted the staff's understanding of the audit procedures, by the time the audit was finished, he concluded that the new auditors did understand the company and the audit process and that no material errors existed in the financial statements.

17-43 **(Reporting on Accounting Changes)** The accounting and auditing literature discusses several different types of accounting changes:

1. Change from one GAAP to another GAAP
2. Change in accounting estimate
3. Change in estimate effected by a change in accounting principle
4. Correction of an error
5. Change from non-GAAP to GAAP (a special case of correction of an error)
6. Change in reporting entity (other than a pooling of interest)

Required

For which of these types of changes should the auditor add a paragraph to the audit report assuming that the change had a material effect on the financial statements and was properly justified, accounted for, and disclosed?

17-44 **(Audit Reports and Consistency)** Various types of accounting changes can affect the second reporting standard of GAAS. This standard reads: "The report shall identify those circumstances in which such principles have not been consistently observed in the current period in relation to the preceding period."

Required

a. Briefly describe the rationale for the standard and the auditor's responsibility in adhering to the standard.
b. For each of the changes listed here, briefly indicate the type of change and its effect on the auditor's report.
   1. A change from the completed-contract method to the percentage-of-completion method of accounting for long-term construction contracts
   2. A change in the estimated useful life of previously recorded fixed assets (The change is based on newly acquired information.)
   3. Correction of a mathematical error in inventory pricing made in a prior period
   4. A change from full absorption costing to direct costing for inventory valuation
   5. A change from presentation of statements of individual companies to presentation of consolidated companies
   6. A change from deferring and amortizing preproduction costs to recording such costs as an expense when incurred, because future benefits of the costs have become doubtful (The new accounting method was adopted in recognition of the change in estimated future benefits.)
   7. A change from amortizing goodwill to testing for impairment each year (The change was in response to an accounting pronouncement from the FASB.)
   8. A change to include the employer's share of FICA taxes as retirement benefits on the income statement from including it in other taxes

17-45 **(Other Auditors)** You are in charge of the audit of the financial statements of Parat, Inc., and consolidated subsidiaries covering the two

years ended December 31, 2007. Another public accounting firm is auditing Nuam, Inc., a major subsidiary that accounts for total assets, revenue, and net income of 30%, 26%, and 39%, respectively, for 2006; and 28%, 20%, and 33% for 2007.

Required

a. What is meant by the term "principal auditor"?
b. What factors should be considered when determining which public accounting firm should serve as the principal auditor?
c. Under what circumstances might the principal auditor decide not to refer to the other audit firm in the audit report on the consolidated statements?
d. If the principal auditor does not refer to the other auditor in the audit report, who is ultimately responsible to third parties if the other auditor was fraudulent or grossly negligent?
e. Write the audit report referring to the other audit firm and expressing an unqualified opinion.

*__17-46__ **(Critique of Audit Report—Going Concern Doubt)** The following auditor's report was drafted by a staff accountant of Turner & Turner, CPAs, at the completion of the audit of the financial statements of Lyon Computers, Inc. (a non-public company) for the year ended March 31, 2008. It was submitted to the engagement partner, who reviewed matters thoroughly and properly concluded that Lyon's disclosures concerning its ability to continue as a going concern for a reasonable period of time were adequate but there is substantial doubt about Lyon being a going concern.

To the Board of Directors of Lyon Computers, Inc.:

We have audited the accompanying balance sheet of Lyon Computers, Inc. as of March 31, 2008, and the other related financial statements for the year then ended. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with standards that require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are in conformity with generally accepted accounting principles. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note X to the financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raises substantial doubt about its ability to continue as a going concern. We believe that management's plans in regard to these matters, which are also described in Note X, will permit the Company to continue as a going concern beyond a reasonable period of time. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

In our opinion, subject to the effects on the financial statements of such adjustments, if any, as might have been required had the outcome of the uncertainty referred to in the preceding paragraph been known, the financial statements referred to above present fairly, in all material respects, the financial position of Lyon Computers, Inc., and the results of its operations and its cash flows in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Turner & Turner, CPAs
April 28, 2008

Required

Identify the deficiencies contained in the auditor's report as drafted by the staff accountant. Group the deficiencies by paragraph. Do not redraft the report.

*17-47 (Selecting the Proper Audit Opinion and Report Modification)

Required

Audit situations 1 through 8 present various independent factual situations an auditor might encounter in conducting an audit. List A (following) represents the types of opinions the auditor ordinarily would issue, and List B represents the report modifications (if any) that would be necessary. For each situation, select one response from List A and one from List B. Select, as the best answer for each item, the action the auditor normally would take. Items from either list may be selected once, more than once, or not at all.

Assume the following

- The auditor is independent.
- The auditor previously expressed an unqualified opinion on the prior-year financial statements.
- Only single-year (not comparative) statements are presented for the current year.
- The conditions for an unqualified opinion exist unless contradicted in the factual situations.
- The conditions stated in the factual situations are material.
- No report modifications are to be made except in response to the factual situation.

Audit Situations

1. The financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows in conformity with GAAP.
2. In auditing the Long-Term Investments account, an auditor is unable to obtain audited financial statements for an investee located in a foreign country. The auditor concludes that sufficient competent evidential matter regarding this investment cannot be obtained but is not significant enough to disclaim an opinion.
3. Due to recurring operating losses and working capital deficiencies, an auditor has substantial doubt about an entity's ability to continue as a going concern for a reasonable period of time. However, the financial statement disclosures concerning these matters are adequate.
4. The principal auditor decides to refer to the work of another auditor, who audited a wholly owned subsidiary of the entity and issued an unqualified opinion.
5. An entity issues financial statements that present financial position and results of operations but omits the related statement of cash flows. Management discloses in the notes to the financial statements that it does not believe the statement of cash flows to be a useful statement.
6. An entity changes its depreciation method for production equipment from the straight-line to a units-of-production method based on hours of utilization. The auditor concurs with the change, although it has a material effect on the comparability of the entity's financial statements.
7. An entity is a defendant in a lawsuit alleging infringement of certain patent rights. However, management cannot reasonably estimate the ultimate outcome of the litigation. The auditor believes that there is a reasonable possibility of a significant material loss, but the lawsuit is adequately disclosed in the notes to the financial statements.
8. An entity discloses certain lease obligations in the notes to the financial statements. The auditor believes that the failure to capitalize these leases is a departure from GAAP.

List A—Types of Opinions

a. A qualified opinion
b. An unqualified opinion

c. An adverse opinion
d. A disclaimer of opinion
e. Either a qualified opinion or an adverse opinion
f. Either a disclaimer of opinion or a qualified opinion
g. Either an adverse opinion or a disclaimer of opinion

List B—Report Modifications

h. Describe the circumstances in an explanatory paragraph *preceding* the opinion paragraph *without modifying* the three standard paragraphs.
i. Describe the circumstances in an explanatory paragraph *following* the opinion paragraph *without modifying* the three standard paragraphs.
j. Describe the circumstances in an explanatory paragraph *preceding* the opinion paragraph and *modifying the opinion* paragraph.
k. Describe the circumstances in an explanatory paragraph *following* the opinion paragraph *and modifying the opinion* paragraph.
l. Describe the circumstances in an explanatory paragraph *preceding* the opinion paragraph *and modifying the scope and opinion* paragraphs.
m. Describe the circumstances in an explanatory paragraph *following* the opinion paragraph *and modifying the scope and opinion* paragraphs.
n. Describe the circumstances within the *scope* paragraph without adding an explanatory paragraph.
o. Describe the circumstances within the *opinion* paragraph without adding an explanatory paragraph.
p. Describe the circumstances within the *scope and opinion* paragraphs without adding an explanatory paragraph.
q. Describe the circumstances in the *introductory* paragraph without adding an explanatory paragraph, and modify the wording of the *scope and opinion* paragraphs.
r. Issue the *standard* auditor's report *without modification.*

17-48 **(Draft an Audit Report)** On February 28, 2008, Stu & Dent, LLP completed the audit of Shylo Ranch, Inc. (a nonpublic company) for the year ended December 31, 2007. A recent fire destroyed the accounting records concerning the cost of Shylo's livestock. These were the only records destroyed. The auditors are unable to obtain adequate evidence concerning the cost of the livestock that represents about 8% of total assets. These are GAAP-based financial statements, and the auditors found no other problems during the audit. The audit report is to cover the 2007 financial statements only. The audit partner has indicated that a qualified opinion is more appropriate than an adverse opinion.

Required

Prepare a draft of the audit report for review by the audit partner.

17-49 **(Comparison of Procedures for an Audit, Review, and Compilation)** Compare and contrast the procedures that should be performed on inventory for an audit, review, and compilation. Assume that the auditor has knowledge of the business and industry. Give specific examples of procedures.

17-50 **(Review Report with a GAAP Violation)** You have reviewed the financial statements of Classic Company for the year ended June 30, 2006. The only unusual finding is that the company deferred $350,000 of research and development costs rather than expensing them. The costs related to a product that the client believed was certain to be profitable in the future. You are convinced that the

product will be profitable, but not that the expenses should have been deferred.

Required
Write the limited assurance and explanatory paragraphs for an appropriate review report.

***17-51** **(Critique of a Compilation Report—Auditor Not Independent and Omission of Substantially All Disclosures)** Russ Major, CPA, drafted the following report on October 25, 2007 at the completion of the engagement to compile the financial statements of Ajax Company for the year ended September 30, 2007. Ajax is a nonpublic entity in which Major's child has a material direct financial interest. Ajax decided to omit substantially all of the disclosures required by GAAP because the financial statements will be for management's use only. The statement of cash flows was also omitted because management does not believe it to be a useful financial statement.

To the Board of Directors of Ajax Company:

I have compiled the accompanying financial statements of Ajax Company as of September 30, 2007, and for the year then ended. I planned and performed the compilation to obtain limited assurance about whether the financial statements are free of material misstatements.

A compilation is limited to presenting information in the form of financial statements. It is substantially less in scope than an audit in accordance with generally accepted auditing standards, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. I have not audited the accompanying financial statements and, accordingly, do not express any opinion on them.

Management has elected to omit substantially all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Company's financial position, results of operations, and changes in financial position.

I am not independent with respect to Ajax Company. This lack of independence is due to my child's ownership of a material direct financial interest in Ajax Company.

This report is intended solely for the information and use of the Board of Directors and management of Ajax Company and should not be used for any other purpose.

Required
Identify the deficiencies contained in Major's report on the compiled financial statements. Group the deficiencies by paragraph when applicable. Do not redraft the report.

17-52 **(Review Procedures for Inventory)** You have been assigned to perform a review of a client's inventory containing electric motors, parts for motors, and raw materials used in making the motors.

Required
a. What inquiries and analytical procedures should you perform?
b. What will you do if these procedures do not support the client's inventory values or disclosures?

17-53 **(Students' Perceptions of the Effectiveness of Audit, Review, and Compilation Reports)** Write a report on your perceptions of the effectiveness of audit, review, and compilation reports in communicating the nature of the service and the degree of assurance provided.

15–54 **(Critique of Special Report)** A staff auditor of Erwachen & Diamond, CPAs, has prepared the following draft of an audit report on cash basis financial statements:

Accountant's Report to the Shareholders of Halon Company:

We have audited the accompanying balance sheets and the related statement of income as of December 31, 2007 and 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those principles require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material errors. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note 13, these financial statements were prepared on the basis of cash receipts and disbursements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Halon Company as of December 31, 2007, and the results of operations for the year then ended in accordance with accounting principles generally accepted in the United States of America.

/s/ Donald Diamond, CPA
February 15, 2008

Required

Identify any deficiencies in the report and explain why they are deficiencies.

***17-55** **(Reporting on Specified Elements, Accounts, or Items)** Young & Young, CPAs, completed an examination of the financial statements of XYZ Company, Inc., for the year ended June 30, 2007 and issued a standard unqualified auditor's report dated August 15, 2007. At the time of the engagement, the board of directors of XYZ requested a special report attesting to the adequacy of the provision for federal and state income taxes and the related accruals and deferred income taxes as presented in the June 30, 2006 financial statements. Young & Young submitted the appropriate special report on August 22, 2007.

Required

Prepare the special report that Young & Young should have submitted to XYZ Company, Inc.

17-56 **(Compliance Reports)** The auditor is auditing the Inguish Company, which has a bond indenture, dated March 26, 2005, with the Last International Bank of Chicago that contains the following covenants in paragraphs E through I:

- Par. E—Maintain at least a 2.5:1 current ratio:
  i. At the end of each quarter
  ii. At fiscal year end
- Par. F—Deposit $250,000 into the bond sinking fund by January 1 of each year until the bonds mature.
- Par. G—Restrict dividend payments to no more than 50% of net income each year.
- Par. H—Make the stated interest payments by the interest dates.
- Par. I—The company shall conform to all pollution standards.

Required

a. Under what circumstances is it appropriate for an auditor to report on the compliance of a client with contractual agreements or regulatory requirements?

b. Which of these covenants would it be appropriate to cover in the compliance report to the bond trustee?
c. Give reasons for excluding any of the covenants from the report.

17-57 **(Compliance Reports)**

Required

Answer the following concerning the compliance report for the Inguish Company (refer to Question 17–57):

a. Outline the basic elements of a compliance report.
b. Write the paragraph containing negative assurance if
   1. All of the covenants have been met
   2. All of the covenants have been met except that the company paid out dividends of $400,000 with net income of only $700,000.

The indenture states that if there are any violations of the covenants other than timely interest payments, these are to be reported by the management of the company to the trustee within 45 days of the fiscal year end, such report is to include an explanation of the violation, why it happened, and what management plans to do about it. Management has properly reported this violation, which was caused by the declaration of dividends based on preliminary estimates on net income of $850,000. The decrease in audited net income was the result of an unexpected downturn in the stock market during the last two weeks of the year that created an unrealized loss on decline in the market value of the company's current marketable equity securities.

c. What are the audit implications when the client violates one or more of the bond covenants?

Internet Activity

17-58 **(Evolving Attestation Services)** Visit the AICPA's web site (http://www.aicpa.org) and identify what new attestation services are being provided. Prepare a report describing the nature of those services, and include a brief description of the criteria that have been developed for auditors to use in providing those services.

Case

17-59 **(Effect on Audit Report of a Foreign Company Violating U.S. GAAP)** You are auditing Osakis Electronics USA, Ltd., a subsidiary of a Japanese company, and will issue an audit report covering the balance sheets as of December 31, 2007 and 2006 and the income statements and cash flow statements for the three years then ended. The company's common stock is traded on the New York and Tokyo stock exchanges. Each of the following is an independent audit reporting situation.

1. Osakis does not disclose segment information, because Japanese accounting standards do not require it. The SEC does not require such disclosures in SEC filings of foreign issuers of securities.

   Required

   Indicate the effect on your audit report, which will be widely used in the United States.

2. Osakis reports its inventory, fixed assets, depreciation, and cost of goods sold on a current-value basis. Such accounting violates the accounting standards of both Japan and the United States. There is disclosure of the pertinent facts, including the effect on key financial statement amounts, in footnote 13.

Required

a. What factors should you consider in deciding whether to issue a qualified or an adverse opinion?

b. Draft the explanatory and opinion paragraphs for the following:
   1. A qualified opinion
   2. An adverse opinion

3. Osakis prepares two sets of financial statements; one set for use in Japan using Japanese accounting principles and the other set for use in the United States using U.S. GAAP. The Japanese set contains a footnote describing the accounting principles used.

Required

How should you report on these two sets of statements?

Module XV of the Biltrite audit practice case contains an audit report exercise. This exercise may be completed at this time.

Module XV: Audit Report

The Denise Vaughan audit team completed its audit field work on February 15, 2007. A conference was held on that date involving members of the audit firm and Biltrite management. Participants in the conference were Denise Vaughan, partner in charge of the Biltrite engagement; Carolyn Volmar, audit manager; Richard Derick, in-charge auditor; Trevor Lawton, Biltrite's CEO; Gerald Groth, Biltrite's controller; and Marlene McAfee, Biltrite's treasurer. The Biltrite representatives agreed to all of the audit adjustments and reclassifications proposed by the audit team, and agreed to reflect them in the December 31, 2007 financial statements. They also agreed to modify and/or add footnote disclosures as recommended by the audit team.

At the conclusion of the conference, the audit team obtained a client representation letter from Biltrite management, and presented management with a copy of the "significant deficiencies" letter outlining discovered internal control weaknesses. The original of this letter was sent to Biltrite's board of directors. (You will recall that Biltrite does not have an audit committee.)

The legal action initiated against Biltrite by Rollfast, a competitor, for alleged patent infringement, was not yet settled as of February 15. Because the letter obtained by Derick from Biltrite's outside legal counsel was inconclusive as to the probable outcome of this action, Derick requested an informal conference with the attorney handling Biltrite's case. This conference was convened on February 12, and the participants were Joel Haskins, the attorney, Gerald Groth, Denise Vaughan, and Richard Derick.

Haskins exhibited a degree of pessimism that produced considerable uncertainty as to the probable outcome of the litigation. Inasmuch as the amount of loss could be quite substantial, and the probability of an unfavorable outcome was more than remote but less than likely, Groth agreed to disclose the matter in a footnote to the 2007 financial statements.

Notwithstanding the liquidity problems and loan default, Biltrite has been assured by Bank Two management that the bank plans no foreclosure action, provided Biltrite can restore the minimum required bank balance and continues to earn profits. Moreover, management's expressed plans for dealing with the crisis and continued sales growth during January 2008 have convinced Denise Vaughan that an explanatory paragraph expressing substantial doubt as to continued existence is not necessary.

No scope restrictions were encountered during the audit, either imposed or otherwise. Moreover, Biltrite did not change accounting principles in either 2006 or 2007.

Requirements

1. Using the spreadsheet program and downloaded data retrieve the file labeled "Report."
2. Modify the report as appropriate to conform to the Biltrite audit results.
3. Print the audit report.
4. Sign the audit report.

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CHAPTER 18

Professional Liability

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adopt audit approaches to business and economic complexities. By thoroughly studying this chapter, you will be able to:

- Discuss the liability environment of public accountants.
- Describe auditor responsibilities to clients and third parties under contract law, common law, and statutory law.
- Identify approaches to minimize exposure to liability suits.
- Describe the approaches used to improve the quality of public accounting.
- Explain the impact of court cases on the public accounting profession.

CHAPTER OVERVIEW

Even though most audits are properly performed, a significant percentage of the gross revenues of public accounting firms is spent on professional liability insurance and litigation costs. Litigation costs and settlements caused some of the world's largest public accounting firms to declare bankruptcy. In today's litigious environment, it is extremely important that auditors use due professional care to minimize such costs. Even when due professional care is used, the government, investors, and clients may still sue auditors. In this chapter, we discuss the legal environment and concepts related to audits. We discuss approaches to minimizing exposure to liability and look at several key court cases and their impact on the profession.

The Legal Environment

The following headlines from the financial press reflect the litigious nature of our society:

> "Andersen Surrenders Licenses to Practice Accounting in U.S."
> "Spotlight on Grant Thornton in Refco Bankruptcy"
> "Suit Alleges PWC Missed 'Key Warning Signs' at AIG"
> "KPMG Faces Indictment Risk on Tax Shelters"
> "Deloitte Pays $50 Million to Settle Adelphia Case"
> "Bankrupt Airline Sues Ernst & Young for Accounting Fraud"
> "Legal-Liability Awards Are Frightening Smaller CPA Firms Away from Audits"

These headlines represent just a sampling of the coverage the financial press has devoted to legal action against auditors in recent years. Public accounting firms are being sued for the conduct of audits of both large and small clients. Arthur Andersen, one of the world's largest public accounting firms, in 2001 was forced into bankruptcy and out of business.

The diverse group of litigants includes class action suits by small investors and suits by the U.S. Justice Department. Legal liability cases are expensive, win or lose. It is estimated that 4,000 lawsuits a year are filed claiming CPA

malpractice. The responsibility of public accountants to safeguard the public's interest has increased as the number of investors has increased, as the relationship between corporate managers and stockholders has become more impersonal, and as stakeholders demand more accountability from organizations. When auditors agree to perform audits, they purport to be experts in assessing the fairness of financial statements on which the public relies. In a substantial majority of audits, auditors use great care, perform professionally, issue appropriate opinions, and serve the interests of the public. Even when an audit is properly performed, however, the public accounting firm may be sued and incur substantial legal costs to defend itself. Even if the public accounting firm wins the litigation, its reputation and that of those involved may be unfairly tarnished.

Managing Audit Firm Risk and Minimizing Liabilities

Defensive Auditing
Legal Liability

Occasionally, auditors do not use due professional care and issue incorrect opinions on the fairness of the financial statements—usually an unqualified opinion on financial statements that are not fairly presented. Clients or third-party users may suffer financial losses that were due, at least partly, to reliance on those financial statements.

Managing the Risk Feature

Audit firms depend on consistent execution of audit programs and professional auditors with high levels of competence and skepticism to perform audits. Only by consistent execution everyday by everyone on the engagement team can audit firms avoid liability. The little things on every audit engagement do count.

Auditors should be—and are—held liable to their clients and third parties who show they relied on audited financial statements for important decisions and suffered losses due to substandard work by the auditors. Liability that affects public accounting firms is derived from the following laws:

- **Contract law**—Liability is based on breach of contract. The contract is usually between the public accounting firm and the client for the performance of a professional service, such as an audit in accordance with GAAS.
- **Common law**—Liability concepts are developed through court decisions based on negligence, gross negligence, or fraud.
- **Statutory law**—Liability is based on state statutes or, more likely, federal securities laws. The most important of these statutes to the auditing profession are the Securities Act of 1933 (1933 act) and the Securities Exchange Act of 1934 (1934 act).

Auditing firms are not unique in being the targets of litigation. Students sue teachers, customers sue manufacturers, patients sue their doctors and hospitals, and clients sue their lawyers and accountants. Several factors that lead to increased litigation against the auditor are at work in our society. Some of these factors include the following:

- User awareness of the possibilities and rewards of litigation
- Joint and several liability statutes that permit a plaintiff to recover the full amount of a settlement from a public accounting firm, even though that firm is found to be only partially responsible for the loss (often referred to as the *deep pocket theory:* i.e., sue those who can pay)
- Increased complexity of audits caused by integrated electronic commerce, new types of business transactions and operations, more international business, and more complicated accounting standards
- More demanding auditing standards for detection of errors and fraud
- Pressures to reduce audit time and improve audit efficiency in the face of increased competition among public accounting firms
- A potential misunderstanding by users that an unqualified opinion is an insurance policy against investment losses
- Class action suits

- Contingent-fee–based compensation for law firms, especially in class action suits
- Punitive damages

Joint and Several Liability

Joint and several liability concepts are designed to protect users who suffer major losses due to misplaced reliance on a company and its assertions about financial health. Users suffer real losses, but sometimes those primarily responsible for the losses, such as management, do not have the resources to compensate people for those losses. Society has to determine if those suffering the losses should be compensated fully for their losses, and by whom. Joint and several liability addresses this problem.

Joint and several liability states that the damages ought to be paid to those suffering losses caused by each party. For example, if a jury decided that management was 80% at fault and the auditor was 20% at fault, the damages would be apportioned 80% to management and 20% to auditors. Unfortunately, in many lawsuits involving auditors, the client is in bankruptcy, management has few assets, and the auditor is the only one left with adequate resources to pay the damages. Joint and several liability then apportions the damages over the remaining defendants in proportion to the relative damages. Under pure joint and several liability, if management has no resources and there are no other defendants, 100% of the damages are then apportioned to the auditing firm. Thus, auditors are often included in lawsuits even if they are only partially responsible for losses incurred by the plaintiffs. The U.S. Congress has limited the extent of joint and several liability damages in Federal suits to actual percentage of responsibility if auditors are found liable for less than 50% of damages.

***Public/Non-Public* Clients**

Audit committees and the board of directors function as the client in public companies. Their direct responsibility to shareholders, as well as the need to protect themselves from litigation, aligns responsibilities to work with auditors to ensure adequate audits.

Audit Time and Fee Pressures

Auditors operate in a difficult environment. Most audits do not result in litigation, and most auditors will never be involved in litigation during their professional career. On the other hand, most auditors feel intense pressure to make their audits more efficient and competitive. Auditors do not normally lose lawsuits when the audit documents show that GAAS were followed. The auditor should remember that the client exerting the most time and fee pressure might be the client who is attempting to hide something from the auditor and is thus the client whose pressure should be most resisted.

Audits Viewed as an Insurance Policy

Auditors perform a significant role in our free-market economy, but an audit report accompanying a financial statement is not a guarantee that an investment in the audited company is free of risk. Unfortunately, some investors mistakenly view the unqualified audit report as an insurance policy against any and all losses from a risky investment. When they do suffer losses, these investors believe that they should be able to recover their losses from the auditor. This view, coupled with joint and several liability, encourages large lawsuits against auditors even for cases in which the plaintiffs are aware in advance that the auditor is only partially at fault or is not at fault.

Contingent-Fee Compensation for Lawyers

Contingent fees for lawyers have evolved in our society to allow individuals who cannot afford high-priced lawyers to seek compensation for their damages. Lawyers take **contingent-fee cases** with an understanding that a client who loses a case owes the lawyer nothing; however, if the case is won, the lawyer receives an agreed-upon percentage (usually one-third to one-half) of the damages

awarded. This arrangement protects the underprivileged and encourages lawsuits by a wide variety of parties. The plaintiffs have little to lose, and the lawyers have a large incentive to successfully pursue the case.

Class Action Suits

Class action suits are designed to prevent multiple suits that might result in inconsistent judgments and to encourage litigation when no individual plaintiff has a claim large enough to justify the expense of litigation. One example of a class action suit was recently brought against tobacco companies on behalf of individuals who had smoked. Newspaper ads were taken out to notify all potential members of the class of their right to join the class action suit and how to do so. The lawyers were collecting a large contingent fee on the case and wanted to identify every potential member of the class. Damages in such cases, and thus fees for the lawyers, can be extremely large.

Legal Concepts

The legal environment is extremely complex and diversified. To understand the potential liability, the auditor must understand four important dimensions of liability:

- Concepts of *breach of contract* and tort as they affect the auditor
- *Parties* who may bring suit against the auditor
- *Legal precedence and statutes* that may be used as a standard against which to judge the auditor's performance
- *Defenses* available to auditors

The first three dimensions are illustrated in Exhibit 18.1 and are discussed in more detail in the following sections. A complex interplay exists between these dimensions. The parties that sue may be either audit clients or third-party users. They may accuse the auditor of breach of contract, or of a tort. A **tort** is a civil wrong, other than breach of contract, based on negligence, constructive fraud, or fraud. (These concepts are discussed in the next subsection.) Lawsuits may be brought under contract law, common law, statutory law, or a combination of these. The defenses available to auditors are also discussed.

EXHIBIT 18.1 Overview of Auditor Liability

(AUDITOR HELD LIABLE? Y = YES, N = NO, NA = NOT APPLICABLE)

Who Can Sue?	**Client**		**3rd Parties**		
				Statutory Law	
Under What Law?	**Contract Law**	**Common Law**	**Common Law**	**1933 Act**	**1934 Act**
For What?					
Breach of contract	Y	NA	NA	NA	NA
Negligence	Y	Y	?*	Y	N
Gross negligence	Y	Y	Y	Y	Unclear
Fraud	Y	Y	Y	Y	Y

?* Depends on the test used:

- Identified User
- Foreseen User
- Foreseeable User

Causes of Legal Action

Parties that bring suit against auditors usually allege that the auditors did not meet the standard of "due care" in performing the audit or other professional services utilized by a client. The concept of due care is defined by *Cooley on Torts:*

> Every man who offers his service to another and is employed assumes the duty to exercise in the employment such skill as he possesses with reasonable care and diligence. In all these employments where peculiar skill is prerequisite, if one offers his service, he is understood as holding himself out to the public as possessing the degree of skill commonly possessed by others in the same employment, and, if his pretensions are unfounded, he commits a species of fraud upon every man who employs him in reliance on his public profession. But no man, whether skilled or unskilled, undertakes that the task he assumes shall be performed successfully, and without fault or error. He undertakes for good faith and integrity, but not for infallibility, and he is liable to his employer for negligence, bad faith, or dishonesty, but not for losses consequent upon pure errors of judgment.[1]

The third general auditing standard requiring due professional care reflects this same concept. Auditors are responsible for due care, but that doesn't mean that auditors are infallible. The specific responsibility in a particular case depends on whether there is a breach of contract, negligence, gross negligence, or fraud.

Breach of contract occurs when a person fails to perform a contractual duty. As an example, the auditor was hired to find a material fraud. If reasonable procedures would have detected the fraud and the auditor failed to uncover the fraud, the auditor would have breached the contract.

Negligence is the failure to exercise reasonable care, thereby causing harm to another or to property. If an auditor, for example, did not detect an embezzlement scheme because of a failure to follow up on evidence that would have brought it to light, but a prudent auditor would have performed such follow-up, the auditor is negligent. The profession's standards require that audits be conducted in accordance with GAAS; thus, a failure to meet GAAS requirements could be construed as an act of negligence on the part of the auditor.

Gross negligence (also referred to as **constructive fraud**) is the failure to use even minimal care or operating with a "reckless disregard for the truth" or "reckless behavior." Expressing an opinion on a set of financial statements with careless disregard of GAAS is an example of gross negligence. Gross negligence is more than failing to comply with professional standards. It is such complete disregard for due care that judges and juries are allowed to infer constructive fraud, or intent to deceive even though there may be no direct evidence of intent to deceive.

Fraud is an intentional concealment or misrepresentation of a material fact that causes damage to those deceived. In an action for fraud, scienter must generally be proved. **Scienter** means knowledge on the part of the person making the representations, at the time they are made, that they are false. An auditor has perpetrated a fraud on investors, for example, by expressing an unqualified opinion on financial statements that the auditor knows are, in reality, not fairly presented. The purpose of the fraud is to deceive.

Practical Point

To prove fraud, the plaintiff must prove intent to deceive.

The development of common and statutory law shows a fine balance between protecting users and avoiding an unreasonable standard of care on the part of the auditors. Regarding the preceding concepts, it is obviously much more difficult to prove that the auditor was fraudulent in issuing an audit opinion than it is to prove that the auditor was negligent in the conduct of the audit.

Parties That May Bring Suit Against Auditors

In most cases, anyone who can support a claim that damages were incurred based on reliance on misleading financial statements that were attested to by the auditor is in a position to bring a claim against the auditor. For ease of discussion,

[1] D. Haggard, *Cooley on Torts,* (4th ed. 1932), 472.

these parties are typically labeled as the *client* and *third-party users.* Third-party users can potentially be any of the third-party users identified in Chapter 1.

Liability to Clients

Auditors are expected to fulfill their responsibilities to clients in accordance with their contracts (usually an engagement letter). Auditors can be held liable to clients under contract law for breach of contract and/or under common law, and they can be sued under the concepts of negligence, gross negligence, and fraud. In most audit engagements, the client contracts with the auditor to perform specific services, such as to conduct an audit in accordance with generally accepted auditing standards and to complete the audit on a timely basis.

Breach of Contract Breach of contract may occur when there is nonperformance of a contractual duty. Causes for action against the auditor for breach of contract may include, but are not limited to, the following:

- Violating client confidentiality
- Failing to provide the audit report on time
- Failing to discover a material error or employee fraud
- Withdrawing from an audit engagement without justification

Remedies for breach of contract include the following:

- Requiring specific performance of the contract agreement
- Granting an injunction to prohibit the auditor from doing certain acts, such as disclosing confidential information
- Providing for recovery of amounts lost as a result of the breach

When specific performance or an injunction is not appropriate, the client is entitled to recover compensatory damages. In determining the amounts of compensation, courts try to put the client in the position in which it would have been had the contract been performed as promised.

The auditor can use the following as defenses against a breach of contract suit:

- The auditor exercised due professional care in accordance with the contract.
- The client was contributorily negligent.
- The client's losses were not caused by the breach.

Negligence Requirements A client seeking to recover damages from an auditor in an action based on negligence must prove:

- Duty
- Breach of that duty
- Causal relationship
- Actual damages

The client must show that the auditor had a duty not to be negligent. In determining this duty, courts use as criteria the standards and principles of the profession, including GAAS and GAAP. Liability may be imposed for lack of due care either in performing the audit or in presenting financial information. The auditor must have breached that duty by not exercising due professional care. The client must show there was a causal relationship between the negligence and damage. The client must prove actual damages. The amount of damages must be established with reasonable certainty, and the client must demonstrate that the auditor's acts or omissions were the cause of the loss.

Misleading Financial Statements Although management is responsible for the preparation of financial statements, it is possible that the statements contain

material misstatements that should have been discovered by the auditor. If the client was unaware of the misstatements and has suffered losses due to the misstatements the client may attempt to recover the damages from the auditor. For example, the auditor may have failed to discover a fraud that was being perpetrated against the management of the company. The auditor will usually argue that the client was contributorily negligent (the damage was at least in part caused by management's carelessness). Nonetheless, clients have brought successful cases against auditors when financial statements were misleading or frauds were not detected.

Common-Law Liability to Third Parties

In most engagements, the auditor does not know specifically who will be using the financial statements but is aware that third parties will be using them. Generally, the courts have held auditors liable to injured third parties when the auditor has been found guilty of gross negligence (constructive fraud) or fraud. Courts differ, however, as to what third parties the auditor should be held liable to for ordinary negligence. To win a claim against the auditor, third parties must prove that:

- They suffered a loss.
- The loss was due to reliance on misleading financial statements.
- The auditor knew, or should have known, that the financial statements were misleading.

Practical Point

The concept of foreseeability is fundamental to courts in determining whether or not an individual or a class of individuals have 'standing' to bring a case forward and whether the plaintiffs have to prove negligence, gross negligence, or fraud.

Foreseeability and Negligence: Common Law The fundamental issue is how much negligence a third party must prove to be successful in obtaining damages from an auditor. Courts have varied the standard, or burden of proof by the plaintiff, depending on the likelihood that an auditor could reasonably foresee that a user might have relied upon the financial statements or other attestation services provided by the auditor. Generally, less foreseeable plaintiffs have a greater burden in proving that the auditor had a duty to them. However, as you will see, the courts are not uniform on this issue.

The Ultramares Case: The Third-Party Beneficiary Test Common law is based on court decisions. The landmark case of *Ultramares Corporation v. Touche* set the precedent for an auditor's liability to third parties. It was decided by the New York Court of Appeals in 1931. The court held that auditors are liable to third parties for fraud and gross negligence, but not for ordinary negligence unless the plaintiff is in privity of contract (the client or a third-party beneficiary). A **third-party beneficiary** must be specifically identified in the engagement letter as a user for whom the audit is being conducted. If, for example, a bank requires an audit as part of a loan application and is named in the engagement letter, the auditor may be held liable to the bank for ordinary negligence. If the bank had not been named in the engagement letter, however, such liability would not exist. Judge Cardozo, writing the unanimous decision, expressed concern about expansive auditor liability to third parties:

> If liability for negligence exists, a thoughtless slip or blunder, the failure to detect a theft or forgery beneath the cover of deceptive entries, may expose accountants to a liability in an indeterminate amount for an indeterminate time to an indeterminate class. . . . Our holding does not emancipate accountants from the consequences of fraud. It does not relieve them if their audit has been so negligent as to justify a finding that they had no genuine belief in its adequacy, for this again is fraud. It does no more than say that, if less than this is proved, if there has been neither reckless misstatement nor insincere profession of an opinion, but only honest blunder, the ensuing liability for negligence is one that is bounded by the contract, and is to be enforced between the parties by whom the contract has been made.[2]

This precedent dominated judicial thinking for many years and is still followed in many jurisdictions. For example, in the 1992 case of *Bily v. Arthur Young & Co.*

[2] *Ultramares v. Touche,* 174 N.E. 441 (N.Y. 1931).

involving the bankruptcy of the Osborne Computer Company, the California Supreme Court upheld the *Ultramares* precedent. It concluded that extending auditor liability to other third parties "raises the spectre [sic] of multibillion-dollar professional liability that is distinctly out of proportion to: (1) the fault of the auditor (which is necessarily second [to that of management] and may be based on complex differences of professional opinion); and (2) the connection between the auditor's conduct and the third party's injury (which will often be attenuated by unrelated business factors that underlie investment and credit decisions)."[3]

Expansion of Ultramares: The Identified User Test In the 1985 case of *Credit Alliance Corp. v. Arthur Andersen & Co.*,[4] the New York Court of Appeals extended auditor liability for ordinary negligence to identified users. An **identified user** is a specific third party whom the auditor knows will use the audited financial statements for a particular purpose, even though the identified user is not named in the engagement letter.

Foreseen User Test The 1965 Restatement (Second) of Torts[5] expanded auditor liability for negligence to identified users and to any individually unknown third parties who are members of a known or intended class of third parties, called **foreseen users.** The client must have informed the auditor that a third party or class of third parties intends to use the financial statements for a particular transaction. The auditor does not have to know the identity of the third party. For example, the client tells the auditor that they plan to include the audited financial statements in an application to some financial institution for a loan. The auditor would be liable to the bank that ultimately makes the loan, even though its identity was not known at the time of the audit. A Rhode Island court in *Rusch Factors, Inc. v. Levin* used the foreseen users test.[6]

Foreseeable User Test Some courts have extended auditor liability to **foreseeable users** of audited financial statements. In *Citizens State Bank v. Timm, Schmidt & Co.*, the Wisconsin Supreme Court extended auditor liability to creditors who could foreseeably use the audited financial statements.[7] A similar position was taken in *Rosenblum, Inc. v. Adler,* where the New Jersey Supreme Court noted that the nature of the economy had changed since the *Ultramares* case, and that auditors are indeed acting as if a number of potential users rely on their audit opinion. This court made it clear that foreseeable users must have obtained the financial statements from the client for proper business purposes,[8] but this is not true in all jurisdictions.

Practical Point

Many jurisdictions have taken a broader view of stakeholders who may be affected by misleading financial statements.

Current Status Exhibit 18.2 summarizes the historical evolution of auditor common law liability to third parties for negligence. The current liability status depends on the state and court involved and the precedent the court chooses to use. Exhibit 18.3 summarizes the three user tests. The identified users test is used in about 15 states, the foreseen users test in 24 states, and the foreseeable users test in only 3 states. [9] No precedent has been set in the rest of the states. The best defense against being held liable is to perform every audit with due diligence.

[3] *Bily v. Arthur Young & Co.,* 834 P. 2d 745 (Cal. 1992).

[4] *Credit Alliance Corp. v. Arthur Andersen & Co.,* 483 N.E. 2d 110 (N.Y. 1985).

[5] The Restatement (Second) of Torts is published by the American Law Institute. Courts may refer to this treatise when considering an issue of outdated precedent. It offers a unique perspective on the law because its purpose is to state the law as the majority of courts would decide it today. It does not necessarily reflect the rules of the common law as adopted by the courts. Rather, it represents principles of common law that the American Law Institute believes would be adopted if the courts reexamined their common-law rules.

[6] *Rusch Factors, Inc. v. Levin,* 284 F. Supp. 85 (D.C.R.I. 1968).

[7] *Citizens State Bank v. Timm, Schmidt & Co.,* 335 N.W. 2d 361 (Wis. Sup. Ct. 1983).

[8] *Rosenblum, Inc. v. Adler,* 461 A. 2d 138 (N.J. 1983).

[9] Garrison & Hansen, "Using the Engagement Letter to Limit Auditors' Professional Liability Exposure," *The Ohio CPA Journal* (July-September, 1999): 59-62.

EXHIBIT 18.2 Tests Used in Common-Law Court Decisions Concerning Auditor Negligence

Source	Date	Identified User	Foreseen User	Foreseeable User
		TEST		
Ultramares (N.Y.)	1931	X		
Restatement (2d) of Torts	1965		X	
Rusch Factors (R.I.)	1968		X	
Citizens State Bank (Wisc.)	1983			X
Rosenblum (N.J.)	1983			X
Credit Alliance (N.Y.)	1985	X		
Bily v. Arthur Young (Calif.)	1992	X		

Statutory Liability to Third Parties

The Securities Act of 1933 and the Securities Exchange Act of 1934 are the primary federal statutes affecting auditor liability. These laws were enacted to ensure that investors in public companies are provided full and adequate disclosure of relevant information. These acts have been modified over the years. The most recent and significant modification has been the incorporation of the Sarbanes–Oxley Act of 2002. Audited financial statements are required to be included in information provided to current and prospective investors.

Auditors found to be unqualified, unethical, or in willful violation of any provision of the federal securities laws can be disciplined by the SEC. The sanctions available to the SEC under the Sarbanes–Oxley Act include the following:

- Temporarily or permanently revoking the firm's registration with the Public Company Accounting Oversight Board (PCAOB), meaning that the SEC will not accept its audit reports
- Imposing a civil penalty of up to $750,000 for each violation
- Requiring special continuing education of firm personnel

Investors in public companies may sue auditors for damages under common law, statutory law, or both. Statutory law provisions are described in the next two sections.

EXHIBIT 18.3 Negligence Tests for Auditor's Common-Law Liability to Third Parties

FORESEEABLE USER

FORESEEN USER

IDENTIFIED USER

Identified User	Foreseen User	Foreseeable User
The auditor knows the user's identity and specific transaction involved.	User is a member of a limited class of users for a specific transaction. Identity of the specific user may or may not be known to the auditor.	Those who could foreseeably use the financial statements
Example: The auditor knows that the First National Bank wants audited financial statements as part of the client's application for a loan.	*Example:* The auditor knows that the client needs audited financial statements because it wants to obtain a loan from one of several possible banks.	*Example:* Current and prospective creditors and stockholders

Securities Act of 1933 The Securities Act of 1933 requires companies to file registration statements with the SEC before they may issue new securities to the public. A registration statement contains, among other things, information about the company itself, its officers and major stockholders, and its plans for using the proceeds from the new securities issue. Part of the registration statement, called the **prospectus**, must be provided to prospective investors. The prospectus includes audited financial statements.

The most important liability section of the 1933 act is Section 11, which imposes penalties for misstatements contained in registration statements. For purposes of Section 11, the accuracy of the registration statement is determined at its effective date, which is the date the company can begin to sell the new securities. Because the effective date may be several months after the end of the normal audit fieldwork, the auditors must perform certain audit procedures covering events between the end of the normal fieldwork and the effective date.

Practical **Point**

The SEC Act of 1933 establishes a strong fiduciary responsibility for auditors. The burden of responsibility falls to the auditor to convince a jury that they performed the audit with due care, or the financial statements were not misstated, or the plaintiff's loss was caused by other factors.

In understanding the liability provisions of the 1933 act, it is important to know that the intent of the SEC is to ensure full and fair disclosure of public financial information. Thus, the standard of care is unusually high. Anyone receiving the prospectus may sue the auditor based on damages due to alleged misleading financial statements or inadequate audits.

Under the 1933 act, an auditor may be held liable to purchasers of securities for negligence, as well as fraud and gross negligence. Purchasers need to prove only that they incurred a loss and that the financial statements were materially misleading or not fairly stated. They do not need to prove reliance on the financial statements, that such statements had been read or even seen, or that the auditors were negligent.

The burden of proof shifts to the auditor, who must prove that (1) they used due professional care, (2) the statements were not materially misstated, or (3) the purchaser did not incur a loss caused by the misleading financial statements.

Securities Exchange Act of 1934 The 1934 act regulates the trading of securities after their initial issuance. Regulated companies are required to file periodic reports with the SEC and stockholders. These are the most common periodic reports:

- *Annual reports* to shareholders and *10-Ks*, which are annual reports filed with the SEC, both containing audited financial statements. 10-K's must be filed within 60 days of the end of the fiscal year.
- *Quarterly financial rep*orts to shareholders and *10-Qs,* which are quarterly reports filed with the SEC. 10-Qs must be filed within 45 days of the end of each of the first three quarters and must be reviewed by the auditors.
- *8-Ks*, which are reports filed with the SEC describing the occurrence of specific events including a change in auditors.

Practical **Point**

The 1934 Act covers most reports that are filed with the SEC.

Under the 1934 act, an auditor may be held liable for fraud when a plaintiff alleges that it was misled by misstatements in financial statements in making decisions on purchasing or selling securities. The liability criteria for standing is similar to common law. The act explicitly makes it unlawful to make any untrue statement of a material fact, or to omit to state a material fact that is necessary for understanding the financial statements.

In *Herzfeld v. Laventhol, Krekstein, Horwath & Horwath* (1974), the auditors were found liable under the 1934 act for failure to fully disclose the facts and circumstances underlying their qualified opinion. Judge Friendly stated that the auditor cannot be content merely to see that the financial statements meet minimum requirements of GAAP, but that the auditor has a duty to inform the public if adherence to GAAP does not fairly portray the economic results of the company being audited. More specifically, the trial court judge stated:

> The policy underlying the securities laws of providing investors with all the facts needed to make intelligent investment decisions can only be accomplished if financial statements fully and fairly portray the actual financial condition of the company. In

> those cases where application of generally accepted accounting principles fulfills the duty of full and fair disclosure, the accountant need go no further. But if application of accounting principles alone will not adequately inform investors, accountants, as well as insiders, the auditor must take pains to lay bare all the facts needed by investors to interpret the financial statements accurately.[10]

Generally, showing compliance with GAAP is an acceptable defense by the auditor. However, as shown here, the auditor must take care to ensure that GAAP are not being manipulated to achieve a specific financial presentation result that is not in accord with the substance of the transaction.

Federal courts have struggled with the negligence standard implied by the 1934 Act. The standard of holding auditors responsible for gross negligence or constructive fraud had essentially eroded to a standard of negligence. In 1976, the U.S. Supreme Court provided greater guidance in its review of *Ernst & Ernst v. Hochfelder.* The court held that Congress had intended that the plaintiff prove that an auditor acted with scienter in order to hold the auditor liable under the 1934 act. The court reserved judgment as to whether reckless disregard for the truth (gross negligence) would be sufficient to impose liability.

Although it would appear that the *Hochfelder* ruling ought to provide a great deal of comfort for the auditor, several cases that have followed *Hochfelder* indicate that it is not difficult for a judge or jury to infer "reckless conduct" by the auditor and hold the auditors to that standard. As noted earlier, a plaintiff also has the option to bring the case under common law under which scienter does not have to be proven by the plaintiff.

Exhibit 18.4 illustrates the factors plaintiffs must prove in a lawsuit brought under the 1934 act or common law against auditors, and possible defenses the auditors might use.

Criminal Liability to Third Parties Both the 1933 and 1934 Acts provide for criminal actions against auditors who willfully violate provisions of either act and related rules or regulations, or who know that financial statements are false and misleading and who issue inappropriate opinions on such statements. Guilty persons can be fined or imprisoned for up to five years. John Burton, a former chief accountant of the SEC, stated the SEC's position on criminal action against auditors:

> While virtually all Commission cases are civil in character, on rare occasions it is concluded that a case is sufficiently serious that it should be referred to the Department of Justice for consideration of criminal prosecution. Referrals in regard to accountants have only been made when the Commission and the staff believed that the evidence indicated that a professional accountant certified financial statements that he knew to be false when he reported on them. The commission does not make criminal references in cases that it believes are simply matters of professional judgment even if the judgments appear to be bad ones.[11]

Among the most publicized criminal actions against auditors are *United States v. Simon* (*Continental Vending*), and *Equity Funding*. These cases resulted in the criminal conviction of several auditors.

Continental Vending In the *United States v. Simon (Continental Vending)* action, the jury found two partners and a senior associate of the public accounting firm of Lybrand, Ross Bros. & Montgomery (a predecessor to PricewaterhouseCoopers, LLP) guilty of a conspiracy involving preparing, and giving an unqualified opinion on, misleading financial statements of Continental Vending Machine Corporation. The case represented the first criminal action against auditors who were found guilty even though they did not personally gain from this conspiracy.[12] Additionally, the

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[10] *Herzfeld v. Laventhol, Krekstein, Horwath & Horwath* [1973-1974] Transfer Binder CCH FED. Sec. Law Reporter #94,574, at 95,999 (S.D.N.Y. May 29, 1974).

[11] John C. Burton, "SEC Enforcement and Professional Accountants: Philosophy, Objectives and Approach," *Vanderbilt Law Review* (January 1975): 28.

[12] *United States v. Simon,* 425 F. 2d 796 (2d Cir. 1969).

EXHIBIT 18.4 Litigation Overview

SITUATION

Plaintiffs purchased stock in the stock market. The market price subsequently went up and plaintiffs purchased more stock. Company profits, the economy, and general stock market prices then declined. Plaintiffs sold the stock at a loss. Plaintiffs sued the company's management and auditors under the Securities Exchange Act of 1934 and common law for damages measured by the difference between the highest market price and the sales price. Defendants other than the auditors do not carry professional liability insurance and do not have very much personal wealth. Proofs required of the plaintiffs and possible defenses the auditors might use are summarized in the following table.

Proof	Auditor Defenses
Damage is the difference between the highest market price and the sales price.	Damage should be the difference between cost and actual sales price.
Statements were false and misleading.	Statements were in accordance with GAAP or not materially misstated.
Reliance on financial statements when making investment decisions.	Plaintiffs relied on a personal guarantee of the president and/or on separate inquiry before buying the stock.
Damage was due to false/misleading financial statements.	Damage was due to the decline in general stock market prices, the downturn in the economy, and reduced company profitability after the plaintiff purchased the stock.
Auditor knowledge of false/misleading financial statements: 1. Knew—fraud/scienter 2. Should have known—negligence, lack of due professional care	Auditor rebuttal: 1. Did not know 2. Used due professional care and followed GAAS, was misled by management
Judgment—joint and several liability. Auditors are 30% responsible for the losses. However, they are required to pay 100% of the damages because the other defendants cannot pay.	Under the 1934 Act and under common law in states that have enacted proportionate liability, this was not a willful act by the auditor and, therefore, the auditor is liable for only 30% of the damages. In other states, work to change state law to proportionate liability.

judge charged the jury to determine whether the financial statements were fairly presented; it was noted that following GAAP does not automatically lead to fairness.

Equity Funding In *Equity Funding*, the senior partner of Wolfson Weiner, Equity's auditors, and the in-charge auditor were convicted of criminal violations of the federal securities laws, and their right to practice before the SEC was automatically suspended. The SEC found that the auditors engaged in acts and practices in flagrant violation of its rules and standards of the accounting profession relating to independence.

In those statements, approximately two-thirds of the life insurance reported to be in force—as well as certain investments—were fictitious, and the audit failed to discover any of the bogus transactions.

Liability Issues of Multi-National CPA Firms

Most large U.S. CPA firms are affiliates of international organizations. For example. Deloitte is the U.S. affiliate of Deloitte Touche Tohmatsu (DTT). Parmalat, a large Italian dairy company, filed for bankruptcy in 2003 after a $17 billion hole was discovered in the books allegedly devised by former executives and hidden for 10 years. In its audits of Parmalat, Deloitte & Touche SpA, the Italian affiliate of DTT, failed to discover this massive fraud. Even though DTT organized itself as a network of legally separate and independent partnerships in various countries, class-action lawsuits have been brought against the U.S. and international arms of DTT arguing that the firm acted as one entity. Deloitte argued that DDT's global affiliates cannot be responsible for the actions of other arms. In 2005, Deloitte lost its bid for dismissal of these lawsuits apparently leaving each affiliate responsible for the quality of audits

of the other affiliates.[13] However, it appears that the subsequent settlement of the lawsuit is with the Italian entity of DTT, as was the settlement with Grant Thornton.

Liability Impact of Internet Dissemination of Audited Financial Information

An unsettled issue of liability concerns audited financial information disseminated on the Internet.[14] Everyone who owns a computer with access to the Internet has access to such information. The liability implications, if not carefully delineated, are staggering. Perhaps one of the most important cases related to this issue was settled before computers were invented. In *Jaillet v. Cashman*, the court dismissed a case against Dow Jones & Co. in 1920 for misreporting information over its newly developed ticker service. The court ruled that to permit a negligence claim would establish a precedent whereby "there is a liability by the defendant to every member of the community who was misled by the incorrect report." "Practical expediency" made dismissal of such a complaint "absolutely necessary."[15]

Internet reporting is here. Audited financial statements are being provided using XBRL (extended business reporting language). Foreseeability issues will get more difficult. Auditors will have to clearly indicate which items are audited and will have to take care to ensure the security of their report. It may be wise for those providing information over the Internet to include some form of disclaimer.

Summary of Auditor Liability to Third Parties

Refer back to Exhibit 18.1. Auditors are clearly liable to injured third parties for fraud, under both common law and statutory law. Because third parties are likely to sue under both common law and statutory law in a specific lawsuit, auditors are essentially liable for constructive fraud as well. Auditors are liable for negligence under the Securities Act of 1933 and possibly under common law, depending on the precedent used by the court.

Third parties must prove the auditor's guilt under common law and the Securities Exchange Act of 1934. Under the Securities Act of 1933, however, auditors must prove their innocence. Auditor defenses include the following:

- Due diligence; that is, the auditor did what a prudent auditor would have done.
- The financial statements were not materially misstated.
- The audit was not the cause of the plaintiff's loss.
- The auditor does not have a duty to the plaintiff.

Approaches to Mitigating Liability Exposure

Several approaches help mitigate the exposure of public accounting firms and partners to lawsuits. These approaches include (1) continuing education requirements for individual members, (2) policies to help assure auditor independence, (3) quality control programs, and (4) defensive auditing. Each of these approaches is discussed in detail below.

Practical Point

The AICPA requires that those wanting to become members must have at least 150 hours of university/college credits.

Continuing Education Requirement

To enhance the quality of job performance, the AICPA requires that its members in public practice earn at least 120 hours of continuing education credit every three years. Credit can be earned, for example, for continuing professional education

[13] "Judge Refuses to Dismiss Deloitte's Parmalat Lawsuit," http://www.Accountingweb.com, (July 9, 2005).

[14] Much of this information is reported in Miller & Young, "Financial Reporting and Risk Management in the 21st Century," *Fordham Law Review* (April 1997).

[15] *Jaillet v. Cashman,* 189 N.Y.S. 743 (Sup. Ct. 1921) aff'd, 194 N.Y.S. 947 (App. Div. 1922) aff'd, 139 N.E. 714 (N.Y. 1923).

courses, college courses, monitored self-study courses, and firm training programs. Some state boards of accountancy require that a minimum number of credits be related to professional ethics.

Policies to Help Ensure Auditor Independence

Partner Rotation Periodic rotation of partners helps bring a fresh approach to audits and minimize bias that may result from long-term contacts with client management. The Sarbanes-Oxley Act requires that the partner in charge of the audit of a public company and the concurring review partner be rotated at least every five years.

Practical Point

There are many ways to mitigate liability, but most boil down to four main points:

1. Remember that the needs of end-users are paramount.
2. Do quality work.
3. Be professionally skeptical in performing audit work.
4. Document the work done and the audit reasoning process.

Prohibited Services

To help assure auditor independence, the Sarbanes-Oxley Act prohibits registered public accounting firms from performing certain services for *public company* audit clients including:

- Bookkeeping or other services related to the accounting records or financial statements of the audit client
- Financial information systems design and implementation
- Appraisal or valuations services
- Actuarial services
- Internal audit outsourcing services
- Management functions or human resources
- Broker or dealer, investment adviser, or investment banking services
- Legal services and expert services unrelated to the audit
- Tax services for top management and certain tax planning services for the client

The AICPA's Code of Professional Conduct prohibits certain non-audit services for any audit client, *public or non-public*, including:

- Authorizing, executing, or consummating a transaction
- Preparing source documents or originating data evidencing the occurrence of a transaction
- Having custody of client assets
- Supervising client employees in the performance of their normal recurring activities
- Serving as a client's stock transfer or escrow agent, registrar, general counsel, or its equivalent

***Public/Non-Public* Clients**

Prohibited services for audit clients differ between public companies and non-public companies. Many of these prohibited services do not apply to non-public companies. However, the auditor of non-public companies should assess whether performing each of these activities represent threats to their independence.

Restrictions on Non-Audit Services for Audit Clients

The Sarbanes-Oxley Act requires that the audit committee of a public company be responsible for assessing an audit firm's independence. In addition, it requires that any non-audit services to be performed by its audit firm must be preapproved by the audit committee unless such services, in the aggregate, amount to less than 5% of the total amount paid to its audit firm during the year.

The AICPA's Code of Professional Conduct (Code) allows public accounting firms to perform services not specifically prohibited (see above) for non-public audit clients if the firm determines that independence will not be compromised. The firm should also establish an understanding with the client that the client is responsible to:

- Designate a management-level individual(s) to be responsible for overseeing the services being provided
- Evaluate the adequacy of the services performed and any resulting findings
- Make management decisions related to the service

***Public/Non-Public* Clients**

The restrictions on non-audit services differ between public and non-public audit clients.

Auditor Independence Programs

One of the elements of a public accounting firm's quality control program (covered in the next section) is establishing policies and procedures to provide reasonable assurance that personnel maintain independence in fact and in appearance when performing audits. Such a program may include the following:

- Firm training programs that emphasize factors that can impede independence
- Firm review of all relationships that may affect auditor independence and individual reporting of all potential relationships that might impair independence
- On-the-job review of performance emphasising the need for skepticism, objectivity, and the need to corroborate management's explanations

Quality Control Programs

Quality Control Standards

The most important ingredient for mitigating liability exposure is for firms to implement sound quality control policies and procedures. The AICPA has developed a set of elements of quality control to assist firms in developing quality control programs. These elements also serve as criteria for external quality/peer reviews. Firms should consider each of the following broad elements of quality control in establishing quality control policies and procedures:

- Independence, integrity, and objectivity
- Personnel management
- Acceptance and continuance of clients and engagements
- Engagement performance
- Monitoring

Who audits the auditors? A triad of quality reviews exists to help ensure the quality of audits: external inspections/peer reviews, concurring partner reviews, and interoffice reviews.

External Inspections/Peer Reviews

The Sarbanes-Oxley Act requires that the PCAOB perform inspections of registered public accounting firms. The PCAOB conducts inspections every year for registered firms that have over 100 *public company* audits and every three years for the other registered firms. Inspection reports are available on PCAOB's web site (http://www.pcaobus.org). Many of these reports identify deficiencies found by the inspectors.

***Public/Non-Public* Clients**

The inspection/peer review requirements differ between public accounting firms that audit public companies and those that have only non-public audit clients.

Unregistered firms that perform audits and/or reviews of *non-public companies* are required by most state boards of accountancy or by the AICPA to undergo an **external peer review** every three years. The reviews are conducted by professionals from another public accounting firm and provide an objective assessment of the appropriateness of the firm's quality control policies and procedures as well as of the degree of compliance with them. For example, the reviewers determine whether the firm has policies and procedures that encourage personnel to seek assistance from persons having the knowledge, competence, judgment, and authority to help resolve a problem (engagement performance element). The monitoring element requires the firm to have policies and procedures to help ensure that the other elements are being effectively applied. Quality improvement is sought primarily through education and remedial or corrective actions.

The Quality Review Division of the AICPA supervises the external peer review program for public accounting firms that do not provide audit services for public companies. Peer review reports are issued to the firm and most are available from the AICPA to be used by prospective clients, employees, and other interested parties.

Internal Peer Review

There are two kinds of internal peer review programs—concurring partner reviews and interoffice reviews.

Concurring Partner Review A partner not otherwise involved in the audit performs a **concurring partner review** near the end of each audit to ensure that documented evidence supports the audit opinion. Such reviews are required for audits of public companies. It is desirable for firms to conduct these reviews on all audits. The concurring partner should be familiar with the nature of the business being audited. Analytical procedures at this stage of the audit help identify unexpected relationships and trends for which sufficient evidence should be documented. Inadequate evidence indicates a need for more audit work. Some single-partner public accounting firms arrange with other small firms to perform concurring reviews for each other before issuing audit reports.

Interoffice Review An **interoffice review** is a review of one office of the firm by professionals from another office to ensure that the policies and procedures established by the firm are being followed. Like external inspections/peer reviews, interoffice reviews include selecting and reviewing a sample of audits and other jobs to make sure quality work was performed.

Defensive Auditing

Defensive auditing means taking special actions to avoid lawsuits. These actions include establishing good quality controls and submitting the firm to quality/peer reviews. There are, however, other actions that firms can take.

Engagement Letters

The cornerstone of any defensive practice program is the engagement letter. The engagement letter should clearly state the scope of the work to be done so there can be no doubt in the mind of the client, public accountant, or courts. Care should be taken, however, when describing the degree of responsibility the auditor takes with respect to discovering fraud and misstatements. If the client wants its auditors to go beyond the requirements of the auditing standards, the auditors should have their attorneys review the wording to make sure that it says not only what is intended, but also what is possible.

Client Screening

One of the quality control elements deals with accepting and retaining clients. This decision should involve more than just a consideration of management's integrity. Strict client acceptance guidelines should be established to screen out the following:

- *Clients that are in financial and/or organizational difficulty*—For example, clients that could go bankrupt or clients with poor internal accounting controls and sloppy records.
- *Clients that constitute a disproportionate percentage of the firm's total practice*—Clients may attempt to influence the auditor into allowing unacceptable accounting practices or issuing inappropriate opinions.
- *Disreputable clients*—Most public accounting firms cannot afford to have their good reputation tarnished by serving a disreputable client, or by associating with a client that has disreputable management.
- *Clients that offer an unreasonably low fee for the accountant's services*—The auditor may attempt to cut corners imprudently or lose money on the engagement. Conversely, auditors may bid for audits at unreasonably low prices.

- *Clients that refuse to sign engagement or management representation letters*—Allowing clients to waive this requirement increases the probability that the scope of services will be expanded by the court.

Evaluating the Firm's Limitations

A firm should not undertake an engagement that it is not qualified to handle. This prohibition is especially important for the smaller, growing firms. Statistics show that firms covered by an AICPA professional liability insurance plan that are most susceptible to litigation are those with staffs of 11 to 25 accountants. They appear to become overzealous, undertaking engagements they are not qualified to perform.

Maintaining Accurate and Complete Audit Documentation

The audit team should document everything done on the audit. It is difficult to persuade a jury that anything was done that is not documented. Audit documentation should clearly show evidence of supervisory review, particularly in those areas with the greatest potential for improprieties, such as inventories, revenue recognition, and accounting estimates. The documentation should clearly reflect the identification and investigation of related-party transactions, which are ripe for abuse. The investigation of unusual transactions, such as debt swaps or unusual year-end journal entries, should be carefully documented. These often lend themselves to inflation of income and avoidance of loss recognition.

Limited-Liability Partnerships

Most of the large public accounting firms are limited-liability partnerships (LLPs). The partners of LLPs are taxed like partnerships (i.e., no double taxation). If an LLP goes bankrupt, the partners' personal assets are not at risk for paying the firm's debts, except for the assets of any partners who caused the bankruptcy.

Role of Insurance

Many public accounting firms carry professional liability insurance to protect themselves from the full financial impact of lawsuit damages. Such insurance has deductibles that can exceed $25 million for a first loss and places a ceiling on how much will be paid for each case. In addition to the deductible, damages exceeding the ceiling have to be paid from the assets of the public accounting firm.

Tort Reform

CPAs, business leaders, and others have been urging changes in federal and state laws. One change is from joint and several liability to proportionate liability. With proportionate liability, a public accounting firm that is found responsible for 20% of the damages would have to pay only 20%, not 100% as it would have to do under joint and several liability if the other defendants cannot pay their share.

Another desired change is to reduce nuisance suits by requiring plaintiffs to pay defendant's court costs if the court determines the case is without merit. See the *Auditing in Practice*—The Mathematics of Large Lawsuits feature.

The U.S. Congress passed the *Private Securities Litigation Reform Act of 1995*, which is designed to curb frivolous securities class action lawsuits brought under federal securities laws against companies whose stock performs below expectations. Under this act, liability is proportional rather than joint and several, unless the violation is willful; that is, the auditor knowingly participated in a fraud. In some situations, a defendant may have to cover some of the obligation of another defendant who is unable to pay his share.

Because the act applies only to lawsuits brought in federal courts, lawyers took their cases to state courts. This loophole was closed by the Securities Litigation Uniform Standards Act of 1998, which says, "Any covered class action brought into any state court involving a covered security . . . shall be removable to the federal

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The Mathematics of Large Lawsuits

The national law firm of Allure & Pursue (a fictional firm) has developed a computer program to monitor any unusually large decreases in the price of a company's stock. A newspaper article decries the situation at Spin Mart, a national retailer, citing a lack of controls, inventory obsolescence, and a poor distribution system. The paper predicts a potential bankruptcy for the company. On the following day, there is a dramatic decrease in Spin Mart's stock price. Investors, lenders, and vendors ultimately suffer severe losses.

Here is where the mathematics can work against the auditor. Allure & Pursue immediately file a class action lawsuit against Spin Mart's auditors on behalf of a client and all others similarly situated. They claim that the losses were caused, in part, by misleading audited financial statements that caused their clients to invest in, or lend to, Spin Mart. They immediately ask for discovery procedures, requesting access to all the documents of the auditing firm for the past three years. The law firm hires an expert to go over the documents in detail to spot obvious areas where auditors may have missed the company's problems.

Management leaves Spin Mart and the company declares bankruptcy. Thus, even if the company were 95% at fault, it is not around to pay. But, under joint and several liability, a party that is responsible for only 5% of the damages could be forced to pay the entire amount of damages. Assume the total stock market loss was $800 million. On a contingent-fee basis, the law firm could earn $240 million (a 30% fee). The law firm would incur costs in identifying all parties and in pursuing the case. Yet, the $240 million potential reward is alluring. Further, they may be able to use RICO to add a penalty of triple damages to "teach the auditors a lesson." The auditors sincerely believe they did a good audit, but they now face a potential loss of $800 million plus the cost of defending the suit. Further, the case will be tried before a jury in a state where the juries have not had a history of reacting favorably to business.

The law firm, realizing that it may be a tough case, offers to settle for $75 million (and would probably take $50 million). The auditing firm is faced with a difficult economic decision: Should it defend the case with an expected $12 million in legal fees and risk a judgment against it for $800 million, or should it offer to settle the suit for $50 million even though the firm does not believe it has done anything wrong?

Consider the outcome of this same scenario if proposed tort reform legislation were enacted. Under proportionate liability, the auditor could be responsible for more than its actual percentage of damages only if the plaintiff could show the auditor was directly responsible for over half of the damages. Further, the plaintiffs and their attorneys would be responsible for all litigation costs if a judge ruled the case was without merit. Finally, what if the plaintiffs had to prove that the auditor directly participated in a plan to defraud the plaintiffs?

The current system, argues the auditor, stacks the deck against it because the potential losses are all out of proportion to the auditor's responsibility. Auditors are forced to settle cases out of court because the risks of not settling are too high. The plaintiffs argue that the damages incurred by the plaintiffs are more important than the calls for tort reform that favor a particular industry—in this case, the auditors.

district court for the district in which the action is pending." This will force potential plaintiffs to adhere to the spirit, as well as the letter, of the 1995 act.

There is extensive effort to get tort reform introduced and passed at the state level. Several states have been successful, and many others continue to press for changes. For example, in Minnesota prior to 2002, if the public accounting firm was found to be as little as 16% responsible, it could be held liable for 100% of the damages. In 2002, the legislature raised the 16% threshold to 50%.

Practical Point

Performing audits with a public interest and the highest level of due professional care is always the key to avoiding large losses.

Effect of Court Cases on Auditing Standards and Practice

Engagement Letters

The *1136 Tenants' Corp.* case (see *Auditing in Practice*—1136 Tenants' Corp.) led to the requirement of confirming the terms of each engagement, preferably in a written engagement letter. Having the nature of each engagement in writing avoids disagreements about whether the accountant should have done an audit or a lower level of service.

Audit Procedures

In the 1930s, the president of McKesson & Robbins, a drug company, had a history of aliases, fraud, and imprisonment. He had perpetrated a management fraud by reporting material amounts of nonexistent inventory and accounts receivable.

AUDITING IN PRACTICE

1136 Tenants' Corp.

One of the most publicized lawsuits against a public accountant by a client is *1136 Tenants' Corp. v. Max Rothenberg & Co.* The principal issue in this case centers on the scope of service agreed to between the plaintiff and defendant. Rothenberg claimed to have been hired to perform bookkeeping services, prepare (compile) financial statements without verification solely from information furnished by the managing agent on the client's behalf, and complete some tax work. The plaintiff (a cooperative apartment corporation) contended that it had engaged Rothenberg as an auditor, not as a bookkeeper. This work was done under an oral retainer agreement providing for payment of $600 per year.

Rothenberg failed to discover the embezzlement of funds from the cooperative by its managing agent. The financial statements were accompanied by letters of transmittal that began "pursuant to our engagement, we have reviewed and summarized the statements of your managing agent and other data submitted to us by Riker & Co., Inc., pertaining to 1136 Tenants' Corporation..." [and concluded:] "The following statements (i.e., the financial statements and appended schedules) were prepared from the books and records of the Corporation. No independent verifications were undertaken thereon." On each page of the financial statements was the following: "Subject to comments in letter of transmittal."

Through apparent carelessness, however, the defendant used the word *audit* in the financial statements and on the bills. The trial court held that the defendant undertook to perform an audit and was negligent in its performance. The judge awarded more than $200,000 to the plaintiffs.

Source: Emanuel Saxe, "Accountants' Responsibility for Unaudited Financial Statements," *The New York Certified Public Accountant* (June 1971), 419–423.

At that time, general auditing procedures did not include observing inventory or confirming receivables unless requested by the client. The company's fictitious assets were accidentally discovered by one of the audit partners who, while vacationing near one of the warehouse sites, decided to visit the location only to find that it was an empty lot. The SEC questioned the adequacy of then-existing standard auditing practices. As a result, the members of the AICPA voted to require the observation of inventory and confirmation of accounts receivable when it is practical to do so.

Subsequent Events

The auditors for Yale Express had rendered an unqualified opinion on its financial statements. During the following year, while performing a special management service engagement, the auditors found that the manner of revenue and expense recognition was improper. Had Yale Express used proper accounting, its prior-year *profit* of $1.1 million should have been a *loss* of $1.9 million. This error was not reported to the public until the subsequent year's audited financial statements were distributed. When the public learned that the auditors knew of this error much earlier than it was reported, they sued the auditors for failing to notify them on a timely basis. A new standard, *Statements on Auditing Procedure 41,* "Subsequent Discovery of Facts Existing at the Date of the Auditor's Report,"[16] was issued and is now incorporated in *SAS 1* (AU 561). This standard prescribes the procedures to be followed by the auditor in such situations and is discussed in Chapter 16.

Related-Entity Transactions

U.S. Financial was a publicly-held company that traded in real estate. In an effort to boost earnings, its management engaged in a scheme to sell and repurchase real estate to a number of obscure, affiliated companies. The transactions had special terms that the SEC believed should have caught the attention of the auditors. The SEC

[16] Statements on Auditing Procedure were predecessors of Statements on Auditing Standards and were codified as SAS 1 in 1972.

required the public accounting firm to develop an audit strategy for identifying and disclosing related-entity transactions and prohibited its San Diego office from adding any new SEC clients for a six-month period. The profession subsequently developed *SAS 6,* "Related Parties (AU 334)." *SAS 6* is interesting in that the auditing standard prescribed the appropriate accounting. The concepts in *SAS 6* were subsequently adopted by the FASB in its Statement No. 57, "Related Party Disclosures."

Summary

The idea that "it can't happen to me" is dangerous for auditors to believe. Although audits are not necessarily conducted with an eye toward potential litigation, the concepts included in this chapter should be instilled in the minds of every auditor. Performing audit engagements with due professional care significantly reduces the possibility of being held liable, but it does not guarantee avoidance of lawsuits.

Significant Terms

breach of contract Failure to perform a contractual duty that has not been excused; for public accounting firms, the parties to a contract normally include clients and designated "third-party beneficiaries."

class action suits Brought on behalf of a large group of plaintiffs to consolidate suits and to encourage consistent judgments and minimize litigation costs; plaintiff shareholders may bring suit for themselves and all others in a similar situation, that is, all other shareholders of record at a specific date.

common law Developed through court decisions, custom, and usage without written legislation and operating on court precedence; may differ from state to state or by jurisdiction.

concurring partner review An independent review of an audit report and accompanying documentation by a partner or review function independent of the engagement personnel, before an audit report is issued.

constructive fraud See gross negligence.

contingent-fee cases Lawsuits brought by plaintiffs with compensation for their attorneys contingent on the outcome of the litigation, usually one-third of the damages awarded (including punitive damages), but could be for any amount negotiated between plaintiff party and the lawyer.

contract law Stems from case law, the *Uniform Commercial Code,* and other state statutes and establishes the rights and responsibilities of parties to consensual, private agreements.

defensive auditing Taking special actions to avoid lawsuits.

external peer review An independent review of the quality of a public accounting firm; performed by professionals who are not a part of the firm or organization.

foreseeable user Those not known specifically by the auditor to be using the financial statements, but recognized by general knowledge as current and potential creditors and investors who will use them.

foreseen user Individually unknown third parties who are members of a known or intended class of third-party users who the auditor, through knowledge gained from interactions with the client, can foresee will use the statements. Although foreseen users are not identified in the engagement letter, the auditor may have firsthand knowledge, for example, that the financial statements will be used to obtain a loan from some bank.

fraud Intentional concealment or misrepresentation of a material fact with the intent to deceive another person, causing damage to the deceived person.

gross negligence Failure to use even minimal care, or evidence of activities that show a "recklessness or careless disregard for the truth"; evidence may not be present, but may be inferred by a judge or jury because of the carelessness of the defendant's conduct.

identified user Third-party beneficiaries and other users when the auditor has specific knowledge that known users will be utilizing the financial statements in making specific economic decisions. They do not have to be named in an engagement letter.

interoffice review A review of one office of a firm by professionals from another office of the same firm to ensure that the firm's policies and procedures are being followed.

joint and several liability Individual responsibility for an entire judgment against all, when one defendant

cannot pay the damages awarded to a plaintiff. Apportions losses among all defendants who have an ability to pay for the damages.

negligence Failure to exercise reasonable care, thereby causing harm to another or to property.

prospectus The first part of a registration statement filed with the SEC, issued as part of a public offering of debt or equity and used to solicit prospective investors in a new security issue containing, among other items, audited financial statements. The Securities Act of 1933 imposes liability for misstatements in a prospectus.

scienter An intent to deceive (fraud).

statutory law Developed through legislation, such as the Securities Act of 1933 and the Securities Exchange Act of 1934.

third-party beneficiary A person who was not a party to a contract but is named in the contract as one to whom the contracting parties intended that benefits be given.

tort A civil wrong, other than breach of contract, based on negligence, constructive fraud, or fraud.

Review Questions

18-1 The chapter describes societal and judicial factors that affect lawsuits against auditors. Identify these factors, and briefly describe their impact.

18-2 Distinguish between common law and statutory law.

18-3 What are the potential causes of action against an auditor under a breach of contract lawsuit?

18-4 In what significant ways might settlements brought against an auditor under a breach of contract suit differ from those when a client brings a lawsuit under common law?

18-5 When a client sues the auditor under common law, is the client or the auditor required to furnish the burden of proof? What must be proven in order for the client to receive damages?

18-6 What defenses might an auditor use in successfully defending a:
a. Breach of contract suit
b. Suit brought under tort law

18-7 What is meant by the *due diligence standard*? What factors might an auditor cite in using due diligence as a defense in a court case?

18-8 What precedent was set by the *Ultramares* case? What was the primary argument used by Judge Cardozo in setting the precedent?

18-9 Three tests have been used by various courts in common-law decisions to determine which third-party users can successfully bring a suit against the auditor for negligence. Identify each of these tests and describe the parties that are defined in each of these tests.

18-10 What are the administrative sanctions the SEC can bring against auditors?

18-11 Briefly explain the primary purpose of the:
a. Securities Act of 1933
b. Securities Exchange Act of 1934

18-12 What is meant by the effective date of a registration statement? How does this affect the auditor's responsibility for reviewing subsequent events?

18-13 How does the auditor's liability to third parties differ under the 1933 act and the 1934 act?

18-14 What is:
a. A *10-K*
b. A *10-Q*
c. An *8-K*

18-15 What are the negative effects on a public accounting firm of:
a. Losing a lawsuit
b. Winning a lawsuit

18-16 Is there a conceptual difference between an "error" on the part of the auditor and "ordinary negligence"? Explain.

18-17 What precedent was set in the *Hochfelder* case described in the chapter? What actions would be necessary to change the precedent?

18-18 Why is the *Rosenblum* case a particularly important case in auditor liability?

18-19 What are the continuing education requirements for an AICPA member in public practice? How does the 150 credit-hour education requirement for CPAs respond to the need to reduce liability?

18-20 What is meant by *defensive auditing*? What are some of the actions a public accounting firm can take to minimize the likelihood of lawsuits?

18-21 What services are registered public accounting firms prohibited from performing for *public company* audit clients?

18-22 What services are non-registered public accounting firms prohibited from performing for *non-public* company audit clients?

18-23 Explain the advantage to a public accounting firm of proportionate liability as opposed to joint and several liability.

18-24 Explain the difference between the purposes of a concurring partner review and an interoffice review.

18-25 How often are registered public accounting firms required to undergo a PCAOB inspection?

18-26 Are non-registered public accounting firms required to have external peer reviews? Explain.

18-27 What was the impact of each of the following court cases on auditing standards?
a. *1136 Tenants' Corporation*
b. McKesson-Robbins
c. Yale Express
d. U.S. Financial

Multiple-Choice Questions

18-28 In a common-law suit for damages, the jury awards the plaintiffs $1 million. The jury also determines that management is 80% at fault, the auditors are 15% at fault, and management's counsel is 5% at fault. Assume that management is unable to pay any damages. Under joint and several liability, the auditor would be responsible for damages of:
a. $1 million
b. $750,000
c. $270,000
d. $150,000

18-29 Use the same facts as in Problem 18-28. Under proportionate liability, the auditor would be responsible for damages of:
a. $1 million
b. $750,000
c. $270,000
d. $150,000

***18-30** Nast Corp. orally engaged Baker & Co., CPAs, to audit its financial statements. Nast management informed Baker that it suspected the

* All questions marked with an asterisk are adopted from the Uniform CPA Examination.

accounts receivable were materially overstated. Although the financial statements audited by Baker did, in fact, include a materially overstated accounts receivable balance, Baker issued an unqualified opinion. Nast relied on the financial statements in deciding to obtain a loan from Century Bank to expand its operations. Nast has defaulted on the loan and has incurred a substantial loss.

If Nast sues Baker for negligence in failing to discover the overstatement, Baker's best defense would be that:

a. Baker did not perform the audit recklessly or with intent to deceive.
b. Baker was not in privity of contract with Nast.
c. Baker performed the audit in accordance with generally accepted auditing standards.
d. Baker had not signed an engagement letter.

***18-31** If a stockholder sues a CPA for common-law fraud based on false statements contained in the financial statements audited by the CPA, which of the following, if present, would be the CPA's best defense?

a. The stockholder lacks privity to sue.
b. The false statements were immaterial.
c. The CPA did not financially benefit from the alleged fraud.
d. The client was guilty of contributory negligence.

18-32 In a common-law action against an accountant, lack of privity is a viable defense if the plaintiff:

a. Is the client's creditor who sues the accountant for negligence
b. Can prove the presence of gross negligence that amounts to a reckless disregard for the truth
c. Is the accountant's client
d. Bases the action upon fraud

18-33 Under common law, which of the following statements most accurately reflects the liability of a CPA who fraudulently gives an opinion on an audit of a client's financial statements?

a. The CPA is liable only to third parties in privity of contract with the CPA.
b. The CPA is liable only to known users of the financial statements.
c. The CPA probably is liable to any person who suffered a loss as a result of the fraud.
d. The CPA probably is liable to the client, even if the client was aware of the fraud and did not rely on the opinion.

***18-34** One of the elements necessary to hold a CPA liable to a client for negligently conducting an audit is that the CPA:

a. Acted with scienter
b. Was a fiduciary of the client
c. Failed to exercise due care
d. Executed an engagement letter

***18-35** Which of the following, if present, would support a finding of constructive fraud on the part of a CPA?

a. Privity of contract
b. Intent to deceive
c. Reckless disregard
d. Ordinary negligence

***18-36** Under the provisions of Sections 10(b) and Rule 10b-5 of the Securities Exchange Act of 1934, which of the following activities must be proven by a stock purchaser in a suit against a CPA?

I. Intentional conduct by the CPA designed to deceive investors
II. Negligence by the CPA

a. I only
b. II only
c. Both I and II
d. Neither I nor II

***18-37** Under Section 11 of the Securities Act of 1933, a CPA usually will not be liable to the purchaser:
a. If the purchaser is contributorily negligent
b. If the CPA can prove due diligence
c. Unless the purchaser can prove privity with the CPA
d. Unless the purchaser can prove scienter on the part of the CPA

***18-38** Under Section 11 of the Securities Act of 1933, which of the following must be proven by a purchaser of the security?

	Reliance on the Financial Statements	*Fraud by the CPA*
a.	Yes	Yes
b.	Yes	No
c.	No	Yes
d.	No	No

***18-39** Quality control for a CPA firm, as referred to in *Statements on Quality Control Standards,* applies to:
a. Auditing services only
b. Auditing and consulting services
c. Auditing and tax services
d. Auditing and accounting and review services

***18-40** Which of the following are elements of a CPA firm's quality control that should be considered in establishing its quality control policies and procedures?

	Independence	*Monitoring*	*Client Acceptance*
a.	Yes	Yes	No
b.	Yes	Yes	Yes
c.	No	Yes	Yes
d.	Yes	No	Yes

Discussion and Research Questions

18-41 **(Liability for Negligence)** An auditor was sued for and found guilty of ordinary negligence.

Required
For each of the following situations, indicate the likelihood the plaintiff would win if the plaintiff is:
a. A financial institution that was known to the auditor as the primary beneficiary of the audit, suing under common law
b. A stockholder suing under common law
c. A financial institution that was unknown to the auditor loaned money to the client based on the audit financial statements, but the auditor knew only that the client would use the statements to obtain a loan from some financial institution. The plaintiff is suing under common law
d. An investor suing under the 1934 Act
e. An investor suing under the 1933 Act

18-42 **(Responsibility for Negligence)**

Group Activity

a. Compare an auditor's liability to third parties for negligence under *Ultramares, Credit Alliance, 1965 Restatement (Second) of Torts,* and *Rosenblum*. Which approach do you think auditors prefer? Why?
b. Which approach do you think is best for society? Why?

18-43 **(Recoverability of Damages)** An auditor issued an unqualified opinion on financial statements that failed to disclose that a significant portion of the accounts receivable was probably uncollectible. The auditor

also failed to follow GAAS with respect to inventory. The auditor knew that the financial statements would be used to obtain a loan. The client subsequently declared bankruptcy.

Required

Under what concepts might a creditor who loaned money to the client on the basis of the financial statements recover from the auditor?

18-44 **(Defense Against an Investor)** An investor is suing an auditor for issuing an unqualified opinion on the financial statements of Duluth Industries, which contained a material error. The auditor was negligent in performing the audit. The investor had reason to believe the statements were wrong prior to purchasing stock in the company.

In the subsequent period, Duluth Industries sustained operating losses, the stock price went down by 40%, and the investor sold the stock at a loss. During the period that the investor held this stock, the Dow Jones Industrial Average declined 10%.

Required

What defenses might the auditor use?

18-45 **(Identified User Test)** A client applied for a bank loan from First Bank. In connection with the loan application, the client engaged an auditor to audit its financial statements, and the auditor issued an unqualified opinion. On the basis of those statements, First Bank loaned money to the client. Shortly thereafter, the client filed for bankruptcy and First Bank sued the auditor for damages. The audit documentation showed negligence and possible other misconduct in performing the audit.

Required

a. Under what circumstances is First Bank an identified user?
b. What exceptions to the identified user test might First Bank argue?

18-46 **(Interpreting the Negligence Standard)** It is often difficult for courts to interpret the negligence standard in deciding whether an act or omission by the auditor constitutes a simple error, negligence, or gross negligence. Often the courts look to the standards of prudent professionals in the conduct of auditing to provide guidance.

Required

For each situation listed, briefly describe whether you think the act or omission constitutes negligence, gross negligence, or neither. Support your answer with a brief rationale. Assume that each of the situations led to material errors in the financial statement and to a lawsuit against the auditors.

a. The auditor failed to note that a confirmation signature was a forgery.
b. The auditor had the client mail out the accounts receivable confirmations in order to expedite completion of the audit and to save audit fees. The client and auditor had agreed, in advance, to this procedure as a way to reduce audit fees.
c. The auditor failed to recognize that the client's warranty accrual was understated. The understatement was due to a new product introduction with which the client had no experience.
d. The client's loan loss reserve (allowance for uncollectible loans) was materially understated. Many of the client's loans were not documented and were not properly collateralized.
e. The auditor failed to discover a material misstatement of sales and accounts receivable. The auditor had noted a large increase in year-end sales and receivables, but did not plan any special procedures because previous audits had not indicated any errors. Most of the year-end sales were fictitious.
f. The client had inappropriately charged a material amount of new capital equipment to repairs and maintenance expense. The client did

so in order to minimize its tax liability. The auditor did not perform a detailed review of repairs and maintenance, but did note that the account had risen only 15% above the previous year, and that sales had increased 5%.

g. Same situation as part (f), except that the auditor assigned an inexperienced auditor to the audit of maintenance. It was the auditor's first time on the job, and she failed to recognize that items should have been capitalized because she was not familiar with the industry or the client's capitalization policy.

18-47 **(1933 Securities Act)** The Monicker Co. engaged the accounting firm of Gasner & Gasner to audit the financial statements to be used in connection with a public offering of securities. Monicker's stock is regularly traded on the NASDAQ. The audit was completed and an unqualified opinion was expressed on the financial statements, which were submitted to the SEC along with the registration statement.

Three hundred thousand shares of Monicker common stock were sold to the public at $13.50 per share. Eight months later, the stock fell to $2 per share when it was disclosed that several large loans to two "paper" companies owned by one of the directors were worthless. The loans were secured by the stock of the borrowing corporation and by stock of Monicker that was owned by the director. These facts were not disclosed in the financial statements. The director and the two corporations are insolvent.

Required

Indicate whether each of the following statements is true or false, and briefly explain the rationale for your choice:

a. The Securities Act of 1933 applies to the preceding public offering of securities.
b. The accounting firm has potential liability to any person who acquired the stock described in connection with the public offering.
c. An investor who bought shares in Monicker would make a prima facie case if he or she alleged that the failure to explain the nature of the loans in question constituted a false statement or misleading omission in the financial statements.
d. The accountants could avoid liability if they could show that they were not fraudulent in the conduct of the audit.
e. The accountants could avoid, or reduce, the damages asserted against them if they could establish that the drop in price was due in whole or in part to other causes.
f. The SEC would establish contributory negligence as a partial defense for the auditor because the SEC approved the registration statement.
g. The auditor could reduce the liability if the auditor could prove that the loans were a fraud perpetrated by management to inflate the stock price.

18-48 **(Auditor Defenses)** Plaintiffs purchased stock of Shiloh, Inc. in the over-the-counter market. The market price subsequently went up and the plaintiffs purchased more stock. Shiloh's profits, the economy, and general stock market prices then declined. Plaintiffs sold the stock at a loss and sued the company's management and auditors for damages.

Required

What possible defenses might the auditors use against each of the following potential allegations the plaintiffs could make?

a. The auditors knew the statements were misleading.
b. The auditors were negligent and should have known the statements were misleading.
c. The statements were materially false and misleading.
d. Plaintiffs sustained a loss due to the false/misleading financial statements.

e. The plaintiffs are a foreseeable user; therefore, the auditors have a duty to the plaintiffs.

Research Activity

18-49 Using the resources of your library, such as *The Wall Street Journal Index*, the *Accountants Index, ABI Inform,* and the *Business Periodicals Index,* prepare briefs of recent common-law cases brought against auditors, including the tests used by the courts to decide the cases. In your briefs, discuss (a) the alleged audit deficiency, (b) the damages asserted by the plaintiffs and the linkage of those damages to the auditor, (c) the negligence standard used by the court, (d) the court's findings, and (e) the implications for the broader auditing profession.

Internet Activity

18-50 The SEC plays a significant role in setting accounting and auditing standards. Sometimes the SEC can set precedence through its litigation.

Required

Go to the SEC's web site http://www.sec.gov. Select a sample of the *Financial Reporting Releases, Auditing Enforcement Releases, Litigation Releases, Administrative Proceedings, Reports of Investigations,* or *Accounting Series Releases,* and summarize the findings; also describe any accounting or auditing precedent that is set in the release.

18-51 **(Mitigating Exposure to Liability)**

Required

a. Explain the advantages and disadvantages of requiring rotation of the partner-in-charge of an audit at least every five years.
b. Providing financial information system consulting services to an audit client is a prohibited service under the Sarbanes-Oxley Act. Under what conditions could providing such services impair an auditor's independence? How might providing such services help improve the quality of an audit?

18-52 **(Inspections/Peer Reviews)** There are several types of inspections/peer reviews: (1) a concurring partner review, (2) an interoffice review, (3) an inspection of registered CPA firms by PCAOB, and (4) an external peer review of CPA firms not registered with PCAOB.

Required

a. What are the objectives of each type of review?
b. Under what circumstances are each of the types required?
c. To whom are external inspection/peer review reports issued? For what might the reports be used?

18-53 **(Court Influence on Auditing Standards)** It has been generally asserted that a standard of "due care" was sufficient to meet the negligence standard. Yet the chapter also indicates that the court system has been an influence on the development of auditing standards in such areas as related-party transactions, discovery of events subsequent to the balance sheet date, and development of specific procedures required on all audits.

Required

a. If adherence to GAAS is generally considered a sufficient defense, why might the courts decide that the auditors were negligent in the court cases sited in the chapter? What standard of negligence might the courts be utilizing?
b. The chapter also talks about the *Herzfeld v. Laventhol et al.* case, in which the judge decided that adherence to a literal interpretation of GAAP was not sufficient for fair presentation. What was the court's rationale? What are the specific implications of the *Herzfeld* case for auditors?

c. What do these court cases imply regarding a literal interpretation of GAAP and GAAS vs. a "substance" interpretation of the accounting and auditing standards?

Cases

***18-54** **(SEC Statutes)** To expand its operations, Dark Corp. raised $4 million by making a private interstate offering of $2 million in common stock and negotiating a $2 million loan from Safe Bank. The common stock was properly offered pursuant to Rule 505 of Regulation D, which exempts the offering from the 1933 Act, but not the antifraud provisions of the Federal Securities Acts.

In connection with this financing, Dark engaged Crea & Co., CPAs, to audit Dark's financial statements. Crea knew that the sole purpose for the audit was so that Dark would have audited financial statements to provide to Safe and the purchasers of the common stock. Although Crea conducted the audit in conformity with its audit program, Crea failed to detect material acts of embezzlement committed by Dark's president. Crea did not detect the embezzlement because of its inadvertent failure to exercise due care in designing its audit program for this engagement.

After completing the audit, Crea rendered an unqualified opinion on Dark's financial statements. The financial statements were relied on by the purchasers of the common stock in deciding to purchase the shares. In addition, Safe approved the loan to Dark based on the audited financial statements. Within 60 days after selling the common stock and obtaining the loan from Safe, Dark was involuntarily petitioned into bankruptcy. Because of the president's embezzlement, Dark became insolvent and defaulted on its loan to Safe. Its common stock became virtually worthless. Actions have been commenced against Crea by:

- The purchasers of the common stock, who have asserted that Crea is liable for damages under the Securities Exchange Act of 1934
- Safe, based on Crea's negligence

Required

a. In separate paragraphs, discuss the merits of the actions commenced against Crea by the purchasers of the common stock and by Safe, indicating the likely outcomes and the reasoning behind each outcome.
b. How would your answer be different if the client filed a registration statement and the purchasers of the common stock were able to bring suit under the 1933 Act?
c. If Dark (the client) sued Crea under common law, indicate the likely outcome and its rationale.

***18-55** **(Federal Securities Laws)**

Part A

The common stock of Wilson, Inc. is owned by 20 stockholders who live in several states. Wilson's financial statements as of December 31, 1994 were audited by Doe & Co., CPAs, who rendered an unqualified opinion on the financial statements.

In reliance on Wilson's financial statements, which showed net income for 1994 of $1,500,000, Peters, on April 10, 1995, purchased 10,000 shares of Wilson stock for $200,000. The purchase was from a shareholder who lived in another state. Wilson's financial statements contained material misstatements. Because Doe did not carefully follow GAAS, it did not discover that the statements failed to reflect unrecorded expenses, which reduced Wilson's actual net income to $800,000. After disclosure of the corrected financial statements, Peters sold his shares for $100,000, which was the highest price he could obtain.

Peters has brought an action against Doe under federal securities law and state common law.

Required

Answer the following, setting forth reasons for any conclusions stated:

a. Will Peters prevail on his federal securities law claims?
b. Will Peters prevail on his state common-law claims?

Part B

Able Corporation decided to make a public offering of bonds to raise needed capital. On June 30, 1994, it publicly sold $2,500,000 of 12% debentures in accordance with the registration requirements of the Securities Act of 1933.

The financial statements filed with the registration statement contained the unqualified opinion of Baker & Co., CPAs. The statements overstated Able's net income and net worth. Through negligence, Baker did not detect the overstatements. As a result, the bonds, which originally sold for $1,000 per bond, have dropped in value to $700.

Ira is an investor who purchased $10,000 of the bonds. He promptly brought an action against Baker under the Securities Act of 1933.

Required

Answer the following, setting forth reasons for any conclusions stated:

a. Will Ira likely prevail on his claim under the Securities Act of 1933?
b. Identify the primary issues that will determine the likelihood of Ira prevailing on the claim.

18-56 **(Ethical Decisions in Audit Budgeting)** You have worked as a staff auditor for two and one-half years and have mastered your job well. You will likely be promoted to a senior position after this busy season. Your current senior was promoted about a year ago. He appreciates your competence and rarely interferes with you. As long as he can report good performance to his manager on things she wants, he is satisfied. The manager has been in her position for three years. She is focused on making sure audits run smoothly and is good at this. She is not as strong on the softer skills. While she is approachable, her attention span can be short if what you are saying is not of interest to her. You are aware that she expects her teams to perform excellently during this busy season and she hopes to be promoted to senior manager as a result, bringing her closer to her goal of making partner early.

The audit engagement on which you are working has become increasingly difficult since last year's engagement because of some complicated accounting transactions that the client made. There has also been unexpected turnover in accounting personnel at the client. This has made interacting with the client and getting the information you need in a timely manner problematic. However, the engagement time budget and the audit fee remain the same as last year. Further, there are still four staff auditors assigned to the engagement, and there are no additional staff available to transfer in to ease the workload. Your senior now tells you that the manager has requested that you, he, and the other staff auditors do an additional analysis of a potential misstatement in one of the client's accounts. Even with your team's current workload there is significant danger that the engagement will run "over budget." You know that if you do the analysis thoroughly, it will further endanger meeting the time budget the manager had planned. The more time you spend on the engagement, the less profitable it will be for the audit firm, which will clearly displease the manager and her superiors.

As a group, the staff auditors discuss the situation and express their concerns regarding the perceptions that running over budget will create and the reputational issues that short circuiting the analysis could create. When your senior stops by to discuss the new plan the group raises its

concerns. He talks to the group and implies that he would be satisfied if the team did either of the following: complete the analysis and simply not record the hours (doing so would prevent the reported audit hours from going too far over budget), or do miminal job on the analysis, which would save time and avoid having to question the client too much. You and a couple of other staff express discomfort with either of these strategies. It is suggested that the ramifications of the new order be made clear to the Manager. The Senior wants nothing to do with this. He says, "She doesn't want to hear these details so just use one of the ideas I have already given you."

When he leaves several staff start griping about what they are being asked to do. A couple say they are going to leave the firm after this busy season, so they don't really care about this issue. Another says "We've been told what to do. Let's just get on with it."

Required

a. Summarize the ethical difficulty posed in this case scenario.
b. Outline the options that the staff auditors should consider, and discuss the difficulties or opportunities that each represents.
c. How can you do what you feel is the right thing without undermining your senior or undermining the manager's confidence in your ability to get a job done?

CHAPTER 19

Internal Auditing and Outsourcing

LEARNING OBJECTIVES

The overriding objective of this textbook is to build a foundation to analyze current professional issues and adapt audit approaches to business and economic complexities. By thoroughly studying this chapter, you will be able to:

- Identify the major attributes of internal auditing as an integral part of an organization's governance, risk management, and control structure.
- Describe internal audit assurance services and differentiate assurance services from consulting services.
- Describe the various tasks of internal auditing in contributing to the governance function of an organization while serving both management and the audit committee.
- Describe the two masters of the internal audit: the audit committee and management.
- Differentiate the scope of services and the nature of services between internal auditing and external auditing.
- Identify the various parties that perform internal audit activities.
- Describe operational auditing and develop an operational audit program.
- Describe compliance auditing and identify the process to develop an audit program to perform a compliance audit.
- Describe the role of internal auditing in meeting the various requirements of Sarbanes-Oxley.
- Describe the important role of the Institute of Internal Auditors in setting standards for the practice of internal auditing on a global basis.

CHAPTER OVERVIEW

Internal auditing provides managers, boards of directors, and other stakeholders independent assurance on controls, risk management, and the effectiveness of operations. Internal auditors are often asked to provide their observations on approaches to improve performance, manage risks, and improve internal control and major processes, including but not limited to internal control over financial reporting. Internal auditors provide reports to the board of directors and audit committees on whether their organization is accomplishing its objectives in a manner that is consistent with regulatory requirements and the organization's ethical policies, and that manages risk within the organization's risk appetite.

Internal auditing is a unique profession. It is accountable to the highest levels of the organization such as the audit committee and the chief executive officer, and at the same time, to the managers of operations that it examines. Its broad perspective makes it uniquely situated to offer advice and counsel to management aimed at improving efficiency and effectiveness.

Internal auditing is part of the organization, yet its major attributes are objectivity and independence. It is positioned to provide consulting services to improve operations, but must be prepared to report on inefficient operations, poor controls, and ineffective risk management techniques. Internal auditing

requires special people who understand the systematic process of auditing and the fundamentals of business operations.

Internal Auditing: A Unique Profession

Adding Value

Internal Auditing
Operational Auditing

Internal auditing has grown from a group of "internal checkers" of 50 years ago to a profession performing audits of complex computer systems, operations, internal controls, and special investigations at the request of management and the board of directors. The internal audit profession is almost twice as large as the external audit profession and the demand for internal auditing continues to grow. Although internal auditing often is a leader in assisting the organizations to evaluate internal controls for public reporting, they are much more than control auditors. Often the internal audit function is leading the organization in implementing enterprise risk management. Many internal auditors hold the global mark of excellence as Certified Internal Auditors (CIAs).

Internal auditing is a part of good governance and increasingly is being required for listing on stock exchanges, or as an integral part of internal control for companies reporting on internal control over financial reporting. Internal auditors cannot just report on problems found; they must be prepared to offer advice on needed improvements. And, they must do all this while maintaining a detached objectivity that lends credence to its audit work, findings, and recommendations.

Internal auditors must be knowledgeable about the areas they audit. For example, an internal auditor conducting an examination of the distribution function needs to understand "best practices" for distribution; the risks the company must control in managing distribution; and must be able to identify the controls that will help the organization manage those risks. Further, the auditor must know how the distribution system interfaces with other aspects of operations, e.g., manufacturing, sales, and transportation. Finally, the internal auditor certainly needs to know how all these processes interface with the organization's computer system and how the company manages the risks associated with the integration of those systems. Internal auditing is unique in requiring this broad knowledge of organizational operations. Because of this broad knowledge and detached objectivity, an internal audit career is often viewed as a good stepping-stone to a management position. The director of internal auditing (often referred to as the Chief Audit Executive—CAE) regularly interacts with top management and has a reporting responsibility to the audit committee of the board of directors.

Integrated Audit

The existence, competence, independence, and scope of internal audit activity are important parts of the external auditor's evaluation of the control environment. Internal auditing should report its activities to the audit committee on a regular basis.

Internal Auditing Defined

Internal auditing is defined as:

> An *independent* and *objective assurance and consulting activity* that is designed to add value to improve an organization's operations. It helps an organization accomplish its objectives by bringing a *systematic, disciplined approach* to *evaluate and improve the effectiveness of risk management, control, and governance processes* [emphasis added].[1]

The definition recognizes the uniqueness of internal auditing, which provides assurances to top management and the board and at the same time must not be reluctant to recommend improvements to operating managers. The focus is on adding value by bringing a systematic process for objectively obtaining and evaluating

[1] The Institute of Internal Auditors, definition approved by the Board of Directors, June 1999. Available on http://www.theiia.org

evidence to evaluate risk, controls, and operations. Unlike audits of financial statements, the scope of internal auditing is broad—it encompasses all the important operations of an organization. All of these elements combine to make it a truly dynamic and challenging profession.

Independent and Objective Independence and objectivity are related, but they are not the same concept. Objectivity is a personal trait, while independence is primarily a departmental or activity concept.

Objectivity implies a detached analytical approach that is conducted without bias to diverse parties who may have a vested interest in the audit findings. Objectivity requires competence in the area being audited, i.e., without sufficient knowledge, the auditor would be relying on someone else to help interpret information gathered as part of the audit. Objectivity also requires impartiality in gathering and evaluating evidence and reporting the results. Objectivity is necessary if an auditor is to provide both assurance and consulting activities to management and to outsiders.

Practical Application

Internal auditors must have organizational knowledge and competence to add value. However, what really makes them unique is their independent access to data and operations as well as their objective analysis and viewpoints.

The concept of independence relates to "scope of services" and freedom to act objectively on audit examinations. Independence is formulated at the department level and provides for freedom of access and reporting without fear of retribution or motivation by intrinsic reward. The requirement for independence is usually found in an **internal audit charter** approved by the board of directors and audit committee. The charter clearly describes the nature and the scope of the internal audit activity, including its reporting responsibilities. When a strong charter and a strong audit committee exist, the internal audit department often has significant independence. Independence is enhanced when the internal audit director reports to top management, such as the chief operating officer, and to the audit committee.

Assurance and Consulting Activity The Institute of Internal Auditors (IIA) defines **assurance services** as:

> An objective examination of evidence for the purpose of providing an independent assessment on risk management, control, or governance processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

Various levels of the organization need assurances on organizational performance:

- Management is interested in the efficiency and effectiveness of operational activities, controls, and compliance with company policies, contracts, and governmental laws and regulations.
- The audit committee wants assurances that risks are appropriately addressed, controls are working effectively, and processes are in place to achieve financial reporting objectives.
- Operational management needs objective analyses of risks and controls related to its activities.

The need for assurance services is diverse. Furthermore, it is important to understand that an internal auditor must serve all three levels of organizational governance to achieve maximum value from the services they perform.

Consulting services are defined as:

> Advisory or partnering activities that add value and improve an organization's operations, in which the nature and scope of services are agreed upon with the client. Examples include counsel, advice, facilitation, process design, and training.

There are a number of important points in the definition:

- Consulting can occur only when the audit function and the party receiving the services agree upon the nature and the scope of services.
- Consulting covers a broad range of activities that can include: (a) facilitating the organization in conducting an assessment of its controls, (b) sharing insights gained during audits that might improve business processes and the efficiency of operations, and (c) serving as a member of a task force to analyze company problems.

EXHIBIT 19.1 J.C. Penney: Identifying Profit Opportunities

J.C. Penney is one of the largest retail organizations in the United States and Mexico. It is expanding overseas and its management has always had a strong control orientation. It maintains an audit staff of 125 auditors in various regions throughout the country and Mexico. The audit staff has been proactive and performs audits of operations, compliance audits of store activities, information system audits, and special investigations requested by management and the audit committee. It has a strong focus on risk management, including the risks of not taking advantage of opportunities. They are willing to become part of the team to address problems and identify solutions. They focus on not only controlling costs, but growing revenue as well.

As part of the audit charter, J.C. Penney auditors spend their first six months working at various facets of store operations, distribution management, and procurement to learn about all aspects to understand the business, its customers, and its supplier relationships. The insight gained from those experiences allows them to view audits from a management and control perspective. Internal auditing is considered a management training ground and many internal auditors progress into management positions.

One example of a consulting activity came about because management wanted to improve customer satisfaction. The director of internal auditing proposed an examination and analysis that would focus on store staffing. However, the data needed to fully analyze store staffing and compare it with sales throughout a day did not exist in a ready format in the company's information system. The audit department's unique skills in using audit software to identify and analyze data presented an opportunity for analysis that did not exist elsewhere in the organization. The auditors found that staffing did not match store traffic very well, resulting in staff being idle for periods of time and overwhelmed when customer traffic picked up during the early evening hours. The inefficient staffing hindered the ability of staff to render the level of customer service desired by management. Management was impressed by the analysis and asked the internal audit department to designate a member of the audit team to join a senior-level management task force to identify potential solutions to improve customer service.

The director of internal auditing built the department's value around three factors: (1) *objectivity*—they were able to look at things from a perspective differently than others; (2) *a strong information system audit group* that could provide analysis that was not available elsewhere; and (3) *an understanding of business operations*.

It is equally important to recognize that consulting activities are advisory. They do not include decision-making, such as which system to implement; nor do they include implementation, or assuming responsibility for operating a process. Those tasks are reserved for management.

Focus on Practice

Internal auditors are expected to go beyond reporting findings to identify needed improvements.

Consulting means that auditors don't just identify problems; they are willing to work with management to identify potential solutions. The internal auditor's primary attributes—objectivity, competence, and a detached broad organizational view of problems—enable the auditor to identify and evaluate alternative solutions from a broad perspective. It is very much a value-added activity. An example of such services is seen in Exhibit 19.1.

The following issues should be considered in evaluating whether internal auditors should share opinions with management that are perceived as consultative-type services:

- Auditors would add only limited value if they identified problems but refrained from suggesting possible solutions.
- The internal and external auditing professions have always added recommendations to important audit findings. Consulting is a natural extension of services previously performed.
- Internal auditors add value because they are respected as being objective and competent, and because they follow a systematic process for gathering and evaluating evidence.
- Decisions on courses of action and implementation are management responsibilities. Auditors would lose objectivity if they became responsible for implementing decisions.
- Objective criteria, such as best practices, assist the auditor in maintaining objectivity. Referring to best practices allows the auditor to focus on objective criteria as opposed to personal opinion.

A Systematic and Disciplined Approach The practice of internal auditing has a defined set of standards to ensure that objective, relevant, and sufficient

EXHIBIT 19.2 Elements of a Systematic and Disciplined Approach

1. *Defined objectives.* All audit activities must have clearly articulated audit objectives that address specific needs either requested by management or agreed upon as part of the audit plan.
2. *Risk analysis*. Risk analysis is performed on all audits. The analysis includes management's concerns and heightens the auditor's attention to risk areas that should be addressed during the audit activity.
3. *Audit work plan.* An audit work plan is developed that specifically addresses the objectives and risks identified for the audit area.
4. *Defined audit procedures.* Defined audit procedures address the competence and sufficiency of audit evidence.
5. *Use of technology to examine audit universe.* Auditors use advanced technology, including audit software, to examine the relevant universe for unusual patterns or for selecting statistical samples of items to examine in forming an opinion.
6. *Independent review of audit work.* Audit work is reviewed by supervisory personnel to ensure that it is complete, objective, and that conclusions are justified.
7. *Review of conclusions with manager of activity being examined.* Internal auditors regularly review their preliminary conclusions with management of the area being audited to determine if (a) there are differences of opinion regarding the facts or the conclusions reached; (b) the auditor overlooked important areas; or (c) there is any misunderstanding regarding the nature of the audit conclusions. The manager may have suggestions for improvements that should be included in the auditor's report.

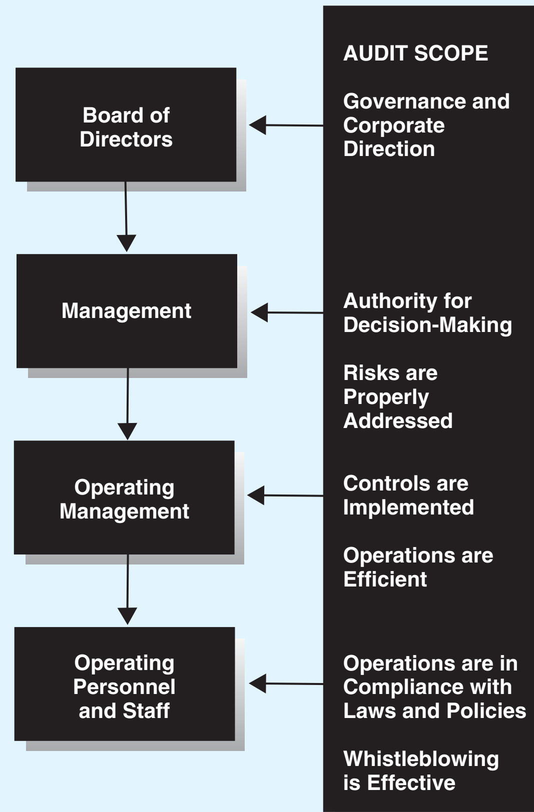
evidence is gathered and evaluated to address whatever activity is being investigated. The evidence-gathering concept is similar to that of financial auditing, i.e., the auditor is not an advocate of any particular position, and evidence gathering must be unbiased and objectively evaluated. Internal auditing, like external auditing, starts with a broad understanding of the organization, its objectives, and its risks. The task of the internal auditor is to assimilate the information in a systematic and disciplined fashion that results in an audit program to identify risks, gather evidence, evaluate findings, and suggest improvements. An example of the elements of the systematic and disciplined approach is shown in Exhibit 19.2.

Corporate Governance, Risk Management, and Control Understanding the organization's objectives is the fundamental starting point for all audits. Without understanding objectives, it is not possible to understand what the risks are to achieving those objectives. Sometimes the objectives are explicit, e.g., growing market share; other times they are implied, e.g., achieving reliable financial reporting. Risk management follows from the understanding of the organization's objectives and is usually the starting point for all audits. Controls exist to help manage risks and are therefore integrally related to risks and risk management. Governance is the process by which the organization and its stakeholders gain assurance that activities are conducted in accordance with broad organizational policies, and that accountability is established.

Controls and risks are viewed in the broadest manner, consistent with the COSO internal control and risk management frameworks. The auditor must understand risks as well as management's approach to managing or mitigating those risks. Controls include both soft controls (such as management incentive schemes) and harder controls (such as required authorizations for transactions).

An effective system of corporate governance permeates an organization. It starts with the effectiveness of the board and its audit committee and whom they select to manage the organization. Management has a responsibility to establish the "tone at the top" and to implement control processes to manage risk. Governance then travels down to operating management that, in turn, is responsible for implementing management- and board-developed strategy within a framework of identified risks and control. There are two parts of corporate governance: responsibilities and

EXHIBIT 19.3 Internal Auditing Role in Corporate Governance



accountability. Responsibilities flow downward through all levels of the organization, while accountability flows upward through all levels of the organization. An overview of this process is shown in Exhibit 19.3.

Good governance requires an organization to implement processes and controls to ensure that:

- Decisions are made at the appropriate level of the organization (for example, a receiving clerk should not be setting strategy).
- Processes are in compliance with organizational policies and governmental regulations.
- Processes are both efficient and effective.
- Risks are identified and are factored into decisions and the design of processes.
- Controls are properly designed and implemented.
- An effective whistleblowing function is implemented to ensure that deviations from good governance are brought to the appropriate level for assessment and action.

Practical Point

Internal auditing addresses the effectiveness of corporate governance at all levels of the organization. Internal auditing is unique in that it serves all levels of the organization, i.e., it does not represent just the top of the organization checking on lower levels.

Exhibit 19.3 shows a number of different avenues in which internal auditing can be effective. Internal auditing must:

- Understand key governance issues, stakeholders, and accountability to those stakeholders.
- Provide analysis to determine that top management has processes in place that ensure that it understands risks and that such risks are appropriately managed and addressed by the organization.
- Ensure that the organization has a process to identify needed controls to address those risks and that it has processes (including audit) to determine that controls are operating effectively.

- Evaluate the organization's processes for determining the efficiency of operations.
- Determine that operations are in compliance with company policies as well as contracts, laws, and regulations.
- Determine that an effective process for whistleblowing is in place.

Internal Audit Charter An audit charter is a statement of the internal audit's role in an organization. The audit charter accomplishes two important objectives:

1. It defines the scope of the internal audit activity—including access to records across the organization.
2. It defines the reporting relationships that exist.

Both are important. The first objective helps define the scope of the audit activity and its access to company records, including records that are non-financial. The second objective defines the relationship of the audit activity to audit committee members, senior management, and operating management. It is important, however, that the audit committee have the final say in the resources allocated to the internal audit function to ensure the independence and effectiveness of the activity. In addition to approving the budget for the internal audit activity, the audit committee should have a final say in the choice of the chief audit executive. An example of an internal audit charter is shown in Exhibit 19.4

EXHIBIT 19.4 Internal Audit Charter

MISSION AND SCOPE OF WORK

The mission of the internal auditing department is to provide independent, objective assurance and consulting services designed to add value and improve the organization's operations. It helps the organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

The scope of work of the internal auditing department is to determine whether the organization's network of risk management, control, and governance processes, as designed and represented by management, is adequate and functioning in a manner to ensure:

- Risks are appropriately identified and managed.
- Interaction with the various governance groups occurs as needed.
- Significant financial, managerial, and operating information is accurate, reliable, and timely.
- Employees' actions are in compliance with policies, standards, procedures, and applicable laws and regulations.
- Resources are acquired economically, used efficiently, and adequately protected.
- Programs, plans, and objectives are achieved.
- Quality and continuous improvement are fostered in the organization's control process.
- Significant legislative or regulatory issues impacting the organization are recognized and addressed appropriately.

Opportunities for improving management control, profitability, and the organization's image may be identified during audits. They will be communicated to the appropriate level of management.

ACCOUNTABILITY

The chief audit executive, in the discharge of his/her duties, shall be accountable to management and the audit committee to:

- Provide annually an assessment on the adequacy and effectiveness of the organization's processes for controlling its activities and managing its risks in the areas set forth under the mission and scope of work.
- Report significant issues related to the processes for controlling the activities of the organization and its affiliates, including potential improvements to those processes, and provide information concerning such issues through resolution.
- Periodically provide information on the status and results of the annual audit plan and the sufficiency of department resources.
- Coordinate with and provide oversight of other control and monitoring functions (risk management, compliance, security, legal, ethics, environmental, external audit).

EXHIBIT 19.4 Internal Audit Charter (*continued*)

INDEPENDENCE

To provide for the independence of the internal auditing department, its personnel report to the chief audit executive. The chief audit executive reports functionally and administratively to the chief executive officer and periodically to the audit committee in a manner outlined above. It will include as part of its reports to the audit committee a regular report on internal audit personnel.

The budget for internal audit should be developed in consultation with senior management and the audit committee. The audit committee has final approval over the budget and over the hiring or firing of the chief audit executive.

RESPONSIBILITY

The chief audit executive and staff of the internal auditing department have responsibility to:

- Develop a flexible annual audit plan using an appropriate risk-based methodology, including any risks or control concerns identified by management, and submit that plan to the audit committee for review and approval as well as periodic updates.
- Implement the annual audit plan, as approved, including as appropriate any special tasks or projects requested by management and the audit committee.
- Maintain a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this Charter.
- Evaluate and assess significant merging/consolidating functions and new or changing services, processes, operations, and control processes coincident with their development, implementation, and/or expansion.
- Issue periodic reports to the audit committee and management summarizing results of audit activities.
- Keep the audit committee informed of emerging trends and successful practices in internal auditing.
- Provide a list of significant measurement goals and results to the audit committee.
- Assist in the investigation of significant suspected fraudulent activities within the organization and notify management and the audit committee of the results.
- Consider the scope of work of the external auditors and regulators, as appropriate, for the purpose of providing optimal audit coverage to the organization at a reasonable overall cost.

AUTHORITY

The chief audit executive and staff of the internal auditing department are authorized to:

- Have unrestricted access to all functions, records, property, and personnel.
- Have full and free access to the audit committee.
- Allocate resources, set frequencies, select subjects, determine scopes of work, and apply the techniques required to accomplish audit objectives.
- Obtain the necessary assistance of personnel in units of the organization where they perform audits, as well as other specialized services from within or outside the organization.

The chief audit executive and staff of the internal auditing department are not authorized to:

- Perform any operational duties for the organization or its affiliates.
- Initiate or approve accounting transactions external to the internal auditing department.
- Direct the activities of any organization employee not employed by the internal auditing department, except to the extent such employees have been appropriately assigned to auditing teams or to otherwise assist the internal auditors.

STANDARDS OF AUDIT PRACTICE

The internal auditing department will meet or exceed the *International Standards for the Professional Practice of Internal Auditing* of The Institute of Internal Auditors.

______________________________ ______________________________

Chief Audit Executive Audit Committee Chair

______________________________ ______________________________

Chief Executive Officer Date

Practical Point

The standards for performance have been developed by the IIA and are referred to as the *International Standards for the Professional Practice of Internal Auditing.*

There are some important aspects that should be noted in the audit committee charter:

- A statement of the mission of the activity, and that mission is defined in governance, risk, control, and operational efficiency terms
- An identification of audit accountabilities
- A defined responsibility to provide periodic reports to management and the audit committee, including responsibility for assisting on fraud investigations
- A prohibition against performing operational tasks
- An identification of standards by which to judge the performance of internal audit work

Internal Auditing and Regulatory Recommendations

The operation of an effective internal audit activity has been one of the major recommendations of virtually every "Blue Ribbon Committee," stock exchange recommendation, or regulatory recommendation during the past ten years. The NYSE has expressed the view that listed companies need to maintain an effective internal audit activity to achieve the governance requirements to be listed on the stock exchange.

Practical Point

The audit committee is one of the two primary customers of the internal audit function. As more is demanded of audit committees, there will be even greater opportunities for internal auditors to add value through their interactions with the audit committee.

Serving the Audit Committee Internal auditors serve the audit committee in three major ways:

1. Assisting the organization in reviewing the quality of internal controls over financial reporting as part of the Sarbanes-Oxley requirements
2. Providing an independent viewpoint on major accounting issues
3. Providing feedback on the efficiency of operations and compliance with company and regulatory policies

The expanded role of internal audit departments in serving audit committees is shown in Exhibit 19.5.

EXHIBIT 19.5 Internal Audit Role in Serving the Audit Committees

GENERAL ASSISTANCE

- Facilitate information flow to the audit committee. One of the primary constraints on audit committee effectiveness is the quality and quantity of information available to the members. The internal audit function can assist in developing an appropriate "information system" for the audit committee—one that includes both company information and industry insights. That flow of information should include a comprehensive analysis of risk, controls, and the integrity of the financial reporting system.
- Perform special projects or investigations as requested by the audit committee. Such projects may focus on such issues as emerging risks and reporting developments.
- Monitor effectiveness of whistleblowing activities. The audit committee needs an independent voice to monitor whistleblowing activities to determine that constructive action is taken in response to employee or stakeholder allegations of organizational wrongdoing.

FINANCIAL REPORTING ASSISTANCE

- Support the audit committee in its evaluation of whether the company has satisfied its internal and external reporting objectives. Such objectives might include consistent treatment of similar transactions, conservatism, and use of rigorous models for estimates.
- Support the audit committee in its assessment of the "quality" of financial reporting, including whether the accounting principles used are most appropriate for the circumstances. The assessment of reporting quality is enhanced by a "second opinion" of the internal auditor.
- Provide information and insight to the audit committee on the strength of controls over the quarterly reporting process, as well as the credibility of information provided in quarterly reports. Quarterly reporting problems occurred in many of the fraud cases identified in a major report issued in 1999. Management must now certify to the quality of those controls and the audit committee must continue to provide oversight of audit activities in evaluating such controls.

EXHIBIT 19.5 Internal Audit Role in Serving the Audit Committees (*continued*)

RISK ASSESSMENT

- Evaluate effectiveness of risk management processes. Many organizations got in trouble because they did not monitor risks associated with ancillary functions of the organization. The internal auditor can assist by evaluating the effectiveness of risk management processes.
- Provide independent assessments of risk. Internal auditors evaluate risk as a major part of their daily activities. These assessments should be shared with the audit committee.
- Provide information to the audit committee to facilitate its monitoring of key financial and business risks facing the organization. These risks will vary widely by organization, but they should shape the audit committee's activities. The industry and company expertise of the internal audit function should be invaluable to the audit committee.

Serving Management Internal auditors assist management in its oversight responsibilities as well. Thus, an internal audit department will assist management by evaluating risk management, internal controls, and effectiveness and efficiency of operations. Internal auditors have often taken a lead in evaluating the effectiveness of management's documentation of controls needed in order for management to provide assurances on the quality of internal controls.

Now that the Sarbanes-Oxley Act requires the CEO and CFO to certify the company's financial statements, they are asking for the help of internal auditors in assuring the reliability of the financial reporting processes.

Breadth of Internal Auditing

Internal Auditing Contrasted with External Auditing

The public accounting profession has a defined role: provide independent assurance to third parties. The assurances have historically been placed on audited financial statements. With the Sarbanes-Oxley Act, those assurances have expanded to public reports on internal control. The CPA is uniquely licensed to perform audits of a company's financial statements—it is a franchise that is built on trust and competence.

Internal auditors, on the other hand, provide a wider array of assurance services to those within the organization. The contrast between the two professions can be seen in Exhibit 19-6.

Practical Point

Internal auditing is a much more diverse activity than external auditing.

Multitude of Internal Audit Groups

Internal auditing is practiced in a wide array of organizations. There are unique objectives and competencies required in many of these different organizations. For example, there are professional organizations that can help define competencies and objectives for the following types of internal auditors:

- Governmental auditors
- Regulatory auditors
- Information system auditors
- Environmental auditors
- Fraud (forensic) auditors
- Bank auditors
- Insurance auditors
- Compliance auditors

EXHIBIT 19.6 Contrast of Internal and External Auditing

	External Auditing (CPA)	Internal Auditing (CIA)
Primary Client	Audit committee of the board of directors (management of non-public companies)	Management and the audit committee of the board
Parties Receiving Assurance	Outside stakeholders, regulatory agencies, and stockholders	Audit committee, upper management, and operational management
Scope of Services Performed—Primary	Audits of financial statements, Audits of internal control	Risk analysis Control analysis Operations analysis
Scope of Services—Extended	Attestation services as demanded by market place	Information security and reliability Operational efficiency Compliance reviews Special investigations Fraud investigations
Primary Nature of Services	Audit and assurance	Assurance Consulting
Certification	CPA—required	CIA—Certified Internal Auditor—required by many companies, but not all
Relationship to Organization	Must be independent	Part of the organization, but should report to audit committee to maintain independence; however, much of the internal audit work can be outsourced to outside providers such as public accounting firms
Consulting	Cannot perform consulting for public audit clients, but can be performed for non-audit and non-public clients	Consulting performed when agreed to by management and audit committee
Audit Processes	Gather sufficient, competent evidence to render an opinion	Gather sufficient, competent evidence to render an opinion, or recommend improvements to a process; includes data analysis, outside confirmations, as well as other procedures normally performed by external auditors
Major Focus	Financial statements, internal controls over financial reporting, and financial reporting processes	Processes, including risks, controls, and effectiveness and efficiency of processes

Practical Point

Agency heads often make requests for governmental audits. The Department of the Army Audit Agency was asked to investigate whether the oil contracts given to Halliburton Corporation to rebuild Iraq were (a) in compliance with governmental rules on competitive bidding, and (b) were efficient.

Governmental auditors often have a mission focusing on compliance with governmental laws and regulations. Governmental audits also address the effectiveness off a governmental operation, i.e., determining whether a governmental unit is achieving the mission specified in governmental legislation. Governmental auditors also address the efficiency of operations, i.e., whether or not it is achieving the objectives in the most efficient manner.

Information systems auditors focus on the integrity and the security of information systems. Auditors specializing in information systems, or information technology, are found in virtually all large-scale audit organizations.

Bank and insurance auditing has grown to reflect the unique characteristics of financial institutions.

Internal Audit Outsourcing

One of the major recent trends has been the partial or complete outsourcing of internal audit activities to public accounting firms and to other specialized firms that perform primarily risk, control, and audit activities.[2] Internal audit outsourcing has represented the fastest growth area in public accounting practice over the past few years with annual growth rates of 60–70%.

The outsourcing providers have assisted many organizations in meeting the reporting requirements of Sarbanes-Oxley. The Big 4 public accounting firms are often used to supplement existing internal audit departments in specialized areas such as information technology audits or in performing specialized tasks. However, the firms have marketed their ability to manage the internal audit activity for the total organization and in some cases, such as British Petroleum, First Bank Systems, and Whirlpool Corporation, the organizations have outsourced their entire internal audit function to an external provider.

Practical Point

The SEC prohibits a CPA firm from providing both internal and external audit services for the same company.

Outsourcing providers tend to emphasize their economies of scale and their global presence. For example, large firms specializing in audit and risk management can develop computerized audit techniques and share the development costs across all their clients. The Big 4 firms and others such as Protiviti and Jefferson-Wells have global locations and are in a position to provide extended audit services to clients without additional travel costs and without language and cultural problems.

There is an equally compelling case to keep internal audit departments housed within the organization. The internal audit departments can invest in training their staff and rotating staff across the organization to ensure both a greater knowledge of the business and provide an incentive for the organization to be successful. Internal audit departments can serve as a training ground to develop people for management positions.

Practical Point

Both Procter & Gamble and General Electric use staff rotations in internal audit to develop future managers.

Many well-established internal audit departments develop working relationships with external providers to (a) bring in specialized talents, e.g., information system auditors or human resource auditors; and (b) to provide greater flexibility in budgeting. The flexibility in budgeting allows the internal audit department to respond to management and audit committee requests to address specific issues.

Value-Added Internal Auditing

The scope of audit activity begins with understanding management strategies and the risks that may affect the accomplishment of those strategies. Other audit activities address the controls over the major processes of the organization ranging from developing information for decision-making and reporting to adequacy of controls over other operations.

Internal audit activities can be classified as:

- Risk analysis
- Information reliability
- Effectiveness of controls
- Operational effectiveness and efficiency
- Conformance with regulatory requirements
- Compliance with company policies and procedures
- Fraud investigations

[2] Two of the largest firms are Protiviti, a division of Robert Half & Co., and Jefferson-Wells, a division of Manpower, Inc. Both of these firms focus on control and risk analysis although their approach, pricing, and competitive strategy differ. These companies are large enough to compete directly with the Big 4 firms.

Risk Analysis

Risk is a concept that expresses the uncertainty associated with activities. Organizations must take risks to accomplish its objectives. For example, the development of a new product is a risk activity that an organization engages in to improve its competitiveness and profits. The new product may be a colossal failure, but at the same time a failure to innovate and develop new products presents an even greater risk to the viability of the organization. Organizations need systematic processes to recognize risks and institute controls to minimize adverse outcomes. For example, a company does market research, engages focus groups, and analyzes costs of making a new product before introducing it to the market. In other words, it has instituted controls that will minimize the likelihood that it will spend a vast amount of money on products that will not meet market acceptance.

The auditor has two interests in performing risk analysis. First, it becomes a basis for determining which areas merit audit attention. The auditor cannot audit everything that is important in an organization. Thus, risk analysis assists the auditor in establishing priorities. Second, management and the board need assurances that its risk processes are adequate to effectively manage risks.

Information Reliability

Organizations need accurate, reliable, and timely information in order to make effective decisions. Further, there is a requirement that accurate information be presented in the company's financial statements. But information is more than that. Information is a strategic resource. Information must be protected (information security) and must meet the organization's need for privacy.

Most of an organization's information is kept on computer systems—although very little of it is in the formal "accounting system." Many of the organization's operation systems are tightly integrated through various Enterprise Resource Planning (ERP) systems. Therefore, much of the information reliability assurance work involves testing the integrity of the client's computerized information systems.

Internal auditors will use the tools described in chapter 8 to perform periodic reviews of information security and controls. Internal auditors have an advantage in implementing more sophisticated computer audit techniques because they are present throughout the year and can perform tests that are transparent to the organization.

Control Effectiveness

Controls exist to address risks. Management needs to determine a response to every type of risk. There are virtually no areas in which controls are not applicable. Internal control is a much broader concept than is the more narrow definition of internal control over financial reporting. Internal control is a process that is instituted by the governance structure of an organization to achieve the organization's objectives. Thus, an internal auditor is concerned as much with processes to ensure that manufacturing or distribution is carried out effectively as well as the financial reporting processes.

Management often looks to the internal audit function for an objective assessment of its control processes. The measure of control effectiveness is how well the controls manage the risks and whether the controls are operating effectively. There are no "magic checklists" that identify the appropriate controls for every operation of the organization. Rather the controls should be designed to mitigate the risks associated with the processes.

Effectiveness and Efficiency of Operations

Operational auditing is defined as the evaluation of activities, systems, and controls within an enterprise for efficiency, effectiveness, and economy. Operational auditing goes beyond the accounting and financial records to obtain a full

understanding of the business and operations under review. The purposes of operational audits are to assess the quality and efficiency of performance, to identify opportunities, and to develop recommendations for improvement.

Operational Auditing and Best Practices Internal audit involves testing or evaluating assertions, such as those relating to operational effectiveness and control, against prescribed criteria. Unlike financial statement audits, the auditor does not have generally accepted accounting principles as a criterion to evaluate the adequacy of operations. However, there are alternative sources of criteria that an auditor can refer to in developing an assessment of the efficiency of an operation. These alternative criteria include comparisons with:

- Past operations
- Best practices for similar operations
- Stated management objectives

Operational auditing incorporates total quality concepts. For example, in comparing current performance with past results, the auditor will gather information on the cost of the operation, the quality of the operation or its products, and, where applicable, current market share. Best practices can be identified through benchmarking or through the study of state-of-the-art practices. For example, an operational audit of a company's treasury function can begin with an identification of the state-of-the-art procedures for effectively managing cash resources. The reference for those procedures might be found in textbooks, industry benchmark reports, or in company policies.

Operational Audits: Opportunities for Improvement The auditor, management, and the audit committee target activities for operational audits based on the joint analysis of risk and business opportunities. More frequent or extensive audits are performed where there is high risk of operational failure, or risks that operational deficiencies will create potential harm through poor environmental practices or similar problems. Some financial institution managers often want the internal auditor to look at the effectiveness of controls and operations in using financial derivatives. Usually, the focus is on broader aspects of operations. If the auditor, for example, finds that a branch bank has a higher than usual loan failure rate, the auditor will examine controls to see if there is a deficiency in the controls over loan approval and processing. The auditor usually goes beyond controls to determine what the root cause of the problem is and how it might best be addressed by the organization.

Operational Audit Program All auditing is built on the same foundation. Auditors need to identify audit objectives, determine criteria against which to audit, determine relevant evidence, gather and evaluate the evidence, reach a conclusion about the assertions, and issue a report.

Every operational audit follows the same ten-step process:

1. Understand the operational area and management's interest in having the area audited.
2. Develop background information about the audit area.
3. Develop objective criteria regarding operating efficiency.
4. Perform a preliminary analysis of the area, including analytical review.
5. Perform a detailed risk analysis.
6. Develop and analyze data that might indicate problems.
7. Perform inquiry and testing to identify the source of problems as a basis to develop constructive recommendations.
8. Perform detailed tests of operating activities and controls.
9. Summarize findings, review with operating management, and prepare report to senior management and audit committee.
10. Develop a mechanism to follow-up to determine if agreed-upon recommendations are implemented.

EXHIBIT 19.7 Operational Audit: A Systematic Approach

1. *Interest in the Audit.* Find out company policies and procedures for the area. Identify any special interest or concerns by management or the audit committee about the operation that should be covered in the audit.
2. *Background Information.* For example, what is the function? Who is in charge? What is the basic nature of operations? Were problems identified in previous audits? Did the external auditor express any concerns?
3. *Develop Criteria or Best Practices for the Operation.* It is important that objective criteria be developed so that the auditor is not just expressing an opinion and comparing that with operating management's views. There are numerous sources of criteria, two of which might be: (a) best practices in industry (e.g., Dell Computer for just-in-time manufacturing); and (b) best practices as taught in your curriculum such as operations management, finance, or distribution.
4. *Perform a Preliminary Analysis of the Area*. These might include analytical procedures such as inventory turnover, shipping times, number of customer complaints, returned shipments, etc.
5. *Perform a Detailed Risk Analysis.* The auditor should identify important risks for each area, including the risks that had already been identified if the organization has implemented an Enterprise Wide Risk Management process. Recall that *controls* exist to address risks. Thus, the appropriate analysis begins with risk.
6. *Develop and Analyze Data That Might Indicate Problems.* For example, the auditor could analyze shipping time data and develop a graphical analysis (over time, products, locations, and so forth) that can be used to identify potential problems.
7. *Determine Cause of the Problem.* For example, if half of the items are not shipped on a timely basis, the auditor must find out why. Perform inquiry and other analyses that identify the cause of the problem. Finding the cause of the problem presents opportunities to add value to the organization by (a) problem identification and (b) recommending potential solutions.
8. *Test Controls and Operating Procedures.* Perform audit tests to determine whether controls are working, e.g., sales orders that generate shipping orders, independent testing of quality, order fulfillment, periodic inventory counts, and so forth.
9. *Synthesize Findings and Develop Audit Report.* The auditor should synthesize findings, review them with the person in charge of the area being audited, and develop a report to present to that person, management, and the audit committee.
10. *Follow-Up.* The auditor and operating management should develop a mechanism that ensures that a follow-up is performed to determine that risks are addressed, problem areas are addressed, and efficiency is improved.

Exhibit 19.7 provides an overview of the basic steps in an operational audit program. Examples of the ten steps that an auditor might perform are reviewed as part of an audit of inventory and warehousing. The important point to note is that all operational audits follow this same systematic approach, i.e., the concepts could apply to an audit of the treasury function, an audit of procurement, or the service function of an organization.

Some detailed considerations include the following:

- *Establishment of Criteria*. Objective criteria should always be established prior to the beginning of the audit. Criteria should include both performance measures and control measures. Performance criteria might include (a) industry best practices, (b) best practices identified in college textbooks, and (c) company policies or stated objectives for an area.
- *Risk Analysis*. A preliminary risk analysis should be performed for all operational audit areas as a basis (a) to determine whether or not the organization has an effective Enterprise Risk Management process; and (b) to identify important controls.
- *Analytical Analysis*. The auditor has a competitive advantage in objectively gathering and evaluating data. The data analysis may be pivotal in identifying the existence and source of potential operating problems.
- *Testing Controls and Operations.* Every operational audit will have a compliance testing component to determine whether or not the operation follows company policies and meets company standards. This becomes extremely important for areas that may have a public or social impact, e.g., environmental waste disposal or health and safety issues.

Exhibit 19.8 provides an example of specific audit steps that might be included in an operational audit program to evaluate the effectiveness of a company's purchasing processes, including joint advertising arrangements with suppliers.

EXHIBIT 19.8 Operational Audit Program

PURCHASING FUNCTION

Objective: Determine whether the purchase function is effective and efficient, and that internal controls are operating and are effective.

AUDIT AREAS AND PROCEDURES

Purchasing Test controls over placement of orders (bidding, reorder point, quantities, etc.)

1. Determine whether the purchasing function responds on a timely basis to requisitions, whether long-term contracts are used to build stable supplies, and whether procedures are in compliance with applicable company policies and governmental regulations.
2. Select a sample of purchase orders to determine (a) authorization, (b) timeliness of order, (c) competitive bidding, where applicable, and timeliness of delivery.
3. Analyze potential costs and savings of moving the process to the Web.

Quality Control Determine whether procedures for testing the quality of purchases are being followed and are effective.

1. Observe operations to gain an understanding of processes.
2. Take a sample of quality control reports and determine that they are followed up and corrective action taken when necessary.
3. Determine that summaries of all reports are presented to top management.
4. Consider whether quality control practices are integrated into the manufacturing function.

Advertising Determine whether the company is obtaining the advertising for which it is paying, whether cooperative vendors are paying their agreed-upon share of advertising costs, and whether the department has established procedures to evaluate the effectiveness of alternative advertising programs.

1. Examine contracts and take a sample of contracts for testing.
2. Take a sample of advertising that is placed with an agency and follow the process to determine whether all vendors have been paid the correct amounts.
3. For all the sampled items, determine if procedures are in compliance with the contract and company policies.

Auditors are often able to identify significant cost savings. For example, one auditor discovered that the company was losing more than $350,000 a year because checks were not being mailed soon enough to take advantage of cash discounts.

Effective Reporting—Operational Audit Example It is important that the auditor communicate audit findings in a manner that is viewed constructively by all parties. In other words, get feedback from the unit being audited, focus on the major items, don't nitpick, and clearly distinguish between important items and ancillary items. Whenever possible, provide suggestions to improve operations. An example of an audit report that follows the IIA Standards on Reporting is shown in Exhibit 19.9.

EXHIBIT 19.9 Internal Audit Report—Auditing Advertisement Expenditures

Date: November 19, 2007
To: Marketing Vice President
From: Director of Internal Auditing
Subject: Effectiveness of Cooperative Advertising Program

PURPOSE

The purpose of our audit was to evaluate the effectiveness of the controls over the cooperative advertising program and to determine whether improvements can be made in the operation of the program.

SCOPE

Our audit covered the cooperative advertising program administered through the home office for all stores. Our audit covered the period from August 1, 2007 to September 30, 2007.

CRITERIA

At its May 19, 2007 meeting, the Administrative Committee established the requirement that a written contract be obtained for all cooperative agreements.

(continued)

EXHIBIT 19.9 Internal Audit Report—Auditing Advertisement Expenditures (*continued*)

CONDITION

Thirty of the 100 cooperative transactions randomly selected for testing did not have supporting contracts. Reimbursements were received according to the contract for the 70 transactions for which a contract existed. Reimbursements were also received in accordance with the understanding of the buyers in 20 of those transactions for which a contract did not exist. In four of the remaining transactions, no reimbursement was received, even after several attempts by the buyers. Amounts less than expected were received for the other six transactions.

RISK

The company is incurring a material amount of unnecessary advertising costs. In addition, the control deficiencies expose the area to possible fraud.

CAUSES

Fifteen of the 30 transactions in noncompliance have been isolated to one staff person. The remaining situations were for smaller vendors and dollar volumes, for which the advertising staff did not believe developing a contract was cost justified.

EFFECTS

Advertising costs were increased by $125,600 because of the failure to receive reimbursements in amounts expected. This represents 9% of the advertising costs tested.

RECOMMENDATION

Internal control procedures should be established to ensure that all staff obtain contracts on a timely basis. Standard contracts should be considered for use with small vendors to minimize related legal costs. Training should be provided for the individual associated with most of the problems, or other action taken, as deemed necessary to improve performance.

AUDITEE COMMENTS

Jim Theme and Jerry Porwall agree that a problem exists regarding obtaining contracts. Corrective action has been initiated for the staff person with the largest volume of transactions, and the policy manual is being updated. They agree that standardized contracts for small vendors were a good idea, and they will bring it up at the next Administrative Committee meeting.

Regulatory and Other Compliance Audits

Compliance audits are audits to determine whether operations are being conducted in compliance with contracts, management's policies, or applicable laws and regulations. There is a wide variety of compliance audits including:

- Investigation of *compliance with royalty agreements*—Included here are movie and television royalties for actors and actresses, licensing agreements, and other similar agreements.
- *Audits of compliance with governmental regulations*—These audits include compliance with environmental protection regulations, human resource regulations, health and safety standards, tax laws, etc. These audits might be conducted at the request of the audit committee by internal auditors or might be conducted by auditors working for the applicable regulatory agency.
- *Audits of compliance with company policies*—These audits may focus on compliance with broad policies and controls such as determining that proper authorizations were obtained for major transactions.
- *Attainment of operating objectives*—This is much like an operational audit, but it has an emphasis on determining whether a department or operation is attaining stated objectives. For example, a service firm may have an objective that all service calls must be answered within 24 hours.

Compliance audits add value because they can improve operational efficiency and provide assurance that the organization is operating within the applicable laws and regulations that affect them.

Fraud Investigations

Internal auditors are often called upon to analyze the possible existence of fraud and to perform follow-up investigations. As an example, the fraud at WorldCom was detected by an internal audit staff that refused to be dictated to by the CFO, and that investigated the possibility of fraud and reported it to the audit committee. Once a fraud is discovered, however, the company will likely turn most internal frauds over to forensic auditors to build a case for criminal prosecution.

Internal Auditing and Sarbanes-Oxley

Internal auditors are integrally involved in assisting organizations to implement the provisions of the Sarbanes-Oxley Act. Many organizations have looked to internal audit to assist in facilitating a **control self-assessment** by managers in the organization. Internal auditors have been involved in developing training in control concepts and assisting operating personnel in understanding controls and documentation. A good example is Dupont. The Director of Internal Auditing is one of the co-directors of the organization's process to document and test controls to ensure that the company is in compliance with Section 404 of the Sarbanes-Oxley Act. They help train personnel, participate in determining the best method to document controls, and help select software to document and analyze controls. However, the assessment and testing rests with the process owners. Internal auditors will assist management in assessing the effectiveness of the owners' tests of controls; but only after the process owners have completed their work. Internal audit is very conscious to ensure that they are not involved in performing line activities, but at the same time use their knowledge and leadership to help prepare the organization for the task of control evaluation and testing.

Internal Audit Standards and the IIA

The Institute of Internal Auditors is the global body that sets standards for the practice of internal auditing across the world. The IIA also develops practice advisories to help auditors deal with real-world problems such as how to deal with problems that might be construed as "whistleblowing." The Professional Practices Framework starts with the definition of internal auditing, creates a base for further development in its code of ethics, builds auditing standards, interprets the standards, and provides updated guidance through practice advisories, and then publishes other professional guidance.

Internal Audit Standards

The *International Standards for the Professional Practice of Internal Auditing* is available on the IIA's web site (http://www.theiia.org). The standards are divided into three parts: Attribute Standards, Performance Standards, and Implementation Standards. There is only one set of attribute and performance standards, but there may be multiple implementation standards derived from the concepts in the attribute and performance standards. The attribute and performance standards apply to both assurance and consulting activities. Specific differences in implementation are covered in the implementation standards. An overview of the *Standards* is presented in Exhibit 19.10.

The standards shown in Exhibit 19.10 are similar in nature to the ten generally accepted auditing standards issued by the AICPA. There are detailed standards for each area. For example, under section 2100 there are detailed standards regarding risk, control, and governance systems.

More Information

Find the *Standards* and other internal audit information at http://www.theiia.org.

EXHIBIT 19.10 Standards for the Professional Practice of Internal Auditing

ATTRIBUTE STANDARDS

1000 Purpose, Authority, and Responsibility

The purpose, authority, and responsibility of the internal audit activity should be formally defined in a charter, consistent with the Standards, and approved by the Board.

1100 Independence and Objectivity

The internal audit activity should be independent, and internal auditors should be objective in performing their work.

1200 Proficiency and Due Professional Care

Engagements should be performed with proficiency and due professional care.

1300 Quality Assurance and Improvement Program

The chief audit executive should develop and maintain a quality assurance and improvement program that covers all aspects of the internal audit activity and continuously monitors its effectiveness. The program should be designed to help the internal audit activity add value and improve the organization's operations and to provide assurance that the activity is in conformity with the Standards and Code of Ethics.

PERFORMANCE STANDARDS

2000 Managing the Internal Audit Activity

The chief audit executive should effectively manage the internal audit activity to ensure it adds value to the organization.

2100 Nature of Work

The internal audit activity evaluates and contributes to the improvement of risk management, control, and governance systems.

2200 Engagement Planning

Internal auditors should develop and record a plan for each engagement.

2300 Performing the Engagement

Internal auditors should identify, analyze, evaluate, and record sufficient information to achieve the engagement's objectives.

2400 Communicating Results

Internal auditors should communicate the engagement results promptly.

2500 Monitoring Progress

The chief audit executive should establish and maintain a system to monitor the disposition of results communicated to management.

2600 Management's Acceptance of Risks

When the chief audit executive believes that senior management has accepted a level of residual risk that is unacceptable to the organization, the chief audit executive should discuss the matter with senior management. If the decision regarding residual risk is not resolved, the chief audit executive and senior management should report the matter to the board for resolution.

The standards recognize that independence lies in acceptance and support of the function by the board of directors. While most of the activities are designed to serve management, the standards are explicit in that the audit function must be proactive. For example, instances of fraud or management misbehavior must be reported to the audit committee. Section 2600 on management's acceptance of risk is also important. Essentially, it requires the auditor to not only communicate risks to senior management, but to assess the risks and formulate a judgment about the significant of the unmitigated (uncontrolled) risks. If the auditor believes those risks are too high, there must be a conversation at the audit committee level.

IIA's Code of Ethics

The IIA's Code of Ethics recognizes many of the conflicts that may exist within an internal audit activity. For example, what should be done if the auditor

EXHIBIT 19.11 IIA Code of Ethics

PRINCIPLES

Internal auditing professionals are expected to apply and uphold the following principles:

Integrity The integrity of internal auditing professionals establishes trust and thus provides the basis for reliance on the internal auditing professional's judgment.

Objectivity Internal auditing professionals exhibit the highest level of professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined. Internal auditing professionals make a balanced assessment of all the relevant circumstances and are not unduly influenced by their own interests or by others in forming judgments.

Confidentiality Internal auditing professionals respect the value and ownership of information they receive and do not disclose information without appropriate authority unless there is a legal or professional obligation to do so.

Competence Internal auditing professionals apply the knowledge, skills, and experience needed in the performance of internal auditing services.

Rules of Conduct Internal auditing professionals are expected to observe the following rules of conduct.

Integrity. Internal auditing professionals:

1.1 Shall perform their work with honesty, diligence, and responsibility.
1.2 Shall observe the law and make disclosures expected by the law and the profession.
1.3 Shall not knowingly be a party to any illegal activity, nor engage in acts that are discreditable to the profession of internal auditing or to the organization.
1.4 Shall respect and contribute to the legitimate and ethical objectives of the organization.

Objectivity. Internal auditing professionals:

2.1 Shall not participate in any activity or relationship that may impair or be presumed to impair their unbiased assessment. This participation includes those activities or relationships that may be in conflict with the interests of the organization.
2.2 Shall not accept anything that may impair or be presumed to impair their professional judgment.
2.3 Shall disclose all material facts known to them, which, if not disclosed, may distort the reporting of operations under review.

Confidentiality. Internal auditing professionals:

3.1 Shall be prudent in the use and protection of information acquired in the course of their duties.
3.2 Shall not use information for any personal gain nor in any manner that would be contrary to the law or detrimental to the legitimate and ethical objectives of the organization.

Competence. Internal auditing professionals:

4.1 Shall engage only in those services for which they have the necessary knowledge, skills, and experience.
4.2 Shall perform all services in accordance with the Standards for the Professional Practice of Internal Auditing.
4.3 Shall continually improve their proficiency, and the effectiveness and quality of their services.

discovers corporate wrongdoing (illegal acts)? Does an auditor have a responsibility to report such acts to outside authorities? The Code of Ethics is presented in Exhibit 19.11.

The IIA has refrained from developing detailed rules on every potential ethical problem. Rather, the Institute has focused on the broad level of principles and expects internal auditors to act consistently with those principles.

Reporting Fraud

The internal auditor often faces difficult practical and ethical situations when there may be a conflict between loyalty to the company and the need to disassociate themselves from undesirable or even potentially illegal activities. The IIA's Code of Ethics makes it clear that an internal auditor should "observe the law and make disclosures expected by the law and the profession." Thus, if the law of the country requires that known frauds be reported to the relevant legal agency, the internal auditor should determine that management and the

audit committee are aware of the fraud and have taken actions to report the illegal act. The Code of Ethics also states that the auditor "shall not knowingly be a party to any illegal activity, nor engage in acts that are discreditable to the profession of internal auditing or to the organization." It is reasonable to ask, "If the auditor knows about a fraud and does nothing, then is doing nothing an act (or lack thereof) that is discreditable to the profession? We suggest that auditors avoid potential problems in these situations by:

- Documenting the findings and include the findings in an audit report
- Reporting the findings to the board of directors, the audit committee, and appropriate members of top management
- Consulting with an attorney on appropriate actions as they fit the particular circumstances of the case
- Considering the need for any further positive action to disassociate oneself from the potentially alleged conspiracy

The internal auditor who stands by and does nothing in the face of known corporate wrongdoing is not serving the profession or the organization very well.

Further, in some jurisdictions, the lack of an act to disassociate the internal auditor from the wrongdoing has been interpreted as aiding and abetting the wrongdoing. The profession expects internal auditors to step forward to ensure that top management, the audit committee, and the external auditors, where applicable, are aware of the fraud.

Summary

Internal auditing is often viewed as the last defense against corporate governance problems and misuse of organizational assets. Internal auditing is strategically placed to add value to all organizations that invest in their services. The new definition of internal auditing—along with a philosophy of adding value, addressing risks, and working with management to provide both assurance and consulting—positions the internal audit function to be a high-value function for most organizations. Internal auditing is an activity that may be sourced within the organization or sourced from outside the organization. The concepts developed in this chapter will drive the internal audit function for the foreseeable future.

Significant Terms

assurance services Objective professional services that improve the quality of information about processes; effectiveness of controls; reliability of information; or compliance with company, regulatory, or governmental procedures; and the effectiveness and efficiency with which the organization carries out its operations.

compliance audits Audits to determine whether operations are meeting guidelines or are in compliance with applicable laws and regulations.

consulting services Advisory or partnering activities that add value and improve an organization's operations, in which the nature and scope of services are agreed upon with the client. Examples include counsel, advice, facilitation, process design, and training.

control self-assessment An auditor led process that engages company personnel in a systematic evaluation of the adequacy and effectiveness of internal controls.

internal audit charter A statement that defines the scope of internal audit activities, its access to company records and other information, its independence, budgeting authority, and so forth. Should be approved by the Board of Directors.

operational auditing The evaluation of activities, systems, and controls within an enterprise for efficiency, effectiveness, and economy.

Review Questions

19-1 What are the major functions of internal audit?

19-2 Can an internal audit function be both an assurance and a consulting activity? What are the differences between these two concepts? How can the internal auditing profession logically perform both an assurance function and a consulting function?

19-3 What is the "systematic and disciplined approach" that constitutes one of the unique attributes of internal auditing?

19-4 What is value-added auditing?

19-5 What is the internal auditor's role regarding risk analysis and control?

19-6 What is the difference between independence and objectivity? Which of the two is most important on an audit engagement? Explain.

19-7 How can the internal audit department contribute to the effective operations of an audit committee? Why is it important for an internal audit function to fulfill this role as opposed to the external audit function?

19-8 Why is it important to have an internal audit charter? What should be included in the charter?

19-9 Does the auditor primarily serve senior management or the audit committee? If there are conflicts in serving these two different masters, how are they to be resolved?

19-10 What are the major differences between internal and external auditing? Why is the scope of activities much different for internal auditing than for the external audit?

19-11 Can a public accounting firm perform internal audit activities? Can it perform these activities for an audit client? Explain.

19-12 Can internal auditors and external auditors both perform consulting activities? Explain and describe the limitations of the external auditor in performing consulting activities?

19-13 Is there a difference in the nature of the audit work performed if an internal auditor from within the organization does it or if an external audit firm performs it? Explain.

19-14 What competitive advantages might a large public accounting firm have in outsourcing or co-sourcing internal audit services?

19-15 What are the competitive advantages of using an existing internal audit department over outsourcing the function to a large public accounting firm?

19-16 What is an operational audit?

19-17 What are the ten steps of an operational audit program? Identify each step and what the auditor accomplishes in each step. Explain why all operational audit programs follow this approach even for such diverse areas as cash management and inventory management.

19-18 Why is it important that the auditor establish objective criteria to determine the efficiency and effectiveness of performance before beginning the audit?

19-19 How does an operational audit program differ from a financial audit program?

19-20 What should be communicated in an operational audit report?

19-21 Define the following types of internal audits:
- Risk analysis
- Information reliability
- Effectiveness of controls
- Operational effectiveness and efficiency
- Conformance with regulatory requirements
- Compliance with company policies and procedures
- Fraud investigations

19-22 What is a compliance audit and how does it differ from an operational audit?

19-23 What are the major determinants in designing a compliance audit program?

19-24 How does compliance auditing add value to an organization?

19-25 What role(s) does the internal audit department play in assisting management and the audit committee to prepare for Sarbanes-Oxley reporting?

19-26 What is control self-assessment (CSA)? Is CSA a normal audit function? How does the auditor facilitate CSA and how does it add value to an organization?

19-27 What is the nature of the attribute and performance standards that are part of the *International Standards for the Professional Practice of Internal Auditing?* Do the standards apply to both assurance and consulting activities?

19-28 What responsibility does an internal auditor have to evaluate residual risks associated with an organizational activity? What should the internal auditor do if the auditor decides that the remaining risks are more than the auditor believes the organization should accept?

19-29 What is the internal auditor's responsibility for reporting a corporate wrongdoing? For example, what should an internal auditor do if they find management has inappropriately recognized revenue by doctoring (changing) sales invoices?

19-30 What are the major principles contained in the IIA's Code of Ethics?

Multiple-Choice Questions

19-31 Which of the following statements regarding assurance services is true with respect to internal auditors?

I. Assurance services by internal auditors can be provided only to internal management and the audit committee; that is, they cannot be provided to outside entities.
II. Assurance services require the specification of assertions to be tested.
III. Assurance services can be provided only in the areas of controls and financial reporting.

a. I and II
b. II only
c. I, II, and III
d. None of the above

19-32 Which of the following statements is correct regarding the performance of consulting activities by internal auditors?

a. Consulting activities, by definition, impair the independence of the auditor and therefore should be performed only in areas the internal audit department does not plan to audit in the future.
b. Consulting activities are simply an extension of the auditor's current work in providing recommendations.

c. Consulting is a more proactive approach in which the auditor takes the lead in analyzing problems, deciding the best course of action, and assisting management in implementing solutions.
d. Consulting should be limited to internal controls, because that is the auditor's area of primary competence.

19-33 Which of the following statements are true regarding independence and objectivity as applied to internal auditing?

I. Independence is a departmental feature that affects the scope of audits.
II. Only the audit committee can determine independence.
III. Objectivity is a personal feature that is to be exhibited by all internal audit team members on an audit.

a. I and II
b. I and III
c. I, II, and III
d. III only

19-34 The internal auditor is primarily responsible to:

a. The audit committee
b. Senior management
c. The external auditor
d. Both the audit committee and senior management

19-35 Which of the following would not be an audit activity that contributes to improved corporate governance?

a. Perform a compliance audit to determine if the marketing department operates in conformance with company policies.
b. Help train operational managers in control self-assessment.
c. Assist the external auditors in conducting the annual external audit.
d. Perform an operational audit of the company's procurement processes.

19-36 Which of the following statements is *not* correct regarding the internal and external audit profession?

a. External auditors cannot perform internal audit work for public company audit clients.
b. Internal audit work is broader in scope than is the external audit.
c. Both functions require their auditors to be certified.
d. The audit committee is the primary client.

19-37 The major objective of an operational audit is to:

a. Analyze operational areas for control deficiencies, especially those that would allow a fraud to go undetected.
b. Perform trend analysis to identify high-risk areas that merit management attention.
c. Analyze operations to identify potential deficiencies as a basis for improving operational performance.
d. Determine mismanagement or ineffective management by department or divisional managers.

19-38 Which of the following items would be the *least appropriate* criteria for an operational audit of the effectiveness of a bicycle manufacturer's distribution system?

a. The best practices in an unrelated industry, such as the distribution practices of a company like Dell Computer.
b. Generally accepted good distribution system principles discussed in college textbooks.
c. Related practices in similar industries based on the auditor's personal experience.
d. Company objectives for superior distribution management as adopted by management.

19-39 Operational auditing is primarily oriented toward:
a. Future improvements to accomplish management's goals.
b. The accuracy of data reflected in management's financial records.
c. Verifying that a company's financial statements are fairly presented.
d. Past protection provided by existing internal control.

19-40 If the internal auditor determines that management has accepted a level of risk associated with activities that the auditor believes is too large, the auditor should:
a. Report the matter to the Chairman of the Board.
b. Discuss with the external auditor to better understand their independent assessment of risk.
c. Report to the Board if the auditor does not agree with management's rationale.
d. Note the disagreement in the audit workpapers, but do not report the audit findings to management and the board.

Discussion and Research Questions

19-41 **(Assurance Services)** Internal auditing is defined as an objective assurance and consulting activity.

Required
a. What is an assurance service? How does an assurance service differ from an attestation service?
b. Under what circumstances can such assurance services be provided by internal audit departments to outside parties such as company trading partners?
c. Identify two or three areas in which an outside party may desire assurance services by an internal audit department.
d. What are the competitive advantages and disadvantages of having an internal audit department provide the assurance services just identified, as compared to engaging an external audit firm to perform those services?

19-42 **(Internal Audit and Governance)** Internal auditing is defined as contributing to the effectiveness of an organization's governance processes.

Required
a. Explain how an internal audit might contribute to the effectiveness of corporate governance. In formulating your answer consider the following types of audit activities that might be performed:
   - Compliance audits
   - Assurance audits
   - Consulting activities
   - Control self-assessment facilitation
b. In their role of improving corporate governance, is the internal audit function working primarily for management or the audit committee? What might be the conflicts between the two parties as they may affect the auditor's work and the auditor's reporting?

19-43 **(Independence and Objectivity)** Internal auditing is an independent objective assurance and consulting activity.

Required
a. Differentiate between *independence* and *objectivity*.
b. Can the internal auditor attain the same level of objectivity in an audit as the external auditor? Explain.
c. Under what conditions would performing consulting activities impair either the independence of the internal audit department or the objectivity of the internal auditor? Can the internal audit

department adequately control the threats to independence or objectivity?

d. A trading partner of a company wants some assurances about the integrity and security of computer processing. The following is known about the internal audit department:
   1. The internal audit department undergoes periodic external peer reviews to address the quality of its audits and the compliance of the audits with the *Standards for the Professional Practice of Internal Auditing*. The peer reviews also examine the quality control procedures used by the department.
   2. The internal audit department has a history of hiring high-quality staff and subsequently placing that staff in management positions.
   3. The company has a reputation for hiring technologically competent auditors.

   Assume that as a trading partner, you want some assurance about the integrity of the client's computer system, especially as it pertains to doing e-business. Present the arguments for and against obtaining assurances about the computer system from the internal audit department rather than an external audit firm.

19-44 Internal auditors are meeting regularly with audit committees.

Research **Activity**

Required

a. What is an audit charter? Why is it important that an audit charter be approved by the Board of Directors?
b. Select a publicly-traded company and find their proxy statement. Determine if they describe the internal audit charter in the proxy statement. Prepare a summary of the charter and present the summary to class.
c. Select a publicly-traded company and find their proxy statement. Determine how often the audit committee meets with the internal audit department.

19-45 **(Comparison of Internal and External Auditors)** Internal auditing and external auditing share many commonalities. However, they also differ in a number of key aspects.

Required

a. What are the major commonalities between the internal audit and the external audit profession?
b. What are the major differences between the two professions?
c. Explain why internal auditing is often viewed as a stepping-stone to management.

19-46 **(Preparing for Audit of Purchasing Department)** You have been assigned to do an operational audit of the purchasing department to determine whether it is effective, efficient, and economical. The department has been audited before.

Required

a. Should it be an auditor's responsibility to determine the efficiency of operations? In formulating your response consider the following three viewpoints:
   - Management should have their own information system to determine that operations are efficient, thus there is no need for an audit of efficiencies.
   - Internal auditors bring a fresh perspective and an objective approach that provides insight on the efficiency of operations.
   - Internal auditors are not "subject matter experts" in the operational area, e.g., the purchasing function, and therefore do not have the expertise to perform an operational audit of the function.

b. What are the major objectives for an operational audit of the purchasing function?
c. What criteria might the auditor use to determine whether the department is operating efficiently?
d. What information should the auditor gather before starting the audit of the purchasing function? For each information item identified, indicate the major source of the information.

19-47 **(Operational Audit)** An internal auditor of Murry Manufacturing Company has just been assigned to perform an operational audit of the company's inventory warehousing procedures. The company manufactures seven lines of bicycles, four lines of lawn mowers, and three lines of snow blowers. Inventory is kept in four company-owned warehouses strategically located around the country.

The company has a stated objective of shipping all orders within 48 hours of receipt. The company has streamlined production to minimize the number of component parts of each product. However, the company does maintain a 10-year supply of old parts at its central location in Ohio to meet its customers' repair needs.

While gathering background information for the audit, the internal auditor notes that inventory levels have risen in tandem with sales increases. Sales are up 50% over the last five years, but inventory is also up 50% over that time. In addition, the last two external audits resulted in significant write-downs of inventory due to shrinkage, spoilage, or obsolescence.

Required

a. Identify at least four other items of importance the internal auditor might address during the preliminary survey of inventory and warehousing.
b. The director of internal auditing assigns you the task of developing appropriate criteria against which to audit. Identify three potential sources of criteria that should be consulted in developing your response.
c. Identify three potential criteria for the operational audit of inventory and warehousing.
d. Develop an operational audit program for the inventory and warehousing.

19-48 **(Compliance Audit)** During a discussion with the audit committee, the chair of the audit committee raised questions about the company's waste disposal processes. After the discussion, the area was identified as one of potential high risk and therefore identified as a high priority for the internal audit department. The company has manufacturing plants in nine states. The audit committee's concerns are limited to the disposal of chemical waste products.

Required

a. What information should the auditor gather in planning the audit engagement? For each major piece of information, indicate the source. Organize your answer as follows:

Information Needed	*Source of Information*

b. Write an operational audit program to conduct the audit. If you need to make assumptions about company policies or procedures, state those assumptions in formulating the audit program.

19-49 **(Compliance Audits)** Management needs assurance that the organization is in compliance with various policies and controls. Assume you are the auditor of a major movie studio. The movie studio has contracts with many major stars who sign to make a movie for a

minimum fixed amount of money, but sign a contract to collect *x* percent of all residuals. As an example, one contract with a major star states that the star will receive:

- 10% of all revenues from showing the movie in the United States on its first release
- 7% of all revenues from showing the movie in the United States on its second release (The second release is any time 5 years or more after the first showing.)
- 6% of all revenues from showing the movie outside of the United States
- 4% of all sales of the movie on the video market

Required

Develop an audit program, starting with preliminary planning through the audit tests needed, to determine whether the company is in compliance with all major contracts.

19-50 **(Value-Added Auditing)** The new definition of internal auditing emphasizes that its objective is to *add value* to the organization.

Required

a. An internal audit function has a value-added mission. Does that mission require that the audit department measure the value of every audit that it conducts during the year?
b. How can the value of a compliance audit be determined?
c. How can the value of an operational audit be determined?
d. How can the value of a consulting activity be determined? For example, consider the role of the internal audit members serving on the strategic task forces for J.C Penney, as identified in the chapter. How would the audit committee determine the value added from those activities?
e. Can an audit department measure value added without attaching a dollar figure to the values? What are the relative advantages and disadvantages of computing the dollar effects of audits? Can the auditor measure revenue enhancements as well as cost savings?

19-51 **(Risk Analysis)** The internal audit department has been assigned to perform an operational audit of the treasury function. More specifically, the audit committee wants the auditor to focus on the following major areas:

1. Completeness and accuracy of recording cash receipts on a timely basis
2. Outgoing cash transfers
3. Cash management techniques, including short-term cash management and cash budgets
4. Use of financial derivatives and hedging techniques

Required

a. Identify the major risks that the auditor should address for each of the areas listed above.
b. How will the auditor go about identifying the risks associated with each of the major areas listed?
c. Develop an operational audit program to audit the cash management techniques.

19-52 **(Risk Analysis and Operational Audits)** Assume the following additional information about the use of financial derivatives for the operational audit described in Problem 19-51:

1. Company policy limits financial derivatives strictly to instruments that mitigate financial risk. The treasury function is not allowed to make speculative investments in derivatives.

2. Derivatives cannot constitute more than 30 days of cash needs.
3. Hedging can and should be used only for foreign currency fluctuations. Company policy prohibits hedging for speculative purposes.

Required

a. Based on these policies, what are the major objectives for an audit of financial derivatives and hedging contracts?
b. Is the audit primarily a compliance audit, an operational audit, or both? Explain.
c. Write an audit program to address the audit objectives identified in part (a).

19-53 **(Operational Audit Report)** The following comments are to be presented in a report on the operational audit of the customer service department of a business equipment retailer.

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Required

a. Identify each comment as an audit finding, a conclusion, or a statement of audit objectives.
b. For each comment that represents a conclusion, critique the effectiveness of the presentation. Is the finding sufficient to convey the nature of the finding and the needed management action?
c. What important risks has the auditor discovered?
d. How could the report be written from a risk viewpoint?

Comments

1. Our tests of service tickets showed that approximately 10% of the 3,250 service tickets processed during the past year were rejected when received from the technicians because of incomplete or incorrect information.
2. The procedures manual requires that service tickets be turned in within seven days of providing the service.
3. We focused our audit on the controls of the service tickets from the time they are filled out by the technicians until they are entered into the computer and invoices are generated.
4. Seventy-four percent of all rejected tickets had incorrect information written on them: wrong serial number, model number, make, or call number.
5. New personnel should be properly informed of company policies and procedures as soon as they are hired.
6. One-third of the technicians interviewed do not verify the serial numbers, because the two new dispatchers are not providing that information unless the technicians ask for it.
7. Dispatchers should be required to provide the serial number every time a technician calls in.
8. Service tickets, which are sent to personnel who enter the information into the computer, are located in an office separate from the dispatchers. When the service ticket information is incomplete or inaccurate, the personnel have to contact the dispatchers or technicians personally or by phone to get the necessary information.
9. Forty-two percent of the service tickets were not turned in within seven days of providing the service.
10. Management's standard for incomplete or incorrect service tickets is 2%.
11. Dispatchers should receive the service ticket information and enter it into the computer on the day received. An alternative solution would be to have the data entry personnel relocated to the dispatcher's office.
12. Invoices are not being sent to service customers on a timely basis. Our estimate is that service billings of approximately $275,000 for the past year are being sent an average of four days late, resulting in lost interest income of over $2,000.

13. Twenty-six percent of the service tickets were incomplete. In most of these cases, the serial number was missing.
14. It takes an average of about 30 minutes per rejected service ticket to obtain the necessary information. It takes about the same amount of time to follow up on late service tickets. Because the average hourly wage plus fringe benefits of the individuals processing these tickets is $15, more than $15,000 of additional payroll-related expense was unnecessarily incurred during the past year.
15. New personnel are not properly informed of company policies and procedures when hired.
16. Records should be kept of which technicians are submitting incomplete, inaccurate, or late service tickets, and those who are regularly doing so should be informed that these practices are against company policy.
17. Management has initiated a program of informing new employees about company policies and procedures. It is considering implementing a monitoring procedure to identify technicians who are not following those policies and procedures.

19-54 **(Relationship of Internal Audit and External Audit)** Internal auditing is a growing profession. Some of the recent growth can be attributed to the requirements of the Sarbanes-Oxley Act of 2002.

Required

a. What are the relative roles of the internal auditor and external audit firm regarding the Sarbanes-Oxley Act? Assume the external auditor is only engaged to perform an external audit.
b. Can a CPA firm provide both internal and external audit services for an organization? In formulating your answer, consider that there might be differences for public and non-public companies.
c. Why might a company consider outsourcing some, or all, of its internal audit work to an external provider? What might be the advantages of having an external provider perform internal audit work?
d. What are the advantages of sourcing internal audit work in-house, i.e., an internal audit department exists within the company?
e. Would a smaller organization be more likely or less likely to outsource some, or all, of its internal audit activities? Explain.

19-55 **(Internal Audit Code of Ethics)** Certified Internal Auditors (CIA) are often faced with situations that may involve ethical considerations.

Required

Consider the following cases. For each of the cases, identify the relevant principle or rule of conduct of the IIA's Code of Ethics, and state whether the condition is a violation of the Code.

Ethical Scenarios for Certified Internal Auditors:

a. An internal auditor participates in the activities of a religious organization that provides sanctuary to undocumented political refugees. The refugees are then hired, with the auditor's assistance, to work for substandard wages by the company that also employs the auditor.
b. An internal auditor discovers evidence that the company has been disposing of toxic waste in a manner contrary to contractual provisions and public policy. The responsible department manager insists that what it is doing is in the company's best interest and requests that the auditor not mention this matter in the report.
c. An internal auditor has been assigned to work with the company's acquisition team to analyze the potential acquisition of a company that is a direct competitor.
d. The internal auditor receives the following message from the company's CEO, to whom the auditor reports administratively: "The controller

informs me that you have discovered a number of questionable account classifications involving the capitalization of research and development expense. You are directed to discontinue any further investigation of this matter until informed by me to proceed. Under no circumstances is this matter to be discussed with the outside auditors."

e. While performing assistance work for the external audit firm as part of their annual audit, the internal auditor discovers a problem in purchasing that looks like fraud. The internal auditor reports it to management, which then assures the internal auditor that there is no problem. Because of the assurance, the internal auditor does not report the item to the external auditor.

f. Three years ago the internal auditor participated as part of a systems development review team for a major new computer application. In that role, the internal auditor (a) recommended controls that needed to be built into the system; (b) reviewed all comprehensive testing performed by users; and (c) wrote an audit report that the computer system met the company's control criteria and was operating in compliance with the objectives for the system. The internal auditor has now been requested to perform an audit of the system.

g. The internal auditor has reviewed the major accounting estimates made by the firm as they affect the year-end financial statements. The review included an analysis of the models used in making the estimates as well as the appropriateness of the estimate. The audit committee has already reviewed the estimates with the external auditors. The internal auditor believes the model contains serious flaws and communicates his analysis to the audit committee (as requested), but not to the external auditors.

Cases

19-56 **(Inventory Control—Developing Operational Audit Objectives, Criteria, and Audit Approach)** You are planning an operational audit of inventory control for a company that manufactures electronic equipment such as stereos and televisions.

Required

Develop an audit program that identifies the audit objective, appropriate criteria, audit approach, and tests for each of the following areas:

- Accuracy of perpetual records
- Purchasing of raw materials and components
- Efficiency of inventory control
- Control of scrap and rejects

In formulating your solution, use the following format:

Audit Objective	Criteria	Audit Approach	Audit Tests

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ACL Basics, Tutorial, and Cases

ACL is a generalized audit software package widely used by public accounting and internal auditing organizations to access, analyze, and manipulate electronic data contained in client systems. The following ACL basics, tutorial, and cases—and the problems within the chapters—are designed to help you learn how to use many of the important features of this tool as well as to provide you with hands-on experience of using the computer to help perform audits. You are likely to use this or a similar program in your professional career. The ACL program is contained on a CD disk that comes with your book. It is recommended that you install ACL on your own computer if it has a Windows operating system. If this is not possible, check with your instructor to see if it is available in a computer lab.

Data Files

The data files for the ACL tutorial, cases, and problems must be downloaded from the following Internet address: http://www.thomsonedu.com/accounting/rittenberg under "Student Resources." If you install ACL on your own computer, it is recommended that you download the data files to your hard drive. If you use ACL on a college network, download the files to whatever input/output device can be used on the lab's computers. The files created by ACL will be stored on the same device with the data files.

Getting Started

1. Familiarize yourself with some of the basic features of ACL by reading the "ACL Basics" section.
2. Work the tutorial.

ACL Basics

Following are descriptions of some of the basic features of ACL. Following this section is a tutorial to help you apply many of these features to other cases and problems.

Start the ACL program. Note the menu options on the standard toolbar and the options under each item. Move your cursor along the icons and note what each one stands for.

The first step in using ACL is to (1) create a new project or (2) open an existing project.

(1) Create a New Project

To start a new project (such as a case), select **FILE | NEW | PROJECT** and give the project a name. Or click the **Create a New Project** icon at the left of the toolbar. *Be sure to save the project in the directory with the data files.* The files that are created when using ACL are saved on the same drive with the data files.

You will then need to import one or more files (called tables in ACL) to work on:

Import a Table (file) Click on **FILE | NEW | TABLE** and follow the on-screen instructions.

(2) Open an Existing Project

To open an existing project, select **FILE | OPEN PROJECT** and click on the file name in the directory in which it was saved. Or click the **Open an Existing Project** icon. You can then continue working on the project and can import additional files.

Basic Activities

Following are some basic activities that can be performed on a file.

Add a Column You can add one or more columns with new information you create based on the data in the table. For example, you could calculate the difference between two fields. Either click the **Add Column** icon on the toolbar or right-click the mouse, and select **Add Columns**. Click the **Expr** button, and build the expression needed to calculate the data for the new column (such as Amount – Confirmed). Type a column name in the **Save as** box (such as *Difference*). Click **OK** and **OK** again. You may need to move the screen to the right to see the new column.

Practical Point

Auditors will often create an additional column to test the accuracy of computations, such as inventory price times quantity, or will use it to create new information, such as inventory turnover. The new column can then be manipulated to perform further analysis.

Age Select **ANALYZE | AGE** or click the **Age** icon on the toolbar. Select the field on which to age (such as INVDATE). Click the button next to the **Cutoff date** window and select the appropriate date. You can accept the default aging categories or change them. Choose the field to subtotal by aging category (such as AMOUNT), in the right window. Click the **Output** tab at the top and select where you want the output. If the output is to a file, give it a name. Click on that category (such as >45) to get a list of items in a specific aging category.

Extract Select **DATA | EXTRACT DATA | IF**. You can then create an expression to select the items to extract. For example, if you want to extract all unpaid invoices over a certain age based on the field INVDATE, the expression would be INVDATE < (click on **DATE** and select the appropriate date). Fields can be entered into the expression either by typing or by double-clicking on the field in the **Available fields** window. If you want to extract all amounts over $100,000, the expression would be AMOUNTS > 100000. Click **OK** when the expression is complete. Type a name for the extracted file in the **To** window.

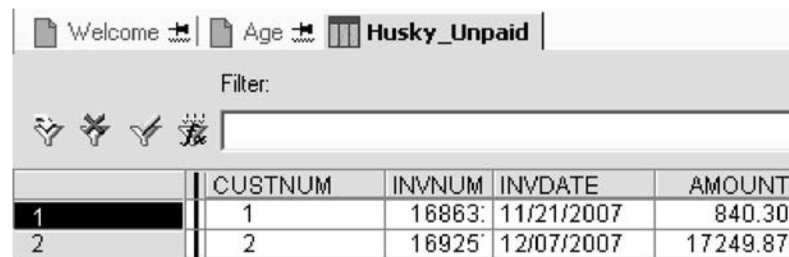
Expressions for extracting data can include specific text. For example, if there is a column labeled COMMENT with explanations of confirmation exceptions including "Confirmed—OK" and you want to extract all of those that do not have that explanation, the expression would be COMMENT <> "Confirmed—OK". The exact words must be in quotes.

Note: When records are extracted from a file, you must create a new file and you should save that file. ACL describes this as creating a filter because we have filtered the data to create a new file. To get back to the original file, click on the original file name in the left window.

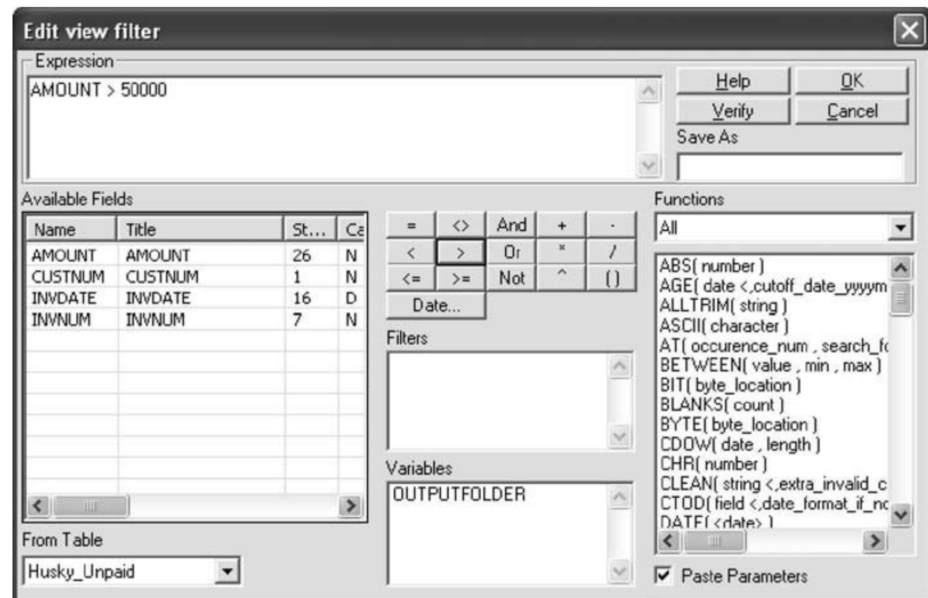
File Statistics There are two ways to get statistics about the data in the file.

1. Click on the icon with the **%** sign. Choose the field(s) on which you want statistics. Click on the **Output** tab and choose where you want the output (screen, file, or print).
2. Select **ANALYZE | STATISTICAL** and either **STATISTICS** or **PROFILE**. If you choose **STATISTICS**, you have the same choices as in step 1 above. The statistics provided with **STATISTICS** are numbers, totals, and averages for positive, negative, zero items, overall totals, and highest and lowest values for the field(s) selected. The statistics that are provided with **PROFILE** are total, absolute, minimum, and maximum values for the field(s) selected.

Filters Filters may be used to query the data in a table that has been imported without adding a new field or creating a new file. For example, a filter can identify customer unpaid invoices over $50,000 as follows: Click on the **EDIT VIEW FILTER** button (the icon immediately on the left side of the filter window with the symbol ***fx***).



This brings up the edit view filter box:



1. Enter the expression *AMOUNT > 50000* in the expression window. This is done by double-clicking first on the **AMOUNT** field in the **Available Fields** window, then clicking on the > expression, and then entering *50000*.
2. Click **OK**. The screen now shows those invoices greater than $50,000. This filtered table can be printed and/or manipulated in the same ways as any table. These filter screens, however, cannot be saved as a separate file. If you want to save this information as a new file that you can use later, you need to extract the data as described above under "Extract."

3. To close this filter and get back to the original table, click on the **REMOVE FILTER** icon with the red X.

Join Files Important note: To join two tables (files), be sure the fields on which the files are to be matched (such as invoice numbers) are in the same format, such as numeric. To change the format, select **EDIT | TABLE LAYOUT**, or click the **Edit Table Layout** icon on the toolbar. Double-click on the field to be reformatted, and select the new format from the drop-down menu. Click on the green check mark in the left margin to accept the change, and then **OK**.

Select one of the files as the primary file by making it active on the screen. If the active file is not to be the primary file, click on the file you want to be the primary file in the left window of the screen. Click the **Join** icon that looks like an upside-down organization chart or select **DATA | JOIN TABLES**. Click on the secondary file you want to join with the primary file. Click on the field name for the primary and secondary file keys (fields on which the files will be matched, such as invoice numbers). Click on the primary and secondary fields you want in the combined file. To select more than one field in a window, hold down the Ctrl key. Type a name for the combined files next to the **To** button, and then **OK**.

Move a Column/Change Column Widths Columns can be rearranged by left-clicking on the column heading, holding the mouse button down, and dragging the column where you want it.

Column widths can be changed by placing the cursor to the right side of the column heading and moving it in either direction.

Prepare and Print Reports You can tailor a report of the information on the active screen and get column totals. Select **Data | Report** or click the **Report** icon on the toolbar. Type any information you want in the header and/or footer of the report, such as the client's name or your name, a date, and the nature of the information. Choose where you want the output (screen or file). The report can be previewed by choosing **File | Print Preview** or clicking the **Print Preview** icon. You can change the page layout from portrait to landscape by clicking the **Setup** button. The report will display and print totals for all numeric fields. You may need to adjust the column widths to see entire column headings.

If you do not want to add headers or footers to the report, you can simply click the **Print** icon or select **File | Print** on the menu. All numeric fields will be automatically totaled.

Sampling—Size, Selection, Evaluation There are two basic ways to use ACL for sampling: monetary sampling (PPS sampling) and record sampling (random items such as for attribute sampling).

Monetary (PPS) Sampling **Sample size:** Select **SAMPLING | Calculate sample size | Monetary**. Enter the confidence level (the complement of risk, such as *90* for a 10% risk), the dollar value of the population, materiality (tolerable misstatement), and expected total errors. Click **CALCULATE**. This calculates the sample size, sampling interval, and maximum tainting percent. Click the **Output** tab at the top and select **Screen**. You can then print the calculated results.

Sample selection: Select **SAMPLING | Sample Records**. Choose the field to be sampled from the **Sample on** window (such as AMOUNT), click **MUS** under **Sample type**, and enter the sampling interval. Under **Sample parameters**, click **Fixed interval**, type in the sampling interval and a random start to serve as a random number seed (they can be any numbers), or leave the start blank and let ACL generate a random start. For cutoff, type the sampling interval or leave it blank. If you leave it blank, ACL will automatically use the interval for this value. Type in a file name next to the **To** button. The next screen will be the sample. This new file can then be printed out and/or used later.

Sample evaluation: Once the audited amounts have been determined through the audit procedures, select **SAMPLING | Evaluate error**, click **Monetary**, and enter the confidence level and sampling interval. In the **Errors** window, carefully enter the book value of the first item in error followed by a comma and the amount of the error (such as *23451.22, 250.33*). **Note: Enter the amount of the error, not the audited value.** Press the **Enter** key and proceed to enter the next book value in error, amount of error, etc. When finished entering the errors, click the **Output** tab and select **Screen** or **File** (if File, give it a name). In either case, you can print the results.

Record Sampling Record sampling can be used in a variety of ways. It can be used for attribute sampling as described in the sampling chapter. The concepts follow the nature of attributes and are used for Sarbanes 404 work for a number of companies. The auditor needs to set the confidence level, the number of items in the population, the upper error limit, and the expected error limit. ACL computes the sample size. ACL can then be used to select and evaluate the sample in a manner similar to that described above.

Saving Files Files created by ACL are automatically stored on the same storage device with the data files. Therefore, you can end an ACL session and come back later. The files will still be there until you delete them. **Caution:** If you created a filter for a file, a separate file of the filtered data **is not** created.

***Practical* Point**

Internal auditors will often use the **Duplicates** feature to identify overpayments or potentially fraudulent payments.

Search for Duplicates Select **ANALYZE | Look for Duplicates**, and then select the field to be searched (such as **Invoice Number**). In the **LIST FIELDS** window, select the fields you want identified with the duplicate entries.

Sort Right-click on the column heading you want sorted and choose whether you want it sorted in ascending or descending order. All other columns will be included in the sort.

***Practical* Point**

Stratification is an important tool to provide the auditor with a better "feel" for a large population.

Stratify Select **ANALYZE | STRATIFY** or click on the **Stratify** icon. Choose the field on which to stratify in the **Stratify On** window (such as **AMOUNT**). Choose the field to subtotal (such as **AMOUNT**). Type in the minimum and maximum values for the intervals (such as *0* and *100000*) and the number of intervals (such as *10*). Click the **Output** tab and choose where you want the output.

Summarize Records can be summarized based on some key (such as customer number to get customer balances from an unpaid invoice file). The field to be summarized, such as **CUSTOMER NO**, must be in ASCII format. To change the format from numeric to ASCII, select **EDIT, | TABLE LAYOUT**, or click the **Edit Table Layout** icon on the toolbar. Double-click on the field to be reformatted, and select **ASCII** from the drop-down menu. Click on the green check mark in the left margin to accept the change, and then **OK**.

Select **ANALYZE | SUMMARIZE** or click on the **Summarize** icon. Choose the field on which to summarize in the **Summarize On** window (such as **CUSTNUM**). Choose the field to subtotal in the **Subtotal Fields** window (such as **AMOUNT**). Choose the other fields you want in the output file in the **Other Fields** window. Click on the **Output** tab at the top and select **Screen** or **File**.

Delete Files

Files created in the current project can be deleted by right-clicking on the file name in the left window, then choosing **Delete**.

Close Projects

To close the project (it will be saved in the directory with the data files), either select **FILE | CLOSE PROJECT**, or click the **Close the Open Project** icon on the toolbar.

To delete files you created with ACL, go into the directory with the data files and delete the files created by ACL (those with the .fil extension).

ACL Tutorial

Start-Up

It will be most convenient for you to install ACL on your own Windows-based computer. If you cannot do this, contact your instructor to find out if and where ACL may be installed in a lab on campus.

The data files may be downloaded from http://www.thomsonedu.com/education/rittenberg under "Student Resources." Download them to your own hard drive if you are using your own computer. Otherwise, download them to a storage device that can be used in a lab environment.

Husky Tutorial Case

You are auditing the accounts receivable records of Husky Corp. as of December 31, 2007. The general ledger control account shows a balance of $4,263,919.52. You will use ACL to help perform some audit procedures.

There are four related data files you need to download for this tutorial:

- *Husky Unpaid Invoices 2007* contains the unpaid invoices as of 12/31/07.
- *Husky Shipping File 2007* contains the shipment numbers and shipment dates for those invoices. You have verified that the last shipment number used in 2007 is 62050.
- *Husky Credit Limit 2007* shows the credit limit for each customer.
- *Husky Confirmations 2007* shows the confirmation results.

Audit Procedures

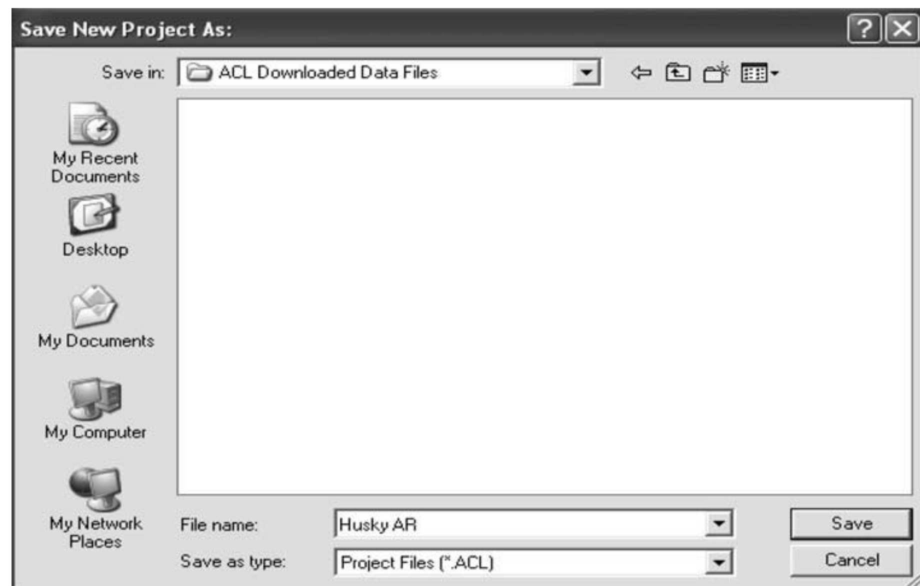
This tutorial will show you how to perform the following audit procedures using ACL:

1. Foot the unpaid invoice file.
2. Identify any unpaid invoices older than 45 days.
3. Identify customer balances greater than their credit limit or for which there are no credit limits.
4. Perform a sales cutoff test.
5. Select a PPS (Monetary) sample of unpaid invoices, confirm them, and evaluate the results.

Data files and *typed input* are shown in *italics.* **ACL icons, commands,** and **equations** are shown in **bold**. FIELD NAMES are in FULL CAPS.

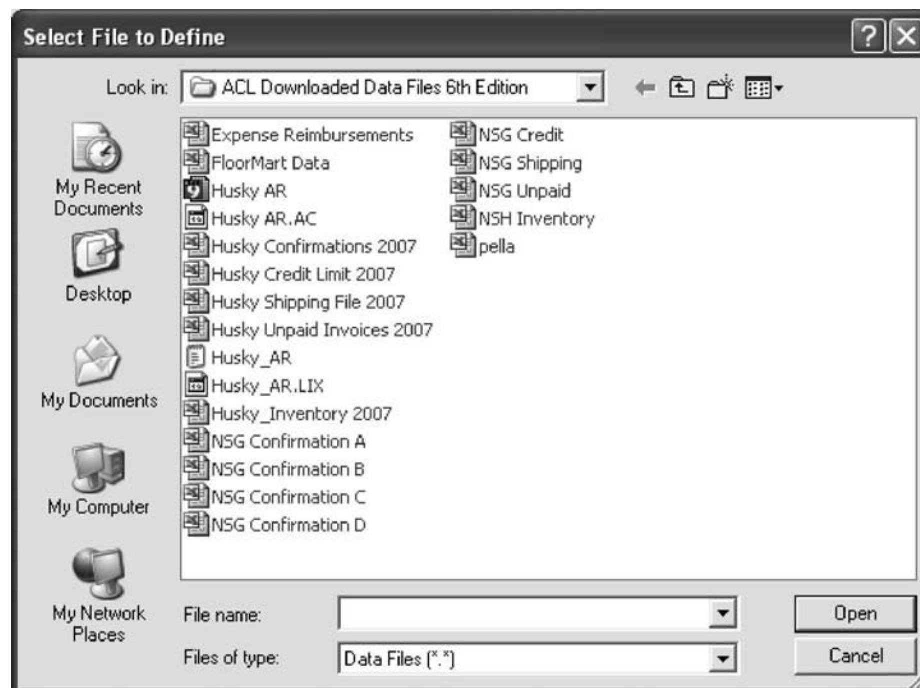
Step 1—Start a new project.

Select **File | New, Project** on the menu bar**.** Select the location with the data files in the **Save New Project As** window; enter *Husky AR* as the name for the project. Click **Save**.



Step 2—Import a table (file).

To import a file (ACL refers to them as tables), click **Next** on the **Select Data Source** screen. Locate the *Husky Unpaid Invoices 2007* file in the **Select File to Define** window and double-click on it. Click **Next** three times.



Give the file a new name—*Husky_Unpaid*. Click **Save | Finish** and **OK.** That file is now imported and shown on the screen.

Husky AR.ACL - ACL Version 8

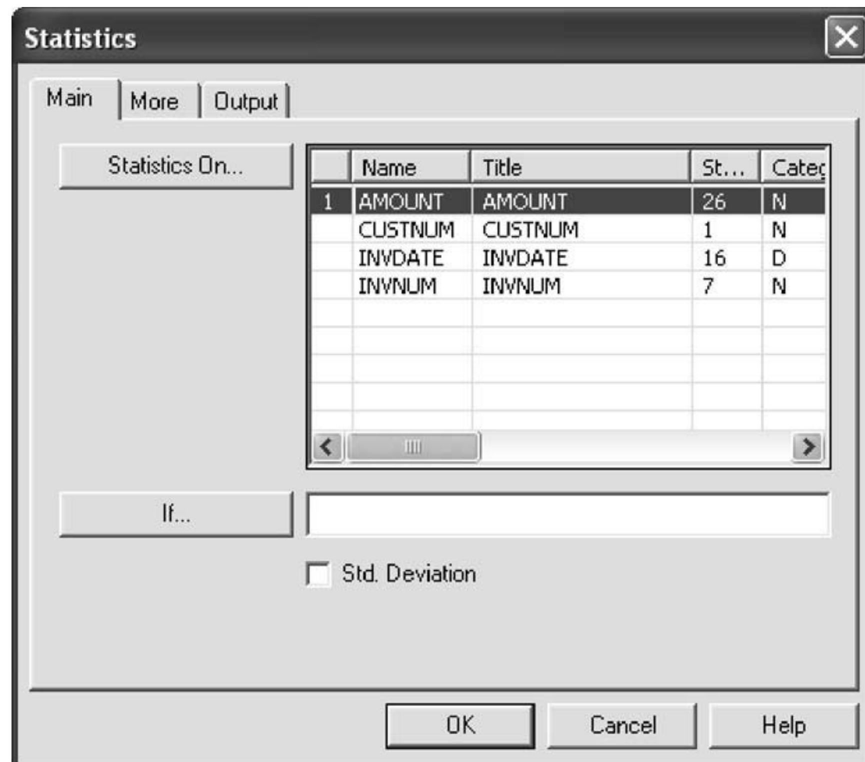
File Edit Data Analyze Sampling Applications Tools Server Win

Welcome | Husky_Unpaid

Filter:

	CUSTNUM	INVNUM	INVDATE	AMOUNT
1	1	168632	11/21/2007	840.30
2	2	169257	12/07/2007	17249.87
3	3	169578	12/24/2007	20261.90
4	4	168823	11/27/2007	22316.02
5	6	168749	11/25/2007	22937.50
6	7	168811	11/27/2007	18898.38
7	7	169977	12/29/2007	779.01
8	10	169507	12/20/2007	21532.05
9	10	169727	12/26/2007	653.40
10	11	169309	12/10/2007	116936.56
11	12	168649	11/22/2007	21779.03
12	12	169350	12/13/2007	20954.96
13	12	169708	12/26/2007	14200.86
14	13	169048	12/01/2007	24110.44
15	16	169194	12/05/2007	19028.02
16	16	169970	12/28/2007	12467.92
17	19	169416	12/26/2007	1857.33
18	24	169706	12/26/2007	526.74
19	25	169796	12/27/2007	20410.08
20	28	169629	12/25/2007	9258.93
21	30	169016	12/23/2007	7239.47
22	30	169073	12/03/2007	15469.91

Step 3—Foot the file and agree to the general ledger.
With the *Husky_Unpaid* table in the active window, select **ANALYZE | STATISTICAL | STATISTICS** on the menu bar and click on **AMOUNT** to foot the file. Click **OK.**



Click **OK.**

The next screen shows several things. In the first matrix, it shows the total value, which agrees with the general ledger balance ($4,263,919.52), and the number and amount of positive and negative values. The second matrix shows on the first line the value of the largest ($155,198.43) and smallest amount ($-22,659.74) of the unpaid invoices. Print the statistics by clicking on the **Print** icon or selecting **File | Print** on the menu bar.

Welcome | Husky_Unpaid | **Statistics**

As of: 03/11/2005 16:50:31

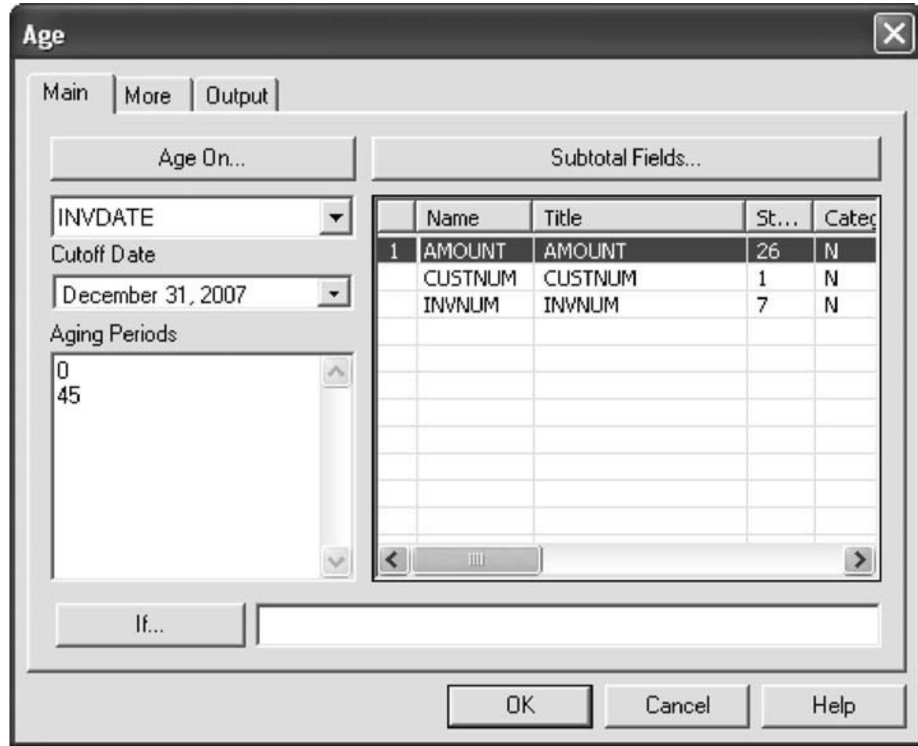
Command: STATISTICS ON AMOUNT TO SCREEN NUMBER 5
Table: Husky_Unpaid

AMOUNT

	Number	Total	Average
Range	-	177,858.17	-
Positive	199	4,286,579.26	21,540.60
Negative	1	-22,659.74	-22,659.74
Zeros	0	-	-
Totals	200	4,263,919.52	21,319.60
Abs Value	-	4,309,239.00	-

Highest	Lowest
155,198.43	-22,659.74
153,129.75	163.73
151,012.89	458.39
143,853.83	526.74
129,494.41	538.78

Step 4—Identify any unpaid invoices older than 45 days.
Click the *Husky_Unpaid* tab above the statistics to make the table active in the main window, then select **ANALYZE | AGE** on the menu bar. Accept the default **Age on INVDATE**. Set the cutoff date to December 31, 2007. Change the aging periods to 0 and 45. Click **AMOUNT** under **Subtotal Fields** to subtotal. Click **OK.**



There are four invoices amounting to $79,017.13 that are over 45 days old.

As of: 12/06/2006 15:07:06

Command: AGE ON INVDATE CUTOFF 20071231 INTERVAL 0,45 SUBTOTAL AMOUNT TO SCREEN
Table: Husky_Unpaid

Minimum encountered was 0
Maximum encountered was 76

Days	Count	Percent of Count	Percent of Field	AMOUNT
0 - 45	196	98%	98.15%	4,184,902.39
>45	4	2%	1.85%	79,017.13
Totals	200	100%	100%	4,263,919.52

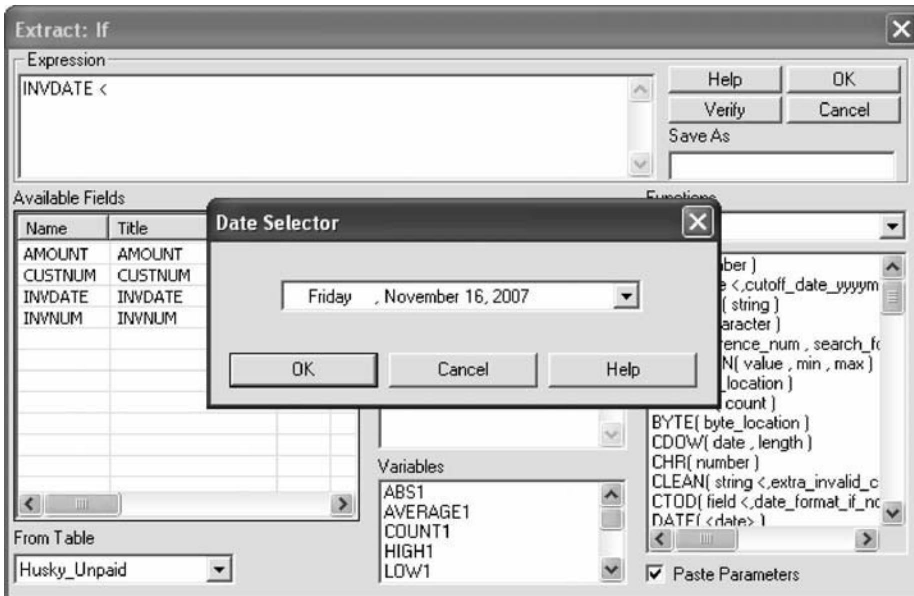
Click on **>45** under the column headed **Days**; ACL will retrieve those four invoices from the unpaid file. Print the page showing the details for these four invoices by clicking on the **Print** icon or selecting **File | Print** on the menu bar. Notice the total of the AMOUNT column is printed. These old accounts should be investigated to determine their collectibility.

Welcome | **Husky_Unpaid** | Age

Filter: (AGE(INVDATE,'20071231') > 45)

	CUSTNUM	INVNUM	INVDATE	AMOUNT
41	50	167860	10/21/2007	22530.63
81	105	168594	11/05/2007	13766.28
130	162	168609	11/07/2007	27974.16
137	168	167594	10/16/2007	14746.06
	<< End of File >>			

Note: If you want to save this information as a file to retrieve later, make the Husky_Unpaid table active and select ***DATA | EXTRACT DATA*** *on the menu and click on* ***IF****. Enter an expression by double-clicking on* ***INVDATE****, click <, select* ***DATE*** *and scroll to November 16, 2007 on the date selector, and click* ***OK.*** *Click* ***OK*** *again. Enter a file name such as Over 45 Days next to the* ***TO*** *button. Click* ***OK.*** *The screen will look like the one above but will not have anything showing in the Filter window.*



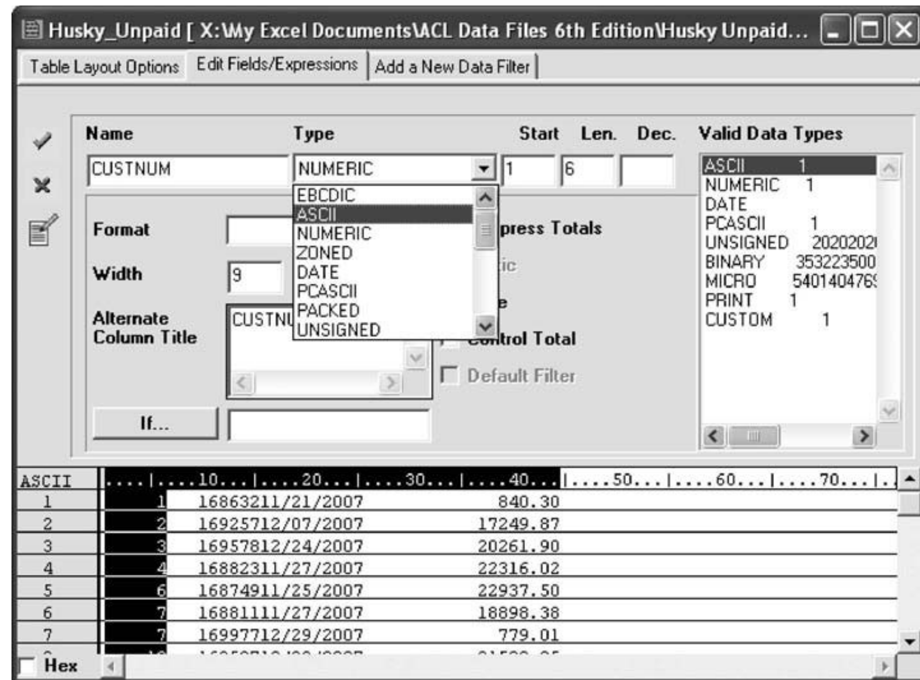
Practical Point

ACL is designed to support audit procedures. Thus, the auditor has chosen 45 days past due as a point where accounts need to be further analyzed for collectibility.

Step 5—Identify customer balances greater than their credit limit or for which there are no credit limits.

Click on the **Remove Filter** icon (with the red check mark) to make the entire *Husky_Unpaid* table active.

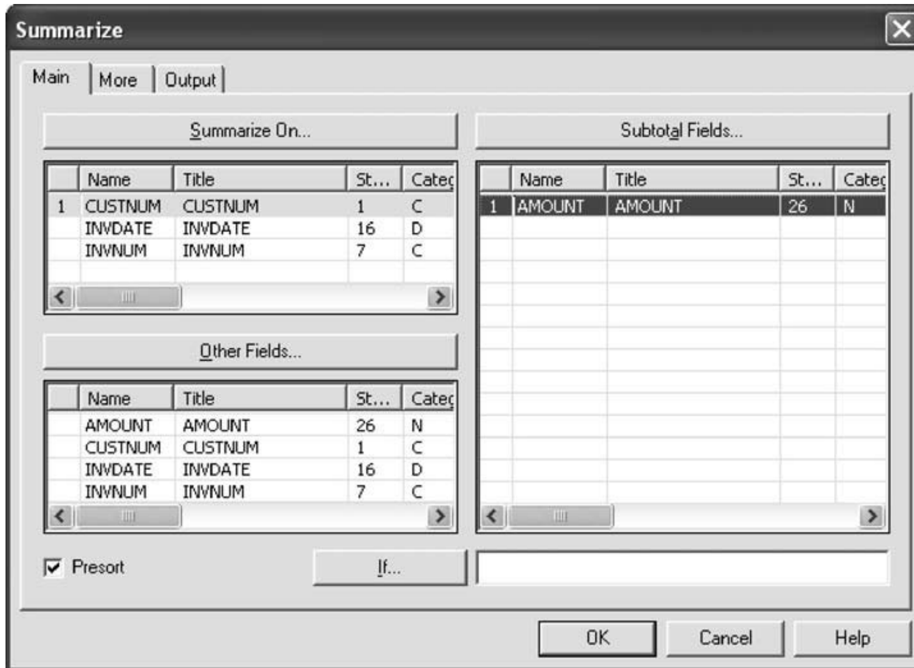
To determine each customer's balance, change the field type of **CUSTNUM** from **NUMERIC** to **ASCII**. To change the field type, select **Edit | Table Layou**t on the menu bar and double-click on **CUSTNUM**. Click the down arrow in the **Type** window, and locate and click on **ASCII** in the window (it is located above NUMERIC). Click the green arrow at the left of the screen.and then click on the red X in the upper-right corner to exit this screen.



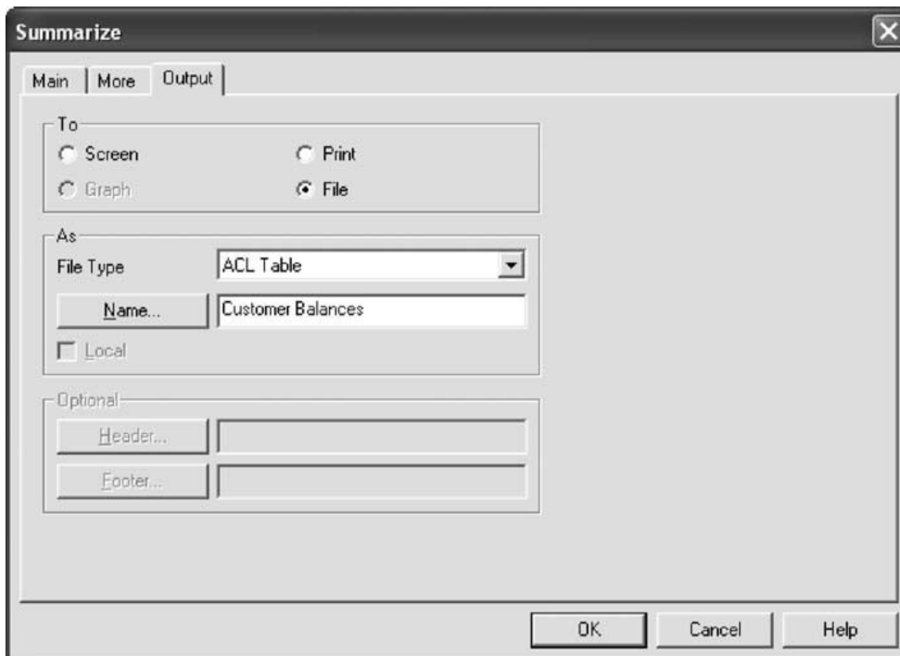
Select **Analyze | Summarize** on the menu bar. Click to summarize on **CUSTNUM** and subtotal on **AMOUNT**. If **CUSTNUM** does not appear in the **Summarize On** window, you need to change the field type to **ASCII**. Click the **Output** tab and choose **FILE**.

Practical Point

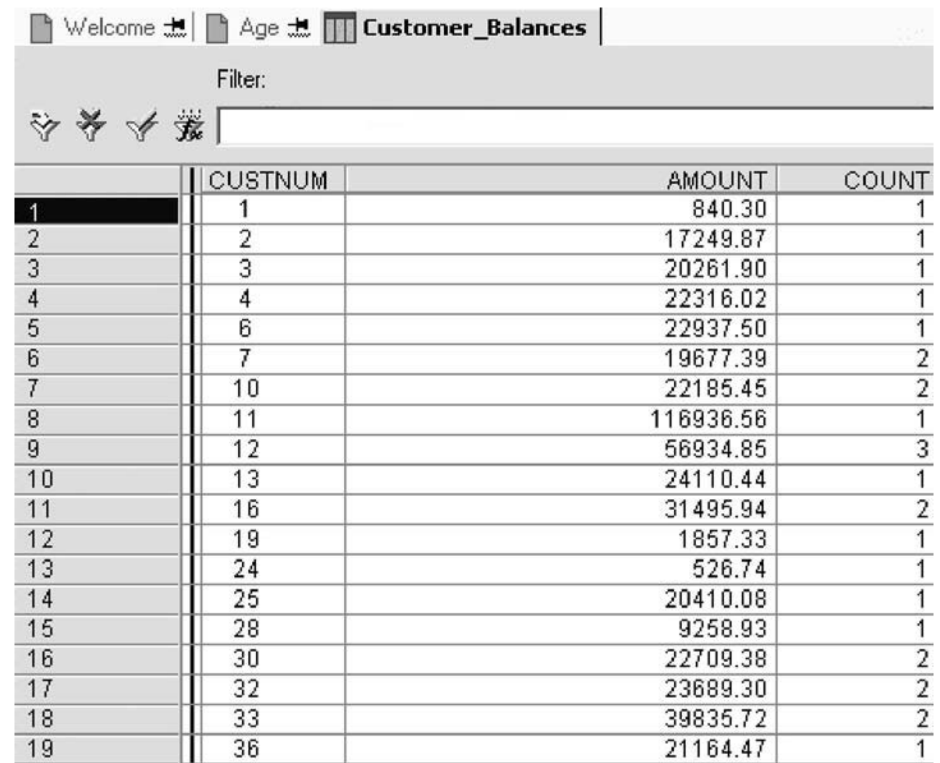
The auditor wants to summarize these data to get a total for each customer, or in some cases, will want a total for related entities for an overall credit evaluation. This would have been useful in the Lincoln Savings & Loan case.



Name the new file *Customer_Balances*.



The window will show each customer's balance and the number (count) of unpaid invoices.



	CUSTNUM	AMOUNT	COUNT
1	1	840.30	1
2	2	17249.87	1
3	3	20261.90	1
4	4	22316.02	1
5	6	22937.50	1
6	7	19677.39	2
7	10	22185.45	2
8	11	116936.56	1
9	12	56934.85	3
10	13	24110.44	1
11	16	31495.94	2
12	19	1857.33	1
13	24	526.74	1
14	25	20410.08	1
15	28	9258.93	1
16	30	22709.38	2
17	32	23689.30	2
18	33	39835.72	2
19	36	21164.47	1

Import the *Husky Credit Limit 2007* file by selecting **File | New | Table** on the menu bar. Click **Next.** Double-click on *Husky_Credit*. Click **Next** three times. Save the imported table as *Husky_Credit*. Click **Finish | OK.** Change **CUSTNUM** from numeric format to ASCII by selecting **Edit | Table Layout** on the menu. Double-click on **CUSTNUM** and change the format to ASCII (as described at the beginning of this step 5) so the files can be matched on this field.

Make *Customer_Balances* the active table by double-clicking on that name in the left window. Select **Data | Join Tables** on the menu bar or click on the **Join** icon. Choose *Husky_Credit* as the secondary table. Click **CUSTNUM** in both the **Primary Keys** and **Secondary Keys** windows to match the two tables based on CUSTNUM. Click **CUSTNUM** and **AMOUNT** under **Primary Fields** using the **Ctrl** key on the keyboard to select more than one field in the window. Click **CRLIMIT** under **Secondary Fields** to print. Select **Presort Secondary Table.** Type the name *Balances and Credit Limit* in the **To** box. Click **OK.**

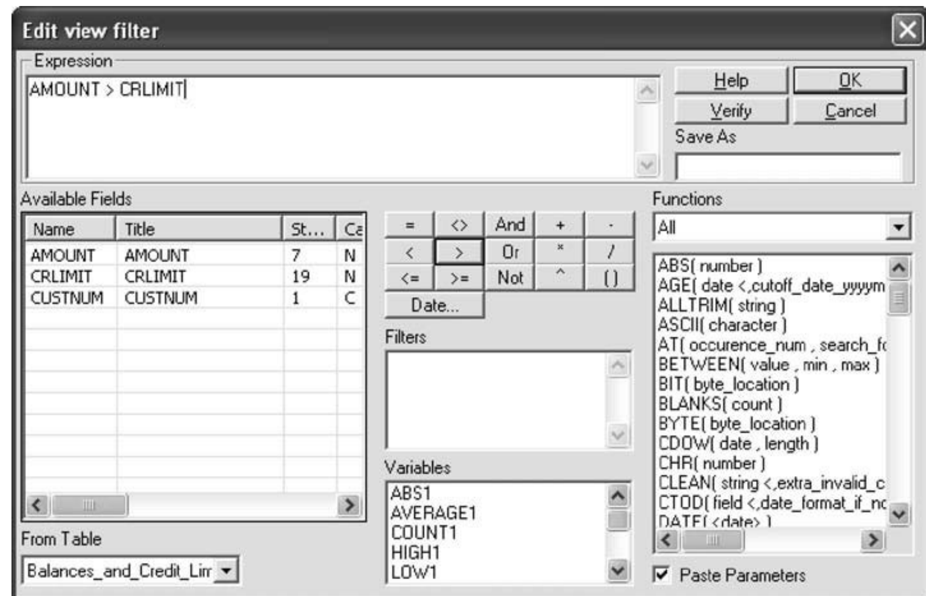
The joined files now show the balances and credit limits for each customer.

Welcome | Age | **Balances_and_Credit_Limit**

Filter:

	CUSTNUM	AMOUNT	CRLIMIT
1	1	840.30	100000
2	2	17249.87	100000
3	3	20261.90	100000
4	4	22316.02	100000
5	6	22937.50	100000
6	7	19677.39	100000
7	10	22185.45	100000
8	11	116936.56	150000
9	12	56934.85	100000
10	13	24110.44	100000
11	16	31495.94	100000
12	19	1857.33	100000
13	24	526.74	100000
14	25	20410.08	100000
15	28	9258.93	100000
16	30	22709.38	100000
17	32	23689.30	100000
18	33	39835.72	100000

Create a filter to show those customers with balances that exceed their credit limit. Click on the **Edit View Filter** icon next to the **Filter** window. Enter the expression *AMOUNT > CRLIMIT*. Click **OK.**



The results show that there are five customers who have exceeded their credit limit and one for whom there is no credit limit. These should be investigated to determine collectibility.

Welcome | Age | **Balances_and_Credit_Limit**

Filter: AMOUNT > CRLIMIT

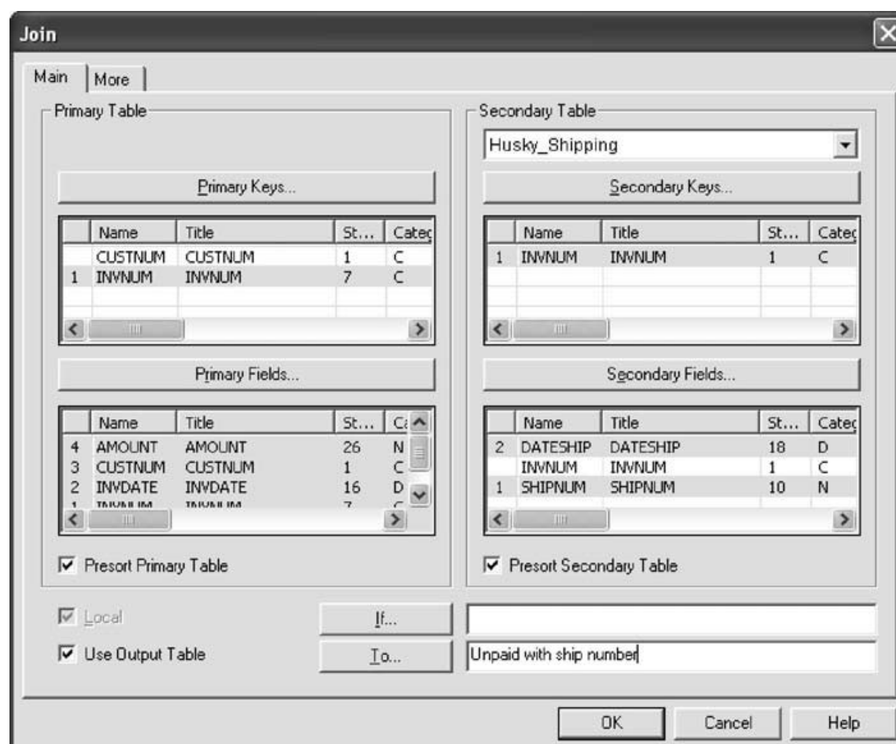
	CUSTNUM	AMOUNT	CRLIMIT
69	121	68645.17	50000
79	141	161031.79	150000
93	166	155198.43	150000
98	174	83738.44	0
101	181	155986.66	150000
104	184	168611.35	150000
	<< End of File >>		

Print this table by clicking on the **Print** icon or selecting **File | Print** on the menu bar. Notice the total of each numeric column is printed.

Step 6—Perform a sales cutoff test.

Import the *Husky Shipping File 2007* file by selecting **File | New | Table** on the menu bar. Click **Next.** Double-click on *Husky_Shipping File 2007*. Click **Next** three times. Save the table with the name *Husky_Shipping*. Click **Save, Finish |OK.** Change **INVNUM** from numeric to ASCII as previously described.

Make *Husky_Unpaid* the active table. Join the *Husky_Shipping* table with the *Husky_Unpaid* file. Click **INVNUM** as primary key and secondary key to join on this field. Select the fields to show in the new table by selecting all of the fields in the **Primary Fields** window (remember to hold the **Ctrl** key down) and select the **SHIPNUM** and **DATESHIP** fields under **Secondary Fields**. Click to presort the secondary file. Give the new table the name *Unpaid with ship number*. Click **OK.**



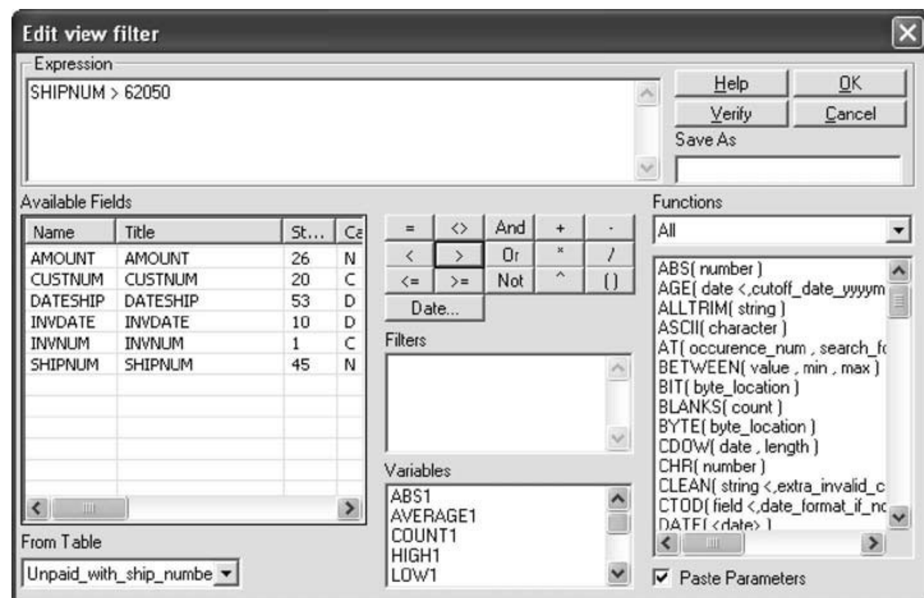
A new table is created that shows the results of combining these two tables (adjust column widths to see all columns):

Welcome | Age | Unpaid_with_ship_number

Filter:

	INVNUM	INVDATE	CUSTNUM	AMOUNT	SHIPNUM	DATESHIP
1	167594	10/16/2007	168	14746.06	59653	10/16/2007
2	167860	10/21/2007	50	22530.63	59919	10/21/2007
3	168594	11/05/2007	105	13766.28	60653	11/05/2007
4	168609	11/07/2007	162	27974.16	60668	11/07/2007
5	168613	11/21/2007	243	26140.20	60672	11/21/2007
6	168631	11/21/2007	216	3463.68	60690	11/21/2007
7	168632	11/21/2007	1	840.30	60691	11/21/2007
8	168638	11/21/2007	137	16047.76	60697	11/21/2007
9	168649	11/22/2007	12	21779.03	60708	11/22/2007
10	168650	11/22/2007	196	18050.28	60709	11/22/2007
11	168651	11/22/2007	100	66480.30	60710	11/22/2007
12	168653	11/22/2007	165	10348.83	60712	11/22/2007
13	168660	11/22/2007	64	20619.04	60719	11/22/2007
14	168669	11/22/2007	46	11994.73	60728	11/22/2007
15	168671	11/22/2007	239	7042.97	60730	11/22/2007
16	168679	11/23/2007	80	22805.72	60738	11/23/2007
17	168701	11/24/2007	232	25955.33	60760	11/24/2007
18	168708	11/24/2007	180	13677.39	60767	11/24/2007
19	168732	11/25/2007	70	79374.82	60791	11/25/2007
20	168741	11/25/2007	230	4049.18	60800	11/25/2007
21	168742	11/25/2007	67	15083.24	60801	11/25/2007

The last shipping number used in 2007 as confirmed by you was 62050. Create a filter with the expression *SHIPNUM > 62050* to see if there are any shipments after year-end. Click **OK**.



The results show three shipments after year-end. You should follow up on these to determine whether the accounts should be corrected for this apparent cutoff error.

Print this table by clicking on the **Print** icon or selecting **File | Print** on the menu. Notice the total of each numeric column is printed.

Welcome | Age | **Unpaid_with_ship_number**

Filter: SHIPNUM > 62050

	INVNUM	INVDATE	CUSTNUM	AMOUNT	SHIPNUM	DATESHIP
189	169980	12/30/2007	202	5891.46	62069	12/30/2007
190	169981	12/30/2007	214	6522.71	62070	12/30/2007
191	169982	12/30/2007	45	14315.54	62071	12/30/2007
	<< End of File >>					

Step 7—Select a PPS (MUS) sample of unpaid invoices and confirm them.

Note: This step will make more sense after you have studied Chapter 10, Audit Sampling. For now, simply follow the instructions.

Make the *Husky_Unpaid* table active by clicking on that name in the left window. Select **Sampling | Calculate Sample Size** on the menu. Enter the confidence level of *95* (95% = TD risk of 5%), the population book value of *4263919.52*, materiality of *200000*, and expected total errors of *10000*. Click the **Calculate** button. Click **OK.**

Size

Main | Output

(•) Monetary — Confidence: 95

( ) Record — Population: 4263919.52

Materiality: 200000

Expected Total Errors: 10000

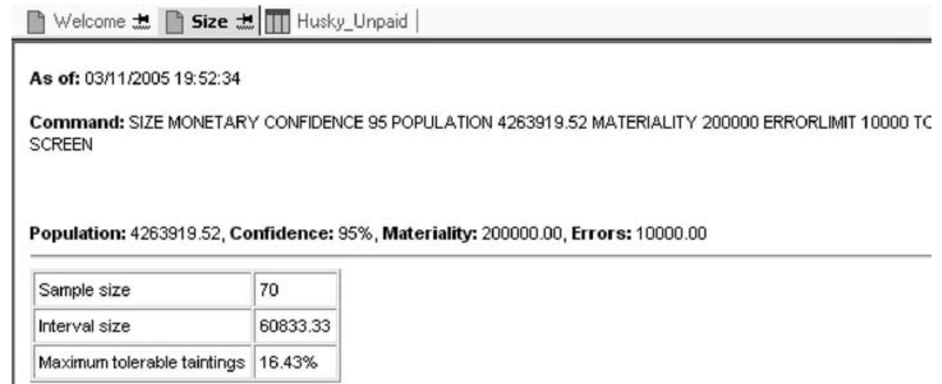
Results

[Calculate]

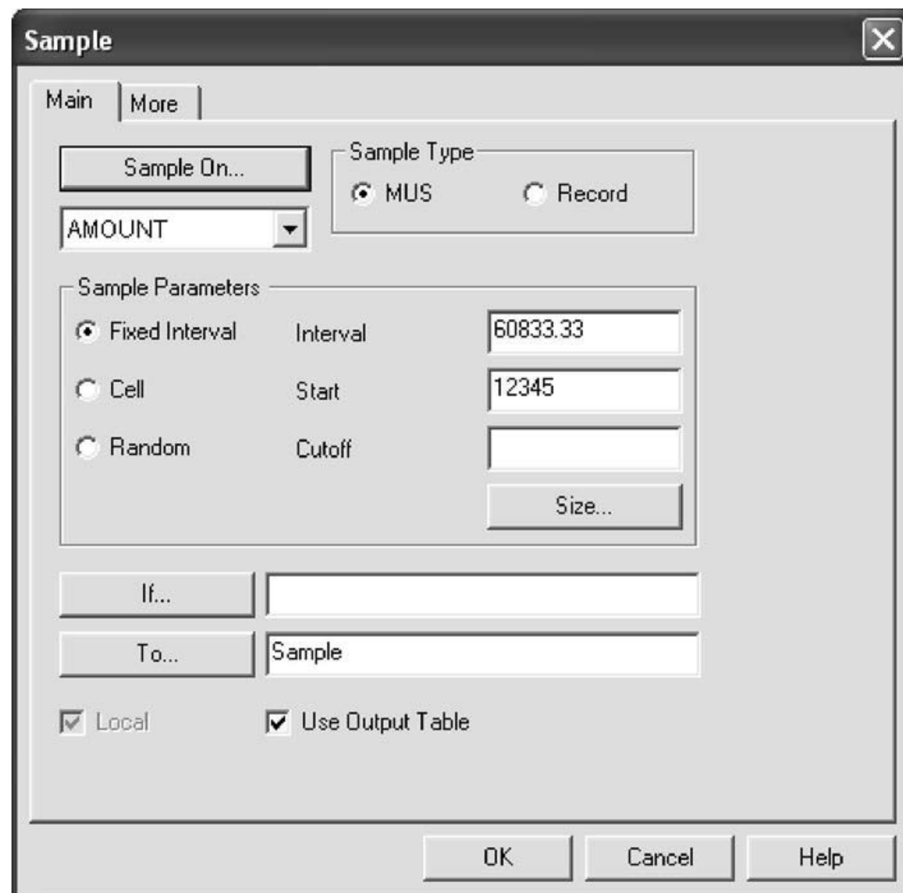
Sample Size	70
Interval	60,833.33
Maximum Tolerable Taintings (%)	16.43

[OK] [Cancel] [Help]

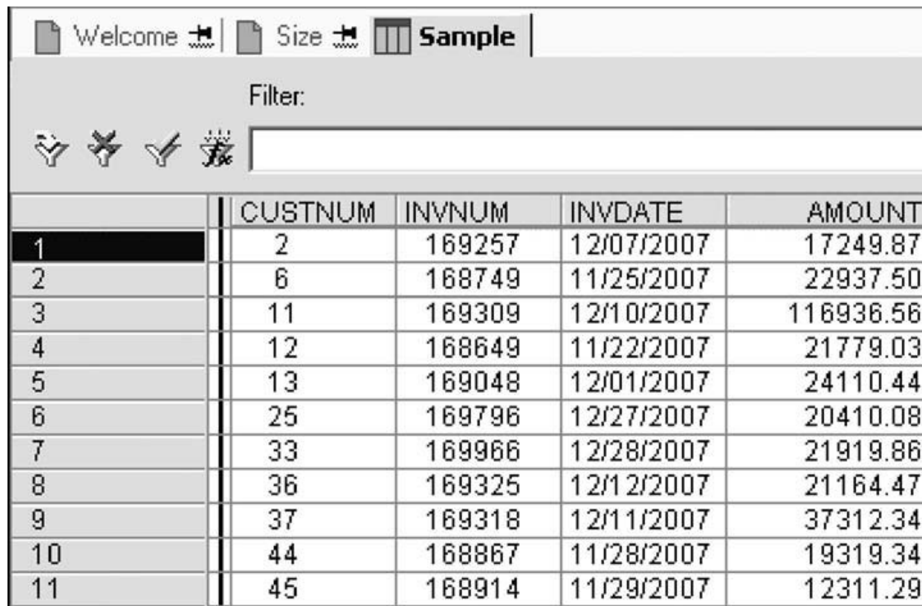
Print the next window by clicking the **Print** icon or selecting **File | Print** on the menu. The sample size is 70 and the interval is 60,833.33.



Make the *Husky_Unpaid* table active by clicking on the top tab labeled **Husky_Unpaid**. Select **Sampling | Sample Records** on the menu. *Do not change* the defaults of MUS and Fixed Interval. Enter the interval (*60833.33*), enter the number *12345* in the **Start** window, and leave the **Cutoff** window blank. Entering a specific number in the Start window will generate the same sample every time. By leaving it blank, ACL will supply a random start. Type *Sample* in the **To** window. Click **OK.**



The next window shows your sample.

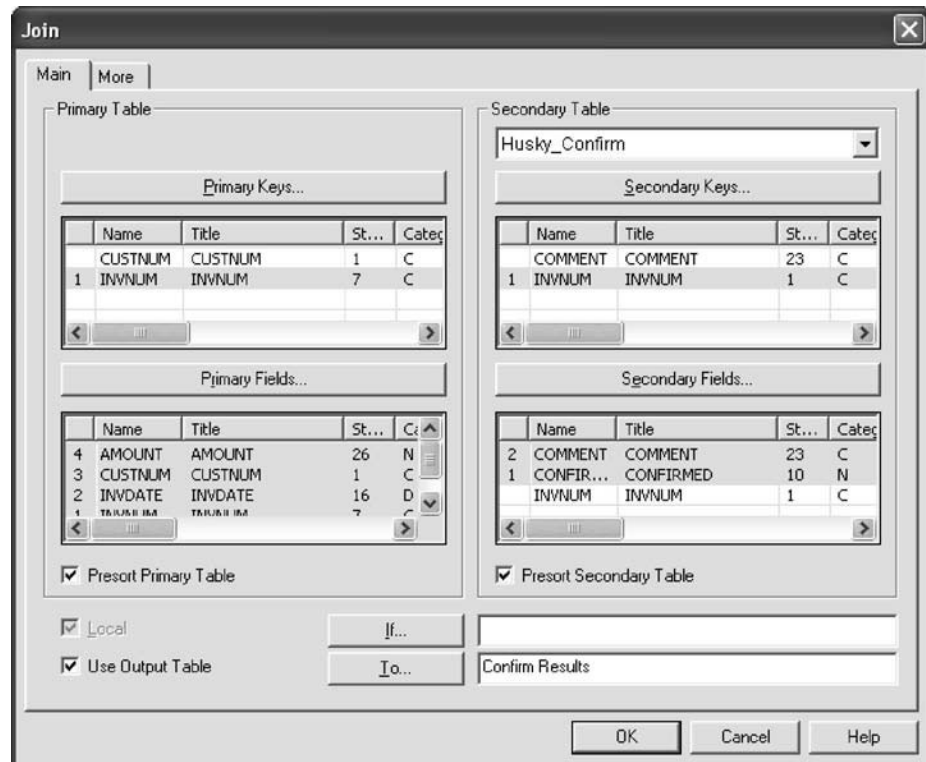


	CUSTNUM	INVNUM	INVDATE	AMOUNT
1	2	169257	12/07/2007	17249.87
2	6	168749	11/25/2007	22937.50
3	11	169309	12/10/2007	116936.56
4	12	168649	11/22/2007	21779.03
5	13	169048	12/01/2007	24110.44
6	25	169796	12/27/2007	20410.08
7	33	169966	12/28/2007	21919.86
8	36	169325	12/12/2007	21164.47
9	37	169318	12/11/2007	37312.34
10	44	168867	11/28/2007	19319.34
11	45	168914	11/29/2007	12311.29

Assume you have sent positive confirmations to each of these customers. The confirmation results are documented in the *Husky_Confirmations 2007* file. Import this file by selecting **File | New | Table** on the menu. Click **Next**. Double-click on *Husky_Confirmations 2007*. Click **Next** three times. Save the file using the name *Husky Confirm*. Click **Save, Finish,** and **OK.**

Make the *Sample* table active by clicking on that name in the left window.

Join the *Husky_Confirm* file with the *Sample* file. Select **Data | Join Tables** on the menu or click the **Join** icon. Select *Husky_Confirm* as the **Secondary Table**. Click **INVNUM** in the **Primary Keys** and **Secondary Keys** windows. Holding down the **Ctrl** key on your keyboard, click all of the primary fields and the **CONFIRMED** and **COMMENT** secondary fields to print out. Click to presort the secondary table. Give the new file the name *Confirm Results* in the **To** box. Click **OK**.



Adjust the column widths so you can see all of the fields on the screen. You can hide the left window by clicking the < button at the top of the window. Print this table for your audit documentation by clicking on the **Print** icon or selecting **File | Print** on the menu.

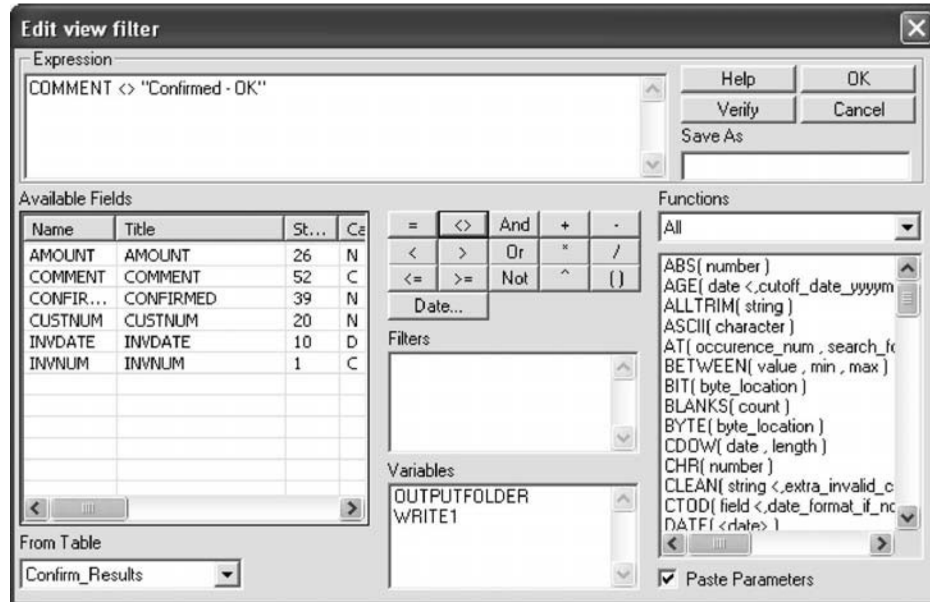
Confirm_Results

Filter:

Index: (None)

INVNUM	INVDATE	CUSTNUM	AMOUNT	CONFIRMED	Difference	COMMENT
167860	10/21/2007	50	22530.63	22530.63	0.00	Confirmed - OK
168609	11/07/2007	162	27974.16	27794.16	180.00	Clerical error client claims is an isol
168613	11/21/2007	243	26140.20	26140.20	0.00	Confirmed - OK
168649	11/22/2007	12	21779.03	21779.03	0.00	Confirmed - OK
168651	11/22/2007	100	66480.30	66480.30	0.00	Confirmed - OK
168679	11/23/2007	80	22805.72	22805.72	0.00	Confirmed - OK
168732	11/25/2007	70	79374.82	79374.82	0.00	Confirmed - OK
168749	11/25/2007	6	22937.50	22937.50	0.00	Confirmed - OK
168867	11/28/2007	44	19319.34	19319.34	0.00	Confirmed - OK
168914	11/29/2007	45	12311.29	12311.29	0.00	Confirmed - OK
168925	11/29/2007	143	57509.74	57509.74	0.00	Confirmed - OK
169001	11/30/2007	114	89230.46	89230.46	0.00	Confirmed - OK
169012	11/30/2007	130	19858.57	19858.57	0.00	Confirmed - OK
169048	12/01/2007	13	24110.44	24110.44	0.00	Confirmed - OK
169075	12/03/2007	207	19773.02	19773.02	0.00	Confirmed - OK
169092	12/03/2007	120	21367.32	21367.32	0.00	Confirmed - OK
169135	12/04/2007	140	20121.61	20121.61	0.00	Confirmed - OK
169161	12/05/2007	136	23579.25	23579.25	0.00	Confirmed - OK
169173	12/05/2007	156	22938.96	22725.15	213.81	Customer disagrees - Wrong price (
169186	12/05/2007	184	143853.83	143853.83	0.00	Confirmed - OK
169257	12/07/2007	2	17249.87	17249.87	0.00	Confirmed - OK
169298	12/10/2007	141	153129.75	153129.75	0.00	Confirmed - OK
169299	12/10/2007	237	17679.74	17679.74	0.00	Confirmed - OK
169309	12/10/2007	11	116936.56	116936.56	0.00	Confirmed - OK
169318	12/11/2007	37	37312.34	37132.34	180.00	Clerical error client claims is an isol
169322	12/12/2007	59	24312.36	24312.36	0.00	Confirmed - OK
169325	12/12/2007	36	21164.47	0.00	21164.47	Confirm not returned - Subsequently
169349	12/13/2007	121	58503.00	58503.00	0.00	Confirmed - OK
169394	12/13/2007	227	18813.24	15912.73	2900.51	Customer returned merchandise be
169397	12/15/2007	66	17381.78	17381.78	0.00	Confirmed - OK
169407	12/16/2007	144	17819.95	17819.95	0.00	Confirmed - OK
169441	12/17/2007	76	5958.21	5958.21	0.00	Confirmed - OK
169446	12/17/2007	215	13894.02	13894.02	0.00	Confirmed - OK
169461	12/18/2007	125	20191.28	20191.28	0.00	Confirmed - OK

Create a filter to show all comments other than “Confirmed—OK” using the expression *Comment* <> *“Confirmed – OK”*. Note the use of quotation marks around the exact wording and spaces used in the **Comment** column. Click **OK**.



The filter will provide the following items for which the comments were other than “Confirmed – OK”.

Confirm_Results

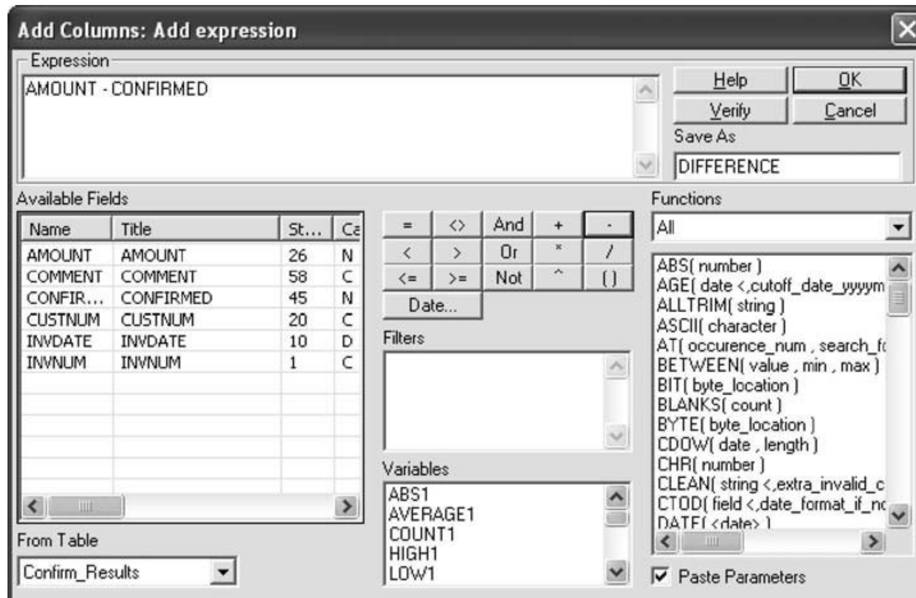
Filter: COMMENT <> "Confirmed - OK"   Index: (None)

INVNUM	INVDATE	CUSTNUM	AMOUNT	CONFIRMED	COMMENT
168609	11/07/2007	162	27974.16	27794.16	Clerical error client claims is an isolated event
169173	12/05/2007	156	22938.96	22725.15	Customer disagrees - Wrong price or quantity
169318	12/11/2007	37	37312.34	37132.34	Clerical error client claims is an isolated event
169325	12/12/2007	36	21164.47	0.00	Confirm not returned - Subsequently collected.
169394	12/13/2007	227	18813.24	15912.73	Customer returned merchandise before year end
169548	12/21/2007	101	8963.49	8963.94	Clerical error client claims is an isolated event
169666	12/25/2007	89	4350.48	0.00	Confirm not returned - Subsequently collected.
169735	12/27/2007	108	16294.46	0.00	Customer disagrees - Goods were in transit
169807	12/27/2007	188	24250.68	0.00	Confirm not returned - Subsequently collected.
169978	12/29/2007	220	15344.84	0.00	Customer disagrees - Goods were in transit
169979	12/29/2007	181	151012.89	0.00	Customer disagrees - Payment was in transit

<< End of File >>

Analyze the comments to determine if there are any apparent misstatements that need to be projected to the population. In this sample, there are four misstatements: INVNUMs 168609, 169318, and 169548, for which the client claims is an isolated event (?); INVNUM 169173, for which there is a wrong price or quantity; and INVNUM 169394, for which the client returned some merchandise but did not get credit on a timely basis. The other comments in this illustration are not misstatements but are simply timing differences or alternative audit procedures that indicated the amount is correct.

Add a new column that will show the amount of differences. Right-click anywhere in the window and click on **Add Columns**. Click on **Expr**. Enter the expression *AMOUNT—CONFIRMED*. In the **Save As** window, give the new column the title *DIFFERENCE*. Click **OK.** Click **OK** again.



Move the screen to the right so you can see this new column. Move this column next to the **CONFIRMED** field by moving the cursor to the new column heading, **DIFFERENCE**. Hold down the left mouse button and move the column to the left next to the **CONFIRMED** column and release.

Confirm_Results

Filter: COMMENT <> "Confirmed - OK"   Index: (None)

INVNUM	INVDATE	AMOUNT	CONFIRMED	Difference	COMMENT
168609	11/07/2007	27974.16	27794.16	180.00	Clerical error client claims is an isolated event
169173	12/05/2007	22938.96	22725.15	213.81	Customer disagrees - Wrong price or quantity
169318	12/11/2007	37312.34	37132.34	180.00	Clerical error client claims is an isolated event
169325	12/12/2007	21164.47	0.00	21164.47	Confirm not returned - Subsequently collected.
169394	12/13/2007	18813.24	15912.73	2900.51	Customer returned merchandise before year er
169548	12/21/2007	8963.49	8963.94	-0.45	Clerical error client claims is an isolated event
169666	12/25/2007	4350.48	0.00	4350.48	Confirm not returned - Subsequently collected.
169735	12/27/2007	16294.46	0.00	16294.46	Customer disagrees - Goods were in transit
169807	12/27/2007	24250.68	0.00	24250.68	Confirm not returned - Subsequently collected.
169978	12/29/2007	15344.84	0.00	15344.84	Customer disagrees - Goods were in transit
169979	12/29/2007	151012.89	0.00	151012.89	Customer disagrees - Payment was in transit

<< End of File >>

Print this file by clicking the **Print** icon or selecting **File | Print** on the menu.

Select **Sampling | Evaluate Error** on the menu to evaluate these sample results. Enter the confidence level (*95*) and interval (*60833.33*). For each misstatement (error), enter the book value followed by a comma and the amount of error. If there is more than one error, press the **Enter** key on your keyboard after each error and enter the book value and amount of each additional error. Click OK.

Evaluate

Main | Output

Monetary — Confidence: 95

Record — Interval: 60833.33

Item amount, Error

Errors:
27974.16,180
22938.96,213.81
37312.34,180
18813.24,2900.5
8963.49,-.45

OK | Cancel | Help

Print the evaluation. In this illustration, the results indicate a most likely misstatement of $10,627.78 and an upper error limit of $200,774.32. The upper limit is just slightly greater than materiality of $200,000. The alternative follow-up procedures available to the auditor are discussed in Chapter 10. Close the project by clicking **Close the Open Project** icon or choose **File, Close Project** on the menu.

Welcome | **Evaluate** | Confirm_Results

As of: 03/17/2006 17:04:42

Command: EVALUATE MONETARY CONFIDENCE 95 ERRORLIMIT 27974.16,180,22938.96,213.81,37312.34,180,
60833.33 TO SCREEN

Confidence: 95, **Interval:** 60833

	Item	Error	Most Likely Error	Upper Error Limit
Basic Precision				182,500.00
	18,813.24	2,900.51	9,378.91	16,413.09
	22,938.96	213.81	567.02	878.88
	27,974.16	180.00	391.43	571.49
	37,312.34	180.00	293.47	410.86
	8,963.49	-0.45	-3.05	0.00
Totals			10,627.78	200,774.32

ACL Case 1—Fraud

You are auditing Pell grants provided to students at six state universities. The Pell grant program is a federal financial aid program for college students. The maximum grant a student can receive during a school year is $3,125 with a maximum of $1,041.67 per semester and summer session. The amount of a grant depends on financial need (need) and the number of credits taken (status). Students cannot receive a grant at two different schools during the same school term. Download the file labeled **pella** from the web site *http://www.thomsonedu.com/education/rittenberg* under "Student Resources." The file contains the following information:

SSN	Social Security Number
Last	Student's last name
First	Student's first name
Middle	Student's middle name or initial
School	School—coded 1 to 6
Term	Coded 1 to 3: 1—Fall Semester 2—Spring Semester 3—Summer Semester
Need*	Financial need—coded 1 to 5: 1—100% of allowable grant 2—75% 3—50% 4—25% 5—0%
Status*	Credits taken—coded 1 to 4: 1—12 or more credits: 100% 2—9 to 11 credits: 75% 3—6 to 8 credits: 50% 4—3 to 5 credits: 25%
Amount	Amount of grant for the term • Computation of grant: $3,125 / 3 * Need * Status For a full-time student with maximum need: $3,125 / 3 * 100% * 100% = $1,041.67 For a student with a code 3 need taking 9 credits: $3,125 / 3 * 50% * 75% = $390.63

* Hint: To convert the NEED codes to the proper decimal value, use the expression (1-.25)(NEED – 1). The same conversion can be used for STATUS codes.

Required

1. Develop an audit program to identify potential fraud using ACL.
2. Use ACL to perform the steps in your audit program. Turn in the following:
   a. Your audit program referenced to the ACL printouts supporting each audit step.
   b. A report on your findings including additional steps you would take to determine if fraud actually occurred.
   c. Appropriate ACL printouts properly indexed with comments written on the printouts to explain the printout and its implications. *Do not print out the entire grant file.* Extract only the items of significance.

ACL Case 2—Benford's Law Case

Dr. Frank Benford, a physicist at General Electric in the 1920s, found that the first and second digits of many populations of numbers occur with a fairly consistent frequency. This has been found true, for example, of census numbers and

certain accounting populations, such as accounts payable. Benford developed a model that predicted the frequency of each digit occurring in a particular location depending on the length of a number. For example, he finds that the digit #1 occurs as the first digit in about 30% of all populations, while the digit #2 occurs in about 17.5% of all populations. On the other hand, the digit #9 occurs as the first digit only about 4.5% of the time. Thus, digits such as 990 do not occur as often as digits such as 124. Many other researchers have empirically verified the Benford predictions.

Auditors have found that as individuals commit fraud or make up fraudulent transactions, their intuition in developing numbers for the fake documents often does not follow Benford's Law. Therefore, auditors have come to use Benford's Law to identify a wide variety of unusual transactions, including fraud, double payments, and other fictitious accounts. Audit software, such as ACL, comes with modules that allow auditors to apply Benford's Law to search for unusual patterns in populations by identifying numbering patterns that differ significantly from that predicted by Benford's Law.

Using ACL to Perform Benford Analysis

Benford Analysis can be found by clicking **Analysis | Perform Benford Analysis.** You will be instructed to select a field on which to perform the analysis. You then make a choice to perform an analysis on the leading digit only, or you can perform an analysis on the two leading digits.

You can choose the type of output you want for the analysis by clicking the **Output** tab at the top of the window. The **GRAPH** option will provide a bar graph with the predicted and actual frequencies of each leading digit or the two leading digits. The **SCREEN** and **FILE** options will create a report containing the following:

- The actual count of the leading digit (or two leading digits)
- The expected count of the digit(s)
- A Zstat statistic

The Zstat statistic is derived from the probability of the deviation between the actual count and the expected count of the digit. The significance of the Zstat statistic is determined by comparing it with the Z statistic used to describe normal distributions in most statistical textbooks. For example, there is a 95% chance that most samples from a distribution would fall within 1.96 standard deviations from the mean, thus creating a Zstat of 1.96 for a 5% tail end of a distribution and 2.58 for a 1% tail. Any Zstat statistic greater than 2.58 would indicate a very rare occurrence.

The Case

To illustrate the power of Benford's Law in an auditing context, assume that you are the internal auditor for Knot Manufacturing Company and are auditing the travel, entertainment, and meal reimbursements for 2007. Company policy requires receipts for expenses greater than $25. Management must separately approve all reimbursements over $5,000. Download the file *Expense Reimbursements* from http://www.thomsonedu.com/accounting/rittenberg under "Student Resources."

Required

Analyze expense reimbursements using Benford's Law and ACL. Import the *Expense Reimbursements* file, which contains the reimbursement document numbers, employee numbers, and the amount of each reimbursement. Click **Analyze | Perform Benford Analysis** for the **AMOUNT** of the reimbursements.

1. Analyze on the leading two digits. Choose **Output** to **Graph**. Print the graph.
2. On the graph, double click on any lines that look suspicious. For each of the lines you selected, summarize on employee number (after changing the *Emp No* field to ASCII format). Print the results. You may want to do this for more than one line.
3. Analyze the results and provide possible explanations for the results. Identify reimbursements for any employee(s) that may need further investigation.

Introduction to ACL Cases 3 and 4—Accounts Receivable and Inventory

The following accounts receivable and inventory cases relate to the audit of NSG Manufacturing Company (NSG) for the year ended 12/31/2007. NSG manufactures and sells slippers, casual and athletic shoes, and skis for children, women, and men. It has two manufacturing plants, one in Knoxville, Tennessee (USA) and the other in China (INT'L). Following is information from the prior-year audit and the client's records for the current year.

	12/31/2007	**12/31/2006**
Sales	$321,557,486	$298,514,657
Sales Returns	6,004,359	4,658,119
Cost of Goods Sold	168,153,229	156,103,359
Net Income	10,514,967	9,761,464
Accounts Receivable	21,567,378	19,841,978
Inventory	14,959,739	13,567,115
Total Assets	$144,817,500	132,508,016

ACL Case 3—Accounts Receivable

Sales are shipped FOB shipping point with credit terms n/45. You have verified that the last shipping number used in 2007 was 261,336 and that they were used in numerical order. Tolerable misstatement is set at $500,000 for accounts receivable. Download the following files related to accounts receivable, along with a file containing confirmation results.

File Name and Description	**Data Elements**
NSG Unpaid (All unpaid invoices at 12/31/2007)	Customer No. Invoice Number Invoice Date Amount Ship Date
NSG Shipping (Shipping number for each unpaid invoice)	Invoice Number Ship No.
NSG Credit (Credit limit for each customer)	Customer No. Credit Limit
NSG Confirmation # (Results of the confirmation process) (There are four different confirmation files a—d. Use the one assigned by your instructor.)	Invoice Number Confirmed (Amount confirmed) Comment (Explanation of the results of the confirmation)

Required

1. Use ACL to perform, or help perform, the procedures in the following audit program.
2. Develop and turn in audit documents in the following order (properly index each document for cross-referencing purposes):
   a. The audit program with your initials and references filled in for each procedure.
   b. A memo summarizing the results of the procedures (including the dollar impact of actual or potential misstatements) and identifying any additional procedures the results indicate should be performed. Be sure to provide cross-references to supporting printout(s) and/or other documents.
   c. Indexed ACL printouts that contain handwritten narrative explanations of each printout and its significance to assist the reviewer in understanding the printouts. Be sure to develop dollar information appropriate to each procedure to help identify the significance of any findings. ***Print out only the items of significance,*** not, for example, the complete unpaid invoice file.

Audit Program

Procedure	Done By	W/P Ref.
1. Foot the file and agree to the general ledger.	______	______
2. Check for duplicate invoice numbers in the unpaid invoices and shipping files.	______	______
3. Age the unpaid invoices and identify any unpaid invoices older than 45 days.	______	______
4. Identify any customer balances that exceed the credit limit or for which there is no credit limit. (Customer number must be in ASCII format.)	______	______
5. Perform a sales cutoff test.	______	______
6. Determine the amount of any credit items in the unpaid invoice file and consider the need to reclassify those as liabilities.	______	______
7. Select a PPS (MUS) sample of unpaid invoices. Use tolerable misstatement (materiality) of $500,000, expected misstatement of $75,000, and a confidence of 95 (5% TD risk). There are four different files of confirmation results: A, B, C, and D. Your instructor will assign files to the class members. Combine the confirmation file with the sample file to determine the results of the confirmation process. Determine any misstatements and project the misstatements to the population.	______	______
8. Summarize the results of the above procedures and identify additional procedures those results indicate should be performed.	______	______

ACL Case 4—Inventory

Download the inventory file *NSG Inventory* from the web site http://www.thomsonedu.com/accounting/rittenberg. This file contains the following information:

LINE	Two codes—USA and INT'L
Product line codes:	
	C—Children's shoes
	W—Women's products
	M—Men's products
	For women and men's products, the second (and third) letter(s) specifies the product:
	S—Slippers
	C—Casual shoes
	A—Athletic shoes
	SP—Skis Premium
	SS—Skis Standard
SNUMB	Stock number
LASTSALE	Date of last sale
NUMSOLD	Number sold year-to-date
RETURNED	Number returned year-to-date
DEFECTIVE	Number returned that were defective
INVQTY	Quantity on hand
UNITCOST	Unit cost
EXTCOST	Unit cost times quantity on hand
SELPRICE	Current selling price

Salespersons receive a 10% commission based on selling price.

Required

1. Develop an audit program that focuses on the inventory data file provided by the client. The program steps must be able to be performed using ACL. Other program steps, such as observation, should not be a part of this program. Your project grade will be based on your creativity in designing useful audit procedures. Make sure your program includes the audit objective to be achieved by each audit procedure.
2. Use ACL to perform, or help perform, the procedures in your audit program.
3. Develop and turn in audit documents in the following order (properly index each document for cross-referencing purposes):
   a. The audit program with your initials and document references filled in for each procedure.
   b. A memo summarizing the results of the procedures and identifying any additional procedures the results indicate should be performed. Be sure to provide cross-references to supporting printout(s) and/or other documents.
   c. Indexed ACL printouts that contain handwritten narrative explanations of each printout and its significance to assist the reviewer in understanding the printouts. Be sure to develop dollar information appropriate to each procedure to help identify the significance of any findings. ***Print out only the items of significance,*** not, for example, the complete inventory file.

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Auditing: A Business Risk Approach, 6/e Incorporates the Latest in Regulatory Changes

To Our Readers:

***Auditing: A Business Risk Approach* 6/e** integrates the most up-to-date regulatory and guidance principles from the SEC and the PCAOB into the text—**SEC Release 33-8762 and PCAOB AS5.** We are confident that the Sixth Edition reflects the latest thinking from both the regulatory perspective and that of auditing education and practice. The most important changes include:

1. **A new chapter on performing an integrated audit.** This **new Chapter 7** is totally risk-based and considers the risks to financial statement items, the controls that might address the risks, and an approach that provides auditor assurance on both the controls and the financial account balances and/or disclosures.
2. **Updated auditor and management reports.** The audit reports (Chapters 1, 6, and 17) have been updated with the wording in the proposed standard.
3. **Revised definitions of *material weakness* and *significant deficiency.*** Chapter 6 on internal control has been updated with the current definitions of *material weakness* and *significant deficiency*. The chapter takes a broad look at the control environment and entity-wide controls on the evaluation of potential risks as well as weaknesses or deficiencies in internal control.
4. **Increased discussion of management override and related controls.** Management override is discussed more thoroughly in Chapter 6 on internal control, in Chapter 7 on the integrated audit, and in Chapter 9 on fraud.
5. **Continued emphasis on a risk-based approach to auditing.** The text has focused on risk-based approaches to auditing since its inaugural edition. That emphasis continues here and is updated in various places to reflect changes associated with performing an integrated audit.
6. **Continued identification of control considerations.** The proposed changes are consistent with previous editions of the text in encouraging the auditor to consider all elements related to effective internal controls, including an understanding of how well controls worked in previous years. The Sixth Edition goes one step further by incorporating the important concept of monitoring, which is one of the elements of the COSO *Inernal Control Integrated Framework*. And like these proposed changes, the Sixth Edition focuses on monitoring as a process that should (a) reduce management's costs and (b) change control elements that the auditor might rely on in evaluating the adequacy of an organization's internal controls.

The Sixth Edition responds to the continuous changes occurring in the contemporary audit environment. It continues to focus on a risk-based approach to auditing, while incorporating the most recent guidance of the SEC, PCAOB, ASB, and COSO. Importantly, the revised text reflects the significant changes necessary for the audits of public companies via AS2 and the proposed AS5, along with the complementary proposal from the SEC. Further, the text reflects the most recent guidance issued by COSO regarding internal control considerations, particularly in terms of monitoring controls.

Larry E. Rittenberg
Bradley J. Schwieger
Karla M. Johnstone