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PART I:
MAIN PAPERS

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THE NUMBERS GAME: HOW *DO* MANAGERS COMPENSATED WITH STOCK OPTIONS MEET ANALYSTS' EARNINGS FORECASTS?

Mark P. Bauman, Mike Braswell and Kenneth W. Shaw

ABSTRACT

Existing research documents that firms employing relatively high levels of stock option-based compensation more frequently report quarterly earnings that meet or exceed analysts' forecasts. This paper examines the roles of income-increasing accounting choices and management guidance to analysts in this "numbers game." Our analysis is motivated by increased capital market and Securities and Exchange Commission (SEC) scrutiny of the effects of both stock option-based compensation and financial analysts in capital markets. Using a sample of S&P 1500 firms over 1992–2002, we find that firms that compensate top managers more heavily with stock options employ expectations-reducing guidance to financial analysts, not income-increasing abnormal accounting accruals, to enable them to more frequently meet analysts' earnings targets. The results suggest that rule-making and enforcement aimed at curbing

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managements' guidance to analysts, rather than narrowing accounting flexibility, might be more effective in tempering the "numbers game."

INTRODUCTION

Recent capital market developments include increased use of stock option-based managerial compensation (Murphy, 1999) and increased emphasis on reporting quarterly earnings that at least meet analysts' forecasts (Brown, 2001). The confluence of these important developments has led market participants and regulators alike to scrutinize the effects of both stock option-based compensation and financial analysts on capital markets. Former Securities and Exchange Commission Chairman Levitt (1998), in his now famous "Numbers Game" speech, succinctly summarizes observers' concerns:

> This is the pattern earnings management creates: companies try to meet or beat Wall Street earnings projections in order to grow market capitalization and increase the value of stock options. Their ability to do this depends on achieving the earnings expectations of analysts. And analysts seek constant guidance from companies to frame those expectations. Auditors, who want to retain their clients, are under pressure not to stand in the way.

Firms with managers more heavily compensated with stock options more frequently report quarterly earnings that meet or exceed analysts' forecasts (Bauman & Shaw, 2005; Cheng & Warfield, 2005). However, the method by which option-granting firms more frequently meet analysts' quarterly earnings forecasts is not well understood. Opportunistic (income-increasing) accounting choices and analyst guidance (expectations-reducing) are two important mechanisms firms can use to meet analysts' expectations. Considerable research, across a variety of settings, documents that firms manage reported earnings to meet certain reporting goals (e.g., Healy, 1985; Holthausen, Larcker, & Sloan, 1995; Moerhle, 2002). Likewise, evidence in Matsumoto (2002), Bartov, Givoly, and Hayn (2002), and Richardson, Teoh, and Wysocki (2004) suggests firms guide analysts' forecasts downward in order to make earnings targets more achievable. The purpose of this paper is to provide evidence on whether option-granting firms use accounting choices ("earnings management") and/or guidance to analysts ("expectations management") in meeting analysts' quarterly earnings expectations.

While perhaps benefiting the firm and/or certain of its managers in the short-term, both earnings management and expectations management can generate negative long-run consequences. Jensen (2004) argues that the vicious cycle of meeting analysts' forecasts can impose real costs when "analyst expectations become unhinged from what firms can accomplish." The desire to maintain overvalued share prices, fueled by optimistic growth expectations, leads managers to adopt unrealistic goals, undertake highly risky projects, smooth financial results to satisfy analysts' appetites for predictability, and engage in value-destroying acquisitions (Fuller & Jensen, 2002). Graham, Harvey, and Rajgopal (2005) survey 401 financial executives and find that a *majority* would reject a positive net present value project in order to meet analysts' consensus earnings estimate. As stock option values are sensitive to stock prices, stock option-based compensation only exacerbates managers' incentives to maintain overvalued equity, and "the preservation or enhancement of short-term stock prices becomes a personal and damaging priority" (Fuller & Jensen, 2002).

In our empirical tests we proxy for opportunistic accounting choices by estimating "abnormal" accruals from the modified cross-sectional Jones (1991) model. We proxy for firms' expectation-reducing guidance to analysts by identifying firm-quarters where quarterly earnings per share exceeds the last individual analyst forecast made just before the earnings announcement, but was below the first individual analyst forecast made at the beginning of that quarter (Bartov et al., 2002). Our dependent variables are comprised of two separate indicator variables, the first (second) of which identifies firm-quarters with income-increasing abnormal accruals (likelihood of management expectation-reducing guidance to analysts). Our key independent variable is the level of stock option-based compensation, defined as the Black-Scholes value of options granted to a firm's top five executives during a year divided by the total compensation paid to those executives during that year.

Using a sample of S&P 1500 firms that meet or exceed analysts' quarterly earnings forecasts in any quarter over 1992–2002, we estimate logistic regressions of our abnormal accrual and guidance indicator variables on the percentage of top five managers' total pay related to stock options, and several control variables. The results reveal that, in quarters where actual earnings meet or exceed analysts' forecasts, firms that employ greater levels of stock-based compensation are no more likely to make income-increasing accrual choices than are firms that employ lower levels of stock-based compensation. In contrast, we find a strong positive relation between stock option-based compensation and our guidance measure in quarters where reported earnings meet or exceed analysts' forecasts. These results also hold on a subsample of very small (between 0 and 1 cent per share) earnings surprises, where either income-increasing abnormal accruals and/or expectations-reducing guidance are arguably most likely to occur. We also find no evidence to suggest that Regulation Fair Disclosure (Reg. FD), implemented in late October, 2000, diminished the use of guidance as a tool by which option-granting firms meet analysts' earnings forecasts.

Our results have implications for compensation committees, regulators, and firm managers. First, as increased use of stock option-based compensation is related to increased analyst guidance to meet expectations, compensation committees might consider executive compensation tools that are less dependent on maintaining high stock prices. Recent anecdotal evidence suggests firms are indeed increasing use of "performance shares" and "performance units," in which compensation is based on meeting a specific underlying goal related to fundamental firm performance (Colter, 2004), imposing ceilings on option payouts (Lublin, 2004), increasing use of restricted stock, and decreasing the sizes of their option grants (Gullapalli, 2005). Second, although often-maligned, the flexibility accorded firms in preparing earnings in accordance with generally accepted accounting principles (GAAP) does not appear culpable in the "numbers game." This suggests that regulation and enforcement aimed at curbing analyst guidance might prove more fruitful than tightening accounting choices. Along these lines, our results suggest that – at least for the sample firms, time period, and guidance measures we examine – the use of guidance by option-granting firms as a mechanism to meet analysts' forecasts has not diminished post-Reg. FD. Finally, as the elimination of overvalued equity is harmful to many stakeholders (e.g., Enron), firm managers can slow the vicious cycle of the numbers game by refusing to provide specific earnings estimates to analysts (Fuller & Jensen, 2002).

BACKGROUND AND MOTIVATION

Evidence in Brown and Caylor (2004) and Dechow, Richardson, and Tuna (2003) suggests meeting analysts' quarterly earnings forecasts has become the most important earnings reporting threshold for managers (relative to avoiding losses or earnings declines). Consistent with this increased emphasis on meeting analysts' forecasts, Apple Computer recently posted a 41 percent decrease in net income, yet saw its stock price rise 5 percent in response to exceeding analysts' earnings forecasts by 2 cents per share (Brown, 2003).[1] Bartov et al. (2002) show that firms that meet analysts' quarterly earnings expectations are rewarded with abnormal stock returns. Further, the stock price premium to meeting analysts' expectations does not differ whether the firm used opportunistic accounting choices, guidance to analysts, or neither, to enable it to meet analysts' targets. This implies that the market is either unable to discern the methods by which firms met expectations, or it does not believe the differing methods will have any impact on future firm performance.

While perhaps beneficial to the firm and/or certain of its managers in the short-term, Fuller and Jensen (2002) and Jensen (2004) suggest that efforts made by managers to meet analysts' growth targets create overvaluation of securities that, over longer periods, is eliminated with great harm to shareholders, employees, and managers (e.g., Enron and WorldCom). Consistent with this argument, evidence links both earnings management and analyst guidance to negative future consequences. Richardson, Tuna, and Wu (2004) show that firms that restate earnings "have been attempting to maintain a string of consecutive positive earnings growth and positive earning surprises." In a comprehensive study, the United States General Accountability Office (2002) reports an average loss in market value of 9.5 percent surrounding the announcement of accounting restatements. The bulk of these restatements relate to improper revenue recognition and/or improper capitalization of costs, two common earnings management techniques. Relatedly, Efendi, Srivastava, and Swanson (2004) document that firms with CEO's with large amounts of "in-the-money" stock options are increasingly likely to be involved in accounting restatements. In addition, Richardson et al. (2004) find that analyst guidance is associated with net sales of stock by firm insiders after earnings announcements; that is, insiders use guidance to ensure their firm meets analysts' earnings forecasts, and then subsequently sell their stock at inflated prices.

In sum, research by Bauman and Shaw (2005) and Cheng and Warfield (2005) documents a positive relation between the use of stock option-based compensation and the likelihood a firm meets analysts' quarterly earnings targets. Research also documents positive relations between two common mechanisms firms might use to meet analysts' forecasts (earnings management and expectations guidance) and negative future consequences (accounting restatements and insider sales at overstated prices). Unknown, however, is the mechanism by which option-granting firms more frequently meet analysts' forecasts. We provide evidence on this question by studying the relation between the level of stock option-based compensation, and the use of either accounting choices and/or expectations-guidance to meet analysts' quarterly earnings forecasts.

DATA

Earnings Surprise

Our sample period spans 1992–2002, coinciding with increased focus on meeting analysts' quarterly earnings targets (Brown, 2001) and increased use of stock-based compensation (Murphy, 1999). Using the I/B/E/S Detailed database, we collect the most recent (i.e., last) individual analyst forecast of upcoming quarterly earnings, made before the announcement of that quarter's earnings. Most recent forecasts are more accurate than mean analysts' forecasts as they more likely capture the most complete information set available just prior to the earnings release (O'Brien, 1988; Brown, 1991). The most recent forecast has also been shown analytically to be less susceptible than the mean forecast to the overweighting of common analyst information (Kim, Lim, & Shaw, 2001). We then define *earnings surprise* as the difference between the quarter's actual reported earnings (from I/B/E/S) and the most recent individual analyst forecast of that quarter's earnings. As our focus is on mechanisms by which option-granting firms more frequently meet or exceed analysts' quarterly earnings targets, we require firms to either meet (earnings surprise $=0$ cents per share) or exceed (positive earnings surprise) the most recent individual analyst forecast.

Test Variable: Use of Stock Option-based Compensation

Standard and Poor's Execucomp provides our compensation data. Execucomp covers firms listed in the S&P 1500 index, comprising approximately 89 percent of the total market capitalization of the U.S. equity market, thus providing a comprehensive representation of the population of publicly traded corporations (McGoldrick, 2002).

Execucomp data provide for a large number of observations, increasing the power of our statistical tests and strengthening our inferences. Equally important, Execucomp provides detailed compensation data for the top five executives of each firm. We believe this is important in our setting for two reasons. First, top executive officers more likely possess pertinent knowledge about the firm's performance given that they make many of the operational and strategic decisions that influence performance. Second, top executives have the forum in which to conduct earnings management or analyst guidance. For example, the CFO is ultimately responsible for the company's financial reporting responsibilities, which provides her with the opportunity to endorse opportunistic reporting choices. Both the CEO and CFO participate in conference calls or appear in other media outlets where they have the ability to provide disclosures that have the potential to guide analysts' forecasts.

We measure the extent to which firm i employs options in its compensation plan for senior executives (OPT_i) by dividing the Black-Scholes value of options granted to those top five executives during the year by the level of total compensation (including the Black-Scholes value of option grants) paid to those executives for that year.[2]

Dependent Variable: Earnings Management

Normal, or expected, levels of accruals likely vary across industries and across firms with differing levels of economic activity (e.g., firms with higher sales levels would be expected to have higher accruals, all else equal). Researchers typically use regression analysis to estimate a firm's unexpected, or abnormal, accruals. We follow considerable research in using a cross-sectional version of the Jones (1991) model to identify quarters where earnings management via abnormal accounting accruals is likely (e.g., Dechow, Sloan, & Sweeney, 1995; Robinson, Grant, Kauer, & Woodlock, 1998; Persons, 1999; Legoria, 2000; Matsumoto, 2002). Computation of our earnings management variable involves several steps, which we describe in general in this section and in further detail in Appendix A.

First, we define total accruals as quarterly net income minus quarterly operating cash flows. We then estimate cross-sectional regressions, by industry, year, and quarter, of total accruals on quarterly changes in revenue, the level of property, plant and equipment, and a fourth-quarter indicator variable. The independent variables control for effects that will impact the firm's level of non-discretionary accruals. Changes in working capital accounts tend to be positively related to changes in revenues, while the inclusion of property, plant, and equipment controls for the (relatively) non-discretionary depreciation expense. Finally, we include an indicator variable to identify the fourth fiscal-quarter, due to increased auditor scrutiny of fourth-quarter accruals and/or firms' increased propensity to report special items in the fourth quarter (Francis, Hanna, & Vincent, 1996). Following Matsumoto (2002), our tests use a dichotomous dependent variable, $POSAAC_{i,q}$, which equals 1 in firm-quarters in which abnormal accruals are positive, and 0 otherwise.

Extant methodology for estimating abnormal accruals has received considerable criticism (e.g., Dechow et al., 1995; McNichols, 2000; Thomas &

Zhang, 2000). While the accrual decomposition technique we employ likely measures abnormal accruals with error, evidence suggests that the cross-sectional Jones model is reasonably well-specified and can detect earnings management in certain settings. For example, Subramanyam (1996) shows that the cross-sectional Jones model yields parameter estimates with lower standard errors, fewer outliers, and that are more often of the predicted sign than does time-series estimation. Studies investigating the association between auditor industry specialization and earnings management (Velury, 2003) and the ability of the cross-sectional Jones model and time-series models to detect earnings management in the context of qualified audit opinions (Bartov, Gul, & Tsui, 2000) also support the viability of the cross-sectional Jones model.

Dependent Variable: Expectations Guidance

To identify qarters in which expectations guidance is most likely to have occurred, we follow Bartov et al. (2002) and compare individual analysts' earnings forecasts made at the beginning of the quarter with those made just before the end of that quarter. We define *forecast error* as a quarter's actual reported earnings minus the earliest individual analyst forecast of earnings for that quarter. We require the earliest forecast to be made at least three days after the announcement of the prior quarter's earnings. Next, we compare the sign of the observed *earnings surprise* (actual quarterly earnings minus most recent forecast of that quarter's earnings) with the sign of the forecast error. Absent forecast revisions over the period, earnings surprise and forecast error would have the same sign. Observing a positive earnings surprise, when the forecast error based on the earliest forecast of earnings was negative, is consistent with expectations-reducing guidance. We create an indicator variable, $\mathrm{GUIDE}_{i,q}$, which equals 1 in firm-quarters with positive earnings surprises and negative forecast errors, and 0 otherwise.

Control Variables

We control for several characteristics that may potentially impact the likelihood that firms will meet or exceed analysts' expectations. We discuss rationale for these variables next, and provide detailed definitions in Appendix B.

First, high-growth firms, operating in industries with relatively high litigation risk, and whose shares are widely held by institutional owners, face strong incentives to meet analysts' earnings targets. Earnings targets for these firms are often unrealistically high (Jensen, 2004), and institutional investors focus heavily on meeting short-term performance goals (Matsumoto, 2002). In addition, the negative stock price reaction that accompanies negative earnings surprises can result in costly litigation. Thus, we control for growth opportunities ($\mathrm{MB}_{i,q}$), ex ante litigation risk (LIT_i), and the percentage of shares held by institutional owners (INST_i), as in Matsumoto (2002). $\mathrm{MB}_{i,q}$ is the ratio of market value of equity to book value of equity, LIT_i is an indicator variable which equals 1 if the firm operates in an industry with high litigation risk (see Appendix B), and INST_i is collected directly from the Compact Disclosure database.

Second, better performing firms more likely will meet expectations, while firms that report losses more frequently fail to meet analysts' forecasts (Brown, 2001). Thus, we include the firm's return on assets ($\mathrm{ROA}_{i,q}$), computed as quarterly net income divided by total assets, and an indicator variable ($\mathrm{LOSS}_{i,q}$) which equals 1 if the report a loss and zero otherwise. Third, as more highly leveraged firms might be more likely to engage in income-increasing accounting choices (DeFond & Jiambalvo, 1994), and thus more likely to meet analyst earnings targets, we include financial leverage ($\mathrm{LEV}_{i,q}$), defined as total long-term debt over total assets. Fourth, Bowen, DuCharmes, and Shores (1995) argue that a firm's financial image influences customers', suppliers', and employees' assessments of the firm's ability to fulfill its commitments, leading to favorable terms of trade with such stakeholders. Managers' incentives to enhance the firm's financial image are strongest for those firms that rely heavily on implicit claims with these stakeholders, thus like Matsumoto (2002) we perform a factor analysis (see Appendix B) to compute a variable ($\mathrm{ICLAIM}_{i,q}$) to proxy for reliance on implicit claims. We control for firm size ($\mathrm{LNASSET}_{i,q}$), computed as the natural logarithm of total assets, as larger firms face heightened investor and analyst scrutiny that provide further incentive for the firm to meet expectations. Finally, we include year effects (YEAR_i), as Brown (2001) shows that the propensity for firms to meet or beat analysts' earnings targets has increased over time.

Model Overview

We estimate separate logistic regressions of our dichotomous variables, $\mathrm{POSAAC}_{i,q}$ and $\mathrm{GUIDE}_{i,q}$, on our test variable OPT_i and the control variables $\mathrm{LEV}_{i,q}$, $\mathrm{MB}_{i,q}$, $\mathrm{LNASSET}_{i,q}$, INST_i, LIT_i, $\mathrm{ICLAIM}_{i,q}$, $\mathrm{LOSS}_{i,q}$, $\mathrm{ROA}_{i,q}$, and YEAR_i. Appendix B summarizes these models and provides variable definitions. These models test the association between the existence of positive abnormal accruals and the likelihood of guidance to analysts and the level of stock-based compensation, in quarters in which firms meet or exceed analysts' earnings forecasts, after controlling for other determinants of the likelihood firms meet or exceed analysts' earnings forecasts. We expect to observe a positive and significant coefficient on the option compensation variable if option usage increases the propensity of firms to rely on either income-increasing accounting choices or downward earnings guidance to meet or exceed analysts' forecasts.[3]

Sample Selection

Table 1 summarizes our sample selection procedures and attrition due to data constraints. We find 71,876 firm-quarters with actual earnings per share and an individual analyst forecast of quarterly earnings per share on the I/B/E/S Detailed database during 1992–2002. As our focus is on examining methods by which firms meet or exceed analysts' forecasts, we delete

Table 1. Sample Selection.

Firm-quarters with actual quarterly earnings per share and an individual analyst forecast of quarterly earnings per share on I/B/E/S during 1992–2002	71,876
Less: Firm-quarters with negative earnings surprises	(10,989)
Less firm-quarters lacking:	
Execucomp data	(22,409)
Compustat control variable data	(3,200)
Institutional ownership data on Compact Disclosure	(5,606)
Compustat data to compute abnormal accruals and I/B/E/S data to compute guidance	(19,975)
Firm-quarters with complete data	9,697
Less: Firm-quarters with earnings surprise >1 cent per share	(5,194)
Firm-quarters used in small earnings surprise analyses	4,503

Note: Analyst forecast and actual earnings per share are collected from I/B/E/S. We collect the most recent individual analyst forecast before a quarterly earnings announcement, and require that forecast to be no more than 90 days before the related earnings announcement date. We eliminate observations with negative earnings surprise, observations lacking compensation data on Execucomp, and observations lacking necessary control variable data on either Compustat or Compact Disclosure. We perform tests on the sample of 9,697 observations with non-negative earnings surprises, data to compute abnormal accruals, analyst guidance, control variables, and the sub-sample of 4,503 of those observations with earnings surprise between 0 and 1 cents per share.

10,989 firm-quarters that report negative earnings surprises. We delete 22,409 firm-quarters lacking compensation data on Execucomp, 3,200 firm-quarters lacking Compustat data to compute control variables, 5,606 firm-quarters lacking institutional ownership data on Compact Disclosure, and 19,975 firm-quarters lacking Compustat data to estimate abnormal accrual regression models or I/B/E/S data necessary to compute our guidance measure. These requirements yield a sample of 9,697 firm-quarter observations for our regression analyses. As the use of either abnormal accruals and/or analyst guidance might be particularly prevalent for very small earnings surprises, we also estimate our regressions on a subsample of 4,503 firm-quarter observations having complete data and reporting earnings surprise between 0 and 1 cent per share.

Descriptive Statistics

Table 2 provides descriptive statistics for the 9,697 firm-quarter observations used throughout our analyses. Over our sample period, 32.6 percent of firm-quarter observations experienced positive abnormal accruals ($POSAAC_{i,q} = 1$) and approximately 15 percent of the sample's firm-quarters experienced positive earnings surprises and negative forecast errors

Table 2. Descriptive Statistics.

Variable	Mean	Std. Dev.	Max.	Quartiles			Min.
				Third	Median	First	
POSAAC	0.326	0.469	1	1	0	0	0
GUIDE	0.150	0.357	1	0	0	0	0
OPT	0.378	0.266	0.933	0.584	0.355	0.161	0
LEV	0.150	0.140	0.612	0.248	0.127	0.010	0
MB	4.319	4.141	22.945	5.00	2.951	1.885	0.584
ASSET	3,343	7,545	98,651	2,580	804	308	47.9
INST	0.597	0.182	0.925	0.735	0.619	0.487	0.091
LIT	0.361	0.480	1	1	0	0	0
ICLAIM	0.414	0.977	2.688	1.240	0.424	−0.453	−1.172
LOSS	0.056	0.230	1	0	0	0	0
ROA	0.018	0.026	0.078	0.031	0.019	0.009	−0.110

Note: The table reports the mean, standard deviation, maximum value, third quartile value, median, 1st quartile value, and minimum value for the sample of $N = 9{,}697$ firm-quarter observations. All variables except ASSET are as defined in Appendix B. ASSET is the dollar amount (in millions) of end of quarter total assets. Variable subscripts are omitted.

($GUIDE_{i,q} = 1$). Options represent, on average, a significant portion (37.8 percent) of the top-five executives' total annual compensation.

Regarding control variables, the mean quarterly return on assets ($ROA_{i,q}$) for the sample is approximately 1.8 percent, 15 percent of assets are financed by long-term debt ($LEV_{i,q}$), and the mean (median) market-to-book ratio ($MB_{i,q}$) is 4.319 (2.951). Institutional shareholders ($INST_i$) own nearly 60 percent of outstanding shares, 36 percent of firm-quarter observations are considered to be operating in high litigation risk environments ($LIT_{i,q}$), and 5.6 percent of the sample reported quarterly losses ($LOSS_{i,q}$).

RESULTS

Univariate Analyses

The correlation analysis in Table 3 provides initial evidence that earnings guidance, rather than income-increasing accruals, is related to the propensity with which option-granting firms meet or exceed analysts' forecasts. The correlation between the level of option compensation and our guidance measure is 0.040, significantly different from zero at less than the 0.01 level. In contrast, the correlation between the level of option compensation and our positive abnormal accruals measure is negative (−0.005), but not statistically different from zero. Correlations between control variables are generally low, suggesting multicollinearity is unlikely an issue in our multivariate regressions, which we turn to next.

Logistic Regression Analyses

Tables 4 and 5 report the results of our tests of the association between option compensation and the use of discretionary accounting choices or expectations-reducing guidance, respectively, to enable firms to meet or beat analyst expectations. In both tables we report results using all observations with non-negative earnings surprises ($N = 9{,}697$ observations), and the subset of earnings surprises between 0 and 1 cent per share ($N = 4{,}503$ observations). In addition to reporting coefficient estimates and related robust z-statistics, these tables also report percentage changes in odds (to allow for interpretation of the relative economic significance of the independent variables), and the c-statistic to assess the overall discriminative power of the regressions.[4] The percentage change in odds is a measure of the

Table 3. Pearson Correlations.

	POSAAC	GUIDE	OPT	LEV	MB	LNASSET	INST	LIT	ICLAIM	LOSS
GUIDE	0.041									
	(0.0001)									
OPT	−0.005	0.040								
	(0.630)	(0.0001)								
LEV	0.110	0.069	−0.133							
	(<0.0001)	(<0.0001)	(<0.0001)							
MB	−0.052	−0.057	0.290	−0.140						
	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)						
LNASSET	0.170	0.157	0.029	0.340	−0.033					
	(<0.0001)	(<0.0001)	(0.004)	(<0.0001)	(0.001)					
INST	0.008	0.051	0.157	0.101	−0.027	0.305				
	(0.407)	(<0.0001)	(<0.0001)	(<0.0001)	(0.009)	(<0.0001)				
LIT	−0.022	−0.008	0.278	−0.291	0.223	−0.174	−0.064			
	(0.029)	(0.414)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)			
ICLAIM	−0.074	−0.030	0.238	−0.307	0.196	−0.205	0.0007	0.308		
	(<0.0001)	(0.003)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	(0.948)	(<0.0001)		
LOSS	0.130	0.041	0.070	0.044	−0.014	−0.090	−0.116	0.091	0.067	
	(<0.0001)	(0.0001)	(<0.0001)	(<0.0001)	(0.184)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	
ROA	0.053	0.072	0.300	0.060	0.144	0.171	0.181	0.037	0.022	0.040
	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	(<0.0001)	(0.0003)	(0.032)	(0.0001)

Note: The table reports Pearson correlations using 9,697 firm-quarter observations. All variables are defined in Appendix B. Variable subscripts are omitted.

Table 4. Abnormal Accrual Logistic Regression Results.

Independent Variable	Dependent Variable = POSAAC					
	Observations with earnings surprise $\geqslant 0$ cents ($N = 9{,}697$ firm-quarter obs.)			Observations with $0 \leqslant$ earning surprise $\leqslant 1$ cent ($N = 4{,}503$ firm-quarter obs.)		
	Coeff.	z-stat.	Δ odds %	Coeff.	z-stat.	Δ odds %
Intercept	−48.527	−2.12*		−28.100	−0.90	
Test variable						
OPT	−0.080	−0.61	−2.10	−0.004	−0.02	0.00
Control variables						
LEV	0.417	1.60	6.01	0.672	1.89	9.98
MB	−0.017	−1.65	−6.80	−0.021	−1.34	−8.24
LNASSET	0.239	9.10**	45.05	0.234	7.07**	43.12
INST	−0.382	−1.92	−6.71	−0.450	−1.64	−8.08
LIT	0.112	1.28	11.85	0.182	1.66	19.96
ICLAIM	−0.089	−2.08**	−8.32	−0.109	−1.94	−10.03
LOSS	0.983	6.75**	167.25	0.939	5.30**	155.74
YEAR	0.023	2.02*	2.33	0.013	0.83	3.51
ROA	−5.233	−3.93**	−12.81	−6.535	−3.21**	−15.46
c-statistic	64.85			64.72		

Note: The table reports maximum likelihood parameter estimates and robust z-statistics (in parentheses) from logistic regressions. All variables are as defined in Appendix B. Δ odds % is the effect of a change in the independent variable on the odds of using positive abnormal accruals to meet or beat the forecast (first three columns) or report a small earnings surprise (last three columns). For continuous variables, the percentage change in odds is $100[\exp(\text{std}_j\beta_j)-1]$, where std_j is the sample standard deviation of variable j and β_j is the estimated regression coefficient for variable j. For indicator variables, the percentage change in odds is $100[\exp(\beta_j)-1]$. The c-statistic measures the overall discriminative power of the regression, and captures the percent of all possible pairs of cases in which the model assigns a higher probability to a correct case than to an incorrect one.

*Indicates the parameter estimate differs from zero at less than the 0.05 level, two-tailed tests.

**Indicates the parameter estimate differs from zero at less than the 0.01 level, two-tailed tests.

expected impact of a one standard deviation change (move from 0 to 1) in the independent variable on the dependent variable for continuous (indicator) variables.

From Table 4, the evidence suggests the likelihood of using income-increasing abnormal accruals to meet or exceed forecasts is related to several of our control variables. $\text{ROA}_{i,q}$ ($z = -3.93$, $p<0.01$) and $\text{ICLAIM}_{i,q}$ ($z = -2.08$, $p<0.025$) both reduce the likelihood the firm reports positive abnormal accruals, with corresponding percentage change in odds of 12.81

Table 5. Analyst Guidance Logistic Regression Results.

Independent Variable	Dependent Variable = GUIDE					
	Observations with earnings surprise ⩾ 0 cents (N = 9,697 firm-quarter obs.)			Observations with 0⩽ earnings surprise ⩽1 cent (N = 4,503 firm-quarter obs.)		
	Coeff.	z-stat.	Δ odds %	Coeff.	z-stat.	Δ odds %
Intercept	−86.068	−3.39**		−75.690	−2.09*	
Test variable						
OPT	0.387	2.63**	10.83	0.445	2.30*	13.01
Control variables						
LEV	0.216	0.74	3.07	−0.283	−0.76	−3.93
MB	−0.051	−4.49**	−19.04	−0.050	−3.53**	−18.51
LNASSET	0.263	10.00**	50.57	0.330	9.62**	65.79
INST	0.062	0.30	1.13	0.258	0.95	4.95
LIT	0.140	1.53	15.02	0.099	0.93	10.41
ICLAIM	−0.007	−0.17	−0.68	0.017	0.03	1.66
LOSS	0.310	2.29*	36.34	0.586	3.33**	79.68
YEAR	0.041	3.24**	11.77	0.036	1.97*	10.03
ROA	−4.121	−3.06**	−10.23	0.780	0.38	2.02
c-statistic	64.92			65.44		

Note: The table reports maximum likelihood parameter estimates and robust z-statistics (in parentheses) from logistic regressions. All variables are as defined in Appendix B. Δ odds % is the effect of a change in the independent variable on the odds of using positive abnormal accruals to meet or beat the forecast (first three columns) or report a small earnings surprise (last three columns). For continuous variables, the percentage change in odds is 100[exp-(std$_j\beta_j$)−1], where std$_j$ is the sample standard deviation of variable j and β_j is the estimated regression coefficient for variable j. For indicator variables, the percentage change in odds is 100[exp(β_j)−1]. The c-statistic measures the overall discriminative power of the regression, and captures the percent of all possible pairs of cases in which the model assigns a higher probability to a correct case than to an incorrect one.

*Indicates the parameter estimate differs from zero at less than the 0.05 level, two-tailed tests.

**Indicates the parameter estimate differs from zero at less than the 0.01 level, two-tailed tests.

and 8.32 percent, respectively.[5] ROA$_{i,q}$ remains inversely related to the likelihood of reporting positive abnormal accruals ($z = -3.21$, $p<0.01$) when the sample is restricted to firms with small earnings surprises, while ICLAIM$_{i,q}$ ($z = -1.94$, $p<0.06$) becomes marginally significant. Both LNASSET$_{i,q}$ ($z = 9.10$ and 7.07, respectively, $p<0.01$) and LOSS$_{i,q}$ ($z = 6.75$ and 5.30, respectively, $p<0.01$) increase the likelihood the firm uses abnormal accruals to meet earnings forecasts, and the likelihood the firm uses abnormal accruals to meet earnings forecasts by small amounts. The marginal effects for $\text{LNASSET}_{i,q}$ and $\text{LOSS}_{i,q}$ range from 43 to 167 percent. Finally, the use of positive abnormal accruals to meet analysts' quarterly earnings forecasts has increased over the sample period, as evidenced by the results on YEAR_i ($z = 2.02$, $p < 0.05$).

In sum, several control variables are related to the likelihood a firm uses income-increasing abnormal accruals to meet or exceed analysts' earnings forecasts. Better-performing (loss-making) firms have less (more) need for accounting adjustments to meet expectations, and firms that rely on a favorable financial image have incentives to use more conservative accounting choices. In contrast, larger firms face heightened scrutiny to meet expectations, and likely have a larger array of accrual choices available.

More importantly, the evidence in Table 4 suggests there is no relation between the level of stock option compensation and the use of positive abnormal accruals in quarters in which firms meet forecasts or do so by small amounts. While OPT_i is negative ($z = -0.080$ and -0.004, respectively), it is not statistically different from zero.

The results in Table 5 suggest several of our control variables are related to the use of guidance to meet analysts' expectations. Specifically, $\text{MB}_{i,q}$ is inversely related to the likelihood the firm uses guidance to meet or exceed analysts' forecasts ($z = -4.49$ and -3.53, respectively), with corresponding percentage changes in odds of -19.04 and -18.51 percent. $\text{LNASSET}_{i,q}$ ($z = 10.00$ and 9.62, respectively), $\text{LOSS}_{i,q}$ ($z = 2.29$ and 3.33, respectively), and YEAR_i ($z = 3.24$ and 1.97, respectively) all significantly increase (p- value no higher than 0.05) the likelihood the firm uses guidance to meet analysts' forecasts (and to do so by small amounts). Thus, larger firms and firms reporting losses are more likely to use guidance, while growth firms are less likely to do so. In addition, the propensity of guidance to report positive and small earnings surprises has increased over our sample period.

Most important, we find a positive, strongly significant relation between stock option-based compensation and our guidance measure in quarters in which firms meet analysts' earnings forecasts. In particular, OPT_i ($z = 2.63$ and 2.30, respectively) increases the likelihood the firm uses guidance to report positive and small earnings surprises, and the robust z-statistics indicate statistical significance at $p < 0.01$ and $p < 0.025$, respectively. The percentage changes in odds indicate that a one standard deviation change in stock option-based compensation increases by about 11 percent the likelihood a firm uses downward guidance to meet or beat analyst forecasts, and increases by about 13 percent the likelihood a firm uses downward guidance to report a small (non-negative) earnings surprise.

In sum, our evidence is consistent with the notion that option-granting firms rely on downward guidance to analysts to lower the hurdle for meeting analyst expectations. We find no evidence to suggest option-granting firms rely upon income-increasing abnormal accruals to raise actual earnings above analyst targets. While theory does not offer predictions about which of the two mechanisms might be more useful, we offer some conjectures. First, it is possible that auditors do in fact constrain firms' ability to use abnormal accounting accruals, while auditors have little, if any, influence on guidance. Second, by construction accounting accruals must eventually reverse, so that income-increasing accruals in the current period will be offset by income-decreasing accruals in later periods. This perhaps makes accruals more difficult to use as a continual strategy, relative to guidance. Third, before Reg. FD there were few mandated restrictions on guidance, whereas GAAP mandates significant accounting restrictions.

SENSITIVITY ANALYSES

We next describe the results of several sensitivity analyses. Unless mentioned otherwise, the results of these additional analyses are consistent with those reported above – i.e., OPT_i is positive and significant at $p<0.01$ in regressions with $\mathrm{GUIDE}_{i,q}$ as the dependent variable, and not statistically different from zero in regressions with $\mathrm{POSAAC}_{i,q}$ as the dependent variable.

Alternative Abnormal Accruals Models

We employed three alternative approaches to estimating abnormal accruals, including estimating the equation in Appendix A without an indicator variable for quarter, estimating non-discretionary accruals without adjusting for the change in receivables, and using abnormal working capital accruals, defined as in DeFond and Park (2001). $\mathrm{POSAAC}_{i,q}$ remains unrelated to OPT_i in each of these alternative estimations of Model 1.

Detailed Analysis of Public Disclosures in Guidance Quarters

Interpretation of our results hinges upon guidance selectively flowing from firms directly to analysts. Thus far, however, we (and others who use similar guidance measures) cannot rule out the possibility that firms release public disclosures about forthcoming earnings in the quarters which we classify as containing guidance. To examine this issue we selected a sample of 20 firm-quarter observations that had (a) earnings surprise (based on the most recent analyst forecast) equal to 0 and (b) the largest negative forecast errors (based on the earliest analyst forecast of the quarter). We interpret these observations as containing considerable guidance, and if public disclosures about disappointing forthcoming earnings are prevalent, we expect to find them in such quarters.

We then searched the Lexis/Nexis database for each observation, for the period spanning three days after the prior quarter's earnings announcement date up to the announcement date of the current quarter's earnings (i.e., the period over which we collect earliest and most recent analyst forecasts). We then collected and read all of the press releases regarding that firm in that time period. Of the 20 observations, only 4 include press releases from the firm warning that forthcoming earnings will be lower than expected (i.e., public dissemination of guidance). Although the sample size is small, these results are consistent with guidance being primarily selectively disseminated from firms to analysts.[6]

Balance Sheet Constraints on Abnormal Accruals

Barton and Simko (2002) show that the level of a firm's net operating assets, which reflects previous accounting choices, constrains the firm's ability to make additional discretionary accounting choices. We measure a firm's level of net operating assets in each quarter as that quarter's shareholders' equity less cash and marketable securities, plus debt, and add it as an independent variable in estimation of our regression models in Appendix B. While firms with higher levels of net operating assets are indeed less (more) likely to use positive abnormal accruals (downward guidance) in periods in which they meet or exceed analysts' expectations, inclusion of this variable does not alter any of our inferences with respect to stock option-based compensation.

Regulation Fair Disclosure and Guidance Behavior

On October 23, 2000, the Securities and Exchange Commission (SEC) implemented Reg. FD, which is intended to encourage more uniform disclosure practices and less selective guidance from firms to analysts. We examine the impact of Reg. FD on our results by estimating our (Table 5) regressions separately on (1) firm-quarter observations with earnings forecast estimate dates from 1992 up to October 23, 2000 and (2) firm-quarter observations with forecast estimate dates from October 23, 2000 through 2002. We observe a positive and significant association between executive option compensation and our guidance proxy in both sub-samples.

As an additional test, we estimated our guidance regression after adding an indicator variable for time period (pre- versus post-Reg. FD), and that indicator variable interacted with our option variable. If the association between option-based compensation and our guidance measure has diminished since passage of Reg. FD, we expect to observe a negative and significant coefficient on this interaction variable. The coefficient on this interaction variable, however, is not significantly different from zero. This suggests that, at least for our sample firms, time period, and guidance measures, Reg. FD did not diminish the use of guidance as a tool for option-granting firms to meet or exceed analysts' earnings forecasts.

CONCLUSION

We study the roles of two important mechanisms – income-increasing abnormal accounting accruals and guidance to analysts – in the "numbers game," by which stock option-granting firms more frequently report actual quarterly earnings that meet or exceed analysts' forecasts. Using a sample of S&P 1500 firms over 1992–2002, we find a positive relation between the level of a firm's option-based compensation and the likelihood that it uses analyst guidance in quarters it meets or exceeds analysts' expectations. We find no relation between the level of a firm's stock option-based compensation and the likelihood it uses abnormal accounting accruals in quarters that it meets or exceeds analysts' expectations.

Our results have implications for compensation committees, regulators, and firm managers. First, compensation committees might consider executive compensation tools that are less dependent on maintaining high stock prices. Recent anecdotal evidence suggests firms are indeed moving toward decreasing the size of their option grants, while increasing the use of alternative forms of compensation (Gullapalli, 2005). Second, we find no evidence that earnings management, through abnormal accruals, is culpable in the "numbers game." This suggests that regulation and enforcement aimed at curbing analyst guidance might prove more fruitful than tightening accounting choices. Finally, firm managers might consider not supplying analysts with specific earnings estimates, as proposed by Fuller and Jensen (2002).

Several caveats apply to our results. First, our sample is comprised of large, primarily manufacturing, members of the S&P 1500. Second, although we employ currently state-of-the-art techniques to compute earnings management and analyst guidance proxies, neither construct is directly observable. Third, real operating decisions (e.g., reducing research and development or capital expenditures) provide another mechanism by which firms might meet or beat analysts' expectations (see Legoria, 2000; Graham et al., 2005). Further industry-specific studies like Legoria (2000) might provide further insights into the mechanisms by which option-granting firms meet analyst expectations.

NOTES

1. The article attributes Apple Computer's ability to beat analysts' expectations to its telling investors, three months previously, that it "expected only a slight profit for the quarter," causing analysts to predict earnings of only 3 cents per share (Brown, 2003).
2. Throughout the paper the subscript i refers to firms and the subscript q refers to quarter. A t subscript for year is implicitly assumed for all variables.
3. As our sample includes several firms with multiple observations, potentially biasing our standard errors downward, we use Huber–White "robust" standard errors that control for both serial dependence and heteroscedasticity (Huber, 1967; White, 1980).
4. For continuous variables, the percentage change in odds is $100[\exp(\mathrm{std}_j\beta_j) - 1]$, where std_j is the sample standard deviation of variable j and β_j is the estimated regression coefficient for variable j. For indicator variables, the percentage change in odds is $100[\exp(\beta_j) - 1]$. See Barton and Simko (2002).
5. All p- values reported in this paper are for two-tailed tests of the hypothesis the coefficient differs from zero.
6. We repeated this analysis on a randomly selected sample of 10 additional firm-quarter observations classified as containing guidance. We found that only two of these firms released public earnings guidance. Using a larger sample of managerial forecast data from First Call, Anilowski, Feng, and Skinner (2005) find that the proportion of firms releasing public managerial forecasts of earnings guidance was less than 10 percent in the mid-1990s, and rose to about 25 percent in 2001–2003.

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APPENDIX A. COMPUTATION OF ABNORMAL ACCRUALS

We use ordinary least squares regression to estimate the equation, a modified version of the cross-sectional Jones (1991) model. The model is estimated for each firm (*i*) year (*t*), quarter (*q*), and 2-digit SIC code (*j*) combination for which we have at least 10 quarterly observations. We require at least 10 observations for each regression to increase the accuracy of our estimates. All data are from Compustat. Financial institutions (SIC codes 6000-6999) are excluded.

$$\frac{\mathrm{ACCR}_{ijqt}}{\mathrm{TA}_{ijqt-1}} = g0\left(\frac{1}{\mathrm{TA}_{ijqt-1}}\right) + g1\left(\frac{\Delta\mathrm{REV}_{ijqt}}{\mathrm{TA}_{ijqt-1}}\right) + g2\left(\frac{\mathrm{PPE}_{ijqt}}{\mathrm{TA}_{ijqt-1}}\right) + g3\mathrm{QTR}_{ijqt} + e_{ijqt}.$$

Dependent Variable

ACCR_{ijqt}, Total accruals, equal to quarterly net income before extraordinary items minus net operating cash flows from the statement of cash flows.
TA_{ijqt-1}, Equals total assets at the beginning of the quarter.

Independent Variables

$\Delta\mathrm{REV}_{ijqt}$, Equals the change in revenue between the current and prior quarters.
PPE_{ijqt}, Equals net property, plant, and equipment at the end of that quarter.
QTR_{ijqt}, An indicator variable which equals 1 for the fourth fiscal quarter, and 0 otherwise.

Non-discretionary accruals ($NDAC_{ijqt}$) are proxied for by the fitted values from the estimations of the equation, adjusting for the change in receivables as in Dechow et al. (1995), and the residuals are interpreted as abnormal accruals (AAC_{ijqt}).

APPENDIX B. MODELS AND VARIABLES

Overview of LOGIT Models to be Estimated

We estimate the following logistic regression models:

$$\begin{aligned}\text{Model 1}: \text{Prob}(\text{POSAAC}_{i,q} = 1) = {} & \alpha_0 + \alpha_1\text{OPT}_i + \alpha_2\text{LEV}_{i,q} + \alpha_3\text{MB}_{i,q} \\ & + \alpha_4\text{LNASSET}_{i,q} + \alpha_5\text{INST}_i + \alpha_6\text{LIT}_i \\ & + \alpha_7\text{ICLAIM}_{i,q} + \alpha_8\text{LOSS}_{i,q} \\ & + \alpha_9\text{YEAR}_i + \alpha_{10}\text{ROA}_{i,q} + e_{i,q}\end{aligned}$$

$$\begin{aligned}\text{Model 2}: \text{Prob}(\text{GUIDE}_{i,q} = 1) = {} & \beta_0 + \beta_1\text{OPT}_i + \beta_2\text{LEV}_{i,q} + \beta_3\text{MB}_{i,q} \\ & + \beta_4\text{LNASSET}_{i,q} + \beta_5\text{INST}_i + \beta_6\text{LIT}_i \\ & + \beta_7\text{ICLAIM}_{i,q} + \beta_8\text{LOSS}_{i,q} + \beta_9\text{YEAR}_i \\ & + \beta_{10}\text{ROA}_{i,q} + e_{i,q}\end{aligned}$$

Note: Data to compute stock option-based compensation are from Standard and Poor's Execucomp. Data to compute institutional ownership are from Compact Disclosure. Forecast and actual earnings per share data are from I/B/E/S. Data to compute all other variables are from Compustat.

Description	Variable	Specification
Dependent variables		
Positive abnormal accruals	$\text{POSAAC}_{i,q}$	Equals 1 in firm-quarters in which abnormal accruals (computed using a modified version of the cross-sectional Jones (1991) model, described in Appendix A) are positive, and 0 otherwise
Earnings guidance	$\text{GUIDE}_{i,q}$	Equals 1 in firm-quarters with positive earnings surprises and

APPENDIX B. (*Continued*)

Description	Variable	Specification
		negative forecast errors, and 0 otherwise. Earnings surprise is defined as the difference between a quarter's actual reported earnings and the most recent individual analyst forecast of that quarter's earnings; forecast error is the difference between a quarter's actual reported earnings and the earliest individual analyst forecast for that quarter
Test variable		
Stock-based compensation	OPT_i	Computed by dividing the Black-Scholes value of options granted to the top five executives during the year, by the level of total compensation (including the Black-Scholes value of option grants) paid to those executives in that year
Control variables		
Financial leverage	$LEV_{i,q}$	Total end of quarter long-term debt divided by end of quarter total assets
Growth opportunities	$MB_{i,q}$	Market value-to-book value per share ratio at quarter-end
Firm size		$LNASSET_{i,q}$
Natural log of end of quarter total assets		
Institutional holdings	$INST_i$	Percentage of shares held by institutional investors during the year
Litigation risk	LIT_i	Dummy variable which equals 1 if the firm operates in a high-litigation environment (operating

APPENDIX B. (*Continued*)

Description	Variable	Specification
		in SIC codes 2833-2836 (biotechnology), 3570-3577 and 7370-7374 (computers), 3600-3674 (electronics), or 5200-5961 (retailing)), and 0 otherwise
Implicit claims	$\text{ICLAIM}_{i,q}$	Extent to which the firm operates in an industry which relies heavily on implicit claims with shareholders; computed by a factor analysis that includes research and development intensity (quarterly research and development expenses scaled by quarterly total assets), labor intensity (1 minus the ratio of quarterly property, plant and equipment scales by total quarterly gross assets), and an indicator variable which equals 1 for membership in a durable goods industry (SIC codes 150-179, 245, 250-259, 283, 301 and 324-399), and 0 otherwise
Loss	$\text{LOSS}_{i,q}$	Dummy variable which equals 1 when actual quarterly earnings (per I/B/E/S) are less than \$0, and 0 otherwise
Firm performance	$\text{ROA}_{i,q}$	Net income divided by end of quarter assets
Fiscal year	YEAR_i	The fiscal year of the quarterly observation, ranging from 1992 to 2002

PRO FORMA ADJUSTMENTS TO GAAP EARNINGS: BIAS, MATERIALITY, AND SEC ACTION

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ABSTRACT

The Securities and Exchange Commission (SEC) issued Regulation G (implementing Section 401 (b) of the Sarbanes-Oxley Act of 2002) in 2003 subsequent to its warning in December 2001 about reporting misleading non-GAAP or pro forma results. This research provides a longitudinal analysis of the earnings releases of a sample of companies reporting pro forma results from 1999 through 2004, especially in the context of recent SEC action. The research examines (1) the specific items included in pro forma adjustments and their frequency, (2) the extent of materiality or magnitude of the adjustments compared to GAAP, and (3) the stated rationale for the adjustments.

The research also specifically addresses the impact of the SEC's recent guidance and the extent to which Regulation G has modified pro forma reporting behavior. Our findings indicate pro forma adjustments have continued to be systematically biased in recent years to show significantly higher earnings compared to GAAP earnings and that the magnitude of such differences is highly material. While SEC action, particularly Regulation G, appears to have greatly reduced the number of companies

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disclosing non-GAAP financial measures and has improved transparency, a significant number of companies continue to make adjustments that are likely of concern to the SEC.

INTRODUCTION

Performance results that do not reflect generally accepted accounting principles (GAAP), often referred to as pro forma financial information, were reported with increasing frequency over the late 1990s. As a result, in December 2001, the Securities and Exchange Commission (SEC) issued a formal warning to public companies about the use of non-GAAP information (SEC, 2001). While few restrictions were placed on reporting pro forma information, the SEC expressed concern that such information could mislead investors because it departs from established GAAP, making it harder to make comparisons across reporting periods and with other companies. Accordingly, the SEC took the following actions. First, the Commission mandated that the antifraud provisions of the Federal Securities Laws shall apply to pro forma disclosures. Second, the SEC announced that non-GAAP results will be deemed misleading unless the basis of presentation is fully disclosed. Third, the Commission required companies to pay attention to the nature of items omitted from a pro forma presentation. While the information may be literally correct, a pro forma disclosure may be misleading if recurring items are omitted without providing explanations of the nature and size of the omissions. Fourth, the SEC provided that any public statement of non-GAAP financial information should also disclose how it deviates from GAAP and the amounts involved. Finally, the SEC advised investors to compare pro forma results with GAAP-based results for the same company.

In January 2003, the SEC (2003a) implemented Section 401(b) of the Sarbanes-Oxley Act of 2002 and issued Regulation G (Reg G), which applies to public disclosures including earnings releases and filings with the SEC made after March 28, 2003. Reg G prohibits a registrant from publicly disclosing a non-GAAP financial measure and related disclosure that is misleading. Additionally, a registrant must provide a quantitative reconciliation of the non-GAAP measure to the most directly comparable GAAP measure. The reconciliation should be presented in a schedule or utilizing another clearly understandable method. While the requirements for SEC filings under Item 10 of Regulation SK are more restrictive, any non-GAAP financial measure is acceptable in an earnings release as long as it is not misleading and is reconciled to the most directly comparable GAAP measure.

Recent stock market-based research suggests analysts and investors rely increasingly on pro forma earnings and that there is a strong bias toward reporting earnings that are higher than GAAP earnings (Bradshaw & Sloan, 2002a; Bhattacharya, Black, Christensen, & Larson, 2003; Wallace, 2002). This paper extends prior research by providing a detailed assessment of the specific items included in pro forma adjustments and their size, as well as the stated rationale for the adjustments. Most importantly, this research investigates pro forma disclosures in the context of recent SEC actions and includes analysis of post-Reg G disclosures. A longitudinal analysis of year-end earnings releases for 1999 through 2004 addresses the specific items resulting in differences between pro forma and GAAP earnings, the magnitude of such items, and the impact of Reg G on such disclosures.

This research explores whether pro forma reporting in recent years, following SEC action, remains a substantive issue. Moreover, the research specifically addresses the extent to which year-end 2001 and 2002 earnings announcements followed the SEC's guidance by disclosing how pro forma results deviate from GAAP. Based on a review of 2003 and 2004 year-end announcements, the research addresses the extent to which Reg G motivated companies to discontinue the release of pro forma measures in their earnings announcements or modify the nature of non-GAAP earnings measures.

LITERATURE REVIEW

A significant portion of prior literature on pro forma earnings focuses on whether an alternative earnings measure is valued by market participants. Biddle, Bowen, and Wallace (1997) found that GAAP earnings explain stock returns better than a pro forma Economic Value-Added measure. Moehrle, Reynolds-Moehrle, and Wallace (2001) examined the impact of goodwill amortization and found no significant difference in the ability of changes in income numbers, including and excluding goodwill amortization, to explain changes in stock price. Moehrle, Reynolds-Moehrle, and Wallace (2002) examined four alternative earnings measures and found that accrual accounting-based GAAP measurers explain significantly more of the change in stock price than more cash-flow-based measures.

Brown and Sivakumar's (2003) findings suggest that a pro forma operating income proxy has greater information content than either EPS from operations or EPS before extraordinary items and discontinued operations.

While the research suggests pro forma results can provide higher quality earnings measures than GAAP, the authors acknowledge that if markets are not efficient then their findings may suggest that investors erroneously focus on lower quality earnings numbers.

Bradshaw and Sloan (2002a) examine the magnitude of the difference between "Street earnings" reported by analysts tracking services (i.e. I/B/E/S) and GAAP earnings and report an increasing tendency to exclude significant and allegedly non-recurring expenses from pro forma measures. They provide evidence that pro formas have become the primary determinant of stock prices compared to GAAP and are perceived by investors to be more value relevant. While their findings suggest investors may perceive "Street earnings" as a better indication of long-run recurring performance, Bradshaw and Sloan (2002b) put forward an alternative theory that investors are getting "hoodwinked."

Bhattacharya et al. (2003) report similar findings indicating investors view pro forma earnings as more informative than GAAP earnings. Their research further indicates pro forma earnings are more permanent than GAAP earnings and that analysts perceived pro forma earnings to be more representative of "core earnings" than GAAP earnings.

Johnson and Schwartz (2003) alternatively find no evidence that pro forma releases result in a stock price premium around the release date. However, their study uses a much smaller sample than Bhattacharya et al. Doyle, Lundholm, and Soliman (2003) examine stock returns up to three years after the earnings announcement and conclude that regulatory concerns about the use of pro formas may be warranted. They find that higher levels of pro forma exclusions are associated with lower future cash flows and investors do not fully appreciate the lower cash-flow implications at the time of the earnings announcement. Of the studies, only Bhattacharya et al. and Johnson and Schwartz use pro forma numbers from actual press releases as opposed to surrogate pro forma numbers from the I/B/E/S database.

Using actual press release information, Lougee and Marquardt (2004) found that firms with less informative GAAP earnings were more likely to release pro forma earnings. In addition, the information content of pro forma earnings varied with both GAAP earnings informativeness measures and with strategic considerations.

Bhattacharya, Black, Christensen, and Mergenthaler (2004) examine quarterly pro forma releases for 1998–2000. They found that pro forma firms are significantly less profitable, more liquid, and have higher debt levels, P–E ratios, and book-to-market ratios than other firms in their industries.

The study concludes that companies tend to use pro forma earnings to meet analysts' expectations and downplay negative earnings news.

Prior studies evaluate the usefulness of pro formas compared to GAAP earnings to investors prior to the effective date of Reg G and the SK amendments. This study adds to the literature by examining the frequency and magnitude of specific items resulting in the differences between pro forma and GAAP earnings. In addition, we extend the time period two years beyond the effective date of Reg G and the SK amendments to examine the impact of the new requirements on pro forma earnings disclosures.

METHODOLOGY

Sample Selection

We used the Dow Jones database to search all wires (Business Wire, PR Newswire, etc.) for publicly traded U.S. companies using pro forma in their 2000 calendar year-end earnings release (January 1, 2001 through April 5, 2001).[1] A total of 603 earnings releases were identified. We deleted companies reporting only pro forma footnote disclosures required by GAAP, reporting pro forma statistics other than earnings, and companies with missing data. See Table 1 for additional details. Our final sample contains 232 companies that reported pro forma earnings in their 2000 year-end earnings announcement (Table 1, Panel A).

We searched the Dow Jones database for year-end earnings releases for 1999 and 2001–2004 for the same 232 companies. Sixty-one of the companies had initial public offerings during 2000 and did not report any pro forma adjustments related to the initial public offering.[2] Of the remaining 171 companies, 141 provided a pro forma earnings measure in their earnings announcement for 1999 and are included in our analysis.

After deleting companies that no longer existed,[3] the 2001 sample consists of 196 companies. A review of the remaining companies' earnings announcements revealed that 166 included a pro forma earnings measure. In 2002, our sample dropped from 196 to 177. Of the remaining 177, 110 companies included a non-GAAP earnings measure in their earnings announcement. In 2003, the sample dropped to 152, with 51 companies including a non-GAAP earnings measure. The sample dropped to 141 in 2004, with 38 companies releasing a non-GAAP earnings measure. In summary, our analysis is based on the 141, 232, 166, 110, 51, and 38 companies that included a pro forma

Table 1. Sample Selection Process.

	Sample Companies	Companies Disclosing Pro Forma Earnings
Panel A: Year-end 2000		
Public companies identified using term pro forma in 2000 calendar year earnings release	603	
Eliminated because "pro forma" footnote disclosure required by GAAP		
• "Pro forma" EPS for company with convertible preferred stock or debt	(94)	
• "As if" acquisition occurred at beginning of year	(65)	
• "As if" IPO occurred at beginning of year	(56)	
• Change in accounting method/principle	(50)	
• "As if" a sale of a business unit occurred at beginning of the year	(21)	
Eliminated because announcement did not represent 2000 calendar year	(17)	
Eliminated because the provided pro forma statistic was other than net income*	(61)	
Eliminated because the company was under investigation for earnings reporting issues	(2)	
Eliminated because stock price information not available	(5)	
2000 Sample size	232	232 (100%)
Panel B: Year-end 1999		
Year-end 2000 sample	232	
Eliminated because company had 2000 IPO	(61)	
1999 Sample size	171	141 (82%)
Panel C: Year-end 2001		
Year-end 2000 sample	232	
Eliminated because company acquired, filed for bankruptcy, or delisted during 2001	(36)	
2001 Sample size	196	166 (85%)
Panel D: Year-end 2002		
Year 2001 sample	196	
Eliminated because company acquired/delisted during 2002	(19)	
2002 Sample size	177	110 (62%)
Panel E: Year-end 2003		
Year 2002 sample size	177	
Eliminated because company acquired/delisted during 2003	(25)	
2003 Sample size	152	51 (34%)
Panel F: Year-end 2004		
Year 2003 sample	152	
Eliminated because company acquired/delisted during 2004	(11)	
2004 Sample size	141	38 (27%)

*Other pro forma statistics include proven oil reserves, hotel rooms, sales only, etc.

income measure in their 1999 through 2004, respectively, year-end earnings announcement.

Table 2 contains descriptive statistics (mean and median sales, assets, and market capitalization) for each of the six years for companies disclosing pro forma earnings.[4] Mean sales and assets increase from 1999 through 2001 (2001 mean sales \$659,881,000; 2001 mean assets \$1,217,783,000) and then decrease after 2001 (2003 mean sales \$475,843,000; 2003 mean assets

Table 2. Sample Demographics (In Thousand \$).

	1999	2000	2001	2002	2003	2004
Sales						
Mean	434,288	537,007	659,881	613,235	475,843	502,532
Median	64,697	90,010	102,838	82,420	132,387	169,183
Minimum	1,781	1,003	1,874	897	2,901	16,275
Maximum	13,182,000	29,139,000	26,088,000	27,427,000	4,960,100	3,555,871
Assets						
Mean	1,078,532	1,193,458	1,217,783	840,995	888,546	924,862
Median	165,329	187,289	152,380	132,031	224,726	282,988
Minimum	2,050	3,337	3,926	1,834	27,044	46,267
Maximum	69,848,000	73,501,000	73,671,000	31,228,000	5,398,873	5,194,641
Market cap						
Mean	4,781,322	1,966,955	1,181,462	722,329	1,834,989	1,620,037
Median	924,000	222,325	220,725	140,625	597,625	657,719
Minimum	456	919	287	819	53,768	45,965
Maximum	10,064,900	69,487,500	24,021,000	9,131,376	15,844,930	11,266,914
GAAP net income						
Mean	5,902	−106,520	−336,966	−456,366	−12,561	24,503
Median	−6,372	−28,147	−31,290	−23,403	−2,259	6,237
Minimum	−502,958	−3,115,474	−13,355,952	−35,913,000	−959,865	−463,531
Maximum	1,342,000	1,062,000	298,900	403,578	537,600	453,641
Pro forma net income						
Mean	18,009	14,496	−4,532	5,046	42,616	54,224
Median	409	−2,564	8,146	−7,381	7,837	14,735
Minimum	−132,131	−483,503	−435,300	−811,000	−29,767	−12,134
Maximum	648,000	1,094,000	377,905	517,000	552,600	425,498
Difference between GAAP and pro forma net income						
Mean	12,089	121,016	332,434	461,412	55,177	29,721
Median	6,781	25,583	39,436	16,022	10,096	8,498
N	141	232	166	110	51	38

$888,546,000), suggesting many larger companies stopped disclosing pro forma earnings in 2002. Median sales, assets, and market capitalization are dramatically smaller than the means, indicating the sample is dominated by smaller public companies. Mean GAAP net income significantly decreased from 1999 through 2002 ($5,902,000 to $−456,366,000), then dramatically increased in 2003 ($−12,561,000), and actually turned positive in 2004 ($24,503,000). Although less dramatic, the median GAAP net income followed the same pattern ($−23,403,000 in 2002 to $6,237,000 in 2004).

Process for Determining Nature and Amount of Each Individual Adjustment

Sufficient information was included in most earnings releases to determine both the nature and amount of each pro forma adjustment. The pro forma disclosure followed one of the following three scenarios:

- a reconciliation of pro forma net income to GAAP net income that included both the nature and amount of each adjustment,
- a narrative explanation of each adjustment that included both the nature and amount of each adjustment, or
- a narrative explanation of the nature of each adjustment was included – the income statement was reviewed by the researcher to ascertain the amount of each adjustment.

In a few instances, sufficient information was not provided in the press release to determine both the nature and amount of each pro forma adjustment (two companies in 1999; four in 2000; one in 2001). These companies provided a narrative explanation of each adjustment in the press release, but the researchers had to use Form 10-K to identify the corresponding amounts in the company's income statement.

In 1999 and 2000 only 47 companies (33%) and 70 companies (30%), respectively, provided a complete written explanation of both the nature and amount of each pro forma adjustment within their press release. In 2001, following the SEC warning, the situation improved with 97 companies (58%) providing a complete explanation of both the nature and amount of each pro forma adjustment in their press release. For 68 companies (41%), we had to review the accompanying income statement to ascertain the amount of each pro forma adjustment.

In 2002, the situation improved significantly with 101 companies (92%) providing a complete explanation of both the nature and amount of each pro forma adjustment in the press release. Eighty-one companies (74%) provided a reconciliation between GAAP and pro forma numbers. Only nine companies (8%) required us to review the accompanying income statement to ascertain the amount of each adjustment.

With SEC Reg G mandatory for 2003 releases, all 51 companies disclosing pro forma earnings provided a complete explanation of the nature and amount of each pro forma adjustment in a reconciliation within the press release. The 38 companies disclosing pro forma earnings in 2004 continued this practice.

Of the 232 companies reporting pro forma income in 2000, over 80% reported pro forma income in each year for the four-year period 1999 through 2001. Of the 171 and 196 companies satisfying the criteria for inclusion in the 1999 and 2001 samples, only 30 (18% and 15%, respectively) did not include a pro forma income measure in their earnings announcement, thereby, supporting the concern that pro forma reporting is not reserved exclusively for "unusual" or "non-recurring" items.

Of the 177 companies remaining in 2002, 67 (38%) did not report a non-GAAP income measure in their year-end earnings release, thereby, revealing that an increasing number discontinued pro forma measures following issuance of Reg G. The 110 companies qualifying for analysis include 27 (25%) reporting a non-GAAP earnings measure not labeled as pro forma (i.e. "net income excluding," "adjusted net income," "non-GAAP income," "normalized net income," and "recurring net income").

As inferred previously, the reporting of pro forma income measures declined considerably after Reg G became mandatory. Only 34% of the 2003 earnings announcements included a pro forma income measure. In 2004, only 38 companies (27%) disclosed a non-GAAP income measure.

RESULTS

Table 2 includes the average dollar amount of pro forma adjustments (i.e. the difference between GAAP and pro forma net income) each year between 1999 and 2004. The average adjustment was $12,089,000 in 1999 and increased each year reaching $461,412,000 in 2002. The average adjustment declined dramatically to $55,177,000 in 2003 and $29,721,000 in 2004. Although the median differences between GAAP and pro forma net income are not as dramatic, they increased from $6,781,000 in 1999 to $39,436,000 in 2001 before decreasing each year to $8,498,000 in 2004.

Size and Significance of "Pro Forma" Adjustments

To address the size and significance of pro forma adjustments, we analyze reconciling items scaled by the market value of equity (market cap) as follows:

$$\frac{\text{Net Income}_{\text{ProForma}} - \text{Net Income}_{\text{GAAP}}}{\text{Market value of equity}}$$

The specific pro forma adjustments giving rise to net income differences can be assessed with partial index values determined based on the formula:

$$\frac{\text{Pro forma adjustment}}{\text{Market value of equity}}$$

The partial index values measure the contribution of each reconciling item.

For each year between 1999 and 2004, Table 3 reports a mean and a median over each year's sample as a whole and the partial index values for the five most frequent adjustments. Table 3 also shows the number of companies reporting the most frequent type of adjustments. In 1999 through 2004, the pro forma total adjustments to GAAP earnings average 3.4%, 220.6%, 519.4%, 46.0%, 0.5%, and 0.2% of market cap, respectively. These differences are significant at the $p = 0.01$ level for all five years between 1999 and 2003 (i.e. pro forma income is significantly higher than GAAP income). The total index is not significant for 2004.

During 1999 through 2004, the most frequently occurring specific adjustments are amortization/depreciation, non-cash compensation,[5] taxes,[6] restructuring, in-process research and development (R&D), and impairment. Companies reporting adjustments associated with amortization/depreciation and non-cash compensation declined significantly in 2002. Only a few companies reported adjustments associated with impairment in 1999, but impairment adjustments increased to 42 and 66 companies in 2000 and 2001, respectively. This is consistent with the generally elevated stock valuation levels in 1999 relative to the end of 2000 and 2001. The number of adjustments for in-process R&D was considerably higher in 2000 than in the other years. The number of adjustments for restructuring was considerably higher in 2001 than in the other years.

For the five frequently occurring adjustments presented in Table 3, t-tests indicate the differences are significant at $p = 0.01$ for most measures. Additionally, the differences are significant at $p = 0.05$ for amortization in 2002, restructuring in 1999 and 2003, in-process R&D in 2000, and impairment in

Table 3. Ratio of Pro Forma Earnings Adjustment to Market Capitalization for 1999–2004.

	Total Adjustment	Amortization of Goodwill and Intangibles	Non-Cash Compensation	Restructuring	In-Process R&D	Impairment
1999 (# of Cos.)	*141 (100%)*	*68 (48%)*	*53 (38%)*	*29 (21%)*	*20 (15%)*	*7 (5%)*
Mean	0.034***	0.0222***	0.012***	0.062**	0.003***	0.105[a]
Median	0.008	0.005	0.003	0.009	0.002	0.012
Minimum	−0.652	0.001	0.000	−0.001	−0.001	0.000
Maximum	0.734	0.373	0.166	0.727	0.014	0.389
2000	*232 (100%)*	*130 (56%)*	*109 (47%)*	*66 (28%)*	*56 (24%)*	*42 (18%)*
Mean	2.206***	1.108***	0.184***	0.759***	0.075**	6.732***
Median	0.069	0.041	0.021	0.032	0.020	0.342
Minimum	−0.186	0.001	−0.067	−0.053	0.000	0.001
Maximum	121.196	31.444	6.682	13.407	2.055	89.424
2001	*166 (100%)*	*100 (60%)*	*90 (54%)*	*95 (57%)*	*29 (17%)*	*66 (40%)*
Mean	5.194***	1.843*	0.112***	1.722*	0.104[a]	6.164***
Median	0.100	0.055	0.016	0.051	0.010	0.133
Minimum	−0.633	0.001	−0.014	−0.567	0.000	0.001
Maximum	436.243	120.090	2.740	66.685	2.384	174.581
2002	*110 (100%)*	*59 (54%)*	*55 (50%)*	*62 (56%)*	*20 (18%)*	*47 (43%)*
Mean	0.460***	0.107**	0.038***	0.150*	0.024***	0.437***
Median	0.116	0.022	0.014	0.048	0.008	0.159
Minimum	−0.290	0.001	−0.032	−0.317	−0.006	0.001
Maximum	7.680	2.569	0.376	1.010	0.124	7.730

Table 3. (*Continued*)

	Total Adjustment	Amortization of Goodwill and Intangibles	Non-Cash Compensation	Restructuring	In-Process R&D	Impairment
2003	*51 (100%)*	*40 (78%)*	*30 (59%)*	*26 (51%)*	*10 (20%)*	*12 (24%)*
Mean	0.005***	0.002***	0.001***	0.002**	0.001[a]	0.006[a]
Median	0.001	0.001	0.001	0.001	0.000	0.002
Minimum	−0.007	0.000	0.000	−0.007	0.000	−0.007
Maximum	0.043	0.013	0.059	0.025	0.010	0.414
2004	*38 (100%)*	*31 (82%)*	*25 (66%)*	*18 (47%)*	*13 (34%)*	*7 (18%)*
Mean	0.002[a]	0.001***	0.004***	0.001[a]	0.001***	0.003**
Median	0.001	0.001	0.001	0.001	0.000	0.002
Minimum	−0.002	0.000	0.000	−0.003	0.000	−0.001
Maximum	0.024	0.039	0.026	0.020	0.017	0.087

Note: t-tests of means significantly different from zero.

Source: Sign tests indicate that all differences are significant at $p = 0.01$ except for impairment 2004 which is not significant.

***significant at $p < 0.01$

**significant at $p < 0.05$

*significant at $p < 0.10$

[a]not significant

2004. The differences are significant at $p = 0.10$ for amortization/depreciation in 2001, and restructuring in 2001 and 2002. The differences are not statistically significant for impairment in 1999 and 2003, in-process R&D in 2001 and 2003, and restructuring in 2004. For 1999 through 2002, sign tests indicate all the differences associated with the five types of frequently occurring adjustments are significant at $p = 0.01$.

Materiality of Pro Forma Adjustments

We also examine the magnitude of differences between pro forma and GAAP earnings and the materiality of such differences. Materiality is important given the SEC's concern that pro forma disclosures that omit material information without adequate explanation may be misleading.

Statement of Financial Accounting Concepts (SFAC) No. 2, *Qualitative Characteristics of Accounting Information* states that the magnitude of an omission of accounting information should be evaluated on the basis of whether the judgment of a reasonable person relying on the information would have been changed or influenced as a result. In Staff Accounting Bulletin 99, *Materiality*, the SEC (1999) notes that a general rule of thumb utilized in practice is that a misstatement or omission of an item that falls under a 5% threshold is not material in the absence of particularly egregious circumstances. The SEC further states that the use of a percentage or a numerical threshold may provide the basis for a preliminary assumption and the staff has no objection to such a "rule of thumb" as an initial step in assessing materiality. However, quantifying in percentage terms is only the beginning of an analysis of materiality.

To assess the materiality of differences between "pro forma" and GAAP earnings, we calculate the differences between pro forma income and GAAP income using an index of materiality where GAAP income is the denominator (see Gray, 1980). If pro forma income is larger than GAAP income, the value of the index will exceed 1:

$$1 - \frac{(\text{Net Income}_{\text{GAAP}} - \text{Net Income}_{\text{ProForma}})}{|\text{Net Income}_{\text{GAAP}}|}$$

The particular adjustment items giving rise to net income differences can also be assessed relative to GAAP income:

$$1 - \frac{(\text{Partial adjustment})}{|\text{Net Income}_{\text{GAAP}}|}$$

These values represent the contribution of each reconciling/adjusting item.

Table 4 provides an overview of the mean and median data for the index of materiality for the sample as a whole and the most frequently occurring types of adjustments. From 1999 through 2004, the mean index is 2.338, 2.970, 1.854, 2.569, 3.434, and 2.931, respectively, with the pro forma amounts thus averaging 133.8%, 197.0%, 85.4%, 156.9%, 243.4%, and 193.1% of GAAP income. While the mean and median data presented in Table 4 provide summary indicators for the sample as a whole and for the most frequently occurring types of adjustments, when making investment decisions, investors are concerned with individual companies. Thus, the findings are also presented by percentage size of adjustment. Most of the adjustments are greater than 5% of GAAP earnings. Indeed, for all years reviewed, over 25% of the total adjustments result in pro forma income that more than doubles GAAP income.

Individual Impact of Pro Forma Adjustments

Adjustments for Recurring Expenses

The findings reveal that, even following issuance of Reg G, pro forma adjustments continue to include not only ''non-recurring'' items but also certain recurring expenses. A majority of the companies reported pro forma earnings that added back amortization/depreciation for the period 1999 through 2004 (Table 4, Panel B). Hence, an annual amortization/depreciation charge, which clearly is not ''non-recurring,'' was frequently excluded. With few exceptions, adjustments for amortization/depreciation charges during this period exceeded the 5% materiality threshold and in many instances resulted in an increase in income of over 25%. In some cases, adding back amortization/depreciation more than doubled GAAP income. Amortization/depreciation remained the most frequently occurring adjustment in 2003 and 2004, resulting in a median increase in income of 28.1% and 40.2%, respectively.

Statement of Financial Accounting Standard (SFAS) No. 142, *Goodwill and Other Intangible Assets,* prohibits goodwill amortization and establishes procedures for impairment testing. Our analysis reveals that the considerable increase in pro forma adjustments for ''impairment'' in 2001 (Table 4, Panel F) is associated with goodwill impairment charges. In 2001, 20 companies reported a pro forma impairment adjustment comprised at least partially of a goodwill write-down; for eight of these, the entire charge was a goodwill write-down. In 2002, 22 companies made adjustments for impairment charges comprised at least partly of goodwill write-offs; 12 of these

Table 4. Frequency Table of Distribution of Values of Index of Materiality.

Adjustment of GAAP Net Income as a Percentage of GAAP Net Income:	Panel A: Total Index						Panel B: Amortization					
	2004	2003	2002	2001	2000	1999	2004	2003	2002	2001	2000	1999
−50% or more	1	1	0	4	3	8	0	0	0	0	0	0
Between −25% and −50%	2	1	3	1	6	4	0	0	0	0	0	0
Between −25% and −10%	0	1	2	1	4	4	0	0	0	0	0	0
Between −10% and −1%	3	1	3	1	2	0	0	0	0	0	0	0
Between +1% and +5%	1	2	2	4	7	9	1	8	18	12	17	15
Between +5 and +10%	0	0	6	2	7	6	2	3	12	13	11	9
Between +10% and +25%	5	5	11	17	24	22	7	8	14	34	38	12
Between +25% and +50%	5	12	30	26	46	33	8	9	4	18	26	15
Between +50% and +75%	2	6	9	25	35	15	2	5	3	8	11	6
Between +75% and +100%	5	6	19	45	32	13	2	0	1	2	11	4
Over +100%	14	16	25	40	66	27	9	7	7	13	16	7
Total	38	51	110	166	232	141	31	40	59	100	130	68
Mean index	2.93	3.43	2.57	1.85	2.97	2.34	2.30	3.48	2.15	1.49	2.03	2.23
Median index	1.74	1.55	1.48	1.77	1.63	1.39	1.40	1.28	1.10	1.24	1.26	1.24

Table 4. *(Continued)*

Adjustment of GAAP Net Income as a Percentage of GAAP Net Income:	Panel C: Non-Cash Compensation						Panel D: Restructuring					
	2004	2003	2002	2001	2000	1999	2004	2003	2002	2001	2000	1999
−50% or more	0	0	0	0	0	0	1	1	0	0	0	0
Between −25% and −50%	0	0	0	0	0	0	0	0	0	0	1	0
Between −25% and −10%	0	0	0	0	0	0	0	1	0	1	0	0
Between −10% and −1%	0	0	6	1	2	0	1	2	2	1	5	2
Between +1% and +5%	13	8	22	37	23	16	5	5	14	22	19	5
Between +5% and +10%	4	5	6	12	16	9	1	1	7	15	6	2
Between +10% and +25%	1	5	12	19	33	7	1	6	22	28	13	5
Between +25% and +50%	3	2	3	10	22	11	1	3	7	16	10	4
Between +50% and +75%	1	6	1	5	7	3	3	2	3	4	3	1
Between +75% and +100%	0	3	2	2	0	3	2	2	1	1	1	1
Over 100%	3	1	3	4	6	4	3	3	6	8	6	9
Total	25	30	55	90	109	53	18	26	62	96	64	29
Mean index	2.04	1.22	1.20	1.20	1.93	1.36	2.80	1.31	1.43	1.30	2.81	1.83
Median index	1.05	1.12	1.06	1.07	1.14	1.15	1.21	1.15	1.18	1.12	1.14	1.34

Adjustment of GAAP Net Income as a Percentage of GAAP Net Income:	Panel E: In-process R&D						Panel F: Impairment					
	2004	2003	2002	2001	2000	1999	2004	2003	2002	2001	2000	1999
−50% or more	0	0	0	0	0	0	0	1	0	0	0	0
Between −25% and −50%	0	0	0	0	0	0	0	0	0	0	0	0

Between −25% and −10%	0	0	0	0	0	0	0	0	0	0	0	0
Between −10% and −1%	0	0	1	0	0	1	1	0	0	0	0	0
Between +1% and +5%	2	3	6	9	18	6	1	2	6	7	1	2
Between +5% and +10%	2	1	1	6	4	3	4	1	4	3	7	0
Between +10% and +25%	3	2	3	6	13	7	1	2	13	13	7	0
Between +25% and +50%	4	4	5	5	10	2	0	3	11	16	11	2
Between +50% and +75%	1	0	1	1	2	0	0	1	5	15	8	1
Between +75% and +100%	0	0	2	1	2	1	0	1	6	4	3	0
Over 100%	1	0	1	1	7	0	0	1	2	8	5	2
Total	13	10	20	29	56	20	7	12	47	66	42	7
Mean Index	1.33	1.21	1.35	1.20	1.99	1.82	1.07	1.06	1.36	1.52	1.65	1.74
Median Index	1.19	1.18	1.21	1.10	1.14	1.11	1.08	1.30	1.26	1.43	1.39	1.39

Note:

1. Calculation of total index:

$$\text{Total index} = 1 - \frac{\text{Net Income}_{\text{GAAP}} - \text{Net Income}_{\text{ProForma}}}{|\text{Net Income}_{\text{GAAP}}|}$$

2. Calculation of index for individual adjustments

$$\text{Partical adjustment index } = 1 - \frac{\text{Partical Adjustment}}{|\text{Net Income}_{\text{GAAP}}|}$$

were comprised totally of goodwill write-downs. Impairment losses are further discussed in the next subsection.

The findings also reveal frequent adjustments for non-cash compensation (Table 4, Panel C). These charges represent the limited compensation expense associated with stock option plans reported in GAAP earnings under the original version of SFAS 123, *Accounting for Stock Based Compensation*. In 2001, for 52 of the 90 companies making pro forma adjustments for non-cash compensation, the result was a material increase in income utilizing the five percent rule of thumb. This adjustment more than doubled GAAP income of four companies. The decline of adjustments for non-cash compensation in 2002 is primarily due to 11 companies reporting such adjustments in the past being dropped from the sample due to an acquisition and 20 companies that previously reported such adjustments electing not to disclose pro forma income in 2002. A significant percentage of companies disclosing pro forma earnings in 2003 and 2004 made an adjustment for non-cash compensation (59% and 66%, respectively). These adjustments resulted in an increase in net income of more than 5% for 73% and 48% of the companies in 2003 and 2004, respectively.

Our findings reveal that in addition to not applying the methodology recommended in the original version of SFAS 123, whereby the fair value of equity instruments issued to employees is recognized in income, companies were also inappropriately "signaling" to investors that the charges expensed under the alternative methodology are "unusual" or "non-recurring" by eliminating these charges in pro forma releases. With SFAS 123 Revised requiring expense recognition for share-based compensation for periods beginning after June 15, 2005, future pro forma earnings may include more frequent adjustments for non-cash compensation and the magnitude of these adjustments will likely increase substantially.

Our findings regarding pro forma adjustments for amortization/depreciation and non-cash compensation in 2003 and 2004 press releases pose an interesting question. On June 13, 2003 the SEC (2003b) Division of Corporation Finance issued answers to frequently asked questions regarding non-GAAP financial measures. In response to queries regarding "recurring" items, the SEC staff responded:

> Companies should never use a non-GAAP financial measure in an attempt to smooth earnings. Further, while there is no *per se* prohibition against removing a recurring item, companies must meet the burden of demonstrating the usefulness of any measure that excludes recurring items, especially if the non-GAAP financial measure is used to evaluate performance.

To "justify" disclosure of non-GAAP financial measures, very few companies referred to specific adjustments in their 2003 and 2004 press releases.

Adjustments for "Non-Recurring" Charges

The findings reveal that pro forma income frequently includes adjustments for in-process R&D, restructuring, and impairment charges. The SEC has repeatedly expressed concern that some companies utilize in-process R&D and restructuring charges to manage earnings (e.g. Levitt, 1998). By inappropriately inflating these charges, undisclosed losses and bungled projects can be "smuggled past unwary investors under the camouflage of labels like unusual or isolated" (Bayless, 2000). Our findings highlight that a company's "signal" that in-process R&D and restructuring charges are "unusual" or "isolated" is often reinforced by reversing these charges when reporting pro forma income. Given the frequency of pro forma adjustments for in-process R&D and restructuring charges, it is highly questionable as to whether these charges are unusual or non-recurring.

Following issuance of Reg G, adjustments for restructuring continued for approximately half of the companies disclosing pro forma earnings (Table 4, Panel D). Reg G prohibits companies from presenting non-GAAP performance measures that eliminate or smooth items identified as non-recurring, infrequent, or unusual when charges of this nature are reasonably likely to recur within two years or if there was a similar charge within the prior two years in their SEC filings. However, this prohibition does not apply to SEC furnishings. Under the revised rules, Item 12 of the expanded Form 8-K requires domestic registrants to "furnish" the SEC with all releases or announcements disclosing material non-public financial information about the completed annual or quarterly period. Furnishing the information enables companies to avoid the prohibitions on filings. Thus, any non-GAAP financial measure is acceptable in a release issued after March 28, 2003 as long as it is not "misleading" and is reconciled to the most directly comparable GAAP measure.

Our findings indicate that following issuance of Reg G, several companies persisted with reporting non-GAAP financial measures adjusted for restructuring charges and impairments. In 2002 announcements, 42 companies included restructuring adjustments even though restructuring adjustments were also included in either the 2000 or 2001 release. Indeed, 13 reported restructuring adjustments in all three years, and five reported restructuring adjustments in each of the four years between 1999 and 2002. In the 2004 announcements, 18 companies made restructuring adjustments. Three companies had adjusted for restructuring in all six years; four companies made restructuring adjustments in five years; and two companies made the adjustment in four years.

The findings regarding impairment charges are similar. Year-end pro formas for 2002 included impairment adjustments for 24 companies that also reported similar adjustments in 2000 or 2001. In their 2003 and 2004 releases, only 12 and seven companies, respectively, disclosed pro forma adjustments for impairment; six of these had also made adjustments for impairment in either 2001 or 2002.

Our findings regarding restructuring and impairment in 2003 and 2004 raise concern given that in the June 2003 release discussed above, the SEC staff state:

> If there is a past pattern of restructuring charges, no articulated demonstration that such charges will not continue and no other unusual reason that a company can substantiate to identify the special nature of the restructuring charges, it would be difficult for a company to meet the burden of disclosing why such a non-GAAP financial measure is useful to investors. In such circumstances, Item 10(e) of Regulation S-K would not permit the use of the non-GAAP financial measure.

A review of the "rationales" provided by the companies that made restructuring adjustments in 2003 and/or 2004 press releases that also made similar adjustments in prior years revealed than none specifically addressed repeatedly making such adjustments.

Rationale for Adjustments

SK amendments for non-GAAP measures filed with the SEC require a statement disclosing the reasons management believes presentation of the non-GAAP financial measure provides useful information to investors regarding the company's financial condition and results of operations. Although not required for press releases, of the 51 companies providing pro forma earnings in 2003, all but seven (24%) provided a rationale for their disclosure of non-GAAP measures. For companies providing a rationale, the most commonly occurring themes included: better measure of operations or more indicative of core business results (24, 55%), useful to investors and/or other users (16, 36%), used by management (25, 57%), and improves consistency and/or comparability (16, 36%).

DISCUSSION AND CONCLUSIONS

This study builds on prior research examining pro forma disclosures. For 1999 through 2004, this research examines the size, characteristics, and reasons for pro forma adjustments to net income. Our longitudinal study enables us to also ascertain the impact of the SEC's December 2001 warning on 2001 and 2002 earnings announcements and address the impact of Reg G on 2002, 2003, and 2004 announcements.

The findings reveal that a large number of U.S. public companies continued to report pro forma results through year-end 2002, primarily in the Computer and Data Processing Services and Communications Equipment and Electronic Components industries. However, the findings reveal that SEC action in recent years prompted a significant number of these companies to discontinue the practice of including non-GAAP financial measures in 2003 and 2004 earnings announcements. Within our sample of companies reporting "pro forma" earnings in 2000, 15 percent elected not to include a similar measure in their 2001 earnings release. By 2002, more than one-third decided to omit non-GAAP income measures from their earnings announcement. Indeed, when quizzed by analysts during a 2002 earnings conference call one sample company stated "given the new rules from the SEC, we have slowed down showing" certain non-GAAP measures (FD Wire, 2003). "It seems … every day the rules change on what you can say. Even using the word 'pro forma,' we're backing away from that." By 2003, almost two-thirds of the sample companies elected not to include a pro forma income measure in their earnings announcements. Hence, in line with expectations, Reg G has greatly curtailed disclosure of pro forma income measures.

For 1999, 2000, and 2001, the overall increase in mean pro forma net income compared to GAAP net income was 133.8%, 197.0%, and 85.4%, respectively. These differences are significant overall and with very few exceptions for each of the most frequently occurring types of adjustments, notably amortization/depreciation, non-cash compensation, restructuring, in-process R&D, and impairment. The materiality of the differences is also strongly supported as the vast majority of pro forma adjustments fall in the category of 5% or more relative to GAAP net income.

While a considerable number of companies discontinued the disclosure of non-GAAP income measures in 2002, the adjustments made by the remaining companies continued to introduce a significant upward bias. For 2002, the overall increase in mean pro forma net income compared to GAAP net income was 156.9%. The difference was significant overall and for each of the most frequently occurring types of adjustments.

With Reg G mandatory in 2003 and 2004, disclosure of pro forma income measures was significantly curtailed. However, for companies continuing the practice, the adjustments on average again introduced an upward bias.

The overall increase in mean pro forma net income compared to GAAP net income was 243.4% and 193.1% in 2003 and 2004, respectively. The median impact in 2003 and 2004 was an increase of 55% and 73.7%, respectively.

In December 2001, the SEC recommended that any public statement of non-GAAP information should disclose in plain English deviations from GAAP and the amounts involved. Our findings reveal greater transparency in 2001, but indicate there was still room for improvement. For 41% of the companies, the reader of the press release had to review the accompanying income statement to ascertain the amount of each pro forma adjustment. For one company, the reader had to access the 10-K to determine the amount of each pro forma adjustment, as the press release did not include a GAAP income statement.

Our analysis reveals that the vast majority of companies voluntarily complied with Reg G prior to its effective date. In 2002 earnings releases, over 90% provided a complete explanation of both the nature and amount of each pro forma adjustment, and approximately three out of four provided this information in reconciliation form. With Reg G effective for 2003, all companies providing non-GAAP income measures included an explanation of the nature and amount of each adjustment in reconciliation form. These findings suggest that, while the December 2001 SEC warning was sufficient for most companies, Reg G was necessary to ensure that the remaining companies provide pro forma information in a transparent, user-friendly reconciliation.

Prior research provides some evidence that pro forma data, which analysts and other investors view as value relevant, may lead to misinformed investment decisions. In light of our findings, future research should examine pro forma disclosures post Reg G to ascertain whether pro forma measures backing out recurring items, such as amortization/depreciation and non-cash compensation, and year-after-year repeatedly backed out charges that some may interpret as "non-recurring," such as restructuring, are misleading analysts and investors. Evidence to this effect would suggest that the SEC should extend all the requirements of Reg G to SEC furnishings, as well as SEC filings.

NOTES

1. The cut-off date of April 5 was chosen because publicly traded companies with calendar year-ends are required to file Form 10-K with the SEC by March 31.
2. Companies reporting pro forma adjustments related to an IPO "as if" the IPO occurred at the beginning of the year were eliminated from the sample. See Table 1.

3. Companies ceasing to exist due to mergers and acquisitions, bankruptcy, and delistings.

4. An industry analysis of the sample companies indicates they are primarily from the Computer and Data Processing Services industry (SIC 7300's – 117 observations in 2000).

5. Companies accounting for stock option plans under the original version of SFAS 123 recognized some compensation expense in the income statement over the vesting period. Several sample companies reversed this GAAP requirement in their pro formas.

6. For a majority of companies, the tax pro forma adjustment represents the tax effect of the remaining pro forma adjustments. Accordingly, no additional discussion of these adjustments is merited in the paper.

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FEDERAL SECURITIES LITIGATION UPDATE

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ABSTRACT

This paper reports on a review of recent federal securities court decisions that relate to accountant's liability issues. The review covers litigation arising under the Securities Act of 1933 as well as the Securities and Exchange Act of 1934 with heavy emphasis on the Private Securities Litigation Reform Act (PSLRA) of 1995, which amended both the 1933 and 1934 Acts. Regarding the 1933 Act, emphasis is given to the question of whether aftermarket purchasers can sue under Section 11. The issue was apparently settled when the Eighth Circuit Court of Appeals ruled that aftermarket purchasers can sue if they can "directly trace" their securities to the deficient registration statement. Regarding the 1934 Act, the paper analyzes recent court interpretations of the PSLRA and their potential impact on accountants. The paper stresses two important trends resulting from the PSLRA: (1) that plaintiff allegations of the defendant's motive and opportunity alone are usually not enough to allow a suit to survive the pleading stage, and (2) that plaintiffs must avoid generalized charges and cite particular facts that support a strong inference of the defendant's scienter.

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INTRODUCTION

Since the initial securities laws were passed in 1933 and 1934, accountants and other professionals have confronted the possibility of litigation in the federal courts. During the early regulatory period, early 1930s to about 1960, relatively few auditor-related cases arose. The last four decades of the 20th century were much more active from a litigation standpoint and might be referred to as a period of expanded liability. This period is noted for prominent landmark court cases ranging from *Escott v. BarChris Construction Corporation* (*Escott*, 1968) to *Reves v. Ernst & Young* (*Reves*, 1993). Reacting to a wave of frivolous lawsuits, Congress, in 1995, passed the Private Securities Litigation Reform Act (PSLRA) and enacted the Securities Litigation Uniform Standards Act in 1998. Most recently in 2002, Congress passed the controversial Sarbanes–Oxley Act, which amended the Securities Acts of 1933 and the Securities and Exchange Act of 1934 and significantly increased the responsibilities of directors, officers, accountants, and auditors.

Accountants and auditors must stay abreast of court interpretations of these laws, and the purpose of this paper is to survey recent federal securities court decisions and assess their impact on the accounting profession. While the paper does not analyze Sarbanes–Oxley, it does address such key issues as whether aftermarket purchasers can sue under Section 11 of the Securities Act of 1933, and the nature of plaintiff allegations that will survive a defendant's motion to dismiss at the pleading stage for federal securities cases. The discussion will begin with litigation arising under the Securities Act of 1933; however, due to a paucity of recent cases dealing with the 1933 Act, most of the paper will cover litigation arising under the Securities and Exchange Act of 1934. Most of the recent, important cases have arisen under Section 10(b) of the 1934 Act.

SECURITIES ACT OF 1933

When discussing the 1933 Act, Section 11 has always received primary attention because of the heavy burden of proof that it places on the auditor. In 1968, an international public accounting firm was faced with the task of proving that its professionals had used reasonable care in performing an S-1 review. In reviewing the firm's "audit" program, the judge held that the program was acceptable, but ruled that the execution of the program was deficient. This case is deemed significant partly because it is one of the earliest examples of a nonauditing expert determining whether professional auditing standards were upheld (*Escott*, 1968).

Congress intended the 1933 Act to protect investors who purchased securities that were issued in an initial distribution. Thus, any purchaser of securities issued under the Act could bring suit if the firm's registration statement was false or misleading. The question of who "any purchaser" might encompass has been the subject of disagreement during the late 1990s. Some courts have held that "any purchaser" is restricted to parties purchasing the securities from the initial public offering and thereby excluding purchasers in the aftermarket. Other courts have held that aftermarket purchasers can sue if they can directly trace their securities to the registration statement that was false or misleading. See Table 1 for a listing of recent cases that deal with the "right to sue" issue.

The reason for the diverging viewpoints can be traced to the *Gustafson* (1995) decision in which the US Supreme Court held that aftermarket purchasers of securities did not have a claim under Section 12 of the 1933 Act.

Table 1. Recent Case Holdings Regarding the Right to Sue under the Securities Act of 1933.

Case Name	Reference	Holding
Gustafson v. Alloyd Co. (1995)	115 S.Ct. 1061	Aftermarket purchasers cannot bring suit under Section 12(2) of the 1933 Act
Gannon v. Continental Insurance Co. (1996)	920 F.Supp. 566 D. NJ	Section 11 plaintiffs are restricted to those who purchased securities pursuant to an initial public offering
In re WRT Energy Securities Litigation (1997)	Lexis 14009 D. NY	Plaintiffs standing under Section 11 are limited to those who purchase their securities in a public offering
Hertzberg v. Dignity Partners, Inc. (1999)	191 F.3d 1076 U.S. Ninth Circuit Court of Appeals	Aftermarket purchasers can sue under Section 11
Joseph v. Wiles (2000)	223 F.3d 155 U.S. Tenth Circuit Court of Appeals	Aftermarket purchasers can sue under Section 11 if they can trace their securities to the registration statement alleged to be defective
Lee et al. v. Ernst & Young, Summit Medical Systems, Inc. (2002)	LLP 294 F.3d 969 U.S. Eighth Circuit Court of Appeals	Due to the broad scope of Section 11, aftermarket purchasers can sue if they can trace their purchased security to the deficient registration statement

Since the Court did not directly address Section 11, the question then arose as to whether the *Gustafson* holding could be extended to Section 11 of the 1933 Act. In 1997, certain shareholders of Summit Medical Systems, Inc. sued Summit's officers, directors, and independent auditors after the firm disclosed its premature recognition of revenue that resulted in a false and misleading registration statement. Since only two of the plaintiffs could prove that they purchased securities issued in the initial distribution, a Minnesota district court (*In re Summit*, 1998), citing *Gustafson*, ruled that the other plaintiffs who had purchased the securities in the aftermarket had no right to sue under Section 11. The Court acknowledged that the *Gustafson* ruling pertained to Section 12, but concluded that it was "difficult to conceive that the United States Supreme Court has found a distinction in one section of a 60-year-old regulatory act, and would find the same distinction inapplicable to the prior section."

Upon appeal to the Eighth Circuit Court of Appeals, the Appeals Court considered the key issue; namely, can aftermarket purchasers sue under Section 11? After studying *Gustafson*, the Court ruled that while Section 12 required privity between the issuer and the purchaser (as when a seller sold a security by means of a prospectus or oral communication), there was no such requirement under Section 11. Interpreting Section 12 to have a narrower scope than Section 11, the Court held that aftermarket purchasers may sue if they can "directly trace" their securities to the deficient registration statement (*Lee*, 2002).

The *Lee* decision obviously increases the potential liability of auditors. Instead of facing a smaller group of potential litigants, those who purchased securities in the initial distribution, auditors must confront the risk of lawsuits from aftermarket purchasers who can prove that the purchased security was originally issued under the defective registration statement. This wider liability exposure would only be curtailed by Section 11's statue of limitations.

SECURITIES AND EXCHANGE ACT OF 1934

One of the significant trends during the last part of the 20th century was the increasing amount of securities litigation brought against firms and their representatives under Section 10(b) of the Securities and Exchange Act of 1934. Many of these suits encompassed frivolous claims that sought recovery of losses for bad investment decisions. For example, a company might make a disappointing earnings announcement, causing the price of the stock to fall, and stockholders would sue, claiming intent to defraud investors.

In 1995, Congress attempted to address the problem by amending the 1934 Act through passage of the PSLRA. Congress's intent was to reduce the burden from frivolous lawsuits by strengthening requirements to allege fraud at the pleading stage of the case. While the PSLRA did not change scienter requirements or the definition of scienter itself, it heightened pleading requirements in two ways. First, plaintiffs were required to plead their allegations with greater "particularity," and second, a more stringent "strong inference of recklessness" standard was adopted that closely resembled the tough standard used by the Second Circuit Court of Appeals. (*Note:* In 1995, the Second Circuit was widely considered to have the toughest pleading standard of any of the circuit courts.)

The PSLRA requires that a plaintiff alleging scienter under Section 10(b) of the 1934 Act specify in the pleadings

- Each statement alleged to be misleading
- The reason why the statement is misleading
- Where the allegation is made on "information and belief," state with particularity all facts on which the belief is formed.

The Act further states that

> In any private action arising under this chapter in which the plaintiff may recover money damages only on proof that the defendant acted with a particular state of mind, the complaint shall, with respect to each act or omission alleged to violate this chapter, state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind (*PSLRA*, 1995).

While the Act does not define the required state of mind, the Ninth Circuit Court held that scienter is the state of mind intended (*Janas*, 1999). Congress's new requirement that the facts be stated with particularity mandates that specific circumstances be specified in the pleading:

- The statements that the plaintiff contends are fraudulent
- Identity of the party making the statements
- Where and when the statements were made
- An explanation of why the statements were fraudulent.

Since the PSLRA was passed, almost all of the circuit courts have dismissed cases where the plaintiff stated generalized allegations that failed to address the above circumstances. In many cases, plaintiffs will plead auditor recklessness as a result of failure to detect fraud in situations where the auditors had access to client documentation throughout the year. The plaintiff's allegation can usually be summarized as follows: the audit experts should have been aware of the risks of fraud, knew that shareholders were relying on the experts to find material fraud, and yet failed to examine available evidence that would have enabled them to discover the fraud. Some courts have ruled that this broad charge does not meet the particularity test. In *Kennilworth Partners L.P. v. Cendant Corp.* (1999), the plaintiffs argued that "E & Y personnel were frequently present at … corporate headquarters … and had continual access to … financial, operating, and business information." After considering this allegation, the New Jersey district court concluded that this statement applied to auditors of any corporation and "If it were sufficient to plead scienter, it might make every auditor liable in cases of securities fraud." In addition, the Ninth Circuit concluded that mere access to an issuer's documents does not shed light on the mental state of the auditor (*DSAM*, 2002). Similarly, a Massachusetts district court ruled that access to corporate documentation was not enough to establish scienter (*In re Stone*, 2003).

However, not all courts have rejected the "access" argument. For example, a recent WorldCom ruling denied Arthur Andersen's move for dismissal as the New York district court concluded that "Andersen had unlimited access to WorldCom's books and records and had … an obligation to review and evaluate those records … . Had Andersen reviewed … accounting systems and data, as it was obligated to do, it would have discovered the … fraudulent accounting treatment" (*In re Worldcom*, 2003). To provide the reader with a better understanding of the required nature of the scienter charges, Table 2 contains examples of allegations that have met or failed to meet the PSLRA's particularity test.

In addition to sharpening the specificity of pleading requirements, Congress also required that the plaintiff's allegations must support a "strong" inference of fraudulent intent or recklessness. Before the PSLRA was passed, several circuit courts allowed cases to proceed past the pleading stage as long as a "reasonable" inference of fraud was shown. The Second Circuit, however, was already using a strong inference standard and allowed the plaintiff to meet this higher standard in one of the two ways:

- by alleging facts to show that the defendant had both motive and opportunity to commit fraud, or
- by alleging facts that constituted strong circumstantial evidence of conscious behavior or recklessness.

Regarding the first method, motive is defined as the benefit that one can obtain by making false or misleading statements or by providing inadequate

Table 2. Plaintiff Allegations and the Particularity Test.

Allegation	Court Conclusion	Case Reference
Defendants deliberately misled investors by making positive statements in quarterly reports concerning growth and earnings momentum; defendants must have been aware of impending losses due to their positions in the company	Inadequate allegation. A pleading of scienter may not rest on a bare inference that a defendant must have had knowledge of the facts; plaintiff must plead specific facts to support an inference of actual knowledge	*In re Advanta Corp.* 180 F.3d 525 (June 1999)
Defendants artificially inflated the price of firm's stock by recklessly signing reports representing that the firm had achieved profitability and consecutive profit increases despite warning signals to the contrary	Adequate allegation. Red flags arising from internal documentation (citing lack of vertical accountability amongst staff) and warnings of external auditors (citing irregularities in customer credits and inadequate systems for dealing with obsolete inventory) cannot be ignored by those who sign reports containing fraudulent financial statements; where alarm signals exist, those signing reports must take further steps to ensure accuracy of data	*Howard v. Everex Systems, Inc.*, 228 F.3d 1057 (September 2000)
Defendants failed to disclose fraudulent sales schemes (shipments to nonexistent buyers) and other questionable sales practices such as channel stuffing that compressed sales into the final weeks of a fiscal quarter with the intention of "cosmetically" improving the reported results	Inadequate allegation. General allegations of GAAP violations do not support scienter (must cite specific facts such as amounts of revenue overstatement, products involved, dates of false transactions, and customer identities); channel stuffing does not support a strong inference of scienter since there may be legitimate reasons for attempting to achieve sales earlier	*Greebel v. FTP Software, Inc.*, 194 F.3d 185 (October 1999)
Defendants engaged in a scheme to defraud by knowingly or recklessly disregarding errors in revenue recognition by a foreign subsidiary (improperly recognized revenue for conditional sales where side letter agreements gave customers the right to return the products under specific circumstances)	Inadequate allegation. The failure to follow GAAP is, by itself, not sufficient to state a securities fraud claim without citing specific facts to show that defendants knew or could have known of the errors; plaintiffs cited no red flags that should have alerted defendants to the errors; a court should not presume recklessness or intentional misconduct for a parent corporation's reliance on its subsidiary's internal controls	*In re Comshare, Incorporated Securities Litigation*, 183 F.3d 542 (July 1999)

Table 2. (*Continued*)

Allegation	Court Conclusion	Case Reference
Defendants made false and misleading public statements regarding obsolete inventory (stating that the inventory was "in good shape," at "reasonable levels," and "no unusual markdowns were anticipated") and violated GAAP by considering, but failing to take proper markdowns on such inventory despite having access to weekly reports that distinguished between the regular inventory and the growing problem of older "box and hold" inventory	Adequate allegation. The plaintiff states facts with particularity that give rise to a strong inference of scienter; the complaint is supported by identified documentary sources (Form 10-Q) as well as statements from former company employees	*Novak v. Kasaks*, 216 F.3d 300 (June 2000)
Defendants either knew or recklessly disregarded a material discrepancy between loan prepayment assumptions and actual experience causing a material overstatement of assets and profits as reported to shareholders. The firm's accountants continued to use the unrealistic prepayment assumptions even though they were informed of the actual prepayment rates on a monthly basis	Adequate allegation. The investors pleaded facts with particularity alleging that the defendants were informed of the actual prepayment rates on a monthly basis and citing SEC filings which stated that the prepayment experience was reviewed quarterly, thus indicating that the defendants knew that the assumptions deviated from actual experience; these alleged facts give rise to a strong inference of fraud	*Florida State Board of Administration v. Green Tree Financial Corporation*, 270 F.3d 645 (October 2001)
Auditors knew of red flags that should have alerted them to the possibility of fraud, ignored the warning signals, yet certified that they followed generally accepted auditing standards and concluded that Enron's financial statements complied with generally accepted accounting standards	Adequate allegation. Plaintiffs cited red flags such as complex organizational structures listed in auditing standards and identified how, when, and why auditors knew of the presence of these warning signs; i.e., auditors had structured many of the special purpose entities used to hide liabilities; plaintiffs identified emails and teleconference meetings where auditors expressed concerns about these questionable transactions	*In re Enron Corporation Securities*, 235 F.Supp. 2d 549 (December 2002)

disclosure. Opportunity encompasses the means and prospects of achieving those benefits (*Novak*, 2000). For example, a plaintiff might allege that the company CFO failed to classify all liabilities properly in the 10-Q filing because, had he done so, a current ratio provision in the loan agreement would be violated, thus giving the bank the right to call the loan; i.e., the motive was the need to avoid having the loan called and the opportunity was the control over the financial presentation which could trigger the loan call.

Most circuit courts hold that motive and opportunity, standing alone, are never enough to permit the case to proceed but may be important in the total mix of evidence that is available to support scienter. This approach generally holds that motive and opportunity are important, but normally will not, by itself, suffice to meet the heightened pleading standards of the PSLRA. Table 3 summarizes the position of several of the circuit courts regarding the motive and opportunity issue.

The motive and opportunity issue is critical to accountants since it opens a possible door to fraud charges by allowing plaintiffs to simply argue that the accountants stood to gain by maintaining the stock price, and their presentation of financial information in the annual report provided the opportunity to mislead investors. In arguing against the motive and opportunity standard, the Eleventh Circuit Court stated that "greed is a ubiquitous motive" and upper management always has the opportunity to lie and manipulate (*Bryant*, 1999).

The Second Circuit Court, recognizing the burden, reduced defendants' exposure by holding that plaintiffs could not proceed by alleging motives possessed by virtually all corporate insiders. Most courts have strengthened the pleading requirement by ruling that plaintiffs must demonstrate that the defendants benefited in some concrete and personal way from the misleading information. For example, showing that the defendant's withheld information and then benefited from insider trading should meet the "concrete and personal" standard (*Novak*, 2000).

The Eighth Circuit Court ruled that a CEO who was paid 2.5 percent of income before taxes had a "heightened" motive to commit fraud. The Court concluded that three things could usually be said about motive and opportunity allegations (*Florida State*, 2001):

- Motive and opportunity are generally relevant to a fraud case
- Allegations that establish motive and opportunity also strengthen the charge that misrepresentations were known or recklessly made
- Where the plaintiffs cannot show motive and opportunity of any sort, then the other allegations of scienter must be particularly strong.

Table 3. Circuit Court of Appeals Positions on Status of Allegations of Motive and Opportunity to Establish Scienter in the Pleading Stage.

Circuit Court	Position	Key Case	Citation
First	M&O is not enough to permit survival at the pleading stage	*Greebel v. FTP Software, Inc.*	194 F.3d 185, October 1999
Second	Generalized allegations of M&O are insufficient to create strong inference of scienter at the pleading stage; however, particularized allegations of M&O are sufficient to state a claim	*Novak v. Kasaks*	216 F.3d 300, June 2000
Third	Same as Second Circuit	*Advanta Corp.*	180 F.3d 525, June 1999
Fifth	M&O allegations does not of itself automatically mean that the necessary strong inference of scienter is present	*Nathenson v. Zonagen, Inc.*	267 F.3d 400, September 2001
Sixth	While M&O allegations may be relevant to pleading scienter, this alone is not sufficient to demonstrate scienter	*Hoffman v. Comshare, Inc.*	183 F.3d 542, July 1999
Eighth	Agreed with Second Circuit's M&O conclusions and asserted that M&O is normally relevant to a fraud case, especially where a heightened motive is shown; but also cautioned that M&O is not the same as intent	*Florida State Board of Administration v. Green Tree Financial Corporation*	270 F.3d 645, October 2001
Ninth	M&O alone are insufficient to show scienter at the pleading stage	*Howard v. Everex Systems, Inc.*	228 F. 3d 1057, September 2000
Tenth	Allegations of M&O may be important to the total mix of evidence, but are typically not sufficient in themselves to establish a strong inference of scienter	*City of Philadelphia v. Fleming Cos.*	264 F.3d 1245, September 2001
Eleventh	Similar to Sixth Circuit; M&O allegations without more, are not sufficient to demonstrate scienter	*Bryant v. Avado Brands, Inc.*	187 F.3d 1271, September 1999

Thus, where accountants or auditors can refute the charge that they would have benefited from the alleged misstatement, the chances of having the lawsuit dismissed are increased. For example, auditors of small clients with relatively low audit and nonaudit service fees might show that they had little to gain by participating in a client fraud scheme.

Since most of the circuit courts have held that motive and opportunity, alone, are not enough to demonstrate strong inference, plaintiffs will also try to show that the defendants either had conscious knowledge of the misleading statements or were guilty of severe recklessness in not knowing that they were misleading. In the Novak case, the Second Circuit stated that intentional misconduct (conscious knowledge) which encompasses deliberate illegal behavior is more easily identified than recklessness (*Novak*, 2000). For example, insider trading and bribery payments are more obvious than proving that the defendant was guilty of reckless behavior. Nevertheless, our review of recent cases indicates that, in cases involving auditor defendants, plaintiffs normally cite recklessness as the indicator of scienter.

A majority of the circuit courts adhere to the definition of recklessness that contains the following key elements:

- A highly unreasonable omission or misrepresentation
- An extreme departure from standards of ordinary care
- Behavior that presents a danger of misleading buyers or sellers
- The danger of deception is either known to the defendant or so obvious that the person should have been aware of it.

The standard that severe recklessness is sufficient to allege scienter is well established in the court system. The Ninth Circuit has held that the PSLRA requires that "deliberate" recklessness be shown to avoid dismissal at the pleading stage; however, none of the other circuit courts have made this interpretation (*Janas*, 1999). The majority of the circuits have ruled that recklessness stands apart from negligence, even differentiating it from "inexcusable" negligence (*Nathenson*, 2001). The Sixth Circuit concluded that recklessness fell somewhere between negligence and intent (being "akin to conscious disregard"), thus setting it apart from any type of negligence (*Hoffman*, 1999).

The PSLRA is important in that it requires that the plaintiff demonstrate a strong inference of recklessness. *Helwig* (2001) stated that inference strength depended on how closely a conclusion of misconduct followed the plaintiff's allegation and concluded that plaintiffs were entitled only to the most plausible of competing inferences. Thus, if an auditor fails to heed the result of a particular analytical test, while following up on other unusual results, the single oversight might be viewed as ordinary negligence as opposed to extreme recklessness. On the other hand, overlooking numerous red flags might more reasonably be considered as an indication of extreme recklessness.

A reasonable inference of scienter will no longer suffice. In *Hoffman*, the plaintiff charged the Chairman of the Board, CEO, CFO, and other officers in a scheme to defraud by knowingly or recklessly disregarding revenue recognition errors. The Sixth Court held that the plaintiff failed to plead facts that showed the defendant either knew or could have known about the premature recognition of revenue or "that their regular procedures should have alerted them to the errors sooner than they actually did." (*Hoffman*, 1999).

How could the plaintiff have achieved the strong inference requirement? The Court implied that, had the plaintiff been able to cite red flags that should have put the defendant on notice of the errors or given them reason to question the reported revenue, then the outcome could have been different. While the case was dismissed, there is a lesson here for accountants; namely, be vigilant and alert for indicators of misstatements such as unusual changes in month-to-month sales. By ignoring these warning signs, the accountant allows the plaintiff to charge that "you should have questioned and investigated the reported numbers."

Regarding auditors ignoring red flags, the problem for a court is to determine whether the auditor was merely negligent or ignored what would have been an obvious warning signal to other auditors. In a recent decision, the Sixth Circuit stated that courts usually focused on whether the defendant overlooked "multiple, obvious" red flags before drawing an inference that the action was intentional or reckless. In this case, the plaintiffs charged that, in auditing accounts receivable, the auditors had recklessly ignored the fact that the client's net receivables had increased by 14 percent, while its operating revenues increased by only 8 percent. Allegedly, had the auditors considered this important relationship, they would have suspected that the allowance for bad debts was understated. The Court disagreed with the allegation and concluded that "a single year's difference in the ratio of the increase of receivables to operating revenues does not make it 'obvious' to an outside auditor that Internet's receivables reserve was understated" (*PR Diamonds*, 2004).

In cases where nondisclosure is alleged, the Tenth Circuit ruled in City of Philadelphia that a strong inference of scienter can be shown if the plaintiff can demonstrate the following:

- The defendant knew of the potentially material fact
- The defendant knew that failure to reveal the potentially material fact would likely mislead investors.

The Court held that the latter requirement could be satisfied "under a recklessness standard by the defendant's knowledge of a fact that was so obviously material that the defendant must have been aware both of its materiality and that its non-disclosure would likely mislead investors" (*City of Philadelphia*, 2001).

The *City of Philadelphia* case focused on the defendant's failure to disclose a lawsuit against the firm. The plaintiff alleged that the firm's CFO knew of the litigation or was recklessly indifferent to it, and that he had an affirmative duty to keep informed of and to publicly disclose the status of all material litigation against the company. The key question was whether the defendant knew that damages from the suit could be so material that non-disclosure would likely mislead investors.

In analyzing the materiality of a contingent event, the Tenth Circuit made the following points:

- Materiality will depend upon balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event.
- An omitted statement is material only if a reasonable investor would consider it important in deciding whether to buy or sell stock.
- An omitted statement is material if it would have significantly altered the total mix of information available.

In rejecting the plaintiff's pleading, the Court drew heavily on a materiality rule contained in 17 C.F.R. § 229.103; namely, "no information need be given with respect to any proceeding that involves primarily a claim for damages if the amount involved, exclusive of interests and costs, does not exceed 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis." The plaintiff failed to allege that the damage claim from the omitted lawsuit exceeded 10 percent of the firm's current assets and did not include information from which the court could compute the percentage.

The authors note that the Court appeared to ignore, or at least did not mention, the SEC's Staff Accounting Bulletin (SAB) No. 99, which focused heavily on nonquantitative measures of materiality. SAB 99 has been widely discussed in the accounting literature and might have provided the Court with relevant qualitative considerations.

Even if a misstatement is material, the plaintiff must prove that he or she relied on the misstatement and consequently incurred damages as a result. Black's Law Dictionary defines reliance as a belief that motivates an action. Thus, the reliance test hinges on whether the investor believed the misrepresentation and acted on the misleading data, hence incurring a loss. According to the Fifth Circuit Court, plaintiffs generally must prove the following (*Nathenson*, 2001):

- that they knew of the particular misrepresentation;
- that they believed it to be true information;
- that, because of this knowledge and belief, they purchased or sold securities.

However, there may be exceptions to the plaintiff's burden of proof. In the case of an omitted disclosure, proof of reliance is not necessary. Here the omitted information must be shown to be material such that a reasonable investor might have considered it important in making an investment decision.

A second exception occurs in cases involving the fraud on the market theory. This theory assumes that where a security is traded in an efficient market, the market price reflects all publicly available information. Thus, when misleading information is issued, the market price of the related security becomes fraudulently inflated allowing the plaintiff to assert that damages were incurred, not through direct reliance on the misrepresentation, but rather by reliance on the integrity of the market price. Of course, the defendant may be able to refute the fraud on the market theory by showing that the market price was not affected by the alleged misstatement. For example, it is not reasonable to assert that a plaintiff who sold securities short actually relied on the market price since a short seller would be selling on the assumption that the market price did not reflect all available information and, in fact, was overvalued.

CONCLUSIONS

Our study indicates two important points for public accountants. First, those firms with clients who have registered securities with the SEC for initial distributions face increased liability exposure as a result of the Eighth Circuit's holding that purchasers in the aftermarket, who can trace their securities directly to the initial distribution, may sue under Section 11 of the 1933 Act. Second, regarding Section 10(b) of the 1934 Act, it appears that

Congress has been partially successful in restricting frivolous lawsuits against professionals. A majority of the circuit courts have ruled that plaintiffs' allegations of motive and opportunity alone are not enough to allow a case to proceed beyond the pleading stage. Moreover, most courts have held that the PSLRA increased the requirements for scienter allegations at the pleading stage of a lawsuit. In order for a case to survive a motion to dismiss, allegations must state particularities that support a strong inference of scienter; i.e., who was involved, where and when the events took place, and why the defendant's statements were misleading.

Considering these heightened requirements, it would appear that fewer Section 10(b) suits would make it past the pleading stage. However, accountants and auditors must not lower their guard because one recent empirical study indicates that federal securities case dismissal rates have remained statistically unchanged since passage of the PSLRA (Buckberg, Miller, & Foster, 2003). Whether this is due to more rigorous efforts on the part of plaintiffs' attorneys or more critical attitudes on the part of court judges, perhaps due to extraneous events such as corporate scandals, remains a question of debate. While it is uncertain how future trends will be altered as a result of Sarbanes–Oxley and activities of the Public Company Accounting Oversight Board, it is imperative that accounting practitioners stay abreast of court rulings in order to assess and deal with the risk of legal liability.

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ANTECEDENTS AND EXPECTED OUTCOMES OF THE NEW ACCOUNTING REGULATION IN THE EUROPEAN UNION

Sylwia Gornik-Tomaszewski

ABSTRACT

Considering the growing importance of capital markets for corporate financing and operating in the common currency environment, the European Commission developed an ambitious action plan integrating the financial services markets within the European Union (EU). In the area of financial reporting, the action plan proposed an unprecedented approach that all EU-listed companies report under the same accounting framework. Consequently, a new Regulation was approved requiring EU-listed companies to prepare consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) for years beginning on or after January 1, 2005. The objective of this paper is to look back at the accounting harmonization process in the EU leading to this Regulation. The reasons behind the decision to make IFRS compulsory are explored in the broader context of the EU market reforms. The paper also presents a forward look into the implementation issues and implications of the new accounting strategy for the EU and beyond.

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INTRODUCTION

The Treaty of Rome established the European Union (EU) in 1957, with the goal of harmonizing the legal and economic systems of its Member States. With the addition of 10 new Member States in 2004, the EU currently comprises of 25 countries, with a total population of approximately 450 million people.[1]

The EU has been involved in the international harmonization of accounting and financial reporting since the mid-1960s as part of its program of Company Law harmonization. Moreover, it is one of the most active and influential players in the accounting harmonization movement. Its unique position stems from the fact that the European Commission, a politically independent institution representing and upholding the interests of the EU as a whole, has full enforcement powers through legal instruments such as Company Law Directives, which have to be transposed into the law of each Member State, and Regulations, which apply directly in all Member States.[2]

For many years, the European Commission pursued harmonization of accounting and financial reporting within the EU through the so-called Accounting Directives. Because of the options in the Directives and the minimal level of harmonization, national accounting standards across Europe were still very different. During the 1990s, the European authorities realized that the efficiency of EU capital markets was seriously undermined by the lack of comparability between financial statements published by listed companies.

The growing importance of the capital markets for corporate financing and the goal of taking full advantage of the introduction of a common currency, the euro, motivated the Commission to prepare an ambitious action plan for developing an integrated single market in financial services (Commission of the European Communities (EC), 1999). In the area of financial reporting, the action plan proposed that all listed EU companies report under the same accounting framework. Consequently, after complex negotiations but a swift adoption process, the Council of Ministers approved in June 2002 a new accounting Regulation requiring EU-listed companies to prepare consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) for years beginning on or after January 1, 2005. IFRS is a series of pronouncements published by the International Accounting Standards Board (IASB) based in London. The IASB has also adopted the body of standards issued by its predecessor, the International Accounting Standards Committee (IASC).

Those pronouncements were and continue to be designated as International Accounting Standards (IAS).[3] The New Accounting Regulation is referred to as the IAS Regulation.

The common high-quality accounting standards for listed companies are expected to provide such benefits to the EU companies as greater access to capital, and an increase in cross-border listings and investment opportunities. The high cost of parallel reporting (under national standards for domestic authorities and under IFRS or U.S. Generally Accepted Accounting Principles (GAAP) for international investors) will be eliminated or at least significantly reduced. The IFRS should also improve the aptitude of investors to make more informed financial decisions and eliminate confusion arising from different measures of financial performance across countries, thereby leading to a reduced risk for investors and a lower cost of capital for companies. The new rules will expose hidden costs, requiring companies to treat stock options as expenses, book pension obligations as liabilities and record derivatives and other financial instruments at fair value, rather than at historical cost.

At stake is also the cost of raising capital by European companies beyond the EU, particularly in the United States. According to U.S. securities regulation, foreign private issuers may prepare their financial statements using a comprehensive body of accounting standards other than U.S. GAAP. Those issuers who present their financial information in accordance with their national accounting standards or IFRS, however, must reconcile any material differences in their earnings and shareholders' equity to U.S. GAAP results. This requirement is very costly and involves as much work as conversion to a full set of U.S. GAAP statements. Foreign companies listed within the EU, including U.S. companies, are not required to apply IFRS or to reconcile to IFRS. The Europeans believe that just as U.S. companies can be listed in the EU without having to apply or to reconcile to IFRS, EU companies should be allowed to access the U.S. capital market without having to apply or reconcile to U.S. GAAP. The U.S. authorities condition the elimination of the reconciliation requirement on the consistent implementation of IFRS throughout Europe and on the progress of the convergence between IFRS and U.S. GAAP.

The new legislation affects thousands of listed companies and will introduce the biggest changes to financial reporting in Europe in 30 years (Choi, Frost, & Meek, 2002). But it has not eliminated the role of the Accounting Directives. Most companies in the EU are unlisted and it may not be necessary for them to apply complex accounting standards suitable for publicly traded companies.

RESEARCH OBJECTIVE AND METHOD

The purpose of this paper is to review, examine, and interpret the major events and developments in the evolution of the harmonization and, more recently, standardization of accounting in the European Union. The reasons behind the European Commission's decision to make IFRS compulsory for preparation of consolidated financial statements by listed companies are examined in the broader context of the EU market reforms. Anticipated implications of the new accounting strategy for the companies, regulators, and standard-setters in the European Union and beyond, particularly in the United States, are also explored.

The main part of this study is based on a review of archival material. The full population of the Commission's public documents regarding the accounting and financial reporting harmonization, as well as the recent financial market reforms, have been retrieved from the electronic archives of the European Commission and reviewed.[4] Judgment and reviewed literature were used to determine which documents are the most important for understanding the evolving position of the Commission on the financial reporting. These selected documents are discussed in the paper.[5]

A limited empirical part of this study compares data on the voluntary compliance with U.S. GAAP versus IAS among EU companies listed in the United States in 1991 and 2001. This is to provide an evidence of the increasing interest of EU companies in U.S. listings and, consequently, U.S. GAAP. The data are used to underscore the political dilemma, which the European Commission faced during the 1990s. In order to classify reporting practices exercised by European private issuers in 1991, the *Compustat* and *Disclosure* databases were searched for companies incorporated in Europe. The *SEC File*, the microfiche database of corporate annual reports and Securities and Exchange Commission (SEC) documents, was utilized to identify the accounting standards used to prepare the 1991 financial statements (this information was retrieved from the auditor's reports and/or notes to financial statements). To collect similar data for 2001, the automated databases were utilized. First, the list of foreign companies registered and reporting with the SEC was downloaded from the SEC's official website at http://www.sec.gov. Annual reports filed by European companies on Form 20-F[6] were retrieved from two automated databases: EDGAR, for foreign registrants filing electronically; and Thompson Research, for foreign registrants filing on paper.

THE ANTECEDENTS OF THE IAS REGULATION

Background

In a theoretical world of complete and perfect markets, there would be no demand for accounting regulation (Watts & Zimmerman, 1986). In the real world, however, the markets are incomplete and imperfect and the accounting disclosure is an effective way of addressing market imperfections. It has been well recognized that regulation of accounting affects the quality and quantity of financial reporting, which in turn have welfare and policy implications (Fields, Lys, & Vincent, 2001). Acting on this premise, the EU authorities have made a considerable effort to regulate diverse accounting and financial reporting practices throughout Europe.

The accounting practices in the EU were originally harmonized through the Accounting Directives, which provided a basis for the preparation of individual and consolidated accounts of companies operating within the Union. The Fourth Directive of 1978 requires all limited liability companies to prepare annual accounts, which reflect a true and fair view of the their assets, liabilities, financial position, and profit or loss. The annual accounts must be audited and published together with the annual report and the audit report. The Seventh Directive of 1983 requires a parent company to prepare, in addition to its individual accounts, consolidated accounts and a consolidated annual report. These two Directives were followed by two sectorial Directives, which deal with specific financial information that must be disclosed by banks and insurance companies. Financial statements of companies, financial institutions, and insurance undertakings are audited by one or more persons entitled to carry out such audits. The Eighth Directive of 1984 (the Audit Directive) regulates the approval of persons responsible for carrying out the statutory audits in the Member States.

The objective of the Accounting Directives was to achieve comparability and equivalence, rather than uniformity, of financial information (Van Hulle, 1992, 1993). The purpose of requiring comparable financial information was to facilitate cross-border transactions and multiple listings on stock exchanges throughout the Union. To honor different accounting traditions which existed in the Member States, the Directives contain a large number of options as to recognition, valuation and format, for Member States and/or for companies. Comparability between different options was achieved through additional disclosure in the notes to financial statements. Therefore, it was possible to transpose the Directives into the national laws of all the Member States, although not without problems.[7] The impact of the Accounting Directives was undoubtedly significant, converging the methods of presenting, publishing, and auditing financial information of over 2 million companies (Haller, 2002). This approach to accounting harmonization, however, has not provided a satisfactory level of comparability and equivalence between financial statements of EU companies, and a new approach was needed.

The Socio-Economic Factors

The European accounting legislation seemed sufficient until the 1990s. In the 1990s, however, trade and investment liberalization, deregulation and de-monopolization, technological innovation, privatization of large governmental entities in many Member States, and more favorable tax rules contributed to a long period of economic growth. This period was characterized by a steady increase in foreign direct investments and cross-border merger and acquisition activities (OECD, 2000).

In this economic atmosphere, the capital demands of large EU companies outpaced the domestic capital supply provided mostly by the banking sector. To finance their global trade and investment activities, many of these companies increasingly secured capital not only through their domestic equity markets but also in other cross-border EU markets and in the United States.

Fig. 1 compares domestic market capitalization of listed European companies as a percentage of Gross Domestic Product (GDP) in 1995 and 2003. In almost all EU countries, equity market capitalization as a percentage of GDP increased, often significantly. This indicates an increase in the relative importance of equity markets in the national economies of EU countries during the period examined.

The EU companies interested in accessing liquid international capital markets beyond the Union realized that investors demand high-quality financial information useful for decision-making, and they do not accept financial statements prepared on the basis of their national accounting standards derived from the Accounting Directives. Therefore, the companies were forced to succumb to a burdensome and costly requirement of parallel reporting, with a second set of financial statements prepared in accordance with either U.S. GAAP or IAS (Van Hulle, 2004).

Other factors also contributed to the changing conditions of doing business in the European Union. The introduction of the euro facilitated further integration of the European financial markets and reduced transaction costs

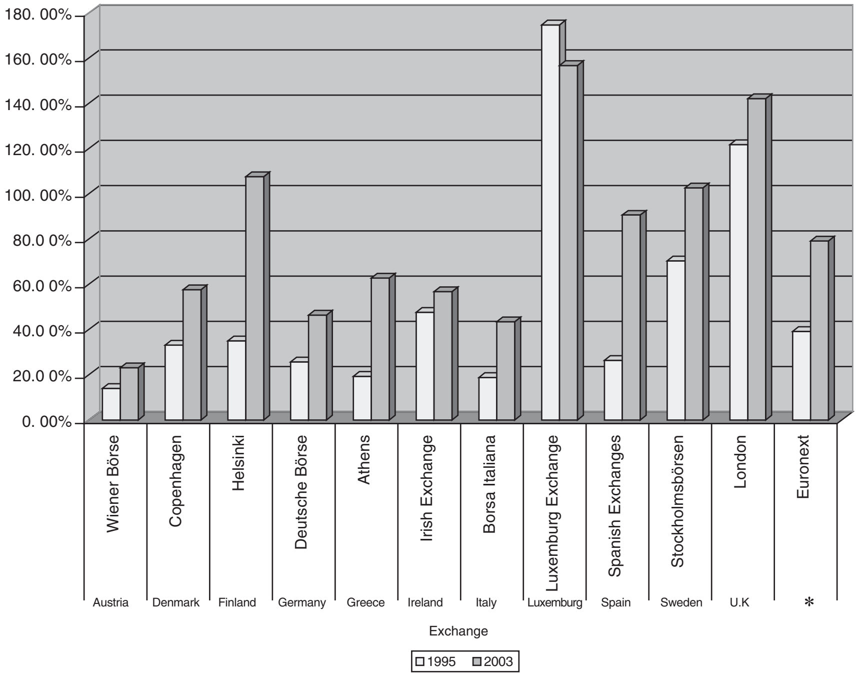

Fig. 1. Comparison of Domestic Market Capitalization of Listed European Companies as a Percentage of Gross Domestic Product (GDP) in 1995 and 2003. *Belgium, France, Netherlands, Portugal. *Sources:* International Federation of Stock Exchanges (IFSE) for the Market Capitalization Data and the International Monetary Fund (IMF) for the GDP Data.

and currency risks. The single currency has created the level playing field necessary for optimum functioning of capital-allocation mechanisms within the European economy. Specifically, introduction of the euro was the catalyst for the modernization of EU securities and derivative markets (EC, 1999). But even after the launch of Monetary Union and the successful introduction of the euro, the EU still lacked a fully integrated, efficient, competitive, and fast and secure financial market.

The traditional world of European stock exchanges, based on domestic monopolies, has changed significantly. Such factors as the privatization of stock exchanges, mergers and alliances between exchanges to secure the economies of scale, internationalization of listing and trading, the emergence of electronic platforms with cross-border access, and a growth of remote membership all contributed to the increased competitiveness of European stock exchanges (Choi et al., 2002).[8]

The growing number of pensioners and the increase in social security benefits created a major problem in many countries, particularly in Germany, France, Spain, and Italy. In response, some countries have liberalized restrictions on pension fund investment, and a growing number of private pension plans have been allocating more of their assets to equity securities (Choi & Meek, 2005).

In addition to a significant growth of institutional investors such as pension funds and mutual funds, the data gathered by the European Central Bank (ECB) show a substantial increase in the importance of securities in the portfolios of euro-area individual investors. Between 1995 and 2002, the share of households with securities investments, including pension funds, rose from 55% to 63%, with a peak of 66% in 2000, despite the adverse equity market developments in 2001 and 2002. Among different savings vehicles, pension funds and mutual funds were the fastest growers, doubling their share from 1995 to 2002. Over the same seven-year period, deposits declined from over 40% to approximately 30% of the total financial assets of euro-area households (European Central Bank (ECB), 2004).

The European authorities have realized that in order to successfully compete with the leading international capital markets, a further integration of the EU financial markets is necessary. In 1998 the Cardiff European Council invited the European Commission to prepare a framework for action to develop a single market in financial services. In response, a year later the Commission presented its Financial Services Action Plan (FSAP), which aimed at the establishment of an integrated market for financial services within the EU (EC, 1999).

The FSAP recommends a single market for financial services across the EU as a whole.[9] It specified 42 legislative and non-legislative measures intended to provide a legal and regulatory environment that supports the integration of EU financial markets. These measures were formulated to achieve three strategic objectives: (1) establishing a single market in wholesale financial services, (2) making retail markets open and secure, and (3) strengthening the rules of prudential supervision. The first strategic objective is particularly important from the perspective of accounting and financial reporting. The Commission, in this plan, specified that in order to create a single wholesale market for financial services, a move toward a single set of accounting standards for listed companies is needed. This solution would give companies the option of raising capital throughout the Union using financial statements prepared on the basis of IAS.

In March 2000, the Lisbon European Council underlined the importance of an integrated, efficient, and transparent capital market for fostering growth and employment within the EU.[10] At the Council, the heads of state and governments of the Member States endorsed the FSAP and decided to set 2005 as the deadline for implementation of its measures.

The socio-economic factors leading to the IAS Regulation as one of the FSAP measures are summarized in Fig. 2.

The Political Factors

Because the process of implementing the Accounting Directives was rather difficult, there was no immediate desire among the Member States to pursue further harmonization through a reduction of the options in the Directives. The continuation of the harmonization process, however, was perceived as necessary simply because many issues had not been addressed by the Directives. Toward this end, the Commission took steps to actively coordinate its efforts with the IASC, an organization setting international accounting standards since 1973. This way the Commission tried to avoid duplication of the harmonization efforts and took advantage of the IASC's more detailed treatment of emerging accounting issues not addressed by the Directives, such as deferred taxes, leases, and pensions. Moreover, the IASC was perceived by many Europeans as a force capable of preventing U.S. GAAP from dominating world accounting (Zeff, 1998a) and as a set of accounting standards which is neutral (Zeff, 1998b). To achieve its objectives, the Commission joined the IASC's Consultative Group and joined the Board as an observer in 1990.

During the same year the Commission decided to set up a new advisory body, the Accounting Advisory Forum, consisting of accounting standard-setting bodies, organizations for the main users and preparers of financial statements, the accounting profession and representatives of academia. The Forum was asked to advise the Commission on technical solutions for problems that had not been dealt within the Accounting Directives, and to provide guidance on the position to be taken by the European Commission in debates on international accounting harmonization (Van Hulle, 2004).

After these initial steps, the European Commission totally aligned itself with the efforts undertaken by the IASC and the International Organization of Securities Commissions (IOSCO) toward international harmonization of accounting standards (Haskins, Ferris, & Selling, 2000). IASCO, an

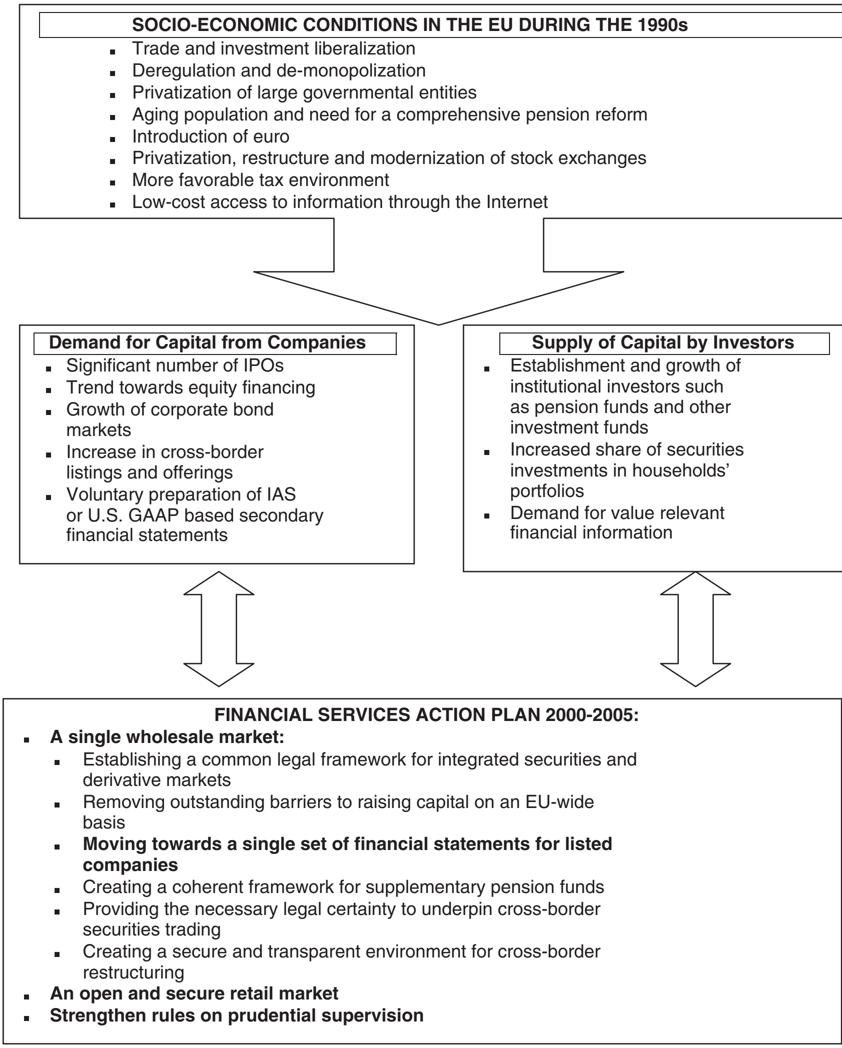

Fig. 2. The Socio-Economic Factors Leading to the Financial Services Action Plan and the IAS Regulation.

international federation of securities regulators, including the U.S. Securities and Exchange Commission (SEC), pushed for the elimination of many options available in the IAS, in order to make them more acceptable in international capital markets. Most significantly, at stake was the possible future elimination of required reconciliation to U.S. GAAP (Zeff, 1998a). The IASC seized the opportunity and in July of 1990 issued a "Statement of Intent on Comparability of Financial Statements," which proposed to eliminate 21 choices in 10 standards. The initiative was called the Comparability and Improvements project.

In 1993 the revision of the 10 standards was completed. IOSCO, however, identified an expanded list of 24 the so-called core standards that should be addressed before any endorsement would be granted. After initial disappointment, the IASC entered into the agreement with IOSCO in 1995 to produce a comprehensive core set of high-quality standards for cross-border listing on securities exchanges. The project was completed in December 1998.[11] The endorsement, however, fell short of expectations. At the annual meeting in May 2000, IOSCO recommended that its members allow companies to use core IAS for cross-border listings and offerings, but at the same time members were still permitted to require reconciliation, call for supplementary information, or eliminate some of the options that existed in IAS (International Organization of Securities Commissions (IOSCO), 2000). Nevertheless, the IAS was significantly improved by this process. The project also dramatically reduced the number of differences between IAS and U.S. GAAP (Casabona & Shoaf, 2002).

The European Commission supported the IASC/IOSCO agreement and the use of IAS by EU multinational companies. In 1995, the Commission announced that it was abandoning consideration of a European accounting standard-setting body, and instead it would support the IASC (1996). This decision led to significantly closer cooperation between the Commission and the IASC. From that point on, the European representatives of the IASC board has met with the Commission's observer to the board prior to each board meeting in order to understand each other's position on the issues to be discussed during these meetings (Zeff, 1998a).

Intense pressure from the international financial markets which were mounting during the 1990s finally led to a major restructuring of the IASC. In 2000, IASC member bodies approved IASC's restructuring program and the IASC Board approved a new Constitution. Trustees brought a new structure into effect and on April 1, 2001 IASB assumed responsibility for setting accounting standards. The IASB, a highly professional organization supported by industry and governments throughout the world, was modeled after the Financial Accounting Standards Board (FASB) in the United States. It was created with a mandate to produce a single set of high-quality, understandable and enforceable IFRS.

The New EU Accounting Harmonization Strategy

The European Commission announced its new position on accounting harmonization within the EU in two important Communications: (1) the 1995 Communication "Accounting Harmonization: A New Strategy vis-à-vis International Harmonization," and (2) the 2000 Communication "EU Financial Reporting Strategy: The Way Forward." The main points of these important documents are discussed next.

The 1995 Communication – Accounting Harmonization: A New Strategy vis-à-vis International Harmonization. The growing importance of capital markets in the beginning of the 1990s prompted the Commission to publish in 1995 a Communication on a new accounting strategy. The Communication indicated that the Commission is willing to go beyond the Accounting Directives and consider a broader international harmonization based on standards rather than law. At that time, the Commission was mostly concerned with a decreasing comparability of accounts among EU companies due to the following facts: (1) the Directives allowed many options, (2) the Directives did not address a number of accounting issues which have become increasingly relevant, and (3) some principles contained in the Directives were interpreted differently in different Member States. These facts led to a situation where the EU Member States had difficulty in identifying a common position and playing an effective role in international accounting harmonization efforts.

The Commission was also concerned that the large EU companies seeking capital on the international capital markets would be increasingly drawn toward U.S. GAAP (EC, 1995, Par. 3.3). The Commission believed that it needed to offer the companies seeking listings on the U.S. and other international capital markets a prospect that they would be able to remain within the EU accounting framework and not be forced to apply U.S. GAAP over which the EU can exercise no influence (EC, 1995, Par. 6).

Under these circumstances, the Commission considered the following possible solutions (EC, 1995, Par. 4):

- Mutual recognition agreement with the United States. Since the financial statements prepared by U.S. companies under U.S. GAAP were already recognized in all Member States, the European Commission was in a weak bargaining position and spurred little interest in the United States for this initiative.
- Exclusion of EU multinationals from the scope of application of the Accounting Directives. This would raise a number of questions as to the

scope of the exclusion and as to the rules which the excluded companies would then be allowed to apply (IAS, U.S. GAAP, or both). Also, it would involve abandoning the homogeneous approach to accounting harmonization
- An update of the Accounting Directives. Directives are implemented by Member States by their incorporation into national law. This solution was non-workable due to difficulties in achieving consensus among Member States.
- Creation of the European Accounting Standards Board. Establishment of the pan-European standard-setting body was discarded because it would be too expensive and time-consuming.
- Adoption of IAS for consolidated reporting by EU multinationals. This option was preferred by the Commission, especially after the IASC/IOSCO agreement.

The Commission recommended adoption of IAS for domestic and foreign reporting purposes by large EU companies seeking capital on international capital markets. Because individual financial statements form the basis for corporate taxation in many Member States, to avoid any significant tax effect, the Commission recommended adoption of IAS for preparation of consolidated financial statements only.

The 2000 Communication – EU Financial Reporting Strategy: The Way Forward. The conclusions of the Lisbon European Council of March 2000 included the priority objective of enhancing the comparability of companies' financial statements. To achieve this objective, transparent, understandable, and enforceable financial reporting standards were required.

In response, in June 2000 the Commission issued a Communication to the Council and the European Parliament entitled "EU Financial Reporting Strategy: The Way Forward." In this Communication, the Commission stated its intention to submit legislation to the European Parliament that would make it mandatory for all EU-listed companies to prepare consolidated financial statements in accordance with IAS. It was expected that this requirement would enter into effect, at the latest, from 2005 onwards (EC, 2000).

The Commission proposed a two-tier endorsement mechanism with political and technical levels. The role of the mechanism is to oversee the adoption of new standards and interpretations to make sure that IAS is in full conformity with the Accounting Directives, and that a suitable basis for financial reporting by listed EU companies is provided. The enforcement infrastructure was also discussed. The Commission stressed the establishment of benchmarks for auditing, the development of professional ethics, and the implementation of effective quality assurance systems.

On the Choice between IAS and U.S. GAAP

As discussed above, during the 1990s large EU companies seeking capital in international financial markets found themselves under pressure to produce value relevant financial information. These "global players" also wanted to better measure and compare their performance with those of their international competitors. Therefore, many companies turned toward internationally accepted accounting standards, either U.S. GAAP or IAS. Since financial statements prepared under national GAAP were also required, many companies had to incur the cost of preparing two sets of financial statements. In some instances, the large number of options under IAS allowed companies to make accounting policy choices to comply with IAS and the national GAAP in one set of statements.

Following the Commission's recommendation in the 1995 Communication, and responding to the demand from companies which wanted to cut costs and eliminate the inefficiencies of parallel reporting, seven Member States (Austria, Belgium, Finland, France, Germany, Italy, and Luxembourg) adopted legislation that allowed listed companies to depart from the national rules on consolidation and to prepare their consolidated financial statements for domestic reporting purposes in accordance with IAS or U.S. GAAP (Van Hulle, 2004).[12] In an interesting development in Germany, the Deutsche Börse AG explicitly required firms listed on the *Neuer Markt* (New Market – a market segment for young technology firms established in 1997) to use IAS or U.S. GAAP in their consolidated financial statements (Glaum & Street, 2003).

While the European Commission was deliberating its new harmonization strategy, some groups advocated a choice between IAS and U.S. GAAP. They argued that many European companies already complied with U.S. GAAP at the time the Regulation was considered. In fact, in 2000 approximately 275 EU-listed companies prepared their consolidated financial statements under IAS and another 300 under U.S. GAAP (IAS Plus, 2001).[13] U.S. GAAP was used mostly by companies listed on the U.S. regulated capital markets and those operating in industries where the IASC has not yet provided an equivalent industry standard (EC, 2000, Par. 31). Both IAS and U.S. GAAP were recognized in the European Union at the time and almost all European stock exchanges accepted financial statements, if presented by foreign issuers, based on either one of these two sets of standards.[14]

The Commission acknowledged that both accounting frameworks provide equivalent levels of investor protection, but underlined numerous practical differences between them. The Commission stated that if the choice was left to market forces, a prolonged period of competition between these sets of standards would neither reduce costs nor increase transparency. It may also jeopardize the 2005 deadline. The Commission also recognized a risk that large European companies may be increasingly drawn toward U.S. GAAP (EC, 1995, Par. 3.3) because of the attractiveness of U.S. capital markets. Once the companies were to incur the cost of reconciling to U.S. GAAP, it was feared they would not seriously consider switching to IASC standards (Zeff, 1998a).[15] Therefore, the choice between IAS and U.S. GAAP would not lead in the direction the European Commission wanted to go, that is in the direction of high-quality *global* accounting standards which are not linked to any specific country (Van Hulle, 2000).

Empirical research confirms preference for U.S. GAAP over IAS among EU companies listed on U.S. regulated markets (Ortiz, 2003; Tarca, 2004). This is totally expected and understandable, as the IAS-based financial statements have not been accepted by the SEC. In addition, as is the case with any other foreign GAAP statements, the financial statements need to be supplemented with the reconciliation to U.S. GAAP. But the IAS has been gaining popularity among European companies over time. Voluntary adoption of IAS was observed, for example, among: (1) EU firms and firms with lower debt to equity ratios (El-Gazzar, Finn, & Jacob, 1999); (2) larger, more internationally diversified Swiss firms with more diffuse ownership and a higher number of foreign listings (Dumontier & Raffournier, 1998; Murphy, 1999); (3) larger European clients of large audit firms (Street & Gray, 2002); and (4) non-U.S. companies traded in the United States on the Over-the-Counter (OTC) market or on the National Association of Securities Dealers Automated Quotation System (NASDAQ), and not subject to the SEC regulation (Tarca, 2004). Ashbaugh's (2001) findings suggest that IAS is a cheaper version of internationally accepted accounting standards available to non-U.S. firms. Finally, Glaum and Street (2003) provided evidence that the average compliance level is significantly lower for companies that apply IAS as compared to companies applying U.S. GAAP.

To provide some evidence on the extent to which adoption of U.S. GAAP and IAS increased during the 1990s among EU companies listed on U.S. regulated markets, data were collected from their annual reports filed with the SEC on Forms 20-F in 1991 and 2001. Table 1 compares compliance

Table 1. Comparison of Compliance with National GAAP, U.S. GAAP, and IAS among European SEC Registrants in 1991 and 2001.

EU Countries	1991							2001						
	Total Firms	National GAAP		U.S. GAAP		IAS		Total Firms	National GAAP		U.S. GAAP		IAS	
		No	%	No	%	No	%		No	%	No	%	No	%
Austria		—	—	—	—	—	—	2	—	—	2	100.0	—	—
Belgium	—	—	—	—	—	—	—	3	1	33.3	2	66.7	—	—
Denmark	1	1	100.0	—	—	—	—	4	2	50.0	2	50.0	—	—
Finland	2	2	100.0	—	—	—	—	8	5	62.5	—	—	3	37.5
France	5	3	60.0	1	20.0	1	20.0	36	23	63.9	13	36.1	—	—
Germany	—	—	—	—	—	—	—	31	5	16.1	23	74.2	3	9.7
Greece	—	—	—	—	—	—	—	5	—	—	5	100.0	—	—
Ireland	3	2	66.7	1	33.3	—	—	17	9	52.9	8	47.1	—	—
Italy	4	3	75.0	—	—	1	25.0	14	12	85.7	2	14.3	—	—
Luxembourg	1	—	—	1	100.0	—	—	10	2	20.0	4	40.0	4	40.0
Netherlands	12	9	75.0	3[a]	25.0	—	—	43	18	41.9	24	55.8	1	2.3
Portugal	1	—	—	—	1	1	100.0	5	5	100.0	—	—	—	—
Spain	6	6	100.0	—	—	—	—	7	7	100.0	—	—	—	—
Sweden	6	6	100.0	—	—	—	—	17	16	94.1	1	5.9	—	—
United Kingdom	48	46	95.8	2[b]	4.2	—	—	144	120	83.3	22[c]	15.3	2	1.4
Total EU	**89**	**78**	**87.6**	**8**	**9.0**	**3**	**3.4**	**346**	**225**	**65.0**	**108**	**31.2**	**13**	**3.8**
Non-EU European Countries	3	1	33.3	2	66.7	—	0.0	32	8	25.0	13	41.9	11	34.4
Total European Countries	**92**	**79**	**85.9**	**10**	**10.9**	**3**	**3.3**	**378**	**233**	**61.6**	**121**	**32.0**	**24**	**6.4**

The annual reports were filed with the SEC on Form 20-F with the following exceptions:
[a]two of the 3 firms filed Form 10-K.
[b]both firms filed Form 10-K.
[c]two of the 22 firms filed Form 10-K.

with national GAAP, U.S. GAAP, and IAS among EU companies listed in the United States in 1991 and 2001. The data are presented per EU Member State. Summary data for the other (non-EU) European companies is also provided.

The data show a significant increase in the number of European SEC registrants. Furthermore, a consistent preference for national accounting standards among these companies is observed. In 1991, 89 EU (92 European) companies were registered in the United States with 87.6% (85.9%) of them following their national GAAP in their consolidated financial statements. The IAS had little recognition back then, with only 3 EU companies preparing IAS-based financial statements. Similarly, only 8 EU (10 European) companies opted for application of U.S. GAAP.

Ten years later, the number of EU (European) companies registered with the SEC increased about four times, to 346 (378). During these 10 years, significant developments in international accounting harmonization took place, such as the IASC/IOSCO agreement, changes in the institutional framework of many EU Member States, and the restructuring of IASC into the IASB. Consequently, more companies applied IAS. IAS-based financial statements were filed by 13 EU (24 European) companies. Percentage wise, however, these companies represented only 3.8% and 6.4% of registrants in each category, respectively. In contrast, U.S. GAAP was followed by larger number of registrants, that is 108 EU companies (31.2%) and 121 European companies (32%). Still, national GAAP was the most common, applied by 225 EU (233 European) companies.

As expected, the presented data show a preference for U.S. GAAP, as compared to IAS, among European companies listed on the U.S. regulated markets. For comparison, Ashbaugh (2001) examined 1993 and 1994 annual reports of non-U.S. companies listed on the London Stock Exchange (LSE). Her results show that 57 EU (63 European) companies followed their national GAAP, 28 EU (39 European) companies followed IAS, while only 16 EU (17 European) companies followed U.S. GAAP. The LSE accepts consolidated financial statements prepared in conformity with national GAAP of the registrant, UK GAAP, U.S. GAAP, or IAS. Furthermore, the LSE was the first to specifically identify IAS as an internationally accepted set of accounting standards (IASC, 1992, p. 4).

There was further evidence of a growing support for the IASC standards among European companies at the time the Commission's proposal to introduce the new Regulation was discussed. PricewaterhouseCoopers surveyed 717 chief financial officers (CFOs) of listed companies in 16 European countries. The survey asked the CFOs for their views on international standards and on the EC's proposal. Nearly 80%of them supported the introduction of international standards for financial reporting by publicly traded companies. Two-thirds of those surveyed favored making IAS the sole standard or an acceptable alternative to national GAAP (Heffes, 2001).

THE FINANCIAL SERVICES ACTION PLAN: ACCOUNTING MEASURES

Modernization of the Accounting Directives

The approach to accounting and financial reporting under IAS and the Accounting Directives is substantially different. First of all, the Directives are part of the European Company Law and therefore constitute a compulsory legal system. Application of IAS has been voluntary and becomes compulsory for the first time in 2005. Furthermore, the Directives are linked to specific economic environments and, therefore, are strongly influenced by considerations such as creditor protection, profit distribution, and taxation. The IAS, however, do not take into account the legal environment in which these standards are to be applied in practice. Finally, the number and complexity of the disclosures required under IAS goes well beyond that provided for by the Directives. The Directives deal with general principles and provide minimum disclosure requirements that aim at a minimum level of comparable information. On the other hand, the IAS refers to specific accounting issues and provide for detailed guidance that aim at uniformity in accounting treatments.

When the new EU accounting harmonization strategy was published in 1995, the Commission proposed to carry out the reform as far as possible without any change in the Accounting Directives (EC, 1995, Par. 1.6). At the same time, however, the Commission acknowledged shortcomings of the Directives, which created an urgent need for the new approach (EC, 1995, Par. 3.4). As a prerequisite to adoption of IFRS for consolidated reporting purposes by listed companies, the Commission proposed to examine with Member States the conformity of existing IAS with the Accounting Directives. If this examination reveals any inconsistencies between the Directives and IAS, they will need to be examined on a case-by-case basis.

In 1996, the Commission established the Contact Committee on the Accounting Directives, composed of experts from the Commission and the Member States, to determine whether and to what extent conflicts between the IAS (issued before the end of 1995) and the Accounting Directives existed and were required to be resolved so that European companies wishing to apply IAS in their consolidated accounts could do so without conflicting with the European legislation. The Contact Committee concluded that there were no major conflicts between IAS and the Accounting Directives. That conclusion was possible because both the IAS and the Accounting Directives contained a large number of options (Contact Committee on the Accounting Directives, 1996).

After the IASC finished its core project in December 1998, a second conformity project was executed. This time the Contact Committee prepared a report titled "Examination of the Conformity between IAS 1 to IAS 41 and the European Accounting Directives." The report showed some important incompatibilities between the two. The most important incompatibilities resulted from the different concepts of realization and prudence and of fair value accounting versus historical cost accounting. The report indicated again, that in some cases EU companies may avoid potential conflicts and comply with both the existing IAS and the Accounting Directives simply by making a proper selection among the allowed alternatives. In other cases, additional disclosure would be required. For those conflicts which cannot be resolved under current regulation, the Commission proposed to amend and modernize the Directives during 2001 and 2002 (Contact Committee on the Accounting Directives, 2001).

In September 2001, the European Parliament and the Council of the EU amended the Fourth and Seventh Directives in regard to valuation rules for the annual and consolidated accounts of listed companies, including banks and financial institutions (EC, 2001). The intent of the amendments was to permit European companies to report certain financial assets and liabilities at fair value in their annual consolidated financial statements. This way, the companies could comply with IAS 39, "Financial Instruments: Recognition and Measurement," as well as the Directives.

On May 28, 2002, the European Commission presented another proposal for a Directive amending the existing Accounting Directives. The proposal brought existing EU rules into line with the IASB body of standards, IFRS, that were in effect as of May 1, 2002. The Commission explained the need for this amendment Directive by emphasizing two facts. First, the Accounting Directives will play an important role in the mechanism for adopting IFRS under the proposed new Accounting Regulations. Therefore, the Accounting Directives must reflect current accounting developments and should be structured so as to accommodate and be consistent with future incremental developments within the IFRS. Second, the Accounting Directives must be modernized for the sake of private companies that are not required to apply

IFRS to assure a level playing field and enable a smooth transition when a company seeks a public listing (EC, 2002a). The European Parliament and the Council of Ministers have approved the amended Fourth and Seventh Accounting Directives in January 2003 and May 2003, respectively.

The IAS Regulation

To put its new accounting strategy into action, the European Commission decided to take an unprecedented step. Rather than developing a new Directive, the Commission decided to use a Regulation, which is applicable directly in all Member States and does not require transposition into national law. This approach was selected to make sure that the common financial framework would be in place by 2005 – the date agreed upon as a deadline for implementation of the FSAP measures. Also, the Commission wanted to prevent the Member States from restricting in any way the application of IFRS by listed companies (Van Hulle, 2004).

The IAS Regulation on the Application of International Accounting Standards that the European Parliament broadly endorsed in March 2002 by a vote of 492 for, 5 against, and 29 abstentions, was approved by the Parliament on July 19, 2002 (IAS Plus, 2002). The Act was published into law on September 11, 2002 (EC, 2002b). This Regulation covers all companies with securities admitted to trading on a regulated market in the EU, including banks and insurance companies. Member States have the option to extend this requirement to unlisted companies and to unconsolidated financial statements. The IAS Regulation will increase the number of companies using IFRS from less than 300 in 2001 to about 7,000 (Committee of European Securities Regulators (CESR), 2003).

There are two exceptions to the application of IFRS in 2005. The first exception concerns those companies with a secondary listing on a regulated market outside the EU that have been applying another set of internationally accepted accounting standards as the primary basis for their consolidated accounts. Member States may allow such companies to continue to apply those standards until the financial year starting in or after January 2007. This exception was primarily requested by German companies listed in the United States, which prepare their consolidated accounts on the basis of U.S. GAAP. The second exception concerns companies that have only debt securities admitted on a regulated market of any Member State. Member States may allow such companies to continue to apply their national standards until 2007.[16]

An important feature of the IAS Regulation is the endorsement mechanism, which was established to provide for the necessary regulatory oversight and to correct any material deficiencies or concerns in relation to IFRS. The IFRS can be adopted for application in the Community if they are not contrary to Accounting Directives and the true and fair view principle, are conducive to the European public good, and meet the criteria of understandability, relevance, reliability, and comparability (EC, 2002b).

The IFRS endorsement process involves the following steps (Deloitte Touche Tohmatsu, 2005):

1. IFRS are translated into all European languages;
2. the European Financial Reporting Advisory Group (EFRAG), a private and independent organization representing the accounting profession, national standard-setters, users and preparers of financial statements, gives its views on the IFRS to the Commission;
3. the Accounting Regulatory Committee (ARC), which operates at the political level and is composed of representatives of the Member States and chaired by the Commission, makes an endorsement recommendation; and
4. the 25-member European Commission formally votes to endorse.

In this regard, the Commission created a two-dimensional endorsement mechanism, which gives legal backing to the IASB standards and which controls the standards to be applied in the EU (Giner, 2003). The role of the endorsement mechanism is not to rewrite the standards developed by the IASB. These standards cannot be amended, but only accepted or rejected by the Commission. Adopted IFRS are published in full in each of the official languages of the Community in the "Official Journal of the European Communities."

To address potential problems with implementing existing IAS issued by the IASC, predecessor of the IASB, the Board undertook the so-called *Improvements* project in 2001. The project, completed in 2003, raised the quality and consistency of financial reporting by eliminating many choices and conceptual inconsistencies between standards, by providing additional guidance, and by requesting additional disclosure. On July 16, 2003 the ARC unanimously voted in favor of adopting IFRS and the related interpretations, except for IAS 32 "Financial Instruments: Disclosure and Presentation" and IAS 39 "Financial Instruments: Recognition and Measurement" and related interpretations 5, 16, and 17. On September 29, 2003 the Commission adopted a regulation endorsing all existing IFRS and related interpretations except for IAS 32 and 39, as recommended by the ARC in July.[17]

After extensive due process, both standards on financial instruments have been revised and/or amended. But the conflict between the IASB and the European Commission has not been resolved. By 2005, the Commission had voted to endorse all IAS, IFRS 1 through 5, and all related interpretations, but with two carve-outs from IAS 39. The first carve-out prohibits use of the fair value option as it applies to liabilities, and the second carve-out allows use of fair value hedge accounting for interest rate hedges of core deposits on a portfolio basis. In the first half of 2005, the IASB issued further amendments to IAS 39. All of them were endorsed by EFRAG, but the future of IAS 39 in the EU is not clear as of the writing of this article.

Table 2 presents a timeline of events relevant for harmonization of accounting in the European Union.

EXPECTED OUTCOMES OF THE NEW ACCOUNTING STRATEGY

Implications of the IAS Regulation for European Accounting Harmonization

The European Commission undertook a revolutionary step to adopt a foreign set of accounting standards and to change the entire standard-setting process within the ever-growing European Union. The Commission has delegated the power to develop and issue accounting standards to IASB, diminishing the direct role of national accounting standard-setters across the EU. These bodies will still influence the standards by participating in the IASB due process, while the Commission retains control over the IASB standards to be applied in the EU.

There are ongoing discussions in Europe on the role of national standard-setters, and how Europe can maintain and improve its ability to work proactively on accounting issues. In June 2005, the EFRAG and 17 national standard-setters from Europe reached an agreement that they should work more closely together to improve the input from Europe to the global standard-setting process. Through pooling of resources, duplication of efforts, and lack of focus can be overcome and lead to stronger influence of European standard-setters on the IASB and the FASB (European Financial Reporting Advisory Group (EFRAG), 2005).

Table 2. Timeline of the Key Events Relevant for Accounting Harmonization in the European Union.

Year	Event
1978	• Fourth Council Directive (78/660/EEC) on the annual accounts of limited liability companies is adopted
1983	• Seventh Council Directive (83/349/EEC) on consolidated accounts is adopted
1986	• Council Directive (86/635/EEC) on the annual accounts and consolidated accounts of banks and other financial institutions is adopted
1990	• The European Commission sets up the Accounting Advisory Forum, joins the IASC's Consultative Group, and joins the IASC Board as an observer
	• The IASC issues the Statement of Intent on Comparability of Financial Statements
1991	• Council Directive (91/674/EEC) on the annual accounts and consolidated accounts of insurance undertakings is adopted
1993	• The IASC's Comparability and Improvements project is completed with approval of 10 revised IAS
	• IOSCO develops a list of core standards
1995	• IASC enters into an agreement with IOSCO to produce a comprehensive core set of high-quality standards for cross-border listings on securities exchanges
	• Communication of the EC (COM 94(508)) on a new strategy for accounting harmonization is issued
1998	• The IASC finishes its core project
	• Interpretative Communication of the EC (98/C16/04) concerning certain articles of the Fourth and Seventh Council Directives on accounting is issued
	• Several Member States adopt legislation that allows listed companies to prepare their consolidated financial statements for domestic reporting purposes according to U.S. GAAP or IAS
	• The Cardiff European Council invites the EC to develop a framework for action to develop the single market in financial services
1999	• Communication of the EC (COM (2000) 359) on EU financial reporting is published
2000	• Restructuring of the IASC into the IASB takes place
	• The FSAP is endorsed by the Lisbon European Council
	• Communication of the EC (COM (1999) 232)) on the FSAP is published
2001	• The IASB begins full-time operations
	• Directive 2001/65/EC amending Directives Fourth and Seventh to allow fair value accounting is adopted
	FSAP Legislative Measures
2002	• Regulation (EC) No. 1606/2002 of the European Parliament and of the Council on the application of international accounting standards (the IAS Regulation) is approved
2003	• Directive 2003/51/EC on modernizing the accounting provisions of the Fourth and Seventh Company Law Directives is adopted
	• Regulation (EC) No. 1725/2003 adopting certain international accounting standards in accordance with the IAS Regulation is approved
2004	• Regulation (EC) No 707/2004 amending Regulation (EC) No. 1725/2003 adopting certain international accounting standards in accordance with the IAS Regulation is approved
2005	• The IAS Regulation and other accounting–related FSAP measures come into effect

While the new Regulation will make IFRS-based consolidated financial statements compulsory for listed companies, the actual degree of accounting harmonization within the EU will depend on how the Member States implement the available options regarding individual accounts of listed companies and financial reporting by unlisted companies. It is expected that the response will vary depending on the economic and legal environment of the individual countries. The EC's 2005 survey indicates that virtually all of the Member States will at least permit IFRS for the consolidated statements of unlisted companies. The future policy toward individual financial statements of listed and unlisted companies is more uncertain. Some Member States will permit IFRS-based individual accounts, at least for some companies, and a few Member States will require them (EC, 2005).

The voluntary extension of the scope of IAS Regulation is observed mostly in countries which had fair presentation-oriented accounting systems to begin with (such as the United Kingdom, Ireland, or the Netherlands), countries which started the convergence of their national GAAP with IAS years ago (such as the Scandinavian countries), and countries of the former Eastern Block, which either adopted IAS or modeled their national standard on IAS during the privatization process (Jermakowicz & Rinke, 1996). Governments of Continental European countries such as France and Germany, where legal compliance dominates and individual accounts are used to determine taxable income, distributable profits, rights of creditors, and other legal categories, most likely will not extend the EU Regulation to individual accounts in the near future. This will lead to coexistence and competition between IFRS and national GAAP for some time to come.

The situation of unlisted companies, particularly medium-size and small, is also uncertain. It is believed that the costs of applying complex and sophisticated IFRS to these companies outweigh the benefits. The modernized Accounting Directives allow Member States that choose not to extend the requirements of the IAS Regulation to unlisted companies to improve the quality of financial reporting by about 5 million firms. The amendments not only removed all inconsistencies between the old Directives and IFRS, but also restricted the companies' ability to keep liabilities off the balance sheet, increased the required disclosures regarding risks and uncertainty, and made the audit reports more consistent across the EU. By opening the Directives for accounting treatments available under IFRS, the Commission has given the Member States the possibility to implement only specific components of IFRS into national rules without totally forsaking the national GAAP for the IASB standards.

Implications of the IAS Regulation Beyond the EU

The Effect of IFRS on Regulators and Standard-Setters in the United States
The adoption of IFRS by non-U.S. entities impacts U.S. capital markets. Foreign investments by U.S. investors are significant. The U.S. capital markets include thousands of U.S. firms, which invest in non-U.S. companies either through acquisition or direct investment. Moreover, millions of institutional and individual investors invest in non-U.S. companies either directly or through mutual funds. The U.S. SEC expects that the number of foreign private issuers who use IFRS will increase tenfold from approximately 40 currently, to nearly 400 by 2007 (Nicolaisen, 2005). The impact on the SEC is magnified even further by the Sarbanes-Oxley Act's requirement for a review of all registrant filings at least once every three years (Pacter, 2003).

The SEC supports a single set of high-quality, globally accepted accounting standards as they contribute to investors' understanding and confidence and, therefore, facilitate further expansion of stable and liquid capital markets across national borders. As a result of the IAS Regulation, the SEC increased focus on the desired elimination of the current U.S. GAAP reconciliation requirement for non-U.S. companies that use IFRS.[18] The process started immediately upon adoption of the IAS Regulation, when the European Council of Finance Ministers agreed to continue the dialog with the SEC to encourage the acceptance of IFRS financial statements filed by European companies without the reconciliation to U.S. GAAP from 2005 onwards (European Council of Finance Ministers (ECOFIN), 2002). In April 2005, Donald Nicolaisen, the SEC chief accountant at the time, proposed a "roadmap" leading to the goal of eliminating the reconciliation requirement for all foreign registrants applying IFRS, not just European firms. The roadmap establishes a goal of eliminating the reconciliation requirement as early as possible between now and 2009, at the latest. Achieving that goal would depend on two main factors: (1) consistent application and interpretation of IFRS, and (2) progress toward convergence between U.S. GAAP and IFRS (Nicolaisen, 2005).

Faithfulness and Consistency of the Application and Interpretation of IFRS in Financial Statements across Companies and Jurisdictions. Empirical research indicates that accounting standards alone do not determine the quality of financial reporting. Such factors as enforcement mechanisms, incentives of preparers and auditors, and ownership structure also affect the outcome of the financial reporting process (Ball, Robin, & Wu, 2003). In light of the IAS Regulation, the most critical issue for the EU authorities is to ensure consistent application of IFRS throughout Europe. It is particularly important since the IASB standards are principles-based, and there is less implementation guidance than in the case of, for example, U.S. GAAP (Securities and Exchange Commission (SEC), 2003). Schipper (2005) predicts that the IASB will face increasing requests for implementation guidance as the number of IFRS users, and their heterogeneity, increases after 2005. Lack of timely response from the IASB may lead to either noncomparability of IFRS reporting or to the use of authoritative guidance from U.S. GAAP.

The concern for consistency in application and enforcement of IFRS in the EU is a focus of the Committee of European Securities Regulators (CESR), which was established in June 2001 as a coordinating forum for national regulators. CESR's Standard No. 1, "Enforcement of Standards on Financial Information in Europe," set out 21 high-level principles that EU Member States should adopt in enforcing IFRS. Standard No. 2, "Coordination of Enforcement Activities," specifically addresses the issue of consistent application and enforcement among countries of the European Union.

The auditing function is also very important in this regard. On March 16, 2004, the European Commission proposed a new Directive on Statutory Audit of Annual Accounts and Consolidated Accounts.[19] The proposal would adopt International Standards on Auditing to be applied throughout the EU, along with many other measures improving audit quality, such as establishment of a system for public oversight of the auditing profession and rotation of auditors (EC, 2004).

To further assure consistent application and implementation of IFRS, a number of proposals are being considered, including a "European Forum" consisting of interested parties, regulators, standard-setters, preparers, and auditors. The forum would be tasked with identifying and analyzing IFRS implementation issues. This way it would act as a filter and thus allow the IASB's International Financial Reporting Interpretation Committee (IFRIC) to concentrate on the key issues requiring its attention (McCreevy, 2005).

Continued Progress of the IASB–FASB Convergence Agreement. In light of the recent financial reporting crisis in the United States, the FASB has realized that it does not have all of the answers to all of the accounting issues. There are some areas of U.S. GAAP that could be improved where international standards seem to be more principles-based and drawn clearly from the IASB's conceptual framework (SEC, 2003). Therefore, the FASB has become a proponent of improved international standards. At their joint meeting in Norwalk, Connecticut on September 18, 2002, both the FASB and IASB issued the Memorandum of Understanding called "The Norwalk Agreement." In the Memorandum both standard-setting bodies pledged their commitment to real convergence between their respective accounting standards (Financial Accounting Standards Board (FASB), 2002).

The FASB undertook several key initiatives to pursue the goal of convergence. The most important are: (1) several joint projects with the IASB;[20] (2) the short-term convergence project;[21] and (3) the convergence research project.[22] Furthermore, the FASB monitors the IASB projects as well as considers convergence potential in all of its own agenda decisions. The cooperation between the FASB and the IASB has also been enhanced by the presence of the full-time liaison IASB member at the FASB offices. The objective of the convergence efforts is twofold; to minimize differences between U.S. GAAP and IFRS while at the same time taking both sets of standards to the highest quality level. During this process, differences should be narrowed down to such an extent that IFRS and U.S. GAAP can be recognized as equivalents. It is not expected, however, that the two sets of standards will become identical.

The convergence effort received further authoritative support on June 20, 2005, at the United States–European Union summit meeting in Washington, DC. At the meeting the U.S. and the EU jointly announced a series of undertakings designed to implement the *Declaration on Enhancing Transatlantic Economic Integration and Growth*. One of the undertakings is "promoting convergence of accounting standards as soon as possible."

The impact of IFRS on U.S. GAAP can be seen even beyond the scope of the convergence projects in such facts as, for example: (1) the IASB took the lead in requiring companies to expense stock options using a fair-value-based method (IFRS 2, issued in February 2004) before the FASB issued a standard requiring a comparable approach (FAS No. 123R, issued in December 2004); and (2) the FASB incorporating for the first time IFRS into the GAAP Hierarchy (FASB, 2005).

The Impact of IFRS on U.S. Companies

The IAS Regulation does not apply to foreign companies, including U.S. companies. Therefore, foreign companies listed within the EU are not required to apply IFRS or to reconcile to IFRS. The IAS Regulation, however, will affect the financial reporting activities of U.S. companies. There are four possible situations in which a U.S. company would be required to use IFRS (Gannon & Ashwal, 2004):

1. If the U.S. company's international parent uses IFRS, the subsidiary will have to prepare IFRS statements for inclusion in the parent's consolidated financial statements.
2. If the U.S. company's foreign subsidiaries use IFRS, the parent company may have to covert them to U.S. GAAP for inclusion in its consolidated financial statements.
3. If the U.S. company is seeking to enter new markets and expand operations to a foreign country, it may need to report under IFRS in order to obtain an operating license or to raise capital.
4. If a foreign investor in a U.S. company uses IFRS, the U.S. company may also be required to report under IFRS.

In addition to the above cases, there may be situations when U.S. companies may want to adopt IFRS voluntarily. Voluntary adoption would be advisable if, for example, a U.S. company faces significant foreign competition and would like to provide foreign analysts and investors with IFRS-based information.

The Expected Effect of IFRS in Other Jurisdictions

The IASB as a standard-setter has strong global support as many countries pursue increased convergence of their national standards with IFRS. Undoubtedly, the IAS Regulation adopted in the European Union gave a new impetus and momentum to worldwide progress toward IFRS.

Individual jurisdictions pursue different routes toward the convergence with IFRS. In some countries all national standards are virtually identical, word-for-word, to IFRS (Australia, Hong Kong, and New Zealand). Other countries have chosen to continue to have their own national standard-setter establish accounting standards applicable to domestic companies. The IFRS, however, are looked to in developing national GAAP (China, Japan, and Korea). Canada intends to pursue separate strategies for the major categories of reporting entities, including convergence of Canadian GAAP with IFRS for public companies. Deloitte Touche Tohmatsu estimated that by 2005, IFRS would be required in at least 64 countries on six continents for all domestic listed companies. Another 26 countries have been trying to converge their national accounting standards with IFRS.[23]

CONCLUDING REMARKS

The year 2005 marks the start of a new era in global financial reporting. This year, for the first time an estimated 15,000 listed companies in the EU, Australia and New Zealand, China, Russia, South Africa, and other countries will produce annual financial statements in compliance with a single set of international rules – IFRS. There are similarly about 15,000 SEC-registered companies that use U.S. GAAP, which means that the vast majority of the world's large businesses report under one of these two accounting rule systems (Epstein & Mirza, 2005).

The European companies are currently going through a tremendously difficult transition period, when they have to implement almost simultaneous many new regulations resulting from the EU comprehensive market reforms. To ease the transition to IFRS and to ensure that users of financial statements are given high-quality information, the IASB issued in June 2003 IFRS 1, "First-Time Adoption of International Financial Reporting Standards." IFRS 1 provides the framework applicable to entities adopting IFRS for the first time as their basis of accounting. The standard explains the procedures that an entity must follow when it adopts IFRS for the first time as the basis for preparing its general-purpose financial statements. In principle, it requires retrospective application of each IFRS effective at the reporting date of an entity's first IFRS compliant financial statements, with certain limited exceptions.

In December 2003, the CESR published a recommendation, which is linked with IFRS 1. The CESR recommends that the complex process of transition toward IFRS should be accompanied by a financial communication that should gradually prepare the markets to assess the impact of the transition on the consolidated financial statements. The first-time adopters are encouraged to explain the impact of switching from their national GAAP to IFRS as soon as reasonably practicable (CESR, 2003). And the impact on their financial position and results is expected to be significant. The accounting choices that will probably be made by companies during the transition year are to report more frequently pro forma numbers, to use one-time exemptions, and to change accounting estimates and definitions. An initial period of volatility in accounting numbers will last a few years and comparisons among companies will not be always an easy task.

The full impact of the IAS Regulation is yet to be observed and assessed. The direct and indirect costs of this EU initiative need to be defined and measured. The direct costs of resources consumed by regulatory bodies in making and enforcing the rules, and by companies in meeting those rules are easier to quantify than indirect costs, such as the sub-optimal decisions made by the companies and investors. Determination of benefits is even more difficult than determination of costs. The level of comparability of the financial statements within Europe and globally will very much depend on the consistent implementation and effective enforcement of the IFRS. The degree to which the cost of capital for EU companies would be lowered by creating a single liquid capital market in Europe and by facilitating an easier access to capital markets worldwide remains to be seen.

NOTES

1. These Member States, and their respective dates of accession, are: Austria (1995), Belgium (founding member: 1952/58), Cyprus (2004), Czech Republic (2004), Denmark (1973), Estonia (2004), Finland (1995), France (founding member: 1952/58), Germany (founding member: 1952/58), Greece (1981), Hungary (2004), Ireland (1973), Italy (founding member: 1952/58), Latvia (2004), Lithuania (2004), Luxembourg (founding member: 1952/58), Malta (2004), The Netherlands (founding member: 1952/58), Poland (2004), Portugal (1986), Slovakia (2004), Slovenia (2004), Spain (1986), Sweden (1995), and the United Kingdom (1973).
2. The Commission can also issue communications and recommendations.
3. In the paper I refer to the individual standards and body of standards issued by the IASC before 2001 as International Accounting Standards (IAS); I refer to individual standards issued by the IASB and the body of standards issued and adopted by the IASB since 2001 as International Financial Reporting Standards (IFRS).
4. The documents were accessed through the official website of the European Commission at http://europa.eu.int/comm/internal_market/accounting/officialdocs_en.htm
5. Recent reforms of non-accounting aspects of financial reporting (such as the Market Abuse Directive of January 2005 or Prospectus Directive of July 2003, which were both part of the Financial Services Action Plan) and corporate governance (such as Action Plan on Modernizing Company Law and Enhancing Corporate Governance in the EU) are beyond the scope of this paper.
6. Form 20-F is the form used by most publicly traded foreign companies for Exchange Act registration and annual reporting, because its requirements are tailored specifically for foreign issuers.
7. For example, Germany had experienced serious difficulties in implementing the Accounting Directives, because small- and medium-sized companies opposed the requirement to disclose their financial statements (Van Hulle, 2004). For more details on implementation of the Accounting Directives into national laws of the Member States see Haller (2002).
8. Nine European exchanges, including the three main markets: London Stock.
9. Since January 1, 1994, most single market legislation has also applied in the rest of the European Economic Area (EEA), which includes Norway, Iceland, and Liechtenstein.

10. According to the Commission study on the quantification of macroeconomic impact of integration of EU financial markets, the reduction in the user cost of capital and in trading costs could lead to an EU-wide increase in GDP of approximately 1.1% or €130 billion over the next decade. Total business investment would increase by 6% in the long run, private consumption by 0.8% and total employment by 0.5% (Randzio-Plath, 2004).

11. For details on the IASC's efforts with the Comparability and Improvements project and the Core Standards project see Zeff (1998a).

12. In Belgium, France, Germany, and Italy the legislation was enacted in 1998 (http://www.iasb.org/about/history.asp). The application decrees, however, have never been adopted in France and Italy (Delvaille, Ebbers, & Saccon, 2004).

13. These numbers do not include Switzerland, where most large companies already followed IAS.

14. On some stock exchanges reconciliation to national GAAP is required (for example, on Spanish Stock Exchange and Stockholm Stock Exchange).

15. Zeff (1998a) explains that the fear of loosing the 'New York bound' European multinationals was the factor behind the IASC's decision to advance its original deadline for completing the Core Standards project by 15 months.

16. As of January 2005, the following numbers of EEA countries deferred the application of IFRS until 2007: (1) 13 countries deferred for companies with debt securities only; and (2) six countries deferred for companies, which have been using other internationally accepted standards (EC, 2005).

17. The Commission did not accept the two standards on financial instruments because of a strong opposition to the IASB approach from the European banking sector. European financial institutions were concerned that the standards on financial instruments, particularly IAS 39, do not accommodate many of their risk management practices and that the application of the rules would lead to greater volatility in their accounts (European Report, 2004; European Banker, 2004). The conflict between the IASB and the European Commission was initially portrayed in the press as a result of lobbying led by French banks and insurers concerned about the potential impact of IAS 39 on their financial statements (Parker, 2003). But dissatisfaction with the standards, even with the conciliatory provisions introduced later by the IASB, seems to be broader. The IASB's solutions have been criticized by the European Central Bank (which put forward its own proposals to modify IAS 39), the EFRAG assisting the European Commission in the endorsement decisions, and the leading banks and insurers in Europe and even in the United States (Parker, 2004).

18. Although financial reporting requirements for non-U.S. issuers are less extensive than those for U.S. firms, the NYSE and AMEX lobbied the U.S. Congress and the SEC since 1986 to ease these requirements. NYSE's representatives have especially argued for elimination of the reconciliation requirement (Bayless et al., 1996). The NYSE had been complaining for years that many foreign companies perceive the SEC's reconciliation requirement as an obstacle to listing in New York (Zeff, 1998a).

19. On September 28, 2005 the European Parliament approved the proposal. The new Directive will replace the current Eight Council Directive (84/253/EEC) on the approval of persons responsible for carrying out the statutory audits, and amend the Fourth and Seventh Directives.

20. The FASB and the IASB have agreed to coordinate their work on several discrete, long-term projects. The coordinated work follows similar time schedule and involves sharing of staff resources. The following joint projects have been currently conducted: Conceptual Framework Project, Business Combinations: Phase II, Financial Performance Reporting by Business Enterprises, and Revenue Recognition.

21. The scope of the short-term convergence project is limited to those differences between U.S. GAAP and IFRS in which convergence around a high-quality solution can be achieved in the short term. Specifically, it is expected that a high-quality solution can be achieved by selecting between existing U.S. GAAP and IFRS. So far the short-term project has produced four new standards. In March 2004, the IASB issued IFRS 5, *Non-current Assets Held for Sale and Discontinued Operations*. The FASB followed with Statement No. 151, *Inventory Costs – an amendment of ARB No. 43, Chapter 4,* issued in November 2004, and Statement No. 153, *Exchanges of Nonmonetary Assets – an amendment of APB Opinion No. 29*, issued in December 2004, and Statement No. 154, *Accounting Changes and Error Corrections – a replacement of APB Opinion No. 20* and FASB Statement No. 3, issued in May 2005.

22. The FASB staff is currently working on a project, which seeks to identify all of the substantive differences between U.S. GAAP and IFRS and to catalog those differences according to the Board's strategy for resolving them. The project scope includes differences in standards addressing recognition, measurement, presentation, or disclosure.

23. Robert H. Herz, Chairman of the FASB stated that 70 countries around the world already use IFRS (Herz, 2005).

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PART II: RESEARCH REPORTS

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EXISTING DISCLOSURE CHALLENGES OF IPO ALLOCATIONS: A RESEARCH REPORT

Denise A. Jones and Wanda A. Wallace

ABSTRACT

IPO allocations have been a topic of regulatory and legal attention. Prudent economics may explain the use of friends and family shares by private company owners going public, as well as underwriters' allotments of shares of initial public offerings (IPOs). However, systematic inquiry into potential abuses and conflicts of interest in preferential IPO allocations requires information on allocation practices. This paper explores whether existing disclosure within the regulatory infrastructure of Section 144 stock facilitated detection of the extent of use of friends and family shares. Likewise, newspaper accounts of allegations and lawsuits are used to explore whether the nature of conflicts of interest in allotments of IPO shares could be discerned using available public information. Our results suggest that these preferential allocations are not transparent ex ante nor are they discernible ex post. These disclosure challenges could be addressed through business practices and regulatory policy that build upon the potential power of information markets as envisioned in the full disclosure approach. However, political visibility, proprietary concerns, and

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the sensitivity of information regarding purchasers' privacy may combine to deter such practices.

1. RESEARCH QUESTIONS

The overall objective of this paper is to describe the current state of disclosure related to preferential allocation of shares during an initial public offering (IPO). We investigate the following research questions. Do disclosure practices exist that make the IPO process involving "friends and family shares" transparent? Is there information in the public domain that permits an identification of IPO share allocations on a timely basis? Even if all allocations are not detectable, can those allotments purportedly distributed to potential or existing customers of investment banking firms be identified?

2. BACKGROUND AND MOTIVATION

In the hot stock market of the 1990s, the media increasingly reported incidences of the so-called "friends and family stock." With the huge returns witnessed on new stock offerings, entrepreneurs reportedly rewarded past and future investors, suppliers, friends, and family members with shares prior to the actual initial offering. Generally, such shares would become marketable as the companies went public. During this same time period, investment banks were increasingly criticized for preferential allocation of initial shares of hot IPOs. This paper investigates the current state of disclosure relating to the allocation of shares both before and during the IPO process. In this section, we discuss how and why shares get allocated prior to and during an IPO, as well as how improved transparency could mitigate problems related to preferential share allocations. Section 3 describes our findings and Section 4 identifies disclosure challenges and potential regulatory issues.

Stock can be issued to investors both prior to and at the time of an IPO. For example, a venture capital firm might receive stock in exchange for providing start-up capital to a company. Stock issued prior to an IPO is restricted; however, there are two common ways that this restricted stock can be re-sold to the general public. First, this stock can be sold during the IPO process and at this point the stock becomes unrestricted and can be freely traded. This must be disclosed in the IPO prospectus filed with the

Securities and Exchange Commission (SEC). However, Ang and Brau (2003) find that pre-IPO shareholders underreport the number of pre-IPO shares to be sold in the original prospectus and instead communicate the true number of shares in subsequent, less visible prospectus amendments. Second, once the firm's stock is publicly traded, restricted stock can be sold to the general public when certain conditions are met. This falls under Rule 144 of the 1933 Securities Act and one requirement is that notice be filed with the SEC on Form 144. During the IPO process (in the U.S.), IPO shares are typically allocated using a book-building method, which gives total discretion to the underwriter in allocating the shares (Sherman, 2000). Under this method, the underwriter polls investors prior to pricing the IPO to determine market demand. Information on market demand is used to determine the size, price, and allocation of the IPO. In addition, a small portion of the stock (typically around 10%) is often allocated by the company selling the stock (Craig, 2002). This is often referred to as "friends and family" stock or a directed share program. Ljungqvist and Wilhelm (2003) document that only 24.7% of IPOs had directed share programs in 1996, but this increased to 92.6% by 2000. They also noted that prospectuses typically provide information on the existence and size of a directed share program but do not give information on who was allocated shares.[1]

A firm's management and/or founders have multiple incentives for allocating shares including providing returns to high-risk, entrepreneurial investors, as well as planning for estate or tax considerations. There are also incentives giving rise to potential conflicts of interest such as expected reciprocal relationships with customers or suppliers (Simpson & Thurm, 2000) or expected positive recommendations from analysts after the IPO (Opdyke, 2001). Underwriters also have incentives to allocate IPO shares in a certain way. Some argue that favorable share allocations compensate informed investors for revealing information (Benveniste & Spindt, 1989). Others argue that IPO share allocation is used to enrich buy-side clients in return for quid pro quos or to curry favor with executives of prospective IPO issuers (Ritter & Welch, 2002). If the clearing price of the initial offering would have been higher 'but for' the price set by the underwriters to facilitate IPO allotments to specified customers or associates to curry their favor, as providers of future investment banking services activities (Previts, Bricker, Robinson, & Young, 1994), this reduces the cash received by the firm and therefore harms the other investors. Evidence that investment bankers rewarded existing and future business associates with allotments from new IPOs – a practice known as "spinning" – has been reported in the media (Gasparino, 2002; Siconolfi, 1997). Investigations by both Congress and the

National Association of Securities Dealers (NASD) have uncovered evidence that shares in hot IPOs were allocated to clients of investment banks underwriting the hot IPO. The U.S. House of Representatives Financial Services Committee made available information on clients of Goldman Sachs Group Inc. who benefited from IPOs where Goldman was the underwriter (Smith, 2002). Table 1 displays a list of these Goldman clients disclosed by the media.

Since the distinction between beneficial vs. harmful share allocations is likely to vary by individual company setting, a case can be made for

Table 1. "Spinning" Examples Proffered in the Media.

Company	Position: # of IPOs from which Allocations were Made
E-Bay	Chief executive: 100
	Director: 25
	Co-founder: 75
	Founder: 40
Global Crossing International*	CEO: 9
	Director: 75
	Former director: 12
	Founder and Former director: 10
WorldCom*	Director and compensation committee chairman
	CEO
	Former CEO
Tyco*	Former CEO
	Former CFO
Walt Disney*	CEO
iVillage	Co-founder: 50
E-Toys	Former CEO: 25
Ford Motor*	CEO
TheStreet.com	Former director: 25
Starwood Hotels & Resorts Worldwide*	CEO: 17
Yahoo	Co-founder: 100
PlanetRX.com	– : 100

Note: This table reports information uncovered by the U.S. House of Representatives Financial Services Committee investigation of preferential IPO share allocations. In all cases, Goldman Sachs Group Inc. was the investment bank underwriting the IPO. The table lists the executives of other Goldman Sachs clients and shows in how many IPOs the particular executive received IPO shares. For example, the CEO of eBay was allocated shares in 100 different IPOs underwritten by Goldman Sachs.
Source: The Wall Street Journal, October 3, Smith (2002).
*In addition to shares in other IPOs, shares of Goldman's own IPO were received by company official.

transparency as a means of permitting individual investors to evaluate the advisability of a particular entity's practices. A similar situation exists with related party transactions. In the ordinary course of business, related party transactions pose quantifiable risks; however, related party transactions are not prohibited since many times they benefit the company. For example, a company may have the opportunity to lease office space in a desirable location due to relationships the CEO has with another company. Instead of prohibiting this transaction, mandatory annual report disclosures are required to allow the investor to determine whether the related party transaction benefits or harms the company. Similarly, the presence of an underwriter affiliated with an investment banking firm can be evaluated, if a certain level of transparency is provided. Accounting and regulation could make each of these events transparent. For example, straight-forward reporting of all friends and family shares, established limits on the number of these shares, and full disclosure of allocations made of IPO shares could achieve some degree of transparency. A set of independence criteria or related disclosure of affiliations could complete the picture. However, there may also be costs associated with full transparency. For example, political visibility may be a deterrent to making share allocations that would have otherwise benefited shareholders.

In order to fully appreciate the costs and benefits of IPO allocations, and to inform regulatory debate on this issue, the current state of IPO allocation transparency needs to be assessed as a first step. This research report explores whether information exists either before the alleged "spinning" scandals (see Table 1), or from applying hindsight and "working backwards" from the reported details, to detect both the scale of friends and family shares and the extent of targeted allocations to investment banking customers or prospective customers.

3. WHAT INFORMATION IS CURRENTLY AVAILABLE TO THE PUBLIC?

As discussed in Section 2, shares can be allocated both prior to and during an IPO. Shares allocated prior to an IPO can be re-sold either during the IPO process or after the IPO under Rule 144. Share allocation during an IPO is primarily done by an investment banker, although a smaller portion of shares can be allocated by the company. To explore the question of whether stock allocated to "friends and family" or investment banking customers is transparent to the general public, we first examined share allocations of privately placed Section 144 stock. Second, we selected a small sample of IPO firms and did a comprehensive search for any information disclosed about these firms from public sources such as SEC filings and newspaper articles. Third, we did an in-depth analysis of three high-profile companies where alleged IPO improprieties had been documented.

3.1. Section 144 Filings

Rule 144A permits issuers to privately place unregistered securities with Qualified Institutional Buyers (QIBs) and to agree to subsequent exchanges for identical registered securities; companies reportedly raised approximately $254 billion through 144A offerings in 1997, including stock and high yield securities (SEC, 1998). Stock issued by firms under SEC Rule 144 that cannot be sold by an investor for a two-year period after it is acquired is referred to as letter stock and has been shown to be placed privately at 30–35% discount to the value of otherwise identical unrestricted stock (Silber, 1991). This is one means of creating friend and family restricted stock positions in anticipation of an IPO.

We explored restricted stock information via Form 144, identifying 658 electronic filings on the sec.gov site that were made from 3/21/96 through 2/14/02, detailing: Issuer Name (1a); Date Filing; Person Selling (2a); Relationship to Grantor (2c); Security Title (3a); # Shares Sold (3c); Market Value of Shares (3d); Shares Outstanding (3e); and Date of Sale (3f). The incidence of such filings varies over time, as evidenced in Fig. 1 – perhaps due to varying market conditions, but potentially due to the differential propensity to file electronically, tied to regulatory parameters[2] and transitions from text to html to XBRL formatting.

For 473 of those indicating the relationship of the seller of such shares to the grantor (2c), the distribution of responses is reflected in Table 2. This table contains all Form 144 filings and is not limited to shares allocated before or during an IPO. The grantor is the company issuing the restricted stock and the seller is the person who currently owns the restricted stock and is selling it. Table 2 shows the number of times Form 144 was filed for specific types of relationships between the company (grantor) and the person selling the restricted stock. For example, 79 or 16.7% of the filings were related to officers of a company who had previously been issued restricted stock and were now selling it. The names of the parties often refer to trusts, partnerships, funds, and entity names alongside individuals. The average

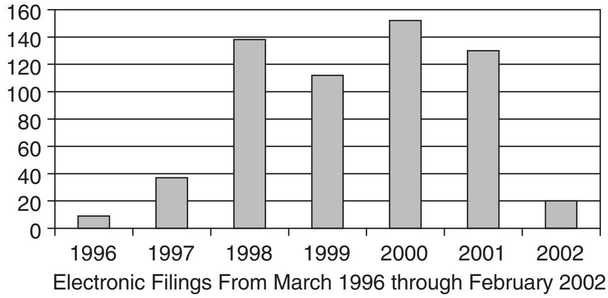

Fig. 1. This Figure Shows the Number of SEC Form 144 Filings by Year. Form 144 is Required to be Filed with the SEC for any Sale of Restricted Stock Involving More than 500 Shares or $10,000.

number of shares sold per party listed is 140,309, with a standard deviation of 313,925. The maximum sold were 2,500,000 shares. As a percentage of shares outstanding this represents an average of 0.77%, with a standard deviation of 2.11% – the maximum reported being 30.31%. In other words, Form 144 filings, on their face, would appear to offer information even related to transactions lying below the conventional 5 and 10% thresholds. This profile permitted a comparison with IPO firms (see Table 3) to discern if insights are provided on their use of friend and family shares.[3] Yet, keep in mind, friend and family shares need not take the form of restricted stock that prompts a 144 filing. As a result, many friends and family, as well as potential providers of "reciprocal services" (such as analysts) can fall under the radar screen, so to speak.

3.2. Disclosures of IPO Firms

We selected a small sample of IPO firms. We began by selecting eight firms that were discussed in the press as having allocated "friends and family" shares during their IPO (Simpson & Thurm, 2000; Nolan, 1999). These firms all went public during 1999, which was near the height of the stock market "bubble." Because this was a period of stock market exuberance where investors did not always pay close attention to all of the details about an IPO, it might not be representative of different periods. Therefore, we also selected all firms issuing stock in an IPO between July 2001 and September 2001. We chose this time period because it was subsequent to the height of the stock market "bubble" and preceded the collapse of Enron. IPOs in this

Table 2. Relationship of Seller of Shares to Grantor in SEC Form 144 Filings.

Relationship to Grantor (2c)	Count	Percentage
None	115	24.31
Shareholder/stockholder	99	20.93
Officer	79	16.70
Director	43	9.09
Vice president	18	3.80
Chairman	13	2.75
Vice chairman	13	2.75
Chairman and CEO	11	2.33
Manager	10	2.11
CEO	9	1.90
Affiliate	8	1.69
Officer and director	8	1.69
CFO	6	1.27
Executive VP	6	1.27
Pres., CEO	6	1.27
Employee	4	0.85
Unaffiliated	3	0.63
Stockholder	2	0.42
10% Stockholder	2	0.42
Pres., Dir	2	0.42
President	2	0.42
Spouse	2	0.42
Wife of director	2	0.42
Common control	1	0.21
COO	1	0.21
Executive	1	0.21
Former CFO	1	0.21
Former EVP & CFO	1	0.21
General Partner	1	0.21
Marketing	1	0.21
Owner, director, officer	1	0.21
Pres, CEO, Dir	1	0.21
Pres. Marketing	1	0.21
Total analyzed with response	473	100.00

Note: This table summarizes information from SEC Form 144 filings for the period March 1996 through February 2002. Form 144 is required to be filed with the Securities and Exchange Commission for any sale of restricted stock involving more than 500 shares or $10,000. Shown are the number of times Form 144 was filed for specific types of relationships between the company (grantor) and the person selling the restricted stock. For example, 79 or 16.7% of the filings were related to officers of a company who had previously been issued restricted stock and were now selling it. This data source by itself does not provide insight as to the relationship of restricted shares to planned IPO allocations.

Table 3. Sample IPO Firms.

Company	Ticker Symbol	Offer Date	Shares Offered (in thousands)	IPO Offer Price ($)	Price after First Day of Trading ($)	Potential Size (Offer Price * Shares Offered) (in thousands) ($)
Mykrolis Corporation	MYK	8/9/2001	7,000	15.00	16.10	105,000
OmniCell, Inc.	OMCL	8/7/2001	6,000	7.00	8.90	42,000
Bunge Ltd.	BG	8/1/2001	17,600	16.00	16.00	281,600
HPL Technologies	HPLA	7/30/2001	6,000	11.00	13.95	66,000
Alliance Imaging	AIQ	7/26/2001	9,375	13.00	13.01	121,875
PDF Solutions Inc.	PDFS	7/26/2001	4,500	12.00	14.89	54,000
Inergy, LP	NRGY	7/25/2001	1,600	22.00	24.01	35,200
Medcath Corp.	MDTH	7/23/2001	6,000	25.00	25.02	150,000
Natus Medical	BABY	7/19/2001	4,500	11.00	15.50	49,500
Accenture Ltd.	ACN	7/18/2001	115,000	14.50	15.01	1,667,500
Wright Medical Group	WMGI	7/12/2001	7,500	12.50	15.31	93,750
Convergent Communications	CONV	7/19/1999	8,400	15.00	20.00	126,000
Brocade Communications Systems	BRCD	5/24/1999	3,250	19.00	56.00	61,750
Marimba, Inc	MRBA	4/29/1999	4,000	20.00	66.44	80,000
USinternetworking, Inc.	USIX	4/8/1999	6,000	21.00	54.13	126,000
Rythms NetConnections	RTHM	4/6/1999	9,380	21.00	71.00	196,980
IVillage, Inc.	IVIL	3/18/1999	3,650	24.00	70.75	87,600
Autoweb.com, Inc.	AWEB	3/17/1999	5,000	14.00	33.69	70,000
Covad Communications	COVD	1/21/1999	7,800	18.00	34.58	140,400
Mean – All Firms			12,240	16.37	50.82	187,113
Mean – 2001 IPOs			16,825	14.45	16.15	242,402
Mean – 1999 IPOs			5,935	19.00	30.75	111,091

Note: This table lists two small samples of IPOs – first, IPOs occurring between July 2001 and September 2001, a period subsequent to the peak of the stock market ‘‘bubble’’ and prior to the collapse of Enron, and second, IPOs identified in the press as having preferentially allocated ‘‘friends and family’’ shares.

period should reflect recent trends without being affected by changes in the regulatory environment following Enron. Table 3 lists the firms selected. Consistent with what other studies have found (Ritter & Welch, 2002), there is a considerable increase in stock price on the first day of trading and this increase was more pronounced for firms issuing stock for the first time in 1999. For the firms with IPOs in 2001, after the first day of trading the average stock price went up 11.7% (increasing from $14.45 to $16.15). For the firms with IPOs in 1999, the average stock price increased 62% (increasing from $19.00 to $30.75). For both groups of firms the stock price levels off after the first day of trading. The people gaining the most from selling shares of the stock are those who bought the stock at the IPO price. These would include both friend and family shares and initial allocations by the underwriters.

We explored several public sources to determine if any information about "friends and family" or investment banking firm customers was disclosed for these IPOs. Following other papers examining voluntary disclosures, we started with publicly available news sources (Lang & Lundholm, 2000; Francis, Philbrick, & Schipper, 1994). In addition, because we are interested in stock offerings, we expanded our disclosure sources to include filings in the SEC database, SEC-required disclosures of insider trading activity, SEC-required disclosures of IPO details, and the Internet. We focused on three sources that were likely to provide information on how IPO shares were allocated. First, as previously discussed, stock issued prior to the IPO is restricted and when re-sold Form 144 often has to be filed with the SEC. We first compared our sample of IPOs to the SEC Form 144 filings. Second, Form 144 does not always have to be filed. For example, it does not have to be filed for transactions under 500 shares or $10,000. In addition, shares can be allocated at the time of the IPO under a directed share program and there are no restrictions on these shares. If the shares were allocated to firm insiders then subsequent stock transactions would be disclosed as insider trades. We therefore looked at insider trading activity for our sample firms to determine if stock ownership can be determined from this source. Third, we examined publicly available details of the sample IPOs to determine what type of information on share allocations was available.

In the first approach, we compared the firms in Tables 2 and 3. Conceptually, they would have been expected to overlap, but they fail to do so empirically. SEC filings related to Section 144 restricted stock, already described, indicated none corresponded to the firms identified with IPOs. Hence, although a two-step process could entail issuance of restricted stock, followed by an IPO which facilitated an exchange into a more liquid registered security (Longstaff, 1995), this was not observed to be an avenue for friends and family shares even among the eight companies discussed in the press. Transparency is not available via 144 filings.

Second, we explored insider trading activity for 10 of the IPOs with insider trading information available on BaseLine. Fig. 2 displays the results. Insider trading is observable for about a third of the IPOs, providing limited transparency at best. The ability to view insiders' behavior immediately surrounding the IPO, as well as *later* in time, permits consideration of the role of such bonding mechanisms as lock-up agreements.[4] One of the 10 companies in Fig. 2 was the subject of an insider trading lawsuit, while another was alleged to have been involved in an IPO manipulation. Class action suits arose for two other IPO entities. The implication is that the IPO process, at least in this time frame, involved a substantial litigation exposure.

Finally, the Internet provides a profile of the IPO at http://www.ipo.com – detailing offering status, key dates, underwriters, shareholders, and supporting companies including the law firm, auditor, and transfer agent. The filing date, pricing date, lock-up period, and institutional holdings are reported. Hence, transparency is available as to underwriters' holdings and transactions at the firm level relative to a particular IPO. However, IPO allocations are not disclosed publicly. Although fund groups must report holdings periodically, the lag of weeks or months subsequent to an offering means that the markets are uncertain whether those shares were purchased at the offering or later (Smith & McGee, 2000).

In summary, no allocation schedule is publicly available for IPOs, insider trading information provides no insights for two-thirds of the IPOs explored, and neither Section 144 filings nor public media disclosures provide transparency.[5]

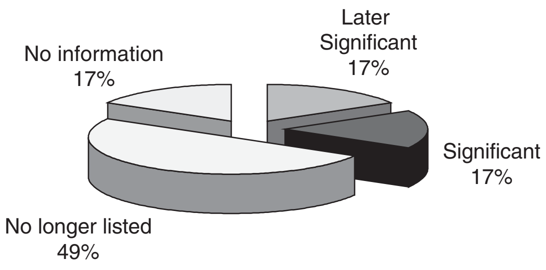

Fig. 2. This Figure Shows the Percentage of Sample IPOs with Insider Trading Activity Subsequent to the IPO.

3.3. Case Examples: Searching Public Sources for Transactions Reported After-the-Fact

While different from the usual research protocol when systematic evidence is at hand, we sought to ensure we had not overlooked some data source by 'working backwards' from available investigative reports. In other words, would the benefit of hindsight help in identifying before-the-fact public sources of information?

The media has reported several high-profile companies with alleged improprieties related to IPOs. We selected three of these companies for an in-depth analysis of what information was disclosed about share allocation before and during the IPO. First, the media reported that Martin Peretz, a former director, with TheStreet.Com had been provided shares of Hanover Compressor and second, that Robert C. Kagle, a Director of E-Bay had received shares of Kana Communications (Smith, 2002). Third, recent lawsuits against WorldCom Inc.'s chief executive Bernard J. Ebbers have revealed a number of alleged improprieties related to IPOs. These three cases were explored to see if public sources permitted identification of such activities.

We accessed Wallstreetcity.com to consider names of inside traders for which shares traded are reported, coded both as to position and type of transaction. Since Mr. Peretz is an insider of TheStreet.Com and not Hanover Compressor, such a source provides no insight. However, if one explores the background of Mr. Peretz who is The Street.com's co-founder and co-chairman of the board,[6] then it is possible to see that he has served for several decades as a director of 11 mutual funds in the Dreyfus-Mellon Group – a mid-cap value fund. That group is one of the investors in Hanover Compressor Company, as can be seen in the mutual fund ownership details for that company. Note that Goldman Sachs was the lead manager of The Street.Com IPO.

Kana Software Inc. insider listings likewise would not include the E-Bay director. However, once again, by exploring Robert Kagle's background, a link emerges that as the founder of Benchmark Capital in 1995, he was joined on that team in May 1997 by Mr. David Beirne,[7] who is on the board of directors at Kana Communications. Both Kana and E-Bay were underwritten by Goldman.

Media coverage of former WorldCom Inc.'s chief executive Bernard J. Ebbers has indicated that he made $11 million in profit by selling shares in hot IPOs awarded to him in the late 1990s by the Wall Street firm Salomon Brothers and the successor Salomon Smith Barney with which his company did extensive investment banking business to finance acquisitions (White, 2002). Records made available through documents provided to the House Financial Services Committee document low-priced IPO shares being purchased by Ebbers in Qwest Communications International Inc., Metromedia Fiber Network Inc., Nextlink Communications Inc. (now XO Communications), and McLeod Inc. The records also highlight that the 205,000 shares in Qwest Communications were purchased on June 24, 1997 at an offering price of $22 and that the stock began selling on June 27 at $28.75, leading to a potential $1.4 million profit on that stock. The Qwest IPO had Salomon Smith Barney Inc. as the lead underwriter; however, using the sources already described, prior to the investigation, there is no evidence of the ownership of the Qwest stock by Mr. Ebbers.

The New York attorney general sued 5 former and current top telecommunications executives including Mr. Ebbers, Qwest chairman Philip Anschutz, and former Qwest CEO Joseph P. Nacchio for failure to disclose their companies' underwriting relationship with Salomon Smith Barney as required by state law[8] (Smith & Gasparino, 2002). Even with hindsight, at most, "hints" of interlocking directorates and bilateral relationships are discernible. An example of a disclosure in the media of an "alleged kickback" involving friends and family stock, relates to Bernard J. Ebbers and the shares of Rhythms NetConnections, Inc. Rhythms was a dot-com company having Salomon Smith Barney and Merrill Lynch & Co. as co-lead underwriters. Rhythms' stock soared 229% in its first day of trading in April 1999, peaking a week later at 431% of the IPO price of $21, and later filing for bankruptcy in 2001 (Gasparino, Craig, & Smith, 2002). A provider of high-speed Internet service, Rhythms NetConnections had substantial business ties to WorldCom, which had designated the company as its preferred provider of high-speed business Internet phone lines, investing $30 million and holding an 8.5% stake at the time of the IPO; Salomon has close ties to WorldCom (Gasparino et al., 2002). Allegations claim receipt by Mr. Ebbers of 350,000 shares with a profit upon sale of $16 million (Craig & Gasparino, 2002).

Even with hindsight, disclosures that revealed conflicts of interest and preferential allotments could not be identified. It is apparent that decision makers do not have access to information relevant to evaluating whether friends and family shares or IPO allotments by Wall Street are economically prudent or pose the risk of representing kickbacks that imperil the capital base available for future operations. Note that extensive interview-based descriptions of the IPO allocation process can be found in both textbooks and research papers (Benveniste & Spindt, 1989; Tinic, 1988). However, the allegations, settlements, and dearth of empirical information publicly available have prevented systematic analysis of share allocations. Even Google, when asked about the potential transparency into the auction process,[9] responded via email: "Unfortunately, we have opted to keep all of the specific information about the auction and the results confidential."[10]

4. DISCLOSURE CHALLENGES AND POTENTIAL APPROACHES TO FULL DISCLOSURE

The "bottom line" of this research is that current disclosure practices do not facilitate quantification of either the use of friends and family stock or the nature of allotments by underwriters of IPO shares. Moreover, disclosures related to any potential conflicts of interest have either been omitted or are so boilerplate in content as to serve little purpose. The Internet has improved tracking of insider trades, stock options' exercise, IPO price variations, lock-in agreements and their influence, and professionals involved in any given offering. However, current public disclosures on stock ownership made in accordance with the prescribed beneficial interest threshold of 5%, let alone 10%, preclude the detection of alleged spinning or positions held by analysts. For example, Goldman Sachs & Co., Citigroup Inc., Salomon Smith Barney, and other Wall Street banks have been cited in a New York Federal Court case alleging manipulation of 308 IPOs between 1999 and 2000 (Keaveny, 2002). Reportedly, it was rare for an individual executive to obtain more than 5,000 shares, and the overall percentage of IPO shares distributed among clients is estimated at 3% (Investment Watch, 2002). This is well below the current reporting threshold of 5% and these transactions would be explicitly excluded under the current regulatory structure. Even when able to "work backwards" using the results of Congressional committee investigations and legal discovery processes, the public sources of information only provide second-order suggestions as to the overlapping business relationships that may relate to practices subsequently alleged to have been abusive.

There is some evidence of self-regulatory moves by the investment banking community. The 10 largest investment banks have reached an agreement with the SEC to restrict interaction between investment bankers and research analysts (Glauber, 2003). However, bonuses based on overall firm performance can still appear as conflicts, even with formal divisions of key responsibilities within an entity. The SEC is reported to be considering requiring executives to disclose to their own boards the shares of IPOs they receive from investment banking firms (Gasparino, 2002). This presumably would be a means of monitoring such practices.[11] Yet, neither of these proposals takes advantage of the potential power of information markets as envisioned in the full disclosure approach of the past.

On October 13, 2004, the SEC proposed amendments to Regulation M to prohibit certain market activities believed to undermine the integrity and fairness of allocations of IPOs (SEC 2004b). These include lengthening the ''restricted period'' (in which participants must refrain from activity that stimulates the market for the security in distribution) to begin as soon as the issuer reaches an understanding with an underwriter, public disclosure of underwriters' buying of shares to cover their short position (analogous to past requirements for public disclosure of stabilizing bids), and prohibition of penalty bids, conditioning or ''tying'' of an allocation of shares to an agreement by a customer to buy shares of other less desirable offerings, and excessive trading commissions. While ''de minimis exception'' recordkeeping is prescribed, and the thresholds related to restricted period determination and exceptions for actively traded securities have been updated, the proposals do not include attention to allocation disclosures. Yet, responses to SEC Release No. 34-50896 (SEC 2004b) regarding proposed rules of the New York Stock Exchange and NASD relating to the prohibition of abuses in the allocation and distribution of shares in IPOs have included white papers on IPO reforms that call for transparency in allocations.[12] The focus of the proposed disclosure is between underwriter and issuer pricing committee (or, if not existent, the issuer's board of directors) but does provide for reports of indications of interest[13] and final allocations of shares to institutional investors, including names of purchasers and the number of shares purchased by each, and aggregate sales[14] to retail investors.

In conclusion, this research report documents a chasm emerging between the concept of full disclosure and the practice of what is disclosed about IPO allocations. The challenge facing regulators is how to balance the potential costs and benefits of full disclosure. A broad set of agency relationships exists among the vast number of capital markets stakeholders of a given firm. Disclosure on preferential allocations will help in leveling the playing field between small individual investors and both insiders and institutional investors. Another potential benefit of transparency is that it may enhance competition among mutual funds investors. Fidelity is reported to have exercised its weight as a large purchaser to gain twice the IPO allocation of the next-biggest customer through threats of reducing its trading, and without committing to hold rather than flip shares for immediate profit (Smith &

McGee, 2000). Of course, countervailing forces to future disclosures include political visibility, proprietary concerns, and the sensitivity of information regarding purchasers' privacy.

NOTES

1. The literature documents the absence of allocation information in prospectuses (Aggarwal, Prabhala, & Puri, 2002; Habib & Ljungqvist, 2001; Hanley & Wilhelm, 1995 – private information from an investment bank is accessed in the studies). Also see the NYSE/NASD IPO Advisory Committee report May 31, 2003, available on the NASD web site http://www.NASD.com.
2. As an example of commentary and proposals associated with electronic filing, see SEC (2000).
3. None of the companies filing Form 144 during the period 3/21/1996 to 2/14/2002 also had an IPO during this period.
4. Lock-up agreements are contractual restrictions limiting the ability of firm insiders to sell securities for a specified period of time following a securities offering. See Bochner and Lindquist (2004) for a discussion of current New York Stock Exchange and National Association of Securities Dealers rules relating to lock-up agreements.
5. This leaves the question: what is the avenue for friends and family shares? Entities may be using diverse financial instruments in the form of contingent arrangements, stock options, warrants, or hybrids, including special classes of preferred stock. The SEC views below market sales of stock to outside investors within 6 months of filing the registration statement in the same manner as options and when a sale is at a price less than fair market value, the issuer is required to record a one-time "deemed dividend" charge in the amount of the difference. Recent compensation expenses and deemed dividend charges have been as large as $160 million and $65 million respectively (S&P, 2001). Such rules may implicitly invite 7-month-ahead planning (likewise see SEC 2001). Of related interest, Halloran (1999) indicates that the SEC is often receptive to the argument that a 10–20% discount from the mid-point of the filing price range is a warranted "illiquidity discount" associated with private company status for options granted within two months of the registration statement. Presumably, transparency on the actual allocations would facilitate some attention to such possibilities as well as observed conversion features. One thing we do know is that many IPOs involve selling of only a portion of outstanding shares (e.g., 65% of the equity will be offered for sale). The 35% complement may well offer diverse means of addressing the friends and family share issue.
6. http://www.thenewrepublic.com/showBio.mhtml?pid=22.
7. http://www.benchmark.com/Silicon_Valley/David_Beirne.html.
8. http://www.voy.com/82345/128.html.
9. The company known for its search engine Google went public using an online modified Dutch auction (Rivlin, 2004). This is not novel; for example, on December 8, 1999, Adover.net went public via W.R. Hambrecht's Open IPO auction format where the offer price is set at the highest bid price that sells all shares (Jaffe, 1999).

The NASD has observed increased attention to the use of auctions for IPOs but states the "NASD finds it premature to mandate use of auction systems" (p. 39 of SEC Release No. 34-50896, SEC 2004b).

10. The perceptions that auction information of a variety of types is sensitive are borne out in recent events surrounding Adelphia Communications Corp. As reported in Grant (2005), U.S. Bankruptcy Court Judge George Gerber decided to permit lawyers and financial advisors representing the unsecured creditor and equity committee, but not the committee members themselves, to review the auction-bid information for the country's fifth-largest cable operator. The basis for the ruling was recognition that sensitive bidding information might leak out if too many participants were granted access.

11. The SEC Final Rule for Investment Adviser Code of Ethics (SEC, 2004a) states "The code of ethics must require that access persons obtain the adviser's approval before investing" in an IPO or private placement purchase (see Section II.D of the SEC Final Rule). Moreover, records supporting approval must be retained for at least five years.

12. For example, Renaissance Capital, an independent research entity headquartered in Greenwich, CT, has compiled a list of Top Ten IPO Reforms, the first of which is to "Require underwriters to immediately make accessible the identities of the major investors to whom IPO shares were allocated and the number of shares allocated." This can be accessed at http://www.sec.gov/rules/proposed/s73804/renaissance011805.htm. Another recommended reform is a requirement for the IPO prospectus to list the identity of sellers in the overallotment option. The National Venture Capital Association letter (January 19, 2005) likewise endorses "disclosure of final allocations in detail, to include holding periods of purchasers and relationships between purchasers and underwriters" (p. 3). This letter also expresses support that lock-ups apply to pre-IPO shares purchased under "friends and family" programs and other issuer-directed shares and that waivers be publicly disclosed (p. 4). This letter can be accessed at http://www.sec.gov/rules/sro/nyse/nyse200412/mgheesen011905.pdf.

13. A comment letter by the Securities Industry Association (February 15, 2005) suggests that indications of interest be limited to those in the institutional pot and that rules be imposed on underwriters directly rather than indirectly through underwriting agreements, such as aggregate reporting of retail indications with flexibility as to the timing of reports and disclosure of settlement rather than closing date (p. 8). Of interest is the description of the SIA's view that practical problems arise regarding the proposed prohibition on market orders on the first day of trading (see pp. 10, 11). The SIA letter can be accessed at www.sec.gov/rules/sro/nyse/nyse200412/jfaulkner021504.pdf.

14. The NYSE expresses its belief that disclosure of each retail customer's indications of interest and subsequent allocations would be of limited benefit to issuers and their pricing committees and that a sufficiently clear picture of the demand for its securities would be met by merely aggregate reporting (p. 17). The IPO report (2003) recommends promotion of greater transparency with regard to "issuer directed" allocations such as "friends and family" programs – defined as "issuer-directed allocations of a portion of an offering used to permit company employees to invest in their employer at the IPO price, or to permit strategic business partners to have a small investment in the issuer" (pp. 18, 19).

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AUDITORS' REPORTING OPTIONS AND CLIENT DISCLOSURE QUALITY

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ABSTRACT

Auditors, legislators, and others have recently suggested that audit-reporting options be expanded so as to provide better information about expected future events. However, the last action by the Auditing Standards Board (ASB) related to auditor reporting was to reduce the reporting options available to the auditor. In this paper, we examine if the quality of footnote disclosures about pending litigation related loss contingencies deteriorated after SAS No. 79 removed the option available to auditors to issue a modified audit report for uncertainties. We find that there is no difference in the quality of disclosures in periods before and after SAS No. 79 became effective. Our results indicate that reducing reporting options did not have an adverse effect on the quality of financial statement disclosures.

One of the things that bothers me is that there is so little flexibility in what you can say about your work after you have done an audit (James E. Copeland Jr., retired chief executive of Deloitte & Touche) (as quoted in Norris, 2002).

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After the Enron failure, auditors and others have suggested that the communication between the auditor and the financial statement users must be modernized (e.g., Berardino, 2002; Lev, 2002; Norris, 2002). For example, during congressional hearings the then chief executive of Andersen criticized existing auditing standards and suggested that the audit report be expanded in several ways to provide financial statement users with better information about expected future events (Berardino, 2002). In the congressional hearings, some legislators also expressed their unhappiness with the options available to the auditor in opining on client financial statements. The only CPA on the House Financial Services Committee noted:

> You can insist upon a footnote. If they say no, you can nuke them or you can acquiesce. By nuking them, that is failing to give them an unqualified opinion. If you give them a qualified opinion, the SEC throws out the statement and the stock is selling for 25 cents the next day. … And I do look forward to working with my colleagues to give you some conventional weapons (Sherman, 2002, p. 149).

Another Congressman expressed his dissatisfaction with the options available in audit reports, noting that he took strong issue with the fact that auditors "don't have the ability to highlight a concern in a report" (Shays, 2002, p. 149). As noted by Leonard Spacek, the prominent Arthur Andersen partner from the 1940s to the 1970s, the ability of auditors to highlight a concern in their report is particularly important because many users of financial reports have difficulty reading and interpreting accounting information for themselves (Berry, 1989).

In light of the above, it is interesting to note that the last action by the Auditing Standards Board (ASB) related to auditor reporting was to *reduce* the reporting options available to the auditor. Statement on Auditing Standards (SAS) No. 79, *Amendment to Statement on Auditing Standards No. 58, Reports on Audited Financial Statements*, (AICPA 1995) removed the requirement for auditors to modify the audit report in the presence of material uncertainties. Prior to SAS No. 79, auditors were required under SAS No. 58 (AICPA, 1988) to modify the audit report by including an additional paragraph about material loss contingencies under certain circumstances. Further, prior to SAS No. 58 auditors were required to issue a "subject to" qualified audit report for substantively similar circumstances. Thus, SAS No. 79 eliminated the requirement that when certain criteria are met the auditor must add an uncertainties explanatory paragraph to the report.

In this paper, we examine if the quality of disclosures about loss contingencies in the financial statement notes deteriorated after the intermediate reporting option (i.e., a modified audit report for uncertainties) was removed from the professional literature leaving the auditor with only a more extreme reporting option (i.e., an exception for or adverse opinion). We compare the quality of footnote disclosures related to loss contingencies in periods before and after SAS No. 79 became effective. We use a variety of measures to examine the quality of disclosures, but find that there is no difference in the quality of disclosures using any of the measures. Our results indicate that reducing reporting options did not have an adverse effect on the quality of financial statement disclosures.

BACKGROUND AND RESEARCH QUESTION

Relevant Professional Standards

Prior to 1988, auditing standards required the auditor to add a paragraph to the auditor's report describing any material uncertainties facing the client. In addition, the auditor had to modify the audit report by qualifying the opinion stating that the auditor's opinion was "subject to" the effects, if any, on the financial statements of the ultimate resolution of the matter. The ASB unsuccessfully attempted to eliminate the "subject to" qualification requirement for uncertainties in 1977 and in 1982. The ASB noted that if the client adequately disclosed details about the contingency (as required by SFAS No. 5 (FASB, 1975) and SFAS No. 16 (FASB, 1977)), an additional paragraph in the audit report is not necessary. However, on both occasions such attempts met with strong resistance from financial statement users who believed that the requirement served as a useful "red flag" (Journal of Accountancy, 1977, 1978, 1982a, b). Subsequently, in 1988, the ASB changed the audit reporting standards in SAS No. 58. SAS No. 58 eliminated the "subject to" qualification but required the auditor to modify the audit report with an additional paragraph when certain conditions (substantively similar to those under which the auditor had to previously issue a qualified report) were met for loss contingencies.

In 1995, the ASB issued SAS No. 79 which eliminated the requirement for issuing a modified audit opinion when material loss contingencies exist. The ASB justified the removal of the explanatory paragraph requirement by noting that AICPA Statement of Position 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, had established financial statement accounting and disclosure requirements for matters involving uncertainties (AICPA, 1994). The ASB's Chair stated "the amendment is important to CPAs because it eliminates the redundancy of communicating information in auditors' reports that already is required to be disclosed in the financial statements" (Noonan, 1996).[1]

Prior Research

Prior research has suggested that the additional paragraph requirement may be useful because it can convey information beyond that available in the financial statement notes. While the auditor's additional paragraph by itself did not disclose any additional details about the contingency, it implied that the auditor viewed the loss contingency as being more serious. Raghunandan, Grimlund, and Schepanski (1991) find that auditors view a modified audit opinion, as opposed to only footnote disclosure, as indicating a higher probability that the loss contingency will occur.

Many prior studies have examined the stock price reactions to audit opinions that are qualified (these studies examined the pre-SAS No. 58 period) due to loss contingencies. Ball, Walker, and Whittred (1979), Banks and Kinney (1982), and Chow and Rice (1982) find that there is a negative stock price reaction to qualified audit opinions, but Elliott (1982) and Dodd, Dopuch, Holthausen, and Leftwich (1984) do not find such a negative market reaction. Dopuch, Holthausen, and Leftwich (1986) find that audit qualifications that are disclosed in the media elicit negative stock price reactions.

In summary, evidence from prior research suggests that the audit report modification option can be useful because (a) it provides auditors with another mechanism to signal the degree of seriousness related to an uncertainty and (b) users react accordingly to such a signal. It is noteworthy that no study has examined issues related to audit report modifications for uncertainties using data subsequent to the implementation of SOP 94-6; and, the ASB suggested that improved disclosure quality subsequent to the implementation of SOP 94-6 was a reason for eliminating the audit report modification requirement.

Value of Additional Disclosure Option

As noted earlier, there is yet another important benefit from the additional disclosure requirement (in the form of a modified audit report). Audited financial statements are the product of negotiations between the client and the auditor (Antle & Nalebuff, 1991; Wright & Wright, 1997). The modified report option can serve as a useful bargaining tool for the auditor in negotiations with the client. That is, through the threat of a modified opinion the auditor can elicit better disclosure by the client in notes to the financial statements about uncertainties related to loss contingencies. This is akin to the "conventional weapon" that Congressman Sherman (2002) referred to in hearings before the House Committee on Financial Services following the Enron failure.

Despite such a benefit as a negotiation tool, the ASB decided to eliminate the additional paragraph requirement for material uncertainties when it issued SAS No. 79. The ASB justified the removal of the requirement stating that the issuance of SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, significantly improved the disclosure of risks and uncertainties in financial statements. In addition, the ASB (1995) noted that the "absence of an uncertainties paragraph could cause financial statement users to incorrectly conclude that the entity faces no significant risks or uncertainties."

Research Question

Legislators and other critics have noted that the options available to auditors in opining on clients must be expanded. Conversely, the ASB reduced the options available to auditors by removing the additional paragraph requirement (in the presence of material uncertainties) when it issued SAS No. 79 in 1995. In this paper, we examine if the quality of clients' disclosures was affected by the ASB's action in SAS No. 79. If legislators and other critics are correct, then the quality of disclosures related to uncertainties should deteriorate in the period after SAS No. 79. Conversely, if the ASB is correct that the additional paragraph is redundant and does not improve the quality of disclosures then there should be no change in the quality of disclosures pre- and post-SAS No. 79. This leads to the research question examined in this study:

RQ. Did the quality of disclosures related to uncertainties differ in the pre- and post-SAS No. 79 periods?

METHOD AND DATA

While there are many types of uncertainties facing clients, we selected litigation loss contingencies for our analyses. We did this for the following reasons. First, litigation loss contingencies are the most common types of uncertainties facing the client. Since disclosures may vary depending on the type of uncertainties, our focus on litigation loss contingencies ensures that we will have an adequate number of comparable types of contingencies in the pre- and post-SAS No. 79 periods. Second, prior research suggests that audit report modifications for litigation loss contingencies are the least predictable (when compared to other types of uncertainty related modifications) using other financial statement data (Dopuch, Holthausen, & Leftwich, 1987). Third, litigation contingencies are relatively straightforward in terms of the types of disclosure items (and hence easier to code): the identity of the plaintiff, the reason for the lawsuit, the magnitude of the claims, the stage of the lawsuit, and management's expectation/actions related to the lawsuit are necessary for adequate description of the loss contingency.

Sample

SAS No. 79 was issued in December 1995 and was applicable for audit reports issued on or after February 29, 1996, with early application permitted. We selected our pre- and post-SAS No. 79 periods accordingly, keeping in mind that (a) there may be some transition-related issues and (b) the large majority of firms have December 31 fiscal year ends.

We obtain our sample from the *Compact D-SEC* discs of July 1995 and 1997 for the pre-SAS No. 79 period and post-SAS No. 79 period, respectively. We selected these discs because we anticipated that the majority of the firms in these discs would have fiscal year ends of December 31, 1994 and 1996, respectively. Our intention with this selection procedure was to minimize financial statements with fiscal year ends during the transition period from the issuance of SAS No. 79 in late 1995 until February 29, 1996 (when SAS No. 79 became effective).

Since our interest is on companies' litigation disclosures, we focus our search on the text of the financial statement notes for individual companies. We use the following key words in our search: LITIGAT or LAWSUIT or LEGAL. Our search strategy generates a list of companies that have at least one of these three words in the text of their financial statement notes.

We further narrow our scope to manufacturing industries with SIC codes between 2,000 and 3,999. A total of 1,265 manufacturing companies are identified for the pre-SAS No. 79 period, and 1,786 for the post-SAS No. 79 period. From that population, we obtain our sample by randomly choosing every fourth company, which gives us 316 companies and 446 companies for the pre- and post- periods, respectively.[2]

Since SAS No. 79 is effective for reports issued or reissued on or after February 29, 1996 (AICPA, 1995), we delete from our post-SAS No. 79 period 12 companies whose financial statement dates were prior to February 29, 1996. Thus, our initial sample size is 316 companies for the pre-SAS No. 79 period and 434 companies for the post-SAS No. 79 period.

In order to measure the amount and quality of note disclosures on litigation contingencies, we limit our focus to companies that have non-boilerplate disclosures of loss-related litigation contingencies.[3] We read the financial statement notes for all companies included in our sample, and deleted those companies where the litigation disclosure was limited to boilerplate language, settled legal cases, or gain contingencies.[4] As a result, our final sample is composed of all companies that have non-boilerplate disclosure for at least one pending loss-related issue. In addition, we delete three companies in the pre-SAS No. 79 period and two companies in the post-SAS No. 79 period that had zero net sales as these companies are likely to differ substantially from the rest of our sample. As such, the final sample size is 118 companies for the pre-SAS No. 79 period and 139 companies for the post-SAS No. 79 period.

Table 1 provides descriptive data about the sample. We compare the samples from the pre-SAS No. 79 period and the post-SAS No. 79 period in terms of their total assets, net sales, return on assets, and leverage. The *t*-tests for mean differences fail to reject the null hypothesis that the means are equal between the two groups. Nevertheless, since the *p*-values are close to the 0.10 level, we test if firm size is associated with disclosure quality; as reported later, we find that there is no association between firm size and disclosure quality in either univariate tests or in multivariate regressions. All the median tests for the differences in median also fail to reject the null hypothesis that the companies in the two groups are drawn from populations with the same median. The industry distribution is not significantly different across the pre- and post-SAS No. 79 time periods.

Disclosure Quality

We use two broad approaches to measure disclosure quality. In the first approach, we measure disclosure quality using a set of five criteria: who, what, how much, stage, and optimism. These five criteria are measured as follows. (1) Who is the plaintiff: if the plaintiff is identified we assign a 1, 0 otherwise; (2) What is the lawsuit about: if the issue in litigation is identified we assign a 1, 0 otherwise; (3) How much is the damage sought: if the

Table 1. Descriptive Statistics.

	Pre-SAS 79 ($n = 118$)	Post-SAS 79 ($n = 139$)	Difference (Pre-Post)	p-Value
Total assets[a]				
Mean	2,432,297	1,241,790	1,190,507	0.102[c]
(Median)	(279,535)	(158,245)	(121,290)	0.119[d]
[Standard Deviation]	[7,175,497]	[3,472,105]		
Net sales[a]				
Mean	2,182,168	1,286,850	895,318	0.191[c]
(Median)	(327,733)	(170,123)	(157,610)	0.119[d]
[Standard Deviation]	[6,841,359]	[3,085,585]		
Return on assets				
Mean	−0.060	−0.110	0.050	0.521[c]
(Median)	(0.035)	(0.020)	(0.015)	0.454[d]
[Standard Deviation]	[0.769]	[0.380]		
Leverage[b]				
Mean	0.269	0.228	0.041	0.161[c]
(Median)	(0.207)	(0.181)	(0.026)	0.419[d]
[Standard Deviation]	[0.249]	[0.211]		
Industry distribution				
2-digit SIC 20–29	48	47		
2-digit SIC 30–39	70	92	1.291[e]	0.256[e]

[a]In thousands.
[b]Leverage is computed as total debt divided by total assets.
[c]Tests for differences in means are based on independent sample t-test.
[d]Tests for differences in median are based on (nonparametric) median test.
[e]A χ^2 test is performed on the 2×2 contingency table, where 1.291 represents the Pearson χ^2 value.

amount is disclosed we assign a 1, 0 otherwise; (4) What stage is the suit in: if the stage (such as initial discovery, trial, appeal) is disclosed we assign a 1, 0 otherwise; and (5) What is management's attitude toward the outcome of the lawsuit: if it is optimistic, such as "the outcome will not adversely affect the firm's financial condition," we assign a 0; if it is non-optimistic, such as "nothing can be assessed at this stage," or "the damages will be at least x amount," or "the outcome could negatively affect the financial statements," we assign the case a 1. If no specific opinion was expressed, we treat the note disclosure as non-optimistic (coded as a 1).

Each of the five disclosure quality items noted above uses a dichotomous measure. In our second approach, we use a continuous measure of disclosure quality. For each sample firm, we count the number of words in the relevant financial statement note related to pending loss contingencies. In other words, if a case has been settled or if it represents a gain contingency, including situations where the firm initiated the claim and was countersued by the defendant, we delete these parts of the financial statement note.

For each of the above two approaches, we measure the disclosure quality on two dimensions for each sample firm: the most significant litigation loss contingency and all litigation loss contingencies. The most significant item is defined as either the case with the largest dollar amount sought by the plaintiff or, if the dollar amount sought is not disclosed, the first case discussed in the notes is viewed as the most significant case. If the dollar damages sought are disclosed for only one case, it is considered the most significant item.

In our analyses of all litigation loss contingencies, for each dichotomous measure, we average the values assigned to all pending lawsuits against a firm. Thus, if there are four specific litigation items and the firm disclosed details about the "who" and "how much" issues in three and two lawsuits, then the "who" and "how much" measures are 0.75 and 0.50, respectively.

RESULTS

Panel A of Table 2 provides data about the relative frequency of disclosure of the five categories of items for the primary contingent event. Details about "who" (i.e., the plaintiff) are provided in the financial statement notes by 86 percent of the firms in the pre-SAS No. 79 period, and by 84 percent of the firms in the post-SAS No. 79 period. The observed pattern fails to reject the null hypothesis of no difference between the two periods ($\chi^2 = 0.442$, p-value $= 0.506$). Virtually all of the firms provided details related to the "what" question in both the pre- and post-SAS No. 79 periods, so we exclude this item from subsequent analyses.

Unlike the relatively complete disclosure of the identity of the party bringing the lawsuit (who) and the nature of the lawsuit (what), there was much less detail provided on the amount of damages sought. Only 30 percent of the firms in the pre-SAS No. 79 period disclosed the amount of damages sought, 36 percent of the firms disclosed the amount of damages sought in the post-SAS No. 79 period. Once again, the observed pattern fails to reject the null hypothesis of no difference between the pre- and post-SAS No. 79 periods ($\chi^2 = 1.148$, p-value $= 0.284$).

Details about the status of the lawsuit are provided by 54 percent of the firms in the pre-SAS No. 79 sample, and by 53 percent of the firms in the post-SAS No. 79 period. Yet, again the null hypothesis of no difference

Table 2. Disclosure Quality – Specific Issues Mentioned in Financial Statement Notes.

Panel A: Primary Contingent Event

	Footnote provides details about							
	Who[a]		How much[b]		Status[c]		Optimism[d]	
	Yes	No	Yes	No	Yes	No	Yes	No
Pre-SAS 79	102	16	35	83	64	54	62	56
Post-SAS 79	116	23	50	89	73	66	79	60
χ^2	0.442		1.148		0.076		0.475	
(p-value)	(0.506)		(0.284)		(0.783)		(0.491)	

Panel B: All Contingent Events

	Who[a]			How much[b]			Status[c]			Optimism[d]		
	All	Some	None	All	Some	None	All	Some	None	All	Some	None
Pre-SAS 79	96	10	12	18	17	83	48	27	43	56	12	50
Post-SAS 79	113	8	18	29	21	89	58	25	56	72	16	51
χ^2	1.096			1.499			1.018			0.871		
(p-value)	(0.578)			(0.473)			(0.601)			(0.647)		

[a]Who: who is the plaintiff, if the plaintiff is identified we assign a 1; 0 otherwise.
[b]How much: how much is the damage sought, if the amount is disclosed we assign a 1; 0 otherwise.
[c]Status: what stage is the suit in, if the stage (such as initial discovery, trial, appeal) is disclosed we assign a 1; 0 otherwise.
[d]Optimism: what is management's attitude toward the outcome of the lawsuit, if it is optimistic, such as ''the outcome will not adversely affect the firm's financial condition,'' we assign a 0; if it is non-optimistic, such as ''nothing can be assessed at this stage,'' or ''the damages will be at least x amount,'' or ''the outcome could negatively affect the financial statements,'' we assign the case a 1. If no specific opinion was expressed, we treat the note disclosure as non-optimistic (coded as a 1).

between the pre- and post-SAS No. 79 periods cannot be rejected ($\chi^2 = 0.076$, p-value $= 0.783$).

Finally, we classify 53 percent of the disclosures in the pre-SAS No. 79 period as ''optimistic.'' In the post-SAS No. 79 period, 57 percent of the disclosures are classified as ''optimistic.'' The proportion of financial statement notes classified as optimistic in the pre- and post-SAS No. 79 periods is not significantly different ($\chi^2 = 0.475$, p-value $= 0.491$). Panel B of Table 2 provides data relating to the disclosure quality of litigation loss-related contingencies, when *all* company litigation loss-related contingencies are considered together. As was the case when analyzing only the most significant contingency, there are no significant differences between the pre- and post-SAS No. 79 periods related to disclosure of who brought the lawsuit, the dollar damages sought, the lawsuit's status, and the degree of managerial optimism in describing the suit.

Table 3 provides data related to disclosure, as measured by the number of words. We provide data about the primary contingent event in Panel A, and about all contingencies in Panel B. As seen in Panel A, the mean number of words used to describe the primary contingent event in the financial statement notes is 181.96 and 194.46 in the pre- and post-SAS No. 79 periods, respectively. A t-test fails to reject the null hypothesis of no difference in means ($t = 0.697$, p-value $= 0.486$). The median values for the number of

Table 3. Disclosure Measure – Number of Words.

Panel A: Primary Contingent Event

	Pre-SAS 79	Post-SAS 79
Mean	181.96	194.46
Standard deviation	146.08	140.91
25th percentile	100.00	101.00
Median	137.50	152.00
90th percentile	332.30	353.00

Test statistics:
For differences in mean t-test statistic $= 0.697$, p-value $= 0.486$
For differences in median test $\chi^2 = 1.165$, p-value $= 0.280$

Panel B: All Contingencies

	Pre-SAS No. 79	Post-SAS No. 79
Mean	350.25	327.62
Standard deviation	417.41	307.56
25th percentile	113.50	122.00
Median	197.50	210.00
90th percentile	912.90	815.00

Test statistics:
For differences in mean t-test statistic $= 0.499$, p-value $= 0.618$
For differences in median test $\chi^2 = 0.481$, p-value $= 0.488$

words in the pre- and post-SAS No. 79 periods are 137.50 and 152.00, respectively; a median test also fails to reject the null hypothesis of no difference between the two periods ($\chi^2 = 1.165$, p-value $= 0.280$).

Panel B of Table 3 provides the data when considering all of the litigation loss contingencies disclosed in the notes. The mean number of words used to describe litigation loss contingencies in the financial statement notes is 350.25 and 327.62 in the pre- and post-SAS No. 79 periods, respectively. A t-test fails to reject the null hypothesis of no difference in means ($t = 0.499$, p-value $= 0.618$). The median values for the number of words in the pre- and post-SAS No. 79 periods are 197.50 and 210.00, respectively; a median test also fails to reject the null hypothesis of no difference between the two periods ($\chi^2 = 0.481$, p-value $= 0.488$).

Finally, we run multivariate regression models (using either OLS or logistic regression) for each dependent variable, where a pre-/post-SAS NO. 79 dummy variable is the test variable of interest and where log (Total Assets), return on assets, and leverage are control variables. None of the overall models is statistically significant and in no case is the SAS No. 79 indicator (as well as any other) variable significant.

SUMMARY, LIMITATIONS, AND CONCLUSION

We examine the quality of disclosures related to pending litigation-related loss contingencies pre- and post-SAS No. 79. SAS No. 79 eliminated the requirement for the auditor to issue a modified report when material uncertainties exist. The ASB claimed that the auditor's uncertainty-related paragraph was redundant, particularly in light of SOP 94-6, which mandated greater disclosures regarding risks and uncertainties. As such, the ASB would expect that disclosure quality would be unaffected by the issuance of SAS No. 79. Conversely, the limited number of reporting options available to auditors has recently received much attention from the practicing profession and legislators. Although there are multiple potential benefits to providing the auditor with more reporting options, one benefit is that the availability of modified reports provides the auditor with a certain degree of leverage with client management in insisting on high quality disclosure. In the absence of modified reporting options, the auditor, when faced with marginal disclosure quality, can accept the disclosures as is and issue an unqualified report or the auditor can "go nuclear" (per Congressman Sherman) and issue a qualified or adverse report. Given the loss of auditor reporting options, this argument would suggest that disclosure quality would decline post-SAS No. 79.

We measure disclosure quality by examining whether there is disclosure of the party bringing the lawsuit, the dollar amount of damages sought, where the lawsuit stands in the legal process, and the optimism of management with respect to the ultimate resolution of the suit. We also measure the extent of the disclosure, by examining the number of words devoted to the litigation-related loss contingency in the financial statement notes. We fail to find any difference in disclosure quality in the period after SAS No. 79 as before the issuance of SAS No. 79. At a minimum, this result provides empirical support for the ASB's stated reason for issuing SAS No. 79, that the issuance of SOP 94-6 obviated the need for auditor report modifications in cases of material uncertainties. One interpretation of our results is that there is a substitution effect of change in financial reporting standards (SOP 94-6) for audit opinion information. In addition, our results provide some evidence that reducing reporting options did not lead to a decline in the quality of financial statement note disclosures.

We conclude with a discussion of limitations and possible extensions. First, the reaction of company management to any future change in auditor reporting options may differ from the reaction that existed in the past. Company management, including the board of directors and audit committee, is now facing intense pressure and scrutiny to prepare high quality financial statements, and the external auditor's bargaining position vis-à-vis management is stronger today than it was in the late 1990s even without the credible threat to issue a modified report. Second, in this study we only focus on companies with a disclosure; hence, our conclusions are limited to once a disclosure decision has been made. We do not address the issue of whether or not firms are more likely to disclose pre- or post- SAS No. 79. Another approach for future research would be to identify an independent source of litigation and then examine the presence or absence of disclosure in footnotes. Third, disclosures affecting other areas of the financial statements may be affected differently by a change in auditor reporting options than were disclosures of litigation-related loss contingencies. Fourth, the primary benefit of providing the auditor with more reporting options may be realized through enhancing the *direct* communication between the auditor and financial statement readers, not through the *indirect* effect of enhancing managerial disclosures in the financial statement notes. The benefits associated with enhanced direct communication between the auditor and financial statement users is a topic worthy of future study. Finally, the Sarbanes-Oxley Act of 2002 (SOX, 2002) has significantly changed the environment of accounting and auditing. Empirical evidence in Geiger, Raghunandan, and Rama (2005) suggests that auditors may be more conservative in their judgments in the post-SOX period than in the period prior to SOX. Hence, it may be worthwhile to explore if there are differences in the quality of footnote disclosures before and after SOX.

NOTES

1. SAS No. 79 did not affect reporting by auditors in circumstances involving an entity's ability to continue as a going concern. SAS 79 was effective for reports issued or reissued on or after February 29, 1996, but early application was permissible. In addition, auditors still have the option of adding an emphasis of matter paragraph. See Birdzell (1996).
2. We first performed a random sort, and then randomly selected one company from the first four. We then took every fourth company in the list. Thus, once the first company was selected randomly, all other items are chosen automatically.
3. An example of a boilerplate disclosure of loss-related litigation drawn from our sample is: "The Company is engaged in various legal actions as both plaintiff and defendant. Management believes that the outcome of these actions, either individually or in the aggregate, will not have a material adverse effect on the Company's financial position, results of operations or cash flows."
4. There were no significant differences in the percentage of companies with boilerplate disclosures, or in the percentage of companies booking a liability, in the pre- vs. post-SAS 79 periods. We exclude boilerplate disclosures from our analyses because we are unable to measure the quality of the footnote disclosure in such instances.

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THE ANALYSIS OF SFAS NO. 109's USEFULNESS IN PREDICTING FUTURE CASH FLOWS FROM A CONCEPTUAL FRAMEWORK PERSPECTIVE

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ABSTRACT

This paper empirically tests whether the various SFAS No. 109 reporting and disclosure requirements provide information that is consistent with the FASB's Conceptual Framework. To address this question, we examine whether information required by SFAS No. 109 provides any incremental ability to predict future operating cash flows (OCFs). Our findings suggest that separate recognition of deferred tax assets, liabilities and valuation allowance provides useful information to predict future cash flows. To determine whether SFAS No. 109 data provides incremental useful information when predicting future cash flow, we develop a model (restricted) using financial statement information available in 1994. Next, we add the separate SFAS No. 109 components to the restricted model and test whether the full model is more appropriate. The results indicate that the SFAS No. 109 reporting requirements provide information useful for predicting future cash flows. These findings support the

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FASB's position that SFAS No. 109 information is consistent with the conceptual framework of accounting. In addition, we find that separate recognition of deferred tax amounts required by SFAS No. 109 is a better predictor of future cash flows than reporting net deferred tax information as required by APB No. 11.

1. INTRODUCTION

This study examines whether the reporting requirements of Statement of Financial Accounting Standards No. 109, *Accounting For Income Taxes* (FASB, 1992) (SFAS No. 109) provide information that is useful in predicting future cash flows beyond information already available in financial statements prior to SFAS No. 109. We further examine whether the separate recognition of deferred taxes required by SFAS No. 109 is a better predictor of future cash flows than the net method required by Accounting Principles Board Opinion No. 11, *Accounting for Income Taxes* (APB, 1967) which did not require separate recognition.

SFAS No. 109 requires an "asset and liability" approach for reporting accounting for income taxes. With this treatment, deferred income taxes are reported as both assets and liabilities and deferred income tax expense represents the change in the deferred tax assets/liabilities in the current year. The FASB stated that "the asset and liability approach to accounting for income taxes is the most consistent with the definitions in Statement of Financial Accounting Concepts No. 6, *Elements of Financial Statements* (FASB, 1985) (SFAC No. 6), and with other aspects of the conceptual framework."

Ayers (1998) finds support for the balance sheet approach by finding that SFAS No. 109 measures are value relevant and thus viewed as true assets and liabilities by the market. This study extends Ayers (1998) by investigating whether SFAS No. 109 information is consistent with other aspects of the conceptual framework. Specifically, we test whether SFAS No. 109 provides information that is useful for predicting future cash flows and is consistent with the relevance requirement of Statement of Financial Accounting Concepts No. 1, *Objectives of Financial Reporting by Business Enterprises* (FASB, 1978) (SFAC No. 1) and Statement of Financial Accounting Concepts No. 2, *Qualitative Characteristics of Accounting Information* (FASB, 1980) (SFAC No. 2).

Although Ayers (1998) found that deferred taxes are related to firms' market value of equity, it offers no explanation of how deferred tax information is utilized by market participants. Firm values reflect, among other things, investors' best estimates of future cash flows. By examining deferred taxes in this research setting we attempt to more directly link deferred income tax measures to future cash flows as called for in the FASB's Conceptual Framework. This question is not self-evident. While deferred taxes may be value relevant; they may have limited predictive value. For example, deferred tax accounts are subject to potential manipulation and can be used to manipulate earnings.[1] Also, there are measurement issues relating to the failure to discount deferred tax assets and liabilities. As a result of the potential manipulation and measurement issues relating to deferred taxes, these accounts may have limited predictive ability. Our paper investigates this question.

This study also expands on the earlier work of Cheung, Krishan, and Min (1997). They found that deferred taxes are useful in predicting future cash flows. Our study expands their work in several ways. First, the sample period used by Cheung et al. (1997) covered a period when three different accounting standards where in effect (i.e. APB No. 11, FASB No. 96 and FASB No. 109) and FASB No. 109 information was relatively new and possibly unassimilated by the markets. Our study uses a sample period where only SFAS No. 109 is in force. Second, the measurement(s) of deferred taxes used by Cheung et al. (1997) did not capture the separate recognition of deferred taxes and liabilities required by SFAS No. 109.

Our findings suggest that separate recognition of deferred tax assets, liabilities and valuation allowance provide useful information in the prediction of future cash flows. We also find that separate recognition of deferred tax assets, liabilities and valuation accounts required by SFAS No. 109 is more appropriate than reporting a net deferred tax measure as required by APB No. 11.

The results of this study are consistent with Cheung et al. (1997) and suggest that their conclusions that interperiod tax allocation is useful in the prediction of future cash flows still holds for SFAS No. 109. Our findings provide support for the FASB's views that SFAS No. 109 data are consistent with critical aspects of the conceptual framework.

The remainder of this paper proceeds as follows. Section 2 provides background information on accounting for income taxes and reviews the relevant literature. Section 3 develops the research hypothesis. Section 4 describes the sample selection process. Section 5 describes the variables used in the study and their measurement. Section 6 describes the methodology and presents the research findings, and Section 7 concludes the paper.

2. BACKGROUND AND LITERATURE REVIEW

2.1. Accounting for Income Taxes and SFAS No. 109

Accounting for income taxes has been one of the most complex and troublesome issues in financial reporting. The central theoretical accounting issue is whether projected taxable consequences that result from differences in GAAP and tax accounting rules should be recognized in the financial statements of the current period. Since the issuance of APB No. 11, the accounting profession has required the recognition of deferred tax assets or liabilities that result from the differences between GAAP based income and taxable income using the deferral method.[2] However, during the 1980s the FASB expressed concern whether the deferred method for reporting income taxes under APB No. 11 was consistent with SFAC No. 6's definitions of assets and liabilities and other aspects of the conceptual framework.[3]

In 1992, the FASB issued SFAS No. 109, *Accounting for Income Taxes* to address the criticisms of reporting for income taxes.[4] SFAS No. 109 required an "asset and liability" approach for accounting for income taxes. The two basic objectives of this approach are for firms to recognize: (1) the taxes payable or refundable for the current year and (2) deferred tax liabilities and assets reflecting future tax consequences of transactions that have been recognized in the financial statements and tax returns. Unlike previous pronouncements, SFAS No. 109 requires the separate recognition of both deferred tax liabilities and assets using the enacted tax rate expected to apply in the year in which the deferred tax assets and liabilities are expected to be realized, not the rate that existed when the deferred tax assets and liabilities originated.

SFAS No. 109 also allows a firm greater flexibility in recognizing as deferred tax assets (DFA) future tax benefits arising from operating loss and tax credit carryforwards. However, the DFA should be offset by a valuation allowance if there is evidence that it is "more likely than not," meaning a probability of greater than 50%, that some or all of those deferred assets will not be realized.

In issuing SFAS No. 109, the FASB concluded, "that the asset and liability approach to accounting for income taxes is most consistent with the definitions of SFAC No. 6 and with other parts of the conceptual framework." In addition, the FASB stated that "the asset and liability approach produces the most useful and understandable information and that it is no more complex than any other approach to accounting for income taxes."

SFAS No. 109 is not without its critics. For example, Chaney and Jeter (1994) argue that although SFAS No. 109 received greater acceptance than earlier standards, it does not reduce the cost or complexity of accounting for income taxes. In fact, Deloitte & Touche (1992) suggests that complying with SFAS No. 109 may be more costly than complying with APB No. 11. The FASB has an obligation to consider the cost/benefit issues when issuing standards and has come under criticism for failing to do so.[5]

Petree, Gregory, and Vitray (1995) suggest that under SFAS No. 109, the measurement and evaluation of DFA is more subjective because of SFAS No. 109's "more likely or not" standard. The deferred tax information required to be reported by SFAS No. 109 might not provide useful information. Additional subjectivity may result from SFAS No. 109's allowance of either the "impairment" or "affirmative" approach to recognize DFA. According to the FASB, the two approaches should not result in different DFA amounts. Heiman-Hoffman and Patton (1994) test that assertion by having 84 Big 6 auditors make adjustments to the DFA account. All information was the same except that half the subjects used the "impairment" approach while the others used the "affirmative" approach. The authors found a significant difference between the DFA balances obtained using the two approaches.

Although SFAS No. 109 requires recognition of deferred tax liabilities and assets in the financial statements, many analysts and financial statement users question how useful they are in the prediction of future cash flows (e.g. Gibson, 2001, White, Sondhi, & Fried, 1994, Stickney & Brown, 1999). Others contend that deferred tax liabilities (DFL) are not a legal obligation to the firm and thus are not liabilities (Stickney & Brown, 1999). As a result, due to the complexity of accounting for income taxes, many analysts do not include DFL as liabilities when doing their analysis (Gibson, 2001, White et al., 1994, Stickney & Brown, 1999).

2.2. Prior Empirical Research

Prior research has focused primarily on the issue of whether deferred tax liabilities and assets are viewed by the market as true liabilities and assets. Givoly and Hayn (1992) analyze unexpected stock returns around new disclosures of The Tax Reform Act of 1986 and conclude that investors view DFL as real liabilities and discount their value according to the likelihood of settlement. Ohlson and Penman (1992) disaggregate accounting information into components including DFL and find that DFL have different coefficients than other financial statement components. Thus, they conclude that measuring DFL is much more complex than measuring other assets and liabilities.

Chaney and Jeter (1994) find that for some firms DFL are useful in setting stock prices. However, they point out that their results are much more consistent with the notion that investors use DFL to obtain information about the firms accounting choices rather than information about future tax payments.

Amir, Kirschenheiter, and Willard (1997) point out that these earlier studies used pre-SFAS No. 109 data and that the methodologies used in some of the prior research may not be suitable to investigate deferred taxes. To address these issues, Amir et al. (1997) examine SFAS No. 109 disclosures using a model adapted from the theoretical work of Feltham and Ohlson (1995). They find that net deferred taxes help explain cross-sectional variation in firms' market value. In addition, they disaggregate deferred taxes into components and find these components provide value-relevant information. However, there was no association between DFA from operating loss and tax credit carryforwards and share price, indicating that these assets were not valued positively by the market.

Ayers (1998) examines whether SFAS No. 109 provides incremental value relevant information relative to APB No. 11 using a valuation model. He finds that SFAS No. 109 measures provide more value-relevant information than the disclosures required by APB No. 11. In addition, Ayers finds that the separate recognition of deferred tax liabilities, assets and valuation allowance and adjustments for changes in tax rates help explain firm value. Thus, Ayers concludes that SFAS No. 109 does provide relevant information.

Amir and Sougiannis (1999) examine the value relevance of DFA arising from operating loss and tax credit carryforwards. They develop two models: an analyst-prediction model and an investor-valuation model to test whether DFA such as these are value relevant. They find a strong positive association between deferred taxes from carryforwards and stock prices for the valuation model while their findings for the earnings forecast models are insignificant. Amir and Sougiannis (1999) conclude that while investors correctly incorporate all of SFAS No. 109 information when valuing DFA, analysts fail to fully capture all of the implications of SFAS No. 109

disclosures. The recent research seems to indicate that deferred tax information is value relevant. However, methodological limitations and issues suggest further research is needed. For example, Ayers (1998) points out that the estimated coefficients from his application of the market valuation model differ from their theoretical values. This finding suggests potential correlated omitted variables and/or measurement error and indicates that caution must be exercised when interpreting the results obtained from market valuation models.

To avoid the empirical issues related to the market valuation studies (e.g. Ayers, 1998), we complement his work and examine whether deferred tax information is useful when predicting future cash flow above and beyond information already available in the financial statements. This study builds on the earlier work of Cheung et al. (1997) who found that interperiod tax allocation enhances the prediction of cash flows. Our study expands their work in several ways. First, their study used a sample period in which three different accounting standards where in effect (i.e. APB No. 11, SFAS No. 96 and SFAS No. 109). Our study uses a sample period where only SFAS No. 109 is in force. Second, their measurement(s) of deferred taxes did not capture the separate recognition of deferred tax assets and liabilities required by SFAS No. 109.[6] Our study examines the information contained within the disaggregated measures required under SFAS No. 109. Our testable hypothesis, designed to determine whether SFAS No. 109 information is relevant, is presented in the following section.

3. HYPOTHESIS DEVELOPMENT

The FASB stated that the separate recognition of deferred tax assets and liabilities required by SFAS No. 109 is consistent with the definitions in SFAC No. 6 and other aspects of the conceptual framework.[7] If SFAS No. 109 is consistent with other parts of the conceptual framework then the reporting and disclosure requirements of SFAS No. 109 should help users predict cash flows consistent with SFAC No.1 and SFAC No. 2. However, Amir and Sougiannis (1999) find no significant link between deferred taxes and analysts' forecasts.

On the one hand, analysts and other users may not consider deferred tax assets and liabilities in their forecasts of future cash flows because of the complexity of and uncertainty surrounding information provided from accounting for income taxes. On the other hand, if the FASB is correct in their identification and measurement of deferred tax assets and liabilities, those assets and liabilities should impact future cash flows and improve users' ability to model and predict future cash flows. This leads the following hypothesis, stated in alternative form:

> **H1.** The SFAS No. 109 reporting and disclosure requirements incrementally help predict operating cash flow (OCF) relative to non-SFAS No. 109 reporting and disclosure requirements already available in the financial statements.

4. SAMPLE

The population of interest for this study is all active firms on COMPUSTAT during the years from 1994 to 1998.[8] The 1999 COMPUSTAT file contained 10,188 publicly traded firms during 1998. Panel A of Table 1 summarizes the sample selection process. To select the sample, the following criteria were used. First, we removed firms in the utilities sector (SIC 4,911–4,941) and in the banking, financial services and insurance sectors (SIC 6,000–6,999).[9] This resulted in the elimination of 2,408 firms. Second, we excluded 4,344 firms that did not have complete data on COMPUSTAT for the years from 1994 to 1998 leaving a subtotal of 3,436 firms. We excluded 1,726 firms because their SFAS No. 109 footnote disclosures were not available on Lexis-Nexis.[10] Finally, we deleted 70 foreign firms that did not adopt SFAS No. 109 and 14 firms that were nontaxable partnerships resulting in a final sample of 1,642 firms.

5. VARIABLE MEASUREMENT AND DESCRIPTIVE STATISTICS

5.1. Dependent Variable

Operating cash flow (OCF) is also used as a dependent variable since financial statement users may be more interested in predicting overall cash flow rather than a specific cash flow such as taxes paid. In addition, using OCF as the dependent variable allows us to compare the findings of this study with the results of Cheung et al. (1997). For our dependent variable, (OCF) is measured as the net OCFs reported by the firm from 1995 to 1998 (OCF95, OCF96, OCF97 and OCF98).

Table 1. Sample Selection Process and Descriptive Statistics.

Panel A: Sample Selection Process	Firms
Active Compustat firms in 1998	10,188
Less: firms in SIC 4,911–4,941 or SIC 6,021–6,799	(2,408)
Subtotal	7,780
Less: firms not active on Compustat from 1991 to 1998	(4,344)
Subtotal	3,436
Firms not available on Lexis-Nexis	(1,710)
Subtotal	1,726
Less: foreign firms not adopting SFAS 109	(70)
Firms that were nontaxable entities	(14)
Final sample	1,642

Panel B: Descriptive Statistics

	Mean	S.D.	Median	Q1	Q3
Dependent variable					
OCF98	284.37	1,231.60	24.51	2.44	125.10
OCF97	286.66	1,270.51	24.10	3.26	126.04
OCF96	255.18	1,129.62	20.66	3.19	106.73
OCF95	223.64	1,049.49	17.06	2.11	88.57
Independent variables					
SIZE	1,937	7,677	260	66	997
OCF94	196.39	897.13	14.64	1.76	79.59
DFA	145.61	1,050.16	12.05	2.67	46.21
DFV	19.27	134.43	0.00	0.00	7.00
DFL	148.71	809.53	4.69	0.62	31.80

Note: OCF94…OCF98 is operating cash flow in years from 1994 to 1998 (COMPUSTAT ♯308). SIZE is total sales in 1994 (COMPUSTAT ♯ 12). DFA, DFV and DFL are the book value of Deferred Tax Assets, Valuation Allowance and Liabilities obtained from company footnotes.

5.2. Independent Variables

The independent variables used in this study can be broadly categorized as a parsimonious set of firm specific variables that are either non-SFAS No. 109 related or SFAS NO. 109 related. Firm size (SIZE), measured as total sales, is included in the model since firm size should be strongly related to OCFs. Pincus and Rajgopal (2002) found that larger firms face more pressure to report predictable earnings. Given the established relationship between earnings and cash flows (Greenberg & Johnson, 1986; Barth, Cram, & Nelson, 2001), larger firms should have more predictable cash flows than smaller firms. We expect a positive relation between SIZE and OCFs.

Operating Cash Flow (OCF94) is measured as the firm's net OCFs as reported in the Statement of Cash flows. We include this variable since a firm's current OCF is likely to be the best single predictor of its future OCFs. OCF94 should be positively related to the amount of future net cash flows.

Deferred Taxes (DFA, DFV and DFL): The variables DFA, DFV and DFL measure the firm's DFA, valuation allowance and DFL, respectively, as reported under the provisions of SFAS No. 109. If SFAS No. 109 information is consistent with SFAC No. 6, then the SFAS No. 109 reporting requirements should be associated with future cash flows in a predictable manner.

For example, DFA measure the amount of future tax savings as a result of deductible temporary differences and thus will result in a reduction in future taxes paid. Therefore, DFA would be expected to be positively associated with future OCFs. However, DFA must be reduced by a valuation allowance, which reduces DFA to their expected net realizable value. Therefore, the valuation allowance should be negatively associated with future OCFs since it reduces the likelihood of some or all of the DFA being realized. DFL represent an increase in the amount of taxes payable in future years as a result of taxable temporary differences existing at the end of the year and if realized, will result in an increase in the amount of taxes paid in future years. Thus, DFL should be negatively associated with future OCFs.

6. METHOD AND RESULTS

6.1. Research Methodology

To determine whether the reporting and disclosure requirements of SFAS No. 109 provide useful information to help predict future OCFs, we first estimate four cross-sectional regressions where future cash flows (OCF95…OCF98), the dependent variable, is regressed on the two non-SFAS No. 109 variables (model 1). In developing model 1, we are using a parsimonious model and analyzing financial statement information that is available in 1994 and trying to use that information to predict a firm's OCFs for the years 1995, 1996, 1997 and 1998. We include a scale proxy as an independent variable (SIZE) as opposed to deflation to help mitigate heteroscedasticity consistent with Barth and Kallapur (1996). This model can be expressed as follows:

$$OCF = \alpha + \beta_1 SIZE + \beta_2 OCF94 + \varepsilon \quad (1)$$

Model 1 represents the base-line model, which is to be used to compare against the model that includes the reporting and disclosure requirements of SFAS No. 109. To determine whether SFAS No. 109 reporting and disclosure requirements help predict future cash flows, model 1 is modified by including the SFAS No. 109 variables DFA, DFV and DFL in addition to the variables already included. This model (model 2) can be expressed as follows:

$$OCF = \alpha + \beta_1 SIZE + \beta_2 OCF94 + \beta_3 DFA + \beta_5 DFL + \varepsilon \quad (2)$$

Model 2 becomes the full model since it contains both of the independent variables that were included in model 1 plus all SFAS No. 109 variables. To test whether the full model (model 2) has more predictive power than the restricted model (model 1), a model comparison F-test can be developed using the sums-of-squares (SSE) from each model.[11]

6.2. Results

Panel B of Table 1 provides descriptive statistics for the variables used in this study. There is an upward trend in the amount of OCFs (OCF94…OCF98) reported by the sample firms which is consistent with the fact that the period from 1994 to 1998 was one where the U.S. economy and corporate profits grew at record rates. The SFAS No. 109 variables, DFA, DFV and DFL represent substantial balance sheet amounts as indicated when those variables are scaled by total assets (15%, 9% and 6% of total assets, respectively). Panel B of Table 1 also indicates that the sample consists of larger COMPUSTAT firms as the mean sales are \$1.94 billion.[12]

Table 2 presents the results of estimating models 1 and 2 for each year from 1995 through 1998. The results from the estimation of model 1 (restricted model) for 1995 indicate that the 1994 data predicts OCFs for 1995 (OCF95) quite well as the adjusted R^2 is 96.94%. Model 2 (full model) includes the SFAS No. 109 variables, DFA, DFV and DFL in addition to the variables included in model 1. The results from this estimation indicate that the inclusion of the DFA, DFV and DFL in the model improved the adjusted R^2 by increasing it from 96.94% to 97.43%. The *F*-value to determine whether this increase was significant and whether model 2 is the appropriate model is 171.12 and is significant at the 0.01 level.

Table 2. Regression of Operating Cash Flow for 1995 (OCF95), 1996 (OCF96), 1997 (OCF97), and 1998 (OCF98) on Various Financial Statement Measures and SFAS 109 Deferred Tax Disclosures.

Variables	Pred. Sign	1995		1996		1997		1998	
		Model 1 Coeff.	Model 2 Coeff.	Model 1 Coeff.	Model 2 Coeff.	Model 1 Coeff	Model 2 Coeff	Model 1 Coeff	Model 2 Coeff
Non-SFAS 109									
Intercept	?	−0.728	4.363	17.99**	25.23***	24.04**	34.91***	231.91***	41.95***
SIZE	+	0.017**	0.004***	0.019***	0.003	0.002	−0.013	0.019***	0.007***
OCF94	+	0.964***	0.958***	1.009***	1.072***	1.319***	1.483***	1.082***	1.259***
SFAS 109									
DFA	+	—	0.060***	—	0.093***	—	0.062***	—	0.066***
DFV	−	—	−0.558***	—	−0.799***	—	1.429***	—	−1.321***
DFL	−	—	0.128	—	0.108	—	0.036	—	−0.028
Adjusted R^2 (%)		96.94	97.43	93.60	94.22	89.24	90.66	89.12	90.40
F-test for Model comparison		105.75***		59.29***		84.12***		73.88***	

Note: OCF94…OCF98 is operating cash flow in years from 1994 to 1998 (COMPUSTAT ♯308). SIZE is total sales in 1994 (COMPUSTAT ♯12). DFA, DFV and DFL are the book value of Deferred Tax Assets, Valuation Allowance, and Liabilities obtained from company footnotes. NETDEF = (DFA−DFV)−DFL.

*indicates significance at the 0.10 level,

**indicates significance at the 0.05 level,

***indicates significance at the 0.01 level respectively.

Models 1 and 2 are next used to test whether the SFAS No. 109 reporting requirements and disclosures significantly improved the prediction of OCFs in 1996, 1997 and 1998 (OCF96, OCF97 and OCF98, respectively). The results for 1996, 1997 and 1998 show a similar pattern to that observed for 1995. For each of these years, model 1 proves to be a relatively good predictor of taxes paid with R^2s of 93.60% in 1996, 89.24% in 1997 and 89.12% in 1998. For each of these years, inclusion of the three SFAS No. 109 variables results in a significantly higher R^2. The findings from Table 2 are consistent with H1 and suggest that FASB No. 109 data help predict future OCFs. These findings support the FASB's position that SFAS No. 109 data are consistent with the conceptual framework of accounting.

The parameter estimates of DFA are positive and significantly different from zero ($p<0.01$ for 1995–1998) and the coefficients on the deferred tax valuation account variable (DFV) are negative and significantly different from zero ($p<0.01$) for all four years consistent with expectations. These findings suggest that DFA represent "probable future economic benefits" consistent with SFAC No. 6 and result in a reduction in future taxes paid. These findings also suggest that SFAS No. 109's requirement of DFA being offset by a valuation allowance provides useful information to financial statement users and helps them better determine the true value of DFA. As a result, the valuation allowance provides information to help predict future cash flows. The findings suggest that DFA and the valuation allowance are useful in predicting future cash flows consistent with SFAC No. 1 and SFAC No. 2.

The parameter estimates for DFL were expected to be negative. This would be consistent with the conclusion that deferred taxes from current and past periods will result in a decrease in OCFs since DFL will increase taxes paid in the future. However, in only one of the years is the coefficient on DFL is negative, but not significant. These results suggest that DFL are not useful in predicting future OCFs. One possible explanation for this finding is that firms may effectively delay the reversal of DFL via tax savings on new investments. Still, the significantly positive coefficient on DFL indicates that DFL do have cash flow implications.[13]

The FASB asserts that the reporting and disclosure requirements of SFAS No. 109 are consistent with SFAC No. 6 and other aspects of the conceptual framework. In a prior study, Ayers (1998) confirmed that SFAS No. 109 information was value relevant. The findings of our study, with respect to DFA and associated valuation allowances (DFA and DFV) as reported in Table 2 are consistent with Ayers (1998) and indicate that separate recognition of DFA and the valuation allowance can provide relevant information. On the other hand, our results do not confirm, from a cash flow perspective, Ayers (1998) findings as DFL did not appear to improve forecasting of future cash flows.

Among the possible explanations for the incorrect sign on DFL reported in Table 2 is that the measurement of DFL is viewed by analysts and other users as having more "measurement error" than DFA. SFAS No. 109 requires that DFA be reduced by a valuation allowance to their net realizable value which reduces the probability that DFA are incorrectly measured and overstated. A second explanation is that when we include other financial statement information in our model (non-SFAS No. 109 variables), DFL does not add any incremental information. Stickney and Brown (1999) offer another explanation and point out that for a growing firm, temporary differences originating in a period will exceed temporary differences reversing in the period. As a result, the DFL continues to grow and never results in future taxes paid. This may prove particularly true during a period of strong economic expansion such as experienced during the 1990s.

6.3. APB No. 11 Treatment vs. SFAS No. 109 Treatment

APB No. 11 required that deferred tax liabilities and assets be reported as a net amount in the financial statements. Under the asset and liability approach required by SFAS No. 109, deferred liabilities and assets are separately recognized. To test whether the separate recognition of deferred tax components required by SFAS No. 109 is more useful in predicting future OCFs compared to the APB No. 11 approach, we modify model 1 by adding a variable (NETDEF) that measures deferred taxes consistent with APB No. 11. The variable NETDEF is measured by subtracting DFL from net DFA (DFA−DFV). Next, we compare the full model (model 2), which contains the separate SFAS No. 109 components of deferred taxes to the restricted model (model 1) modified to include the variable NETDEF.

Table 3 presents the results from estimating model 1 with the variable NETDEF for the years from 1995 to 1998. Since we did not modify model 2, we do not report those findings in Table 3 as they are the same as previously reported in Table 2. The results indicate that the coefficient on NETDEF is negative and significantly different from zero in three of the four estimations ($p<0.01$ for 1995 and 1996, and $p<0.05$ for 1998). However, the inclusion

Table 3. Regression of Operating Cash Flow for 1995 (OCF95), 1996 (OCF96), 1997 (OCF97) and 1998 (OCF98) sson Various Financial Statement Measures and Deferred Tax Approach Required under APB No. 11.

Variables	Pred. Sign	1995	1996	1997	1998
		Model 1 Coeff.	Model 1 Coeff.	Model 1 Coeff.	Model 1 Coeff.
Non-SFAS 109					
Intercept	?	−1.211	17.82**	22.72**	31.16***
SIZE	+	0.019***	0.019***	0.005**	0.022***
OCF94	+	0.950***	1.005***	1.282***	1.062***
APB No.11					
NETDEF	+	−0.023***	−0.008	−0.061***	−0.035**
Adjusted R^2 (%)		96.95	93.60	89.31	89.14
F-test for Model comparison		77.06***	44.36***	59.91***	54.36***

Note: OCF94…OCF98 is operating cash flow in years from 1994 to 1998 COMPUSTAT ♯308). SIZE is total sales in 1994 (COMPUSTAT ♯12). DFA, DFV and DFL are the book value of Deferred Tax Assets, Valuation Allowance and Liabilities obtained from company footnotes. NETDEF = (DFA−DFV)−DFL.
*indicates significance at the 0.10 level,
**indicates significance at the 0.05 level,
***indicates significance at the 0.01 level respectively.

of NETDEF only marginally improved the adjusted R^2s for model 1. The *F*-values to determine whether the models with the SFAS No. 109 reporting requirements (model 2) are the appropriate models compared to model 1 (modified to include NETDEF) are 77.06, 44.36, 59.91 and 54.36, respectively, and are highly significant ($p<0.01$).

Finally, we address the appropriateness of aggregation or disaggregation of the three components. This is done by comparing each component's coefficient for each year from 1995 to 1998, with significant differences in the coefficients offering evidence that the measures should not be aggregated. The *F*-values for these tests are 84.75, 85.83, 50.51 and 199.03, respectively, and are all significantly different from zero at $p<0.01$. Thus, we conclude that the separate recognition of deferred tax information required by SFAS No. 109 provides more useful information when predicting future cash flows compared to the net approach required by APB No. 11.

7. CONCLUSIONS AND FUTURE RESEARCH

This study finds evidence that the SFAS No. 109 reporting requirements provide information that is useful to financial statements users when trying to predict future cash flows. The paper first developed a model using financial statement information available in 1994 to predict future cash flows. Next, the SFAS No. 109 reporting requirements of deferred tax assets and liabilities and the valuation allowance were included in the model to determine whether SFAS No. 109 data is incrementally useful in predicting OCFs. The results indicate that the models with the SFAS No. 109 information outperformed the models without the SFAS No. 109 data.

We also test whether the separate recognition of deferred tax amounts required by SFAS No. 109 is more appropriate than reporting net deferred tax information as formerly required by APB No. 11. Our results indicate that SFAS No. 109 information is more useful in predicting future cash flows when that information is disaggregated.

The findings from this study suggest that the FASB's conclusions that SFAS No. 109 data are consistent with critical aspects of the conceptual framework. Specifically, the results indicate: (1) SFAS No. 109 information provides useful information when predicting future cash flow consistent with the objectives of financial reporting stated in SFAC No. 1 (FASB, 1978) and (2) SFAS No. 109 reporting and disclosure requirements provide predictive value, which according to SFAC No. 2 (FASB, 1980) is one of the three major characteristics of relevant accounting information.

While our results clearly indicate a statistically significant improvement in the prediction model, they simultaneously raise the issue of cost benefit. The results for model 1 indicate that users of financial information can achieve relatively accurate forecasts without the SFAS No. 109 information. Do the statistically significant but relatively minor increases in predictive value (R^2) warrant the cost of compliance with SFAS No. 109? Unfortunately, that question is beyond the scope of our paper. However, it is hoped that future research on deferred income taxes and other financial reporting issues will more aggressively address this question.

NOTES

1. For example, SFAS No. 109 does not provide clear guidelines for determining the valuation allowance required to report DFA to their net realizable values. Peavey and Nurnburg (1993) and Petree et al. (1995) argue that the valuation allowance can

be used by managers to manipulate earnings. Phillips et al. (2002) find that deferred tax expense is incrementally useful beyond total accruals in detecting earnings management. These findings are consistent with deferred taxes being used as an earnings management tool, confounding their usefulness in predicting future cash flows.

2. The deferred method focused on the income statement and attempted to relate tax expense to the period when the pre-tax income was recognized. The deferred method focused on the income statement and attempted to relate tax expense to the period when the pre-tax income was recognized.

3. Under the deferred method required by APB No. 11, there was no separate recognition of deferred tax liabilities and assets. The deferred method required temporary differences between financial and taxable income to be identified and for two amounts to be computed: actual taxes payable (income tax liability) and the amount of taxes based on financial income using the current years' tax rates. The difference between those two amounts represents the deferred tax account and was recorded on the balance sheet as either a deferred tax liability or asset depending on whether the amount had a credit or debit balance. The deferred tax account was adjusted each year for new differences between taxable income and financial income. Income tax rates used to measure the deferred tax account were from the year giving rise to the temporary differences and no adjustment was made to the deferred tax account when tax rates changed.

4. Originally, Statement of Financial Accounting Standards No. 96, Accounting For Income Taxes (FASB, 1987) (SFAS No. 96) was issued to replace APB No. 11. However, because SFAS No. 96 did not allow for separate recognition of DFA and because of the costly scheduling requirements, many in the business community objected to it. As a result of this criticism, SFAS No. 96 was never required to be formally adopted.

5. The FASB discusses its own obligations regarding the cost/benefits of financial reporting standards, along with the difficulty in measuring both, in SFAC No. 2, paragraphs 133–144.

6. Cheung et al. (1997) used two measures of deferred taxes, DEF1 and DEF2. The variable DEF1 represents both current and noncurrent changes in deferred tax assets and liabilities and DEF2 represents noncurrent changes in the DFL account as the current portion is reported in "other current liabilities" on Compustat. Also, DEF2 excludes DFA since they are reported in "other noncurrent assets" on Compustat.

7. SFAC No. 6 defines an asset as "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events" and defines a liability as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events."

8. The effective adoption date for SFAS No. 109 was for all fiscal years beginning after December 15, 1992. By using 1994 as our first test year, we ensure that all firms in our sample would have adopted SFAS No. 109 by that time and avoid having to remove firms that were still reporting under APB No. 11 or SFAS No. 96.

9. Firms in these industries were deleted because they are regulated and have unique accounting practices and thus might unreasonably impactor findings.

10. All footnote information had to be hand gathered. This requirement resulted in a limited number of years (4) being observed, an unavoidable limitation of the study.

11. See Dillon and Goldstein (1984, pp. 231–232) for more details on this test.

12. The mean sales for all 1998 Compustat firms, excluding firms in the utilities (SIC 4,911–4,941), banking and financial services (SIC 6,021–6,282), insurance (SIC 6,311–6,411) and real estate (SIC 6,500–6,799) industries, was $1.5 billion.

13. Our prediction for DFL was negative. Although the coefficient on DFL was positive and significant in three of the four years, our predictions were not supported and thus Table 2 does not indicate that the coefficient on DFL was significant in any year.

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DO CEO/CFO CERTIFICATIONS PROVIDE A SIGNAL OF CREDIBLE FINANCIAL REPORTING?

Thomas E. Vermeer

ABSTRACT

Over the last 30 years, numerous parties have discussed whether CEOs and CFOs should certify the appropriateness of their financial statements. Despite the interest in this issue, there is limited empirical research on whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting. In this study, I examine whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of their financial reporting. I use the level of earnings management as the measure of the level of credible financial reporting.

I find that firms that include a voluntary CEO/CFO certification on the appropriateness of the financial statements are less likely to practice income-increasing earnings management. Section 302 of the Sarbanes–Oxley Act requires that CEOs and CFOs certify the appropriateness of their financial statements. The findings of this study suggest that Section 302 may provide value by enhancing the credibility of those companies that did not provide certifications under a voluntary system.

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INTRODUCTION

For over a century, users of financial statements have viewed the public accounting profession as trusted advisors and guardians of the public interest. These users believed that audited financial statements presented a clear picture of the financial condition of these companies. Following Enron, WorldCom, and other recent accounting scandals, users have severely questioned whether financial statements truly reflect a clear picture of a firm's financial condition. Many parties have also questioned whether the public accounting profession places the interests of the public first.

In the wake of these accounting scandals, Congress enacted the Sarbanes–Oxley Act (SOX). In signing the law, President Bush noted that this new law sends a very clear message that the era of low standards and false profits are over (MACPA, 2002). SOX currently stands as the most significant legislation that has addressed the recent accounting scandals. Many agree that this bill contains some of the most far-reaching and significant changes that have ever been introduced to the accounting profession.

Section 302 of SOX requires that CEOs and CFOs certify the appropriateness of their financial statements. There are legal and market implications to this certification. On August 19, 2002, Patrick McGurn, vice president of Institutional Shareholder Services, noted that the market is waiting on pins and needles to see who does not certify (Benjamin, 2002). Enhanced credibility of financial statements should reduce information risk in the market, which should result in a lower cost of capital. There is also significant legal liability under SOX. CEOs and CFOs that knowingly certify false financial statements are subject to a fine of up to $5 million and imprisonment for up to 20 years.

Over the last 30 years, numerous parties have discussed the issue of CEO/CFO certifications of financial statements. Despite the interest in this issue, there is limited empirical research on whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting. The empirical issue examined in this paper is whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting. Specifically, is there a difference in the credibility of financial reporting between firms where the CEO/CFO does and does not certify the credibility of their financial statements? If differences exist between firms that do and do not certify their financial statements under a voluntary disclosure system, this suggests that a separate certification could lead to more credible financial reporting.

BACKGROUND

Many different regulatory bodies have discussed the issue of CEO/CFO certifications of financial statements. In 1978, The Commission on Auditor's Responsibilities (Cohen Commission) was formed to study ways to improve audit quality. It recommended that CEOs and CFOs present a report with the financial statements that acknowledges the responsibility of management for the representations in the financial information (Commission on Auditor's Responsibilities, 1978).[1] In April 1979, the Securities and Exchange Commission (SEC) proposed rules that would require public companies to include a management report in their annual reports to stockholders. On June 6, 1980, the SEC announced the withdrawal of the proposed rule after much criticism. The SEC noted that the private sector should determine the need for and nature of such disclosures. They further noted that this action would encourage further voluntary initiatives and permit public companies a maximum amount of flexibility in experimenting with various approaches (SEC Handbook, 1999).

In 1987, the National Commission on Fraudulent Financial Reporting (Treadway Commission, 1987) recommended that all public companies be required by the SEC to include a management report signed by the CEO and CFO in their annual report to stockholders. They believed that the time for voluntary compliance was past because a significant number of public companies did not include a management report in their annual report to stockholders. The Treadway Commission developed a sample management report that was adopted by some firms prior to SOX.[2] In 1992, the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 1992) encouraged corporate management reports. The COSO report did not take a position on whether these reports should be mandatory.

Until the passage of SOX on July 30, 2002, no legislative or regulatory body had required CEOs and CFOs of all public companies to certify the appropriateness of their financial statements.[3] Bill Travis, managing partner of McGladrey & Pullen LLP, noted that changes in rules should be supported by empirical evidence as opposed to emotions and politics. I have not identified any empirical studies that have examined whether a voluntary disclosure system for management reports provides a signal of the credibility of financial reporting. As we begin to examine the effectiveness of SOX, empirical evidence regarding a voluntary disclosure system may provide some insight into the possible effectiveness of the CEO/CFO certification provisions included in SOX. The results of this study could significantly assist in the discussion of this issue.

The remainder of this paper is organized as follows. The methods are discussed in the next section. In fourth section, I present the sample selection and descriptive statistics. The results are presented in fifth section and conclusions are presented in the final section of the paper.

METHODS

Statement of Financial Accounting Concept (SFAC) No. 1 (FASB, 1978) states that the primary objectives of financial reporting are to provide (1) information that is useful in investment and credit decisions; (2) information in assessing cash flow prospects; and (3) information about enterprise resources, claims to those resources, and changes in them. SFAC No. 2 (FASB, 1980) states that one of the primary qualities that makes information useful for decision making is its reliability. Accounting information is reliable to the extent that it is verifiable, is a faithful representation, and is reasonably free of error and bias. If the information provided to users does not reflect a reliable picture of the company's financial position, financial statement users question the credibility of those reports.

Accounting practitioners and academics have long recognized that earnings management is one of the main causes of non-credible financial reporting. Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Dechow & Skinner, 2000; Healy & Wahlen, 1999).

Earnings management cannot be observed directly. Prior research in earnings management has focused on either the choice of accounting methods or the management of accruals. DuCharme, Malatesta, and Sefcik (2001) note that the management of accruals approach captures the subtle income management techniques allegedly used to avoid detection by outsider users. Accruals not only reflect the choice of accounting methods but also the effect of recognition timing for revenues and expenses, asset write-downs, and changes in accounting estimates.

I measure discretionary accruals using the cross-sectional variation of the Jones (1991) accruals estimation model as modified by Dechow, Sloan, and Sweeney (1995). Subramanyam (1996) notes that the cross-sectional Jones model is generally better specified than its time-series counterparts. The cross-sectional Jones model estimates "normal" accruals as a function of the change in revenue and the level of property, plant, and equipment. The change in revenue is included because changes in working capital accounts, which are a part of total accruals, depend on changes in revenue. Property, plant, and equipment is included to control for the portion of total accruals related to non-discretionary depreciation expense. The difference between total accruals and ''normal'' accruals is the discretionary accruals.

The purpose of this study is to examine whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting. The level of earnings management, as measured by the cross-sectional Jones model, is used as the measure of the level of credible financial reporting. Firms that practice a lower level of earnings management provide more credible financial reports.

In my multivariate analysis, discretionary accruals are regressed on a dummy variable indicating whether the annual report included a management report signed by the CEO and CFO that certified the appropriateness of the financial statements and several control variables. These control variables attempt to control for other factors that could impact a firm's propensity to manage earnings. These factors include: (1) leverage, (2) operating cash flows, (3) size, (4) equity offerings, (5) type of audit report, and (6) audit quality.

Leverage may be positively or negatively associated with discretionary accruals. Press and Weintrop (1990) find that closeness to the violation of debt covenants is associated with discretionary accrual choices. DeAngelo, DeAngelo, and Skinner (1994) note that troubled companies have large negative accruals because contractual renegotiations provide incentives to reduce earnings. In contrast, DeFond and Jiambalvo (1994) find that highly leveraged firms have incentives to make income-increasing discretionary accruals. To control for the possible positive or negative effect of high leverage, I include a firm's debt to total assets as a measure of the amount of leverage.

Dechow, Sloan, and Sweeney (1995) note that discretionary accruals are negatively correlated with operating cash flows. Firms that have significant positive operating cash flows are in a better financial position than firms with negative operating cash flows and are less likely to practice earnings management. To control the possible effects of operating cash flows, I include a firm's operating cash flows to total assets.

Larger firms may have greater accrual-generating potential because of the difficulty that outsiders may have in distinguishing discretionary and non-discretionary accruals. Becker, DeFond, Jiambalvo, and Subramanyam (1998) find that the size of a firm is positively correlated with discretionary accruals. Gillett and Uddin (2002) note that a company's size is a good indication of a chief financial officer's intentions to report fraudulently. To control the possible effects of firm size, I include a firm's natural log of total assets.

Healy and Wahlen (1999) note that the evidence shows that at least some firms appear to manage earnings for stock market reasons. Discretionary accruals should be positively correlated with equity offerings because managers will normally manage earnings upward in response to equity offerings. To control possible effects of equity offerings, I include the ratio of a firm's issuance of stock to total equity.

Francis and Krishnan (1999) find that auditors are less likely to issue a standard unqualified opinion for firms with high discretionary accruals. To control the possible effects that discretionary accruals have on the type of audit report, I include a dummy variable that measures whether or not a firm received a standard unqualified opinion. Discretionary accruals should be negatively correlated with a standard unqualified opinion because auditors are less likely to issue a standard unqualified opinion for firms with high discretionary accruals.

Becker, DeFond, Jiambalvo, and Subramanyam (1998) examine the effect of audit quality on discretionary accruals. They note that clients of non-Big Four auditors report discretionary accruals that increase income relatively more than the discretionary accruals reported by clients of Big Four auditors. Thus, discretionary accruals should be negatively correlated with Big Four auditors because prior research has found that clients of Big Four auditors report discretionary accruals that increase income less than clients of non-Big Four auditors. To control the effects of audit quality on discretionary accruals, I include a dummy variable that measures whether a firm was audited by a Big Four auditor.

SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

My sample consists of firms with a fiscal year ending between January 1, 2000 and December 31, 2000. During this period, CEOs and CFOs of publicly traded companies were not required to certify the appropriateness of their financial statements. I excluded financial institutions with Standard Industrial Classifications (SICs) between 6,000 and 6,999 because computing discretionary accruals for these firms is problematic.[4] Utility companies

(SICs between 4,000 and 4,999) are also excluded because the regulatory nature and unique financial reporting practices in this sector may make the incentives to manage earnings different from the incentives of non-regulated sectors. I also eliminated firms that did not have the necessary data available on the Compustat database for the calculation of discretionary accruals. This sample selection process yielded 546 firms from the 2002 Compustat database. Of these firms, 100 firms included a CEO/CFO certification on the appropriateness of the financial statements and 446 firms did not include such certification.

Table 1 reports descriptive statistics for all variables used in this study. Table 2 provides parametric *t*-tests for differences between firms with a CEO/CFO certification and firms without a CEO/CFO certification for ratio of debt to total assets, ratio of operating cash flows to total assets, natural log of total assets, ratio of sale of stock to total equity, type of audit report, and type of auditor.

There is a statistically significant difference (t-value $= -5.14$) in the ratio of operating cash flows to total assets for firms with and without a CEO/CFO certification. Firms with a CEO/CFO certification have a higher ratio of operating cash flows to total assets. This finding suggests that firms that include a CEO/CFO certification are more financially stable because they have larger operating cash flows.

There is a statistically significant difference (t-value $= -11.88$) in the natural log of total assets for firms with and without a CEO/CFO certification. Firms with a CEO/CFO certification are larger (7.663) compared to firms without a CEO/CFO certification (5.146). This finding is consistent with the notion that larger firms are more likely to include a CEO/CFO certification compared to their smaller counterparts.

There is a statistically significant difference (t-value $= -8.34$) in the type of auditor (Big Four versus non-Big Four) for firms with and without a CEO/CFO certification. Firms with a CEO/CFO certification hired a Big Four auditor 98 percent of the time compared to firms without a CEO/CFO certification who hired a Big Four auditor 77.8 percent of the time. This data offers preliminary evidence that firms with a CEO/CFO certification are different than firms without a CEO/CFO certification.

RESULTS

To test whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting, discretionary ac-

Table 1. Descriptive Statistics for Sample Firms.

	Companies with a CEO/CFO Certification			Companies without a CEO/CFO Certification			All Companies		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
DA	−0.020	−0.002	0.133	−0.004	−0.005	0.180	−0.007	0.005	0.173
MGMTRPT	1.000	1.000	0.000	0.000	0.000	0.000	0.183	0.000	0.387
LEV	27.327	26.537	14.659	26.216	23.077	33.157	26.42	23.745	30.604
OCF	0.101	0.096	0.081	0.003	0.062	0.221	0.045	0.071	0.205
SIZE	7.663	7.609	1.788	5.146	5.094	2.401	5.607	5.68	2.498
ISSUE	0.358	0.101	1.03	0.174	0.014	0.52	0.207	0.023	0.646
REPORT	0.889	1.000	0.316	0.832	1.000	0.374	0.842	1.000	0.365
BIG FOUR	0.980	1.000	0.141	0.778	1.000	0.416	0.815	1.000	0.389

Note: DA = estimated discretionary accruals; MGMTRPT = 1 if company included a CEO/CFO certification, 0 otherwise; LEV = ratio of debt to total assets; OCF = ratio of operating cash flows to total assets; SIZE = natural log of total assets; ISSUE = ratio of sale of stock to total equity; REPORT = 1 if standard unqualified opinion, 0 otherwise; and BIG FOUR = 1 if Big Four, 0 otherwise.

Table 2. Parametric *t*-Tests for Differences Between Firms with and without a CEO/CFO Certification.

Control Variables	*t*-Value	*p*-Value
LEV	−0.516	0.605
OCF	−5.140	0.000
SIZE	−11.880	0.000
ISSUE	−1.710	0.119
REPORT	−1.570	0.118
BIG FOUR	−8.340	0.000

Note: LEV = ratio of debt to total assets; OCF = ratio of operating cash flows to total assets; SIZE = natural log of total assets; ISSUE = ratio of sale of stock to total equity; REPORT = 1 if standard unqualified opinion, 0 otherwise; and BIG FOUR = 1 if Big Four, 0 otherwise.

cruals are regressed on a dummy variable indicating whether the firm included a CEO/CFO certification on the appropriateness of the financial statements and several control variables. Leverage, operating cash flows, size, equity offerings, type of audit report, and audit quality are included to control for the effects on discretionary accruals. The OLS regression model is specified as follows for firm *i* in year *t*:

$$\mathrm{DA}_{it} = \alpha_0 + \alpha_1\mathrm{MGMTRPT}_{it} + \alpha_2\mathrm{LEV}_{it} + \alpha_3\mathrm{OCF}_{it} + \alpha_4\mathrm{SIZE}_{it} + \alpha_5\mathrm{ISSUE}_{it} + \alpha_6\mathrm{REPORT}_{it} + \alpha_7\mathrm{BIG\ FOUR}_{it} + \varepsilon_{it}$$

Where:

DA_{it}	=	estimated discretionary accruals
$\mathrm{MGMTRPT}_{it}$	=	1 if the company included a CEO/CFO certification, 0 otherwise
LEV_{it}	=	ratio of debt to total assets
OCF_{it}	=	ratio of operating cash flows to total assets
SIZE_{it}	=	natural log of total assets
ISSUE_{it}	=	ratio of sale of stock to total equity
REPORT_{it}	=	1 if standard unqualified opinion, 0 otherwise
$\mathrm{BIG\ FOUR}_{it}$	=	1 if Big Four auditor, 0 otherwise.

In Table 3, I present the results of the OLS regression model. The model's *F*-ratio of 3.78 indicates that the overall fit of the model is significant at $p<0.001$. The adjusted R^2 for the model is 4.88%. The coefficient for the MGMTRPT variable is significant at $p<0.07$ indicating that there is a difference in discretionary accruals between firms that include a CEO/CFO

Table 3. OLS Regression of Discretionary Accruals on whether the Company Included a CEO/CFO Certification and Control Variables.

Independent Variable	Predicted Sign	Coefficients	t-Statistics	p-Value
Intercept	n/a	0.0088	0.3300	0.7405
MGMTRPT	—	−0.0353	−1.7600	0.0776
LEV	?	−0.0011	−4.3900	0.0000
OCF	—	−0.0929	−2.3000	0.0213
SIZE	+	0.0096	2.5600	0.0106
ISSUE	+	0.0074	0.6600	0.5079
REPORT	—	−0.0056	−0.2800	0.7789
BIG FOUR	—	−0.0261	−1.2200	0.2241

Note: MGMTRPT = 1 if company included a CEO/CFO certification, 0 otherwise; LEV = ratio of debt to total assets; OCF = ratio of operating cash flows to total assets; SIZE = natural log of total asset; ISSUE = ratio of sale of stock to total equity; REPORT = 1 if standard unqualified opinion, 0 otherwise; and BIG FOUR = 1 if Big Four, 0 otherwise.

certification and firms that do not include a CEO/CFO certification. The negative sign of the coefficient supports the notion that firms who include a CEO/CFO certification on the appropriateness of the financial statements are less likely to practice income-increasing earnings management.

Although the findings of this paper suggest that there is a difference in income-increasing discretionary accruals between firms with and without a CEO/CFO certification, there could also be a difference in the absolute discretionary accruals for firms with and without a CEO/CFO certification. Although users of financial statements are more concerned with income increasing discretionary accruals, the presence of a difference in absolute discretionary accruals for firms with and without a CEO/CFO certification could present further policy implications.

The same regression model was run with absolute discretionary accruals assigned as the dependent variable. The results of this regression model, not presented, do not suggest that there is a difference in absolute discretionary accruals between firms with and without a CEO/CFO certification. Thus, the results of this study suggest that the difference in discretionary accruals for firms with and without a CEO/CFO certification is only statistically significant for income increasing accruals. Income increasing discretionary accruals have a greater impact on the level of credible financial reporting because the key issue of most accounting scandals is overstatement of earnings.

Of the control variables included in the OLS regression model, leverage, operating cash flows, and size are significantly associated with discretionary accruals. The negative coefficient on the leverage variable is consistent with the DeAngelo, DeAngelo, and Skinner's (1994) finding that troubled companies have larger negative accruals because contractual renegotiations provide incentives to reduce earnings.

The negative coefficient on the operating cash flows variable is consistent with the belief that firms with significant positive operating cash flows are in a better financial position than firms with negative operating cash flows and are less likely to practice earnings management. The positive coefficient on the size variable is consistent with the idea that larger firms have greater accrual-generating potential because of the difficulty that outsiders may have in distinguishing discretionary and non-discretionary accruals.

CONCLUSIONS

Over the last 30 years, numerous regulatory bodies have discussed the requirement that CEOs and CFOs certify the appropriateness of their financial statements. Despite the interest in this issue, there is limited empirical research on whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting. In this study, I examine whether a voluntary disclosure system for CEO/CFO certifications provides a signal of the credibility of financial reporting. I use the level of earnings management, as measured by the cross-sectional Jones model, as the measure of the level of credible financial reporting.

After controlling for leverage, operating cash flows, size, equity offerings, type of audit report, and audit quality, I find that firms that include a CEO/CFO certification on the appropriateness of the financial statements are less likely to practice income increasing earnings management. I find no difference in the absolute discretionary accruals between firms with and without a CEO/CFO certification. Section 302 of SOX requires that CEOs and CFOs certify the appropriateness of their financial statements. Marden, Edwards, and Stout (2003) and others have questioned the value of CEO/CFO certifications. The findings of this study suggest that Section 302 may provide value by raising the standards for all public companies by requiring CEOs and CFOs of all public companies to attest to the fairness and accuracy of their financial reports. Section 302 may enhance the credibility of the financial statements for those companies that did not provide a CEO/CFO certification under the voluntary system.[5]

The results of this study are dependent upon the accuracy of the cross-sectional Jones model in measuring discretionary accruals. To the extent it does not, my results may be biased. This study examines one measure of credible financial reporting (i.e., level of discretionary accruals). Future research should examine other measures of credible financial reporting to determine whether the findings of this study hold for those measures. SOX includes other requirements (i.e., Section 404 of SOX) that are likely to enhance the credibility of financial reporting. Future research should examine the impact of these requirements on the credibility of financial reporting.

Bill Travis, managing partner of McGladrey & Pullen LLP, notes that careful analysis is needed to ensure that rule changes are supported by empirical evidence as opposed to emotional opinions or politics. As we begin to examine the effectiveness of the certification provisions in Section 302 of SOX and as other countries consider mandatory CEO/CFO certifications, the empirical evidence included in this paper may assist in these discussions.

NOTES

1. Management reports often discuss other issues in addition to management's responsibility for the financial statements. These issues include internal control, responsibility of the independent public accountant in auditing the financial statements, and the entity's social responsibilities. Since the focus of this paper is the certification of the financial statements, the discussion of management reports will focus on management acknowledging their responsibility for the financial statements.
2. There are significant differences between the Treadway Commission management report and the certification required by SOX. See the Treadway Commission report for a sample of their management report and http://www.sec.gov/Archives/edgar/data/47710/0001193125-05-174960-index.htm for an example of the certification required by SOX.
3. Although there has been no mandatory requirement for all public companies prior to SOX (2002), the SEC required CEOs and CFOs of domestic registrants with annual revenues above $1.2 billion to certify their financial statement prior to SOX.
4. Many of these firms are required under the Federal Deposit Insurance Corporation Improvement Act of 1991 to report on internal control in a management report and have a certified public accountant to attest management's representations.
5. Future research should examine whether Section 302 enhances the credibility of financial reporting.

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DOES INCOME TAX REGULATION APPLY DOWNWARD PRESSURE TO CEO COMPENSATION?

Toni Smith

ABSTRACT

This paper addresses the question of whether Internal Revenue Code §162(m) was effective in decreasing the compensation of chief executive officers of publicly held US corporations. Section 162(m) limited the annual deduction of nonperformance-based executive compensation to $1 million. The stated goal of this section was to limit the compensation paid to corporate executives. This study utilizes the CEO compensation of a sample of 340 publicly traded US corporations for the years 1992–1997. Results indicate that §162(m) was not effective; compensation did not decrease. The most highly paid CEOs, whose salaries were subject to a limited deduction, however, realized smaller increases than their lower-paid peers (whose salaries were fully deductible).

INTRODUCTION

The Revenue Reconciliation Act of 1993 (RRA 93) contained a provision that limited the deduction of executive compensation. Sparked by shareholder outrage based on the belief that executives were wildly overpaid and

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that this compensation was not related to performance, RRA 93 added §162(m) to the Internal Revenue Code. This section limited the annual deduction of nonperformance-based (i.e., salary) compensation to $1 million for the CEO and each of the four next highest-paid named executive officers. The stated reason for the addition of §162(m) was to reduce executive compensation (Research Institute of America, 1993).

Using a sample of Fortune 500 CEO compensation packages over the five-year period from 1992–1997, this study tests the compensation-decreasing objective of §162(m). The analyses proceed in two stages. First, the entire sample of CEOs is studied as a single group. Contrary to the stated legislative goals, the results reveal continual increases in both total cash compensation and the number of options granted over the period studied. The second stage investigates subgroups of highest-, middle- and lowest-paid CEOs. In this division, the highest-paid CEOs were those whose compensation generally exceeded the $1 million cap. The other two groups were not explicitly subject to limitation. Results for all three subgroups continue to reflect increases in both total cash compensation and the number of options granted annually. One item that distinguishes the groups, however, is that the highest-paid CEOs received smaller percentage increases in cash compensation when compared to their peers. CEO compensation, it seems, is resistant to the tax-related legislative forces that hope to influence it. As new legislation aimed at reforming executive compensation continues to appear,[1] the findings of this study become increasingly relevant.

This paper proceeds as follows. The next section presents the hypothesis development and is followed by a description of the sample. The fourth section presents a discussion of the research method. The results appear in the fifth section. The paper concludes with a summary of the study and its implications for future legislation.

HYPOTHESIS DEVELOPMENT

There are situations in which firms must weigh the relative benefits of income tax deductions in light of the need for related monetary expenditures. In the present case, firms that desire to compensate key executives at amounts above $1 million encounter a similar decision. These corporations are confronted with a choice among three alternatives: do nothing, reduce compensation or modify their pay plans.

Doing nothing maintains the current level of compensation but allows for a deduction of only that part of the expenditure not exceeding the $1 million cap. Such firms would forgo a deduction for that portion of the expenditure considered excessive (greater than $1 million), effectively increasing the cost of compensation by the income tax burden associated with the nondeductible amount. Alternatively, companies could take actions to preserve their deductions.

Firms seeking to deduct their entire expenditure have two options. They could revise their compensation plans in ways that create conformity with §162(m) (i.e., tie compensation to performance) and be allowed a deduction for their entire expenditure. Prior research did find that firms stated an intention to modify their compensation plans to create conformity with §162(m) (Balsam & Ryan, 1996). Alternatively, following the stated reason for the legislation, firms could reduce compensation so that it did not exceed $1 million. With that, the firm also would be allowed a deduction for the full amount of the expenditure. A reduction in overall compensation after the enactment of RRA 93 would indicate the firm's choice and that the legislation was perhaps effective in creating that change. Previous empirical work in this area has somewhat mixed results. Harris and Livingstone (2001) found an increase in the compensation of CEOs whose pay was below the $1 million limit. Rose and Wolfram (2002) found RRA 93 to be generally ineffective with respect to both pay levels and pay-performance sensitivity; they did, however, find that the legislation may have limited the pay increases realized by CEOs whose pay was near the $1 million limitation. Smith (2003) documents an increased use of performance-based compensation and a slightly stronger link between pay and performance after the enactment of RRA 93.

Tax policy effectiveness has been evaluated in a variety of situations (e.g., Berger, 1993; Gelardi, 1996), and this evaluation generally has been a comparison of the intended versus the actual results of the legislation. The hypothesis that follows similarly tests actual firm responses in light of specific legislative goals. Because the one stated goal of RRA 93 was to reduce the excessive compensation that was being paid to key executives, a decrease in pay levels after the imposition of §162(m) would be consistent with policy effectiveness. The hypothesis tests the compensation-decreasing objective of §162(m).

H1. CEO compensation decreased after the enactment of RRA 93.

This hypothesis is tested in a two-stage process using four separate data groupings. In stage one, the entire sample is tested. In stage two, the sample is divided into three groups – the highest-paid third, the next highest-paid third and the lowest-paid third – and testing is repeated on each group.

SAMPLE

The sample used in this study is the compensation of those firms listed on the 1994 Fortune 500 (*Fortune*, 1995). Based on their higher compensation levels,[2] CEOs' compensation packages are likely to be more sensitive to deduction limitations than are those of the other executives. As RRA 93 and §162(m) became effective in 1994, it is anticipated that the initial reaction would have occurred in the first effective year and be directed toward the CEO. In the analyses that follow, 1994 is referred to as effective year 1.[3]

Analyses use data from Compustat and from the Summary Compensation Table contained in the subject firms' 1992–1997 proxy statements. This includes amounts for salary, bonus, number of stock options granted, long-term incentive payouts and general categories of other[4] compensation. As data were obtained from online sources, only those companies filing proxy statements electronically with the US Securities and Exchange Commission were included in this study.

In addition to removing one outlier,[5] other firms were omitted for a variety of reasons: they changed fiscal years (4 firms) or corporate structure (by merger or split up) (25 firms), did not trade stock publicly (10 firms) or complete data were not available (120 firms). The final data set consists of 340 firms. Natural log transformations were made to remove the skew and leave a normally distributed data set. All statistical tests were performed on the natural logs of each variable under investigation and in some cases dollar denominated amounts were adjusted to remove the effects of inflation (base year 1992).

Measurement of Compensation

CEO compensation plans are varied and complex, typically including one or more of the following: salary, bonus, options, long-term incentive payouts, stock appreciation rights, restricted stock awards and other payments. While studies of CEO compensation often include only salary and bonus (Harris & Livingstone, 2001; Healy, Kang, & Palepu, 1987; Lambert & Larcker, 1987), that approach may exclude as much as 64% of the pay package (Harcourt Brace, 1998). To obviate potential problems related to exclusion, this study uses the variable *total cash payments* to capture all dollar-denominated payments (the sum of salary, bonus, restricted stock awards, long-term incentive payouts and other compensation).

The value of option grants is more difficult to determine and there exists considerable disagreement regarding the most appropriate valuation technique. In fact, variation of more than $10 million in annual CEO compensation has been attributed to the valuation technique itself (Griner & Stone, 1995). Techniques available include, but are not necessarily limited to, the Black-Scholes options pricing model, an assumed stock growth rate, income realized upon the exercise of options or the change in the value of shares underlying options. To circumvent the unresolved issues of valuation and in consideration of the fact the options are *de facto* performance-based, this study examines the number of options granted annually rather than an estimated valuation amount.

Finally, following previous research (Healy et al., 1987; Jensen & Murphy, 1990) this study considers the annual compensation attributable to maintaining the office of the CEO. Specifically, in years when a firm experienced CEO turnover (36% of the sample firms changed CEO at least once) the total compensation paid to both executives is combined and examined as if it were paid to one employee. While deduction limitations apply to the CEO in office on the last day of the year (§162(m)(3)(A)), adhering to this concept could result in misleading conclusions. A newly appointed CEO in office for only a few days, for instance, would receive little compensation in that year. In addition to potential distortions, using only compensation paid to the CEO in office on the last day of the year does not address the shareholder concerns giving rise to RRA 93.[6]

METHOD

Hypothesis testing utilizes analysis of variance (ANOVA) techniques to compare the means of each pre- and post-enactment year. ANOVA tests the null hypothesis that the means of each group are equal and is appropriate in this setting because it is not impaired by the small number of years (five) examined (Kazmier, 1988). To further investigate the ANOVA results, Scheffé homogeneous subsets were constructed. Scheffé extends the ANOVA by dividing the years (treatments) into homogeneous groups based on mean of each variable under consideration. Group boundaries define both the point (year) at which a statistically significant change occurs and the direction (increasing or decreasing) of the shift. Scheffé, furthermore, is well suited to this (five-year) data set because the test examines all possible groupings, is not limited to paired data, and is not dependent upon equal sample sizes (Snedecor & Cochran, 1980). Scheffé is also the most conservative procedure (Box, Hunter, & Hunter, 1978) compared to other ordered classification schemes, Scheffé separates data into fewer and larger homogeneous subgroups. Critical distinctions regarding changes in observed mean values (i.e., hypothesis tests) are based on the components of each group. The occurrence of fewer and larger subsets reduces the number of demarcations upon which critical distinctions are made and leads to a more conservative assessment of the observed changes in the data.

RESULTS

Full sample

Both total cash compensation and number of stock options granted increased annually even after dollar-denominated amounts were adjusted to remove the effects of general price level changes (base year 1992) (Fig. 1).

Table 1 provides a schedule of descriptive statistics and reveals increases in both amount and variation among all components of (inflation-adjusted) compensation. With the exception of the two forms of *other* compensation, the mean and standard deviations generally exhibit consistent annual increases. Average bonus, for instance, increased from \$546,848 to \$949,535 while the standard deviation for this variable grew from \$790,989 to \$1,135,092 during the five years.

Table 2 reports the results of the *t*-tests. *T*-tests which were used to gauge whether or not differences exist when the pre-§162(m) years (years −2 and −1) are compared to post-§162(m) years (years 1, 2 and 3). As evidenced by

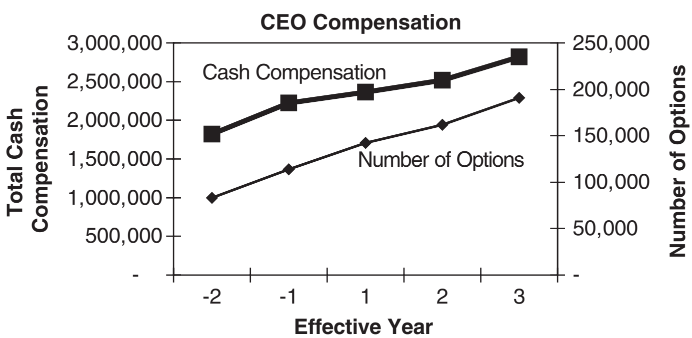

Fig. 1. CEO Compensation.

Table 1. CEO Compensation.

Descriptive Statistics	Effective Year				
Compensation 340 firms (Inflation-adjusted)	−2	−1	1	2	3
Salary $					
Mean	686,172	737,256	755,951	767,299	759,083
St. Dev.	*291,140*	*332,683*	*322,203*	*321,446*	*333,692*
Minimum	97,087	97,501	92,056	89,413	0
Maximum	2,768,450	3,001,735	3,325,206	3,262,813	3,891,551
Bonus $					
Mean	546,848	719,554	804,591	874,944	949,535
St. Dev.	*790,989*	*970,577*	*831,353*	*976,030*	*1,135,092*
Minimum	0	0	0	0	0
Maximum	7,899,971	7,879,320	7,387,192	8,022,845	8,894,886
Other annual $					
Mean	53,255	109,709	74,160	74,784	106,419
St. Dev.	*203,121*	*867,525*	*416,966*	*252,851*	*386,889*
Minimum	0	0	0	0	0
Maximum	2,052,614	11,794,388	7,131,996	2,082,298	3,372,942
RSA $					
Mean	232,287	253,060	292,927	322,036	379,325
St. Dev.	*826,056*	*855,265*	*981,985*	*1,040,881*	*990,972*
Minimum	0	0	0	0	0
Maximum	7,800,000	9,217,881	10,152,404	10,517,352	8,405,813
LTIP $					
Mean	229,572	215,673	277,898	314,090	372,789
St. Dev.	*909,789*	*740,716*	*859,509*	*793,394*	*1,103,660*
Minimum	0	0	0	0	0
Maximum	13,684,800	10,976,942	10,171,531	8,751,070	13,505,901
All Other $					
Mean	75,116	190,644	155,703	164,518	251,266
St. Dev.	*193,799*	*895,483*	*585,677*	*530,242*	*943,181*
Minimum	0	0	0	0	0
Maximum	3,000,600	11,768,709	7,341,021	5,980,371	14,306,152
Total cash $					
Mean	1,823,249	2,225,897	2,361,231	2,517,672	2,818,418
St. Dev.	*1,810,699*	*2,337,712*	*2,181,983*	*2,255,416*	*2,520,463*
Minimum	306,502	302,711	291,083	249,239	196,287
Maximum	15,982,174	17,155,025	13,604,074	18,203,985	20,293,015
Options granted #					
Mean	82,928	114,060	142,538	161,921	190,823
St. Dev.	*287,388*	*503,171*	*352,371*	*504,665*	*456,089*
Minimum	0	0	0	0	0
Maximum	4,871,102	8,750,000	4,062,500	8,000,000	6,963,495

Note: Total cash compensation = Σ(salary, bonus, other annual, long-term incentive payout, restricted stock awards and all other).

Table 2. *T*-test Results.

Variable (Log)	*T*	Degrees of Freedom	Significance (2-tailed)
CEO			
Total cash compensation	7.1	1470	0.000
Number of options granted	7.5	1067	0.000

Note: Total cash compensation = Σ(salary, bonus, other annual, long-term incentive payout, restricted stock awards and all other).

Table 3. ANOVA Results.

Panel A: Compensation by Effective Year

Variable (Natural Log)	Degrees of Freedom	*F*	*p*-value
Total cash payments $	4	17.466	0.000
Options (# of shares) granted	4	20.451	0.000

Panel B: Scheffé Homogeneous Subsets (Natural Logs)

Year	Total Cash Compensation				Number of Options Granted				
	Subset for $\alpha = 0.05$				Subset for $\alpha = 0.05$				
	n	1	2	3	*n*	1	2	3	4
3	340			14.56	276				11.74
2	340		14.47	14.47	269			11.47	11.47
1	340		14.40	14.40	265		11.36	11.36	
−1	340		14.31		254	11.07	11.07		
−2	340	14.13			236	10.95			
sig.[a]		1.00	0.09	0.08		0.83	0.08	0.84	0.12

Note: Total cash compensation = Σ(salary, bonus, other annual, long-term incentive payout, restricted stock awards and all other).
[a]Since none of the *p*-values are significant, the test fails to reject the null hypothesis that the means of the years in each of the subsets are equal.

the high *t*-values, 7.1 and 7.5, observed for both total cash compensation and the number of options granted, and the corresponding levels of significance, 0.000, the means of the two periods are significantly different. ANOVA and Scheffé tests further examine these differences.

Table 3 presents the results of the ANOVA tests. Panel A reports high *F*-values (17.466 for total cash compensation and 20.451 for number of options granted), which are significant at the 0.05 level. Clearly, differences exist between the average amounts reported for both total cash compensation and number of options granted annually.

To further analyze the changes that occurred, Scheffé homogeneous subsets were constructed for total cash compensation and the number of options granted. As indicated by Panel B, distinct subsets exist for both variables. Total cash compensation is separated into three continually increasing, homogeneous subsets. The first subset contains a single year (year −2), while groups 2 and 3 are composed of three years each. The second subset is composed of years –1 through 2. The third group includes all of the years in which deduction limitations applied (years 1, 2 and 3).

This grouping depicts a gradually increasing step function for total cash compensation with significant jumps occurring between years −2 and −1, and years 2 and 3. Clear group distinctions are blurred by nonexclusive membership patterns; years 1 and 2, because they are not significantly different, are simultaneously members of subsets 2 and 3. The overlapping features of the groups are indicative of firms' progressive, rather than abrupt, compensation growth.

While the number of options granted exhibits a similarly increasing trend, an additional grouping is formed. The result is four groups, each containing two years and progressively larger numbers of options. The first homogeneous subset is composed of the two years prior to RRA 93 (years −2 and −1). The second contains the two years immediately preceding and including the effective date of RRA 93 (years −1 and 1). The third group is made up of the first effective year and the immediately following years (1 and 2). The fourth subset consists of the final 2 years under investigation (years 2 and 3). Like those of total cash compensation, subset boundaries for the number of options granted are not precise; years −1, 1 and 2 each holds dual group membership. Again, this feature is indicative of gradual, rather than abrupt, change. This more gradual change in options grants (four subsets), versus total cash compensation (three subsets), is likely a reflection of the additional complexity and longer phase-in period of the performance-based option guidelines. Final regulations regarding option grants were not issued until 1995.

These results do not support the hypothesis. Even after adjusting for inflation,[7] compensation continuously rose during the time period covered by the current research. The progressive nature of the increasing trend might be explained by the advance warning firms received with respect to the imposition of compensation deduction limitations as was the case with the changing corporate IT rates of the 1980s (Scholes & Wolfson, 1990).

Three-Group Comparison

An additional set of tests performed on the raw (noninflation-adjusted) CEO compensation further supports the previously drawn conclusion. To examine sensitivity, CEO compensation was divided into three equal-sized groups based on salary paid in the first year of this study (year –2[8]). Group A contains those CEOs who received the highest salaries in year –2 and represents 113 firms. Group B is composed of the middle third and also contains 113 firms. The lowest-paid CEOs fall into group C, which contains 114 firms (340 firms are in the total sample).

Panels A through C of Table 4 report the descriptive statistics of groups A through C, respectively. Because of the sensitivity related to group demarcation and because the $1 million cap is not indexed annually, these amounts were not adjusted to reflect inflation.[9] As with all previous tests, the data are highly skewed. Accordingly, statistical tests were performed on the natural log transformations of the compensation components. Of note in Table 4 is that salary compensation for the highest-paid CEOs, group A, is above the deduction limit in four of the five years under investigation. Salaries for the highest-paid CEOs remained relatively constant during this five-year period: the increase was approximately 13%. The CEOs of groups B and C, however, realized salary increases of 24% and 47%, respectively. The bonuses paid to the CEOs of groups A and B more than doubled, on average, during this five-year time period. The bonuses of the lowest-paid CEOs, however, increased by only 53%. Option grants exhibit variability particularly with respect to group B. The largest option grant, 8,750,000 shares, was made in 1993 (year –1) by RJR Nabisco to CEO Charles Harper, a member of the group C classification. A close second was the 8,000,000 shares Walt Disney granted to CEO Michael Eisner, a member of group B, in Year 2 (Disney's fiscal year ending 1996). Like other forms of compensation, the number of options granted generally increased during this period.

Significant ANOVA results (reported in Table 5) lead to the conclusion that the means of the years for both total cash compensation and number of options granted are not equal. *F*-values range from 11 to 14 and *p*-values are all significant for total cash compensation. Similarly, the number of options granted for each group is associated with high *F*-values (ranging from 6 to 12) that are significant (0.000 in all cases). Scheffé subsets indicate the timing and direction of these changes.

Table 6 presents the Scheffé homogeneous subsets for each CEO group. The hypothesis is again not supported because both total cash compensation

Table 4. Three-Group Comparison.

Descriptive Statistics	Effective Year				
Raw CEO Compensation 113 firms	−2	−1	1	2	3
Panel A: Group A					
Salary $					
Mean	979,778	1,072,019	1,091,829	1,107,568	1,108,080
St. Dev.	*311,058*	*386,824*	*383,329*	*398,369*	*468,933*
Minimum	751,000	693,231	580,100	508,500	1
Maximum	2,851,503	3,171,033	3,612,171	3,649,130	4,451,934
Bonus $					
Mean	690,015	936,936	1,189,569	1,329,634	1,417,562
St. Dev.	*532,176*	*693,991*	*919,606*	*1,002,468*	*1,024,040*
Minimum	0	0	0	0	0
Maximum	3,135,000	4,000,000	6,000,000	5,278,263	5,053,786
Other annual $					
Mean	84,778	335,335	124,067	152,614	215,721
St. Dev.	*185,636*	*1,737,702*	*289,629*	*310,083*	*529,415*
Minimum	0	0	0	0	0
Maximum	1,166,404	12,459,591	2,161,067	2,262,000	3,031,697
RSA $					
Mean	480,965	475,329	558,465	622,391	647,201
St. Dev.	*1,184,319*	*1,184,881*	*1,379,761*	*1,653,853*	*1,264,533*
Minimum	0	0	0	0	0
Maximum	7,800,000	9,737,770	8,756,250	11,425,00	6,140,038
LTIP $					
Mean	727,328	379,830	734,543	690,213	966,898
St. Dev.	*1,889,397*	*612,287*	*1,724,593*	*1,172,206*	*2,323,678*
Minimum	0	0	0	0	0
Maximum	13,684,800	2,806,125	11,049,334	6,600,651	15,105,000
All Other $					
Mean	77,225	300,143	227,988	253,107	430,085
St. Dev.	*91,795*	*1,095,101*	*799,311*	*794,120*	*1,613,187*
Minimum	0	0	0	1,500	0
Maximum	451,800	8,352,294	7,755,055	6,496,477	16,000,000
Total cash $					
Mean	2,592,957	3,148,953	3,455,673	3,692,872	4,236,006
St. Dev.	*2,046,807*	*2,712,805*	*2,587,209*	*2,703,356*	*3,035,989*
Minimum	851,737	950,540	1,003,761	604,750	889,100
Maximum	15,652,877	17,669,676	13,329,189	17,256,272	21,992,085
Options granted #					
Mean	148,939	144,055	253,301	230,018	290,004
St. Dev.	*479,972*	*273,977*	*562,226*	*395,192*	*729,082*
Minimum	0	0	0	0	0
Maximum	4,871,102	2,057,219	4,062,500	2,754,404	6,963,495

Table 4. (*Continued*)

Panel B: Group B					
Salary $					
Mean	659,409	728,547	780,677	807,009	815,219
St. Dev.	*63,327*	*148,641*	*180,346*	*218,863*	*199,211*
Minimum	552,900	534,808	395,017	40,000	90,000
Maximum	750,000	1,621,159	1,507,444	1,568,568	1,750,000
Bonus $					
Mean	531,038	794,870	828,876	942,650	1,120,460
St. Dev.	*568,142*	*1,178,322*	*928,727*	*1,025,522*	*1,471,069*
Minimum	0	0	0	0	0
Maximum	4,000,000	8,115,700	8,024,707	7,900,000	9,900,000
Other annual $					
Mean	96,912	62,732	53,191	90,970	105,149
St. Dev.	*335,750*	*172,937*	*113,727*	*268,114*	*372,544*
Minimum	0	0	0	0	0
Maximum	2,052,614	1,194,443	828,359	2,143,522	2,908,199
RSA $					
Mean	327,311	334,605	540,960	498,015	560,501
St. Dev.	*747,251*	*702643*	*1,475,821*	*898,115*	*1,050,132*
Minimum	0	0	0	0	0
Maximum	4,350,000	3,531,600	10,725,000	5,351,622	5,562,813
LTIP $					
Mean	279,653	552,071	491,323	685,380	725,880
St. Dev.	*442,391*	*1,424,563*	*714,138*	*1,235,241*	*891,475*
Minimum	0	0	0	0	0
Maximum	1,967,400	11,306,250	4,256,250	9,506,287	3,164,938
All Other $					
Mean	108,627	235,994	174,295	195,272	168,883
St. Dev.	*314,626*	*1,166,680*	*671,234*	*542,886*	*438,870*
Minimum	0	0	0	0	0
Maximum	3,000,600	12,121,770	6,966,698	4,222,185	3,724,449
Total cash $					
Mean	1,752,451	2,356,786	2,492,213	2,771,669	3,020,378
St. Dev.	*1,260,315*	*2,339,606*	*2,231,778*	*2,054,056*	*2,298,919*
Minimum	555,530	602,150	660,800	626,548	544,562
Maximum	7,685,885	16,309,158	14,778,106	16,022,654	11,483,666
Options granted #					
Mean	62,367	73,282	116,549	190,328	164,771
St. Dev.	*94,092*	*90,111*	*151,806*	*772,697*	*211,548*
Minimum	0	0	0	0	0
Maximum	550,000	550,000	948,180	8,000,000	1,100,000

Table 4. (*Continued*)

Panel C: Group C					
Salary $					
Mean	436,502	493,866	546,866	600,105	639,894
St. Dev.	*98,361*	*131,790*	*168,341*	*203,964*	*237,473*
Minimum	100,000	103,000	100,000	100,000	80,000
Maximum	552,000	1,000,025	1,319,000	1,362,821	1,513,807
Bonus $					
Mean	450,521	531,325	574,288	615,579	690,728
St. Dev.	*1,149,667*	*1,071,159*	*692,546*	*1,083,833*	*1,217,188*
Minimum	0	0	0	0	0
Maximum	8,136,970	7,547,530	4,643,388	9,972,750	10,175,750
Other annual $					
Mean	25,397	39,133	129,115	68,501	105,149
St. Dev.	*79,110*	*97,179*	*832,704*	*195,177*	*372,544*
Minimum	0	0	0	0	0
Maximum	628,888	531,079	7,534,241	1,411,000	2,908,199
RSA $					
Mean	280,901	435,867	327,420	508,637	650,035
St. Dev.	*1,092,948*	*1,341,999*	*792,676*	*1,468,355*	*1,570,641*
Minimum	0	0	0	0	0
Maximum	7,577,977	6,906,380	4,656,750	8,413,250	9,616,250
LTIP $					
Mean	161,548	151,609	200,820	265,200	316,267
St. Dev.	*408,230*	*303,764*	*466,073*	*393,290*	*567,772*
Minimum	0	0	0	0	0
Maximum	2,358,079	1,596,176	2,796,830	1,586,923	2,898,556
All Other $					
Mean	44,278	62,031	99,473	97,973	256,239
St. Dev.	*79,018*	*129,505*	*266,045*	*279,435*	*743,847*
Minimum	0	0	0	0	0
Maximum	546,692	1,075,670	2,120,391	2,773,377	5,533,867
Total cash $					
Mean	1,172,848	1,413,441	1,604,136	1,790,611	2,257,624
St. Dev.	*1,821,507*	*1,847,047*	*1,703,185*	*2,236,622*	*2,781,603*
Minimum	309,905	311,792	307,500	270,748	219,527
Maximum	16,461,639	15,647,670	12,664,632	20,359,337	23,215,209
Options granted #					
Mean	49,051	145,162	73,708	86,791	143,248
St. Dev.	*96,191*	*863,285*	*148,497*	*200,972*	*235,261*
Minimum	0	0	0	0	0
Maximum	750,000	8,750,000	900,000	1,770,550	1,300,000

Note: Total cash compensation = Σ(salary, bonus, other annual, long-term incentive payout, restricted stock awards and all other).

Table 5. ANOVA Results.

Variable	Degrees of Freedom	F	p-value
Panel A: Group A			
Total cash compensation	4	11.919	0.000
Number of options granted	4	6.567	0.000
Panel B: Group B			
Total cash compensation	4	11.191	0.000
Number of options granted	4	12.568	0.000
Panel C: Group C			
Total cash compensation	4	14.305	0.000
Number of options granted	4	6.580	0.000

Note: Total cash compensation = Σ(salary, bonus, other annual, long-term incentive payout, restricted stock awards and all other).

and the number of options granted continuously increase for all three groups. Apart from differences in the payment amounts, there is little to distinguish group composition. For all groups, total cash compensation is divided into three Scheffé subsets of continually increasing amounts. The years prior to RRA 93 enactment (years –2 and –1) form the first subset. The years including, and immediately preceding and following, enactment create the second subset. The final subset consists of years 1 through 3.

While the total cash compensation increases of all groups follow a similar pattern, differences appear in the subsets of the number of options granted. Groups A and C, for instance, form two subsets each while group B generates three. In all groups, the number of options granted exhibit an overall increasing trend. For CEO groups A and B, a unique Scheffé subset is formed which contains all of the post-§162(m) years, mimicking the pattern of total cash compensation. The options granted to the lowest-paid CEOs, group C, however, do not appear to reflect a pattern that is responsive to RRA 93: statistically significant increases do not occur until the year after the imposition of deduction limitations. Group C's second subset is composed of years 2 and 3.

CONCLUSION

While legislative efforts continue to be directed toward executive compensation, past legislation appears to have been ineffective in this pursuit. This

Table 6. Scheffé Homogeneous Subsets Natural Logs.

Panel A: Group A

Year	Total Cash Compensation				Options Granted		
	Subset for $\alpha = 0.05$				Subset for $\alpha = 0.05$		
	n	1	2	3	*n*	1	2
3	113			15.08	96		12.05
2	113		14.94	14.94	92		11.94
1	113		14.87	14.87	95	11.83	11.83
−1	113	14.76	14.76		90	11.42	
−2	113	14.59			85	11.41	
sig.		0.29	0.22	0.12		0.15	0.77

Panel B: Group B

Year	Total Cash Compensation				Options Granted			
	Subset for $\alpha = 0.05$				Subset for $\alpha = 0.05$			
	n	1	2	3	*n*	1	2	3
3	113			14.68	94			11.73
2	113		14.64	14.64	95			11.43
1	113		14.52	14.52	91		11.34	11.34
−1	113	14.43	14.43		89	10.93	10.93	
−2	113	14.20			82	10.85		
sig.		0.10	0.15	0.43		0.99	0.09	0.14

Panel C: Group C

Year	Total Cash Compensation				Options Granted		
	Subset for $\alpha = 0.05$				Subset for $\alpha = 0.05$		
	n	1	2	3	*n*	1	2
3	114			14.29	86		11.41
2	114		14.10	14.10	82	11.00	11.00
1	114		14.01	14.01	75	10.81	
−1	114	13.87	13.87		79	10.81	
−2	114	13.64			69	10.51	
sig.		0.22	0.15	0.05		0.14	0.28

study investigated the compensation packages of 340 CEOs of large US corporations. Results indicate that executive compensation is resistant to the tax laws that attempt to regulate it. The compensation of even the highest-paid CEOs did not decrease as a result of the enactment of RRA 93 and the imposition of §162(m). In fact, compensation continued to rise in each of the five years studied. While the highest-paid CEOs, whose compensation is affected by §162(m), realized smaller increases in salary compared to their lower-paid peers, their bonus payments more than doubled. The number of options granted to this group also nearly doubled, with the sharpest increase concurrent with the enactment of RRA 93.

New legislation aimed at regulating executive compensation is introduced at least annually. While legislative acts cover a variety of topics including the alternative minimum tax, expensing of options and enhanced company disclosures, a formidable amount of governmental attention appears to be directed toward managing the amounts executives are paid. Three acts, for instance, advocated limiting the deduction of executive compensation, as did RRA 93. With these acts, the compensation deduction could not exceed 25 times the amount paid to the lowest-paid employee.[10] To date these acts have not been given serious legislative consideration beyond their introductions. Legislators may be resistant to support a concept that has been shown to be ineffective in the past.

NOTES

1. Recent examples include: the Executive Stock Option Profit Recapture Act (2004); the Jobs and Growth Tax Relief Reconciliation Act of 2003; the Executive Compensation Tax Reform Act of 2002; the Comprehensive Fiscal Responsibility and Accountability Act of 2000; and the Income Equity Acts of 1999 and 2001.

2. The compensation of the CEO is approximately twice that of the next highest-paid executive officer (Balsam, 2002).

3. For firms with fiscal year ends, year 1 is the fiscal year ending in 1995.

4. One category is *other annual* compensation, which generally includes amounts related to perquisites. *All other* compensation, the second category, generally includes amounts related the retirement plan contributions, split dollar life insurance and interest on deferred compensation.

5. Berkshire Hathaway appears to adhere to a compensation philosophy that is consistent with RRA 93: executive remuneration is generally limited to $100,000 annual salary plus stock options. In addition, Berkshire Hathaway's CEO, Warren Buffet, is widely considered a "bargain" with respect to his compensation (Crystal, 1999). This firm, as a result, was deemed to be an outlier and removed from the data set.

6. Omitting the firms with CEO turnover reduced sample 340–217 firms. When the tests used in this study were repeated on the smaller sample, the conclusions drawn were identical to those of the full sample.

7. Statistical tests also were performed on the raw (not adjusted for inflation) values. The results were consistent with those reported.

8. Year –2 is 1992 for calendar year firms. For other firms it is the fiscal year ending in 1993.

9. Inflation adjustments made elsewhere in this paper did not alter the conclusions. Inflation during the middle part of the 1990s was consistently small and averaged about 2.8% annually.

10. The Income Equity Acts of 1999 and 2001, and the Comprehensive Fiscal Responsibility and Accountability Act of 2000.

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A NOTE ON PRE-SARBANES–OXLEY ACT USERS' AND AUDITORS' PERCEPTIONS OF A LIMITATIONS PARAGRAPH IN THE AUDITOR'S INTERNAL CONTROL REPORT

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ABSTRACT

The auditor's internal control report format prescribed by the Auditing Standards Board (ASB) and the Public Company Accounting Oversight Board (PCAOB) includes a "limitations paragraph." This study examines the impact of a "limitations paragraph" on users' and auditors' perceptions about readability of the report, reliability provided by the report over financial reporting, and the auditors' exposure to liability. The study uses data obtained from a field experiment conducted (with 122 audit partners and managers, and 123 professionals from the financial community) in 1991 in connection with auditors' internal control reporting. This data set should provide input for regulators to evaluate the PCAOB prescribed internal control report format, because many of the expectations gap issues experienced in the 1970s and 1980s parallel those currently faced. Analyses indicate that the "limitations paragraph" may be

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perceived by users as providing less than a reasonable degree of assurance, and that the internal control report format without the "limitations paragraph" (structured along the lines of the SAS 58 auditors' standard report) would significantly enhance users' perceptions about the report's readability, without increasing the liability as perceived by auditors. Policy-making bodies may find the results and approach taken in this study useful to evaluate report formats for assurance services that will strike a balance between user needs and auditors' exposure to liability.

1. INTRODUCTION

In response to accounting and audit failures such as Enron and WorldCom, the Sarbanes–Oxley Act (hereafter referred to as the SOX Act) was enacted in 2002. Section 404 of the SOX Act requires an auditor's internal control report over financial reporting for all public companies. In this connection, the Auditing Standards Board (ASB) of the American Institute of Certified Public Accountants (AICPA) issued the Statement on Standards for Attestation Engagements (SSAE) #10 in 2001 superseding SSAE #2 issued in 1993 (AICPA, 1993, 2001), and the Public Company Accounting Oversight Board (PCAOB), established under the SOX Act, in 2004 issued Auditing Standard No. 2 (AS2): *An Audit of Internal Control Over Financial Reporting Performed in Conjunction with An Audit of Financial Statements.*[1] The internal control report (ICR) format according to SSAE #10 and AS2 has a limitations paragraph. The message communicated by the ICR with the limitations paragraph may be interpreted by the users of the ICR as providing less than reasonable assurance. For example, users are familiar with the SAS 58 (AICPA, 1988) three-paragraph auditor's standard report covering financial statements, which does not contain a limitations paragraph. Consequently, encountering a "limitations paragraph" in the auditors' ICR is not likely to match with the users' expectations and their mental frame of reference.

The resources committed by entities to comply with AS2 are significant,[2] and regulators (e.g., ASB, PCAOB) need information regarding users' and auditors' perceptions to prescribe an appropriate ICR format or modify an existing format. The purpose of this study is to examine the impact of the limitations paragraph on the users' and auditors' evaluation of ICR. In this regard, we analyzed a set of available data that was obtained from a field experiment conducted (with 122 audit partners and managers, and 123 professionals from the financial community) in 1991 that used three versions of ICR formats (one version containing a limitations paragraph, and two versions without the limitations paragraph) for experimental manipulations. Also, the present conditions (e.g., relating to audit failures and fraudulent financial reporting) in many ways parallel those of 1970s and 1980s. Therefore, 1991 perceptions about internal control reporting should provide an opportunity to evaluate and learn about the preferred internal control reporting format in the new millennium.

Other studies have used historical data to examine the reasonableness of regulations. For example, Defond, Hann, and Hu (2005) examined the market response from 1993 to 2002 announcements of appointments to companies' audit committees of someone with financial expertise – a requirement under the SOX Act. (They found a positive market response to appointments of people with accounting expertise, but found no reaction to announcements of appointments of people with non-accounting financial expertise.)

In the 1991 experiment (indicated above), participants were identified as either a preparer (auditor) or user of the auditor's ICR and then given one of the three report types to determine the effect of the limitations paragraph. Results of analyses of data indicate that (a) an ICR format without the limitations paragraph structured similar to the SAS 58 auditors' standard report, but mentioning prevention of fraud, would significantly enhance users' perceptions about the ICR's *readability* without increasing auditors' perceptions of *liability*, (b) both auditors and users rate the ICR format without the limitations paragraph more favorably with respect to *reliability* although the differences between the groups are not significant, and (c) users perceive that auditors assume a lower level of responsibility (*liability)* when issuing ICR with the limitations paragraph. Ceteris paribus, these results suggest that a report format without the limitations paragraph (structured similar to the SAS 58 report) is likely to be perceived more favorably by users than a format with the limitations paragraph.

The remainder of the paper is organized as follows. Section 2 reviews prior literature and presents research questions. Section 3 describes the methodology. Data analysis, results, and conclusion are discussed in Section 4.

2. PRIOR LITERATURE AND RESEARCH QUESTIONS

Internal control reporting, historically, has generated much debate as to its usefulness and need. Three AICPA Commissions (the Cohen Commission, 1978; the Treadway Commission, 1987; the Committee of Sponsoring Organizations of the Treadway Commission (COSO), 1992) recommended that financial statements include a management report that outlines management's responsibilities for internal controls related to financial reporting. However, an internal control report format and its contents were not specified or recommended. The AICPA, GAO, and the SEC (Berton, 1991; Kelley, 1993) believed that such reporting would strengthen an entity's internal control structure.

Others, however, did not favor the issuance of an ICR (Wallace, 1982a), especially for smaller publicly held companies (Costigan, 1989; Solomon & Cooper, 1990). Also, the SEC abandoned consideration of adopting recommendations on internal control reporting due to pressures from preparer/auditor groups (Wallace, 1981a, b, 1982b; Schuetze, 1993). As a result, internal control reporting remained essentially a voluntary action[3] leading to management reports on internal controls that varied in content and form in both the municipal sector (Wallace, 1981a) and the corporate sector (Wallace, 1988; Raghunandan & Rama, 1994; Willis & Lightle, 2000). Further, larger companies were more likely to issue management reports on internal controls than smaller companies, even though smaller companies were more likely to experience financial reporting problems (McMullen, Raghunandan, & Rama, 1996).

In a survey of users and preparers of financial statements, Hermanson (2000) found that both users and preparers agreed that voluntary or mandatory management reports on internal control would improve controls, but believed that voluntary management reports provided more useful information for decision making than mandatory reports. Respondents believed that if management reports were to become mandatory, then the external auditor should attest to the report (Hermanson, 2000). These results are consistent with McMullen et al.'s (1996) description of a self-selection scenario in which firms with good internal control structures would opt for a report to signal a strong financial reporting process. Consequently, making the management report on internal control mandatory removes its effectiveness as a signal, without ensuring any true change in internal control structure.

With the passage of the SOX Act, and in particular Section 404, internal control reports are once again at the forefront. This time, however, the focus has shifted from management's report on internal controls to the now required, auditor's ICR. Section 404(b) of SOX requires that any auditor engaged in the audit of a public company "attest to, and report on, the assessment made by management" about internal controls. Thus, the auditor's ICR is now a required form of audit communication.

Prior research on audit communications has shown that significant perceptual differences exist between users and preparers of audit, review and compilation reports (Pillsbury, 1985; Nair & Rittenberg, 1987). For example, Kelly and Mohrweis (1989), Houghton and Messier (1991), and Gist, Shastri, Ward, and Wilson (2002), compared users' and auditors' perceptions about the old two-paragraph auditor's standard report with the (SAS 58) three-paragraph auditor's standard report, and found that the SAS 58 report narrowed the perceived expectations gap. These studies raise a question relating to users' perceptions regarding report format: would users prefer an internal control report format structured along the lines of the SAS 58 auditor's report format (which does not have a limitations paragraph) or would they prefer a report format with a limitations paragraph?

According to Osgood, Suci, and Tannenbaum (1971) the meaning underlying an object/concept has three dominant dimensions, viz., *evaluative* (e.g., good–bad), *potency* (e.g., strong–weak), and *activity* (e.g., slow–fast). Similarly, an audit report format (like an object) will have three underlying dimensions (scales). Prior research on audit communications identified the following perceptual dimensions: *evaluative* (good–bad), *obligatory* (discretionary-required, necessary–unnecessary), and *potency* (dynamic–static, exact–estimated) (Houghton & Messier, 1991); *understandability* (goodness) of audit communication, auditors' *engagement risk*, and users' *accommodation* (Gist et al., 2002); *need for additional information* and *auditor judgment* (Libby, 1979); *level of assurance provided* and *clarity of responsibility assumed* by auditors (Pillsbury, 1985; Kelly & Mohrweis, 1989) and *work performed* by the auditor and *assurance communicated* (Nair & Rittenberg, 1987). In this study, we label three perceptual dimensions as: *readability* (understandability), *reliability* (audit assurance), and *liability* (auditor's responsibility and exposure to litigation).

Of interest to this study are the perceptual differences that may exist between users and preparers of an auditor's ICR. Prior research on perceptual attitudes toward the auditor's ICR has produced mixed results. Wallace (1982a), in a survey of financial statement preparers and users, found that respondents differed in opinion with regard to: (a) whether the public will be misled regarding the possibility of fraud (because users are likely to believe that internal control reports preclude fraud), and (b) the potential increase in auditor legal liability. O'Reilly-Allen and McMullen (2002), on the other hand, found that MBA students perceived that the presence of an auditor's report on internal control (i) lessened auditors' responsibility for the effectiveness of internal control, (ii) had no effect on auditors' testing for, or detecting, material errors due to fraud, and (iii) decreased the level of assurance provided by the auditor regarding whether the financial statements are free from material misstatements.

Additionally, Gist, McClain, and Shastri (2004) examined users' and preparers' perceptions of the auditor's ICR format with a limitations paragraph (similar to the SSAE #2 report) and found evidence indicating some difference between users' and auditors' perceptions regarding the understandability of the message communicated and the level of auditor's liability. In particular, auditors feel that the purpose of the internal control audit could be more effectively communicated, while users feel the report ensures the detection of material misstatements due to fraud and shifts legal responsibility away from auditors to management. These differences are attributed to an ICR format (with a limitations paragraph) that does not match with readers' expectations or mental frame of reference to the current (SAS 58) auditor's report format for audits of financial statements. This study extends Gist et al. (2004) by examining the effect of excluding/including a limitations paragraph on users' and preparers' perceptions of an auditor's ICR. As indicated earlier, studies of the SAS 58 report (Kelly & Mohrweis, 1989; Houghton & Messier, 1991; Gist et al., 2002) found that the SAS 58 report format narrowed the perceived expectations gap.

Taken collectively, these studies raise questions as to the role a limitations paragraph plays in creating perceptual differences between users and preparers of the auditor's ICR along the *readability*, *reliability*, *and liability* dimensions. As such, this paper addresses the following research questions:

Research Question 1. How would an ICR without a limitations paragraph affect users' and auditors' perceptions regarding *readability* of the ICR?

Research Question 2. How would an ICR without a limitations paragraph affect users' and auditors' perceptions regarding *reliability* of the ICR?

Research Question 3. How would an ICR without a limitations paragraph affect users' and auditors' perceptions regarding *liability* (responsibility) assumed by the auditor in issuing the ICR?

Furthermore, prior studies (e.g., Wallace, 1982a; O'Reilly-Allen & McMullen, 2002) bring to light differences in attitude between users and preparers toward the detection of material misstatements due to fraud. As such, this paper addresses the impact that the inclusion of fraud detection wording (adequacy of internal controls to detect/prevent material misstatements due to errors, irregularities or fraud) in a report format without a limitations paragraph, would have on perceptual differences between users and auditors along the same three dimensions. Since previous research (Wallace, 1982a; O'Reilly-Allen & McMullen, 2002) is mixed on the impact auditor's ICR have on perceptions of fraud, the following research question is presented to address the issue:

> **Research Question 4.** How would the inclusion of fraud detection wording in an ICR without a limitations paragraph affect users' and auditors' perceptions regarding *readability*, *reliability*, and auditor's *liability*?

3. METHODOLOGY

3.1. Research Methodology

The methodology used in this study is along the lines of studies relating to the auditor's report on financial statements. As in prior studies (e.g., Libby, 1979; Houghton & Messier, 1991), a field survey with a substantially context-free frame of reference was used to gather participants' responses. The survey questions were developed based on prior literature relating to audit communication (e.g., Libby, 1979; Nair & Rittenberg; 1987, Kelly & Mohrweis, 1989).[4] Deriving the measures used in this study from existing research helps to ensure their content validity (O'Leary-Kelly & Vokurka, 1998). Also, the survey instrument was pretested with accounting/auditing instructors, graduate students, and practitioners, and modified as necessary before administering. The data were collected in 1991, relatively soon after the promulgation of the expectations gap auditing standards in 1988. At that time, ASB draft #4287 was the latest guidance prescribing the format of the auditor's report on internal control with a limitations paragraph.

3.2. Internal Control Report Formats to Address Research Questions

The three internal control report formats used in this study for experimental manipulation are as follows:

Version #1, labeled RLP (report with limitations paragraph): This format is the Auditing Standards Board working draft from file #4287 (AICPA, 1991), which includes a *limitations paragraph.* The structure and content of this format are substantially similar to the SSAE #2 report, and reflect the auditor's internal control reporting that is required by the PCAOB.

Version #2, labeled NLP (*no limitations paragraph*): This format is a revision of Version #1, but without the limitations paragraph and structured along the lines of the SAS 58 auditors' standard report.

Version #3, labeled NLPF (*no limitations paragraph and incorporating fraud detection*): This format is similar to Version #2, but contains language concerning reasonable assurance provided by internal control relating to the detection and prevention of material misstatement due to error, irregularity or fraud. The terms, "irregularity or fraud," stem from recommendations by the Treadway Commission. (Appendix A includes the ICR formats: RLP, NLP, and NLPF.)

3.3. Subjects, Task, and Presentation of Survey Instrument

Subjects were identified through coordination with representatives at banks, investment analysts associations, and firms of certified public accountants (CPA) in the southwest region of the U.S. Although, the use of coordination representatives resulted in a 100% response rate, this quota system has limitations, e.g., subjects could not be assigned randomly to treatment cells, which (as indicated below) to some extent was offset during distribution of case instruments. Participants included 122 auditors and 123 bank officers (in banks with over $100 million in assets) and financial analysts. Biographical background information about auditors and users are included in Table 1.

Each participant was presented with the case instrument packet containing the following: (i) instructions to the participant in a letter form; (ii) background information about ABC Company; (iii) one of the three internal control report formats (*RLP*, *NLP*, or *NLPF*, described earlier); (iv) eleven randomly ordered case questions with provision for subjects' responses on a seven-point Likert scale (scales were anchored, 1 = strongly disagree and 7 = strongly agree); and (v) A biographical background information sheet.

The first of the three pages containing questions was appropriately varied for the auditor and user groups asking them to assume their respective role. The presentation of cases to subjects was rotated, which to some extent offset the difficulty in assigning subjects randomly to treatment cells. This resulted in (out of 123 users) 48, 43, and 32 users, respectively responding to questions relating to RLP, NLP, and NLPF formats; and (out of 122 auditors) 43, 39, and 40 auditors respectively responding to questions relating to RLP, NLP, and NLPF report formats.[5]

Table 1. Biographical Information on Survey Respondents.

Panel A: Descriptive Statistics of the User Group (n = 123)

Particulars	Experience	Education
Years of experience in banks/ financial institutions	Mean 10.6 years Standard deviation 5.75	
Percent of time spent in reviewing audit report, financial data, loan application	Mean 51%	
Graduate degree		45
Undergraduate		59
Some or no college		10
Total		114
		28 Respondents held Professional Designation (e.g., CFA) & 26 were preparing for the CFA examinations
Background information not completed but case questions responded		9
Total usable responses		123

Panel B: Descriptive Statistics of the Auditor Group (n = 122)

	Years of experience Mean [Standard deviation]	
93 Managers	8.2 [2.5]	
28 Partners	20.2 [6.2]	
121 Overall	11.0 [6.3]	
Graduate degree		19
Undergraduate		102
Total		121
		All are CPAs
Background information not completed but case questions responded		1
Total usable responses		122

Note: (Panel A): Subjects included: Presidents and Vice Presidents – 76(Vice Presidents include Executive, Senior, and Assistant Vice Presidents).

3.4. Scaling Perceptual Dimensions: Dependent Variables

As described before, prior audit communication studies (e.g., Libby, 1979; Nair & Rittenberg, 1987; Houghton & Messier, 1991; Gist et al., 2002) identified perceptual dimensions (scales). Similarly, for examining similarities and differences between users' and auditors' perceptions, we identified for this study three dimensions: *readability*, *reliability*, and *liability* (responsibility).

4. DATA ANALYSES, RESULTS, AND CONCLUSION

To establish perceptual dimensions (scales), we applied factor analysis (Rummel, 1970) to subjects' responses to 11 questions using Varimax rotation to determine on which factors these questions loaded. Factor loadings represent the correlation between the original variables (11 questions) and the factors. Commonly used methods to extract factors include, eigenvalue-one criterion approach, cumulative percentage of variance approach (e.g., accounting over 60% total variance), and a priori criterion – factors based on judgment (Rummel, 1970; Hair, Anderson, & Tatham, 1987).

The use of eigenvalue-one criterion resulted in two factors (accounting for 61% of variances). One factor (comprising seven out of eleven questions) represented *readability* + *reliability* related questions, and the second factor (comprising the remaining four questions) represented *liability* related questions. Because one factor consisting of seven questions represented two expected dimensions, a three-factor solution based on a priori criterion was extracted. The three-factor solution accounted for 68% of the total variance. For descriptive purposes we labeled the dimensions as follows:

- *Readability* (refers to understandability or clarity): Questions 1 and 3
- *Reliability* (level of audit assurance provided): Questions 2, 5, 7, 10, and 11
- *Liability* (auditor's risk or exposure to liability): Questions 4, 6, 8, and 9.

Table 2 contains the 11 questions asked of respondents and Table 3 provides factor loadings for each question under the three-factor solution.

To check scale *reliability*, Cronbach's coefficient alpha was computed for each dimension. According to Nunnally (1978), a scale reliability level of 0.70 coefficient alpha is sufficient in the early stages of basic research, and increasing reliability beyond 0.80 is often wasteful of resources. Cronbach's coefficient alpha for the *readability*, *reliability*, and *liability* scales exceeded 0.70 (i.e., over 0.79, 0.82, and 0.73, respectively for *readability*, *reliability*,

Table 2. Survey Questions and Perceptual Dimensions.

Qn.#	Question Description
	Readability Dimension
1	The message communicated by the above independent accountants' report (on ABC Company's internal control structure) is *completely understandable*
3	The purposes of the audit of ABC Company's internal control structure are *clearly communicated* in the above independent accountants' report
	Reliability Dimension
2	How *confident* are you that ABC Company's internal control structure is capable of producing financial statements *free of material errors* for the year 19×8?
5	How *confident* are you that ABC Company's internal control structure is capable of producing financial statements *free of material misstatements due to an irregularity* for the year 19×8?
7	How *confident* are you that ABC Company's internal control structure is capable of producing financial statements *free of material misstatements due to fraud* for the year 19×8?
10	From the above independent accountants' report, it can be concluded that ABC Company's internal control structure is capable of producing financial statements *free of material misstatements* for the year 19×8.
11	The *degree of assurance* about the reliability of ABC Company's internal control structure provided by the above independent accountants' report is higher
	Liability Dimension
4	The *likelihood* that the above independent accountants' report will expose the independent accountant (auditor) of ABC Company to *legal liability* is higher
6	The *likelihood* that the above independent accountants' report (on ABC Company's internal control structure) will lead to *a lawsuit* against the independent accountant (auditor) of ABC Company is higher
8	By issuing the above independent accountants' report, the independent accountant (auditor) of ABC Company assumes *a great amount of risk*
9	It is clear from the above independent accountants' report (on ABC Company's internal control structure) that the independent accountant (auditor) of ABC Company is assuming a *high degree of responsibility*

and *liability* scales). Means and standard deviations of composite scales are included in Table 4.

4.1. Results by Respondent Group and Report Type

To avoid a potential demand effect and to require less time of participants to complete the instrument, we used a between-subjects design instead of a within-subjects (repeated measures) design (Campbell & Stanley, 1969;

Table 3. Factor Loadings.

Survey Question ♯ and Description		Factor 1 *Reliability*	Factor 2 *Liability*	Factor 3 *Readability*
1.	Understandable	0.29187	−0.05717	0.80522[a]
2.	No material errors	0.66740[a]	0.10564	0.47708
3.	Clarity of communication	0.26807	−0.00044	0.82450[a]
4.	Legal liability	0.06342	0.82434[a]	−0.12137
5.	No irregularity	0.81155[a]	−0.04524	0.25131
6.	Lawsuit	−0.15186	0.69271[a]	−0.06732
7.	No fraud	0.80861[a]	−0.07314	0.07351
8.	Amount of risk	0.02163	0.87074[a]	0.04622
9.	Auditor responsibility	0.16246	0.71865[a]	0.36451
10.	No material misstatement	0.66108[a]	0.05046	0.42563
11.	Assurance degree	0.58334[a]	0.17136	0.52646

Note: Varimax rotation of responses to 11 case questions ($n = 245$) three factors, a priori criterion (68% variance explained).
[a]Denotes high absolute factor loadings (Factor loadings for two factors can be obtained from the authors).

Table 4. Perceptions Regarding Internal Control Reports (Study Variables: Summary Statistics).

	Users			Auditors		
	RLP	NLP	NLPF	RLP	NLP	NLPF
Number of subjects	48	43	32	43	39	40
Dimension	Mean	Mean	Mean	Mean	Mean	Mean
Readability	4.57	4.68	5.35	3.73	4.34	4.35
	(1.46)	(1.28)	(1.17)	(1.33)	(1.41)	(1.19)
Reliability	4.08	4.49	4.71	4.08	4.26	4.38
	(1.13)	(1.13)	(1.11)	(1.28)	(1.00)	(0.94)
Auditor's *liability*	2.97	3.63	3.72	4.01	4.15	4.44
	(1.14)	(1.26)	(1.19)	(1.02)	(1.05)	(1.50)

Note: Standard Deviations are in parentheses; RLP, Internal control report format with limitations paragraph; NLP, Internal control report format with no limitations paragraph (structured like SAS 58 auditor's standard report); NLPF, Internal control report formatted like NLP, but incorporating words for fraud detection.

Kirk, 1982). To test hypotheses, we examined treatment (alternative report formats) effects using a 3/2 full factorial ANOVA.

4.1.1. Research Questions 1 and 4 Regarding Readability

ANOVA results (Table 5) indicate that the effect of both report and subject type on *readability* is significant at $p < 0.05$, with no significant interaction effect between subject type and report type. While a significant difference exists between user and auditor groups regarding *readability* of RLP (format with the limitations paragraph) and NLPF (format incorporating fraud detection wording), no such difference exists between the two groups in *readability* of NLP (format without the limitations paragraph, but structured like the SAS 58 auditor's standard report). These results indicate that the RLP format may cause a potential expectations gap and a format similar to SAS 58 (such as NLP format) may be rated relatively favorably to narrow a potential expectations gap, addressing Research Question 1.

Table 5. Analysis of Readability Dimension ($n = 245$).

Panel A: 3 × 2 ANOVA

Source	Sum of Squares	DF	Mean Square	*F*-value	Sig.
Subject type	28.8173	1	28.8173	16.52	0.0001
Report type	18.7889	2	9.3944	5.38	0.0052
Subject type*Report type	4.7719	2	2.3859	1.37	0.2567
Error	416.9749	239			
Total	469.353	244			

Panel B: Pairwise Comparisons of Means for Readability Dimension

	Report Type			Difference		
Subject	RLP	NLP	NLPF	RLP–NLP	RLP–NLPF	NLP–NLPF
User	4.57	4.68	5.35	−0.11	−0.78*	−0.67
Auditor	3.73	4.34	4.35	−0.61	−0.62	−0.01
Difference	0.84**	0.34	1.00**			

Note: RLP, Internal control report format with limitations paragraph; NLP, Internal control report format with no limitations paragraph (structured like SAS 58 auditor's standard report); NLPF, Internal control report formatted like NLP, but incorporating words for fraud detection.

*Significant at p-value = 0.10 for one-tailed t-test.

**Significant at p-value = 0.05 for one-tailed t-test.

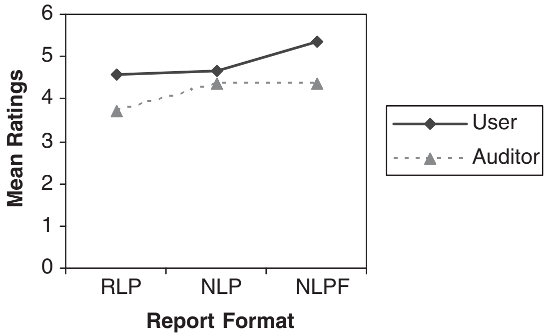

Fig. 1. Mean Ratings for Report Formats: Readability Dimension.

While users assign the highest rating to NLPF format, auditors perceive no significant differences in *readability* among the three internal control report formats, addressing Research Question 4 (see Table 5 and Fig. 1).

4.1.2. Research Questions 2 and 4 Regarding Reliability

ANOVA results (Table 6) show a significant overall difference between report types, but no significant effect for subject type or the interaction of subject type and report type. Although users and auditors perceive the *reliability* of the report to increase from the RLP, to NLP to NLPF formats, the improvements are not significant within either the user group or the auditor group. Also, results indicate that there are no significant differences between users' and auditors' perceptions regarding the *reliability* of any of the three versions of the ICR formats, addressing Research Questions 2 and 4 (see Table 6 and Fig. 2).

4.1.3. Research Questions 3 and 4 Regarding Liability

Overall ANOVA results (Table 7) reveal significant subject and report type effects, and no significant interaction between subject and report type on the *liability* dimension. Users perceive that auditors' *liability* for RLP will be significantly lower than the *liability* for NLP or NLPF. This suggests that the RLP (with the limitations paragraph) may provide users with less than a reasonable degree of assurance, and may produce the perception that auditors are assuming a lower level of responsibility (*liability*), addressing Research Questions 3 and 4. (see Table 7 and Fig. 3).

Table 6. Analysis of Reliability Dimension ($n = 245$).

Panel A: 3 × 2 ANOVA

Source	Sum of Squares	DF	Mean Square	F–value	Sig.
Subject type	1.3944	1	1.3944	1.13	0.2889
Report type	9.1478	2	4.5739	3.71	0.026
Subject type*Report type	1.1994	2	0.5997	0.49	0.6158
Error	295.04	239			
Total	306.7812	244			

Panel B: Pairwise Comparisons of Means for Reliability Dimension

	Report Type			Difference		
Subject	RLP	NLP	NLPF	RLP–NLP	RLP–NLPF	NLP–NLPF
User	4.08	4.49	4.71	−0.41	−0.63	−0.22
Auditor	4.08	4.26	4.38	−0.18	−0.3	−0.12
Difference	0	0.23	0.33			

Note: None of the comparisons are significant at p-value = 0.05 (and less than 0.1) for one-tailed t-test; RLP, Internal control report format with limitations paragraph; NLP, Internal control report format with no limitations paragraph (structured like SAS 58 auditor's standard report); NLPF, Internal control report formatted like NLP, but incorporating words for fraud detection.

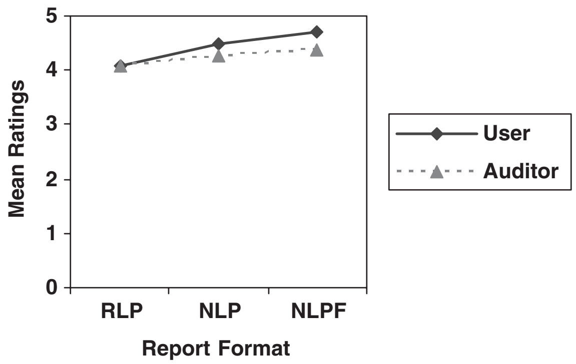

Fig. 2. Mean Ratings for Report Formats: Reliability Dimension.

Table 7. Analysis of Liability Dimension ($n = 245$).

Panel A: 3 × 2 ANOVA

Source	Sum of Squares	DF	Mean Square	F- value	Sig.
Subject type	39.0392	1	39.0392	27.09	0.0001
Report type	15.5077	2	7.7539	5.38	0.0052
Subject type × Report type	2.9515	2	1.4757	1.02	0.3607
Error	344.376	239			
Total	401.874	244			

Panel B: Pairwise Comparisons of Means for Liability Dimension

	Report Type			Difference		
Subject	RLP	NLP	NLPF	RLP–NLP	RLP–NLPF	NLP–NLPF
User	2.97	3.63	3.72	−0.66*	−0.75*	−0.09
Auditor	4.01	4.15	4.44	−0.14	−0.43	−0.29
Difference	−1.04**	−0.52	−0.72			

Note: RLP, Internal control report format with limitations paragraph; NLP, Internal control report format with no limitations paragraph (structured like SAS 58 auditor's standard report); NLPF, Internal control report formatted like NLP, but incorporating words for fraud detection.

*Significant at p-value = 0.10 for one-tailed t-test.

**Significant at p-value = 0.05 for one-tailed t-test.

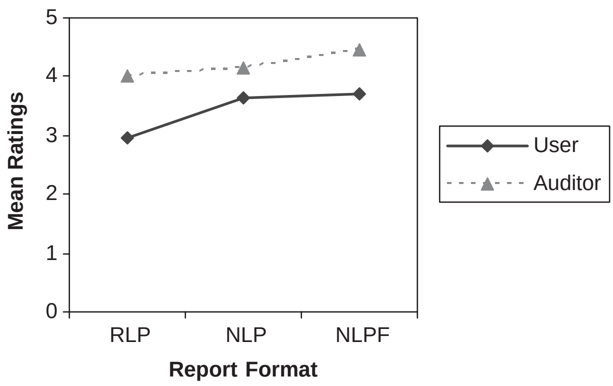

Fig. 3. Mean Ratings for Report Formats: Liability Dimension.

4.2. Conclusion

The use of the RLP format (with a limitations paragraph) results in significant differences between user and auditor groups' perceptions of the reports' *readability* and the level of *liability* (responsibility) assumed by auditors. Also, both groups rate the RLP at a lower level for the *reliability* dimension compared to the ratings of NLP or NLPF (although the differences are not significant). Further, users perceive that auditors assume a significantly lower level of responsibility (*liability*) when using the RLP, suggesting that the RLP may provide users with less than a reasonable degree of assurance. These differences in perceptions suggest that the use of RLP may cause an expectations gap.

In contrast, the NLP format produces no significant differences between user and auditor groups on any of the three dimensions (*readability*, *reliability*, and *liability*). Perhaps this is because the NLP format is structured similar to the SAS 58 auditor's standard report, and more closely matches both users' and auditors' mental frame of reference with respect to *readability* and *reliability*. Policy makers need to evaluate this evidence in light of perceived benefits of the limitations paragraph when evaluating the content/format of the internal control report.

While this study provides some evidence regarding ICR formats, this research needs to be extended to a more recent time frame if it is to have direct implications for current standard setting. Also, users' and auditors' perceptions about the recent PCAOB auditing standard #2 report formats (e.g., a combined auditor's report on financial statements and internal control over financial reporting) need to be examined. Future studies could add more attributes to construct additional perceptual dimensions/sub-dimensions, and other concepts (e.g., source credibility) for investigation. In this study we have used a between-subjects full factorial ANOVA design. A within-subjects (repeated measures) design could be used, because a between-subjects design may not be evoking differential attention (Taylor & Thompson, 1982). Also, richer experiments with more diverse user groups represented could be utilized.

NOTES

1. See paragraph 215 of Auditing Standard 2 issued by PCAOB http://www.pcaobus.org/documents/rules_of_the_board/Standards%20-%20AS2.pdf.

2. The Financial Executives International survey quantified the average cost of meeting Sarbanes-Oxley rules in 2004 as $4.3 million. Those respondents with over $5 billion in sales reportedly spent an average of $10.5 million. In addition, based on audit fees for over 13,000 companies (Audit Analytics™ Data Base), the average increase in audit fees in year 2004 over 2003 was about 60%.

3. The Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 is an exception requiring such reporting for all financial depository institutions with assets over $500 million.

4. Because the survey instrument was developed in 1991, prior to most research on internal control reporting, studies relating to communication about audits of financial statements were most applicable for its development.

5. Appendix A includes the ICR formats: RLP, NLP, and NLPF. Appendix B includes report formats per SSAE #2 and SAS 58. A complete set of survey material packet items can be obtained from the authors.

ACKNOWLEDGMENT

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APPENDIX A

RLP Format: Internal Control Report as per ASB's File ♯4287, April 1991

To the Stockholders of ABC Company. We have examined the accompanying ABC Management Report on Internal Control dealing with the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19 × 8.

Our examination was made in accordance with standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary in the circumstances.

Because of inherent limitations in any internal control structure, errors or irregularities may occur and not be detected. Also, projections of any evaluation of the internal control structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions, or that the degree of compliance with the procedures may deteriorate.

In our opinion, the management's report referred to above presents, in all material respects, the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19 × 8, based upon established criteria.

NLP Format: Revised Internal Control Report to Conform to SAS 58 Format – Without the Limitations Paragraph

To the Stockholders of ABC Company. We have examined the accompanying ABC Management Report on Internal Control dealing with the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19×8. It is the responsibility of the management to maintain an effective and efficient internal control structure. Our responsibility is to express an opinion on the management's report based on our examination.

Our examination was made in accordance with standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary in the circumstances. Those standards require that we plan and perform an examination to obtain reasonable assurance about whether the Company's internal control structure is sufficient for the financial reporting process as of December 31, 19×8. We believe that our examination provides a reasonable basis for our opinion.

In our opinion, the management's report referred to above presents, in all material respects, the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19×8, based upon established criteria.

NLPF Format – NLP Format Revised Incoporating Fraud Detection/Prevention

To the Stockholders of ABC Company. We have examined the accompanying ABC Management Report on Internal Control dealing with the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19×8. It is the responsibility of the management to maintain an effective and efficient internal control structure. Our responsibility is to express an opinion on management's report based on our examination.

Our examination was made in accordance with standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary in the circumstances. Those standards require that we plan and perform an examination to obtain reasonable assurance about whether the Company's internal control structure is sufficient to detect/prevent material errors, irregularities, or fraud in the financial reporting process as of December 31, 19×8. We believe that our examination provides a reasonable basis for our opinion.

In our opinion, the management's report referred to above presents, in all material respects, the effectiveness of ABC Company's internal control structure which includes measures to provide reasonable assurance of detecting/preventing material misstatement due to error, irregularity, or fraud over financial reporting as of December 31, 19×8, based upon established criteria.

APPENDIX B

Internal Control Report and the (SAS 58) Three Paragraph Auditor's Report

Comparison of Auditor's Report on Internal Control
This study used a version of the auditor's internal control report that was published in the ASB's working draft file ♯4287. What follows is the version currently in use as published in SSAE ♯2 – overlaid on the draft used in this research. Any wording in *italics* represents wording not in the ASB ♯4287 version.

Internal Control Report per SSAE ♯2
To the Stockholders of ABC Company. We have examined the accompanying ABC Management Report on Internal Control dealing with the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19×8.

Our examination was made in accordance with standards established by the American Institute of Certified Public Accountants and, accordingly, included *obtaining an understanding of the internal control structure over financial reporting, testing, and evaluating the design and operating effectiveness of the internal control structure, and* such *other* procedures as we considered necessary in the circumstances. *We believe that our examination provides a reasonable basis for our opinion.*

Because of inherent limitations in any internal control structure, errors or irregularities may occur and not be detected. Also, projections of any evaluation of the internal control structure *over financial reporting* to future periods are subject to the risk that *the internal control structure* may become inadequate because of changes in conditions, or that the degree of compliance with the procedures may deteriorate.

In our opinion, management's *assertion as to* the effectiveness of ABC Company's internal control structure over financial reporting as of December 31, 19×8, *is fairly stated*, in all material respects, based upon established criteria.

Three Paragraph Auditor's Standard Report as per SAS 58
Independent Auditor's Report: To the Stockholders of ABC Company.* We have audited the accompanying balance sheet of ABC Company as of December 31, 19 × 2, and the related statements of income, retained earnings, and cash flows for the year 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 audit.

We conducted our audit in accordance with generally accepted auditing standards.* 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 audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of ABC Company as of December 31, 19 × 2, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

*PCAOB auditing standard ♯1 requires a reference in the Auditors' Reports to the Standards of the Public Company Accounting Oversight Board as follows: Instead of U.S. generally accepted auditing standards or auditing standards generally accepted in the United States of America, the auditor must refer to "the standards of the Public Company Accounting Oversight Board (United States)."

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SIMS 2.0 INCLUDES CONTROLS FOR NYSE SPECIAL CLOSINGS, SMALL FIRM EFFECTS AND LIQUIDITY☆

Anthony J. Cataldo II

ABSTRACT

This paper updates Cataldo (1998, 1999) and provides for descriptive measures of New York Stock Exchange special closings (NYSE SCs), the Russell 2000® Index, and 30-day commercial paper rates. NYSE SCs produce stock index behavioral patterns comparable to weekend and holiday effects. The Russell 2000® Index (1987-) provides a control measure for small firm effects. The 30-day commercial paper rates (1972-) provide a control measure for interest rates and liquidity. The significance of these control variables for small firm effects and liquidity is applied to all seasonal categories in this description of the expanded Stock Index and Market Seasonals (SIMS) 2.0.

☆This paper benefited from comments and recommendations made by two anonymous reviewers.

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INTRODUCTION

This paper introduces additional control variables contained in the Stock Index and Market Seasonals (SIMS) 2.0 database. It elaborates on and extends Cataldo (1999), which followed the introduction of SIMS 1.0, in an earlier edition of *Research in Accounting Regulation* (Cataldo, 1998). Improvements permit direct investigations into the relevance of *small firm effects* and *liquidity*. Those involved in the study of capital markets may wish to conduct investigations into relevant stock market seasonal event dates, contained in SIMS 2.0, to increase the rigor of their working papers and research, and further exclude the introduction of *noise* into the findings contained in their statistical models. Innovations to SIMS 2.0 include New York Stock Exchange special closings (NYSE SCs), the Russell 2000® Index, and 30-day commercial paper rates. They are described below.[1]

NEW YORK STOCK EXCHANGE SPECIAL CLOSINGS

NYSE SCs represent "stock exchange holidays" other than weekends or national holidays. The most recent example was the NYSE closure following the terrorist attacks of September 11, 2001, when the NYSE was closed from September 11 through September 16.[2]

Historically, SCs have produced stock market reactions very similar to those occurring over weekends and holidays. Stock prices have had a tendency to rise on trading days preceding NYSE SCs, weekends and holidays and decline on the trading days that follow NYSE SCs, weekends and holidays.

Table 1 summarizes descriptive statistics associated with NYSE SCs in the same format used by Cataldo (1998). The behavior of mean daily returns for the Dow Jones Industrial Average (DJIA) immediately preceding (0.2112 percent) and following (−0.2914 percent) NYSE SCs may represent a stock market reaction–correction sequence. Similarly, this pattern existed for Friday (0.078 percent)-to-Monday (−0.109 percent) and/or the pre-June 1952 Saturday (0.055 percent)-to-Monday (−0.109 percent) weekend effects (Cataldo, 1998). Finally, consistent with the literature on aggregate holiday (ALLHOL) effects, this pattern held for trading days immediately preceding (0.257 percent) and following (−0.037 percent) holidays (Cataldo, 1998).

Dummy variables representing trading days surrounding weekends and holidays were included in the initial version of SIMS (Cataldo, 1998). Dummy variables representing the trading days surrounding SCs were examined by

Table 1. NYSE SCs – Descriptive Statistics of Daily Returns for the DJIA (1885 through September 2004).

SC	N	Mean (%)	Median (%)	Standard Deviation (%)	Minimum (%)	Maximum (%)	First Quartile (%)	Third Quartile (%)
$N2$	339	0.0686	0.0842	1.2612	−6.0513	12.3441	−0.3654	0.4854
$N1$	339	0.2112	0.1319	1.0041	−6.9082	6.3669	−0.1553	0.6436
$P1$	339	−0.2914	−0.1198	1.3601	−7.1293	4.5018	−0.7714	0.4306
$P2$	339	0.0735	0.0747	1.1926	−9.9154	5.1111	−0.4472	0.6084

Note: $N =$ the number of special closing trading days contained in SIMS 2.0. $N2$ and $N1$ are daily returns measures for two ($t-2$) and one ($t-1$) trading days preceding the special closing event date ($t = 0$), respectively; $P1$ and $P2$ are daily returns measures for one ($t+1$) and two ($t+2$) trading days following the special closing event date ($t = 0$), respectively. A complete legend is contained in the Appendix Table.

Cataldo and Savage (1999) and have been added to SIMS 2.0, which now controls for all three "stock exchange holidays" (Fields, 1931,1934).

EXTENSIONS OF THE DJIA, S&P500 AND INCLUSION OF THE RUSSELL 2000® INDEX

SIMS 2.0 includes a backward extension of the DJIA (1885–1896) and an update for 1997 through September 2004. The inclusion of the 1885–1896 period is the result of recommendations by several financial economists, but some may wish to exclude this early period when the DJIA, per se, was still in its developmental stages. An update for the 1997 through September 2004 period is also included for the broader S&P500. Finally, SIMS 2.0 includes the Russell 2000® Index (R2000). Table 2 contains descriptive statistics for these additions in the same format presented in Table 8 of Cataldo (1998, p. 213).

THE DJIA AND S&P500 INDICES

Both the DJIA and S&P500 are large-capitalization stock indices. The inclusion of both in SIMS 2.0 permits the user to test the robustness of their statistical results and/or generate their own abnormal returns measures for both equal- or price-weighted (DJIA) and market capitalization- or value-weighted (S&P500) indices.

Table 2. Descriptive Statistics for the DJIA, S&P500 and R2000 Indices (1885 through September 2004).

Year	N	Mean Daily Returns		
		DJIA (%)	S&P500 (%)	R2000 (%)
1885	266	0.1020	NA	NA
1886	305	0.0420	NA	NA
1887	301	−0.0262	NA	NA
1888	300	0.0178	NA	NA
1889	301	0.0189	NA	NA
1890	303	−0.0340	NA	NA
1891	303	0.0368	NA	NA
1892	301	−0.0099	NA	NA
1893	302	−0.0534	NA	NA
1894	304	0.0005	NA	NA
1895	304	0.0086	NA	NA
1896	303	0.0236	NA	NA
1897–1986	25,039			NA
1987	253			−0.0313
1988	253			0.0818
1989	252			0.0541
1990	253			−0.0920
1991	253			0.1464
1992	254	(Cataldo, 1998)		0.0616
1993	253			0.0636
1994	252			−0.0108
1995	252			0.0937
1996	254			0.0565
1997	253	0.0877	0.1134	0.0772
1998	252	0.0671	0.1021	−0.0058
1999	252	0.0944	0.0772	0.0751
2000	252	−0.0169	−0.0343	0.0000
2001	248	−0.0206	−0.0472	0.0149
2002	252	−0.0600	−0.0922	−0.0839
2003	252	−0.0950	0.0987	0.1556
2004	188	−0.0169	0.0038	0.0222
Total	33,110			
1885 to September 2004		0.0233		
1930 to September 2004		0.0239	0.0267	
1987 to September 2004		0.0437	0.0430	0.0380

Note: $N =$ the number of trading days contained in SIMS 2.0. A complete legend is contained in the Appendix Table.

In the case of the DJIA, a company with relatively expensive shares and a relatively smaller market capitalization may greatly influence the index value. In the case of the S&P500, large-capitalization stocks in the index, regardless of the price per share of stock, play a much greater role in determining the index value.

THE RUSSELL 2000® INDEX (R2000)

The R2000 index began on December 31, 1986. It was developed by Frank Russell Company. The R2000 measures the performance of the 2,000 smallest companies in the Russell 3000® Index (R3000).

The R2000 was included in SIMS 2.0 to provide some measure of *small firm effects*. The behavior of prices of relatively small firms have been linked to market inefficiency and capital asset pricing model misspecification, the January (small firm) effect, information asymmetry and the seasonal information flows-based explanation for the January effect, and other unexplained stock market effects requiring control (Cataldo & Savage, 1999). Therefore, inclusion of daily percentage close-to-close changes in the R2000 (R2000CHG) provides the means for controlling small firm effects.

Table 3 contains descriptive statistics for both DJIA and R2000CHG from 1987 through September 2004.

Table 3. Descriptive Statistics of Daily Returns for the DJIA, Daily Changes in (1) 30-Day Commercial Paper Rates (CP30CHG) for 1972 to September 2004, and Daily Changes in (2) the Russell 2000 Index (R2000CHG) for 1987 to September 2004.

Description	1972 to 9/2004		1987 to 9/2004	
	DJIA	CP30CHG	DJIA	R2000CHG
N	8,267	8,267	4,478	4,478
Mean daily return (%)	0.0348	0.0342	0.0437	0.0403
Median daily return (%)	0.0309	0.0347	0.0557	0.0495
Standard deviation (%)	1.0404	1.0244	1.0367	1.0170
Minimun (%)	−22.6105	−20.4669	−22.6105	−20.4669
Maximum (%)	10.1488	9.0994	10.1488	9.0994
First quartile (%)	−0.5189	−0.4907	−0.4806	−0.4701
Third quartile (%)	0.5809	0.5600	0.6023	0.5799

Note: $N =$ the number of trading days contained in SIMS 2.0. A complete legend is contained in the Appendix Table.

THIRTY-DAY COMMERCIAL PAPER RATES (CP30)

SIMS 2.0 contains CP30 and related daily percentage changes in close-to-close measures (CP30CHG) from April 12, 1971 through September 2004. Measures were drawn from those published on the Federal Reserve Board web page[3] and represent the *A2/P2 non-financial 30-day* measures. A description of the calculation methods used to compute commercial paper composite data, including changes in the methods of calculation, are provided by the Federal Reserve Board.

The CP30 was used by Jones and Wilson (1989) and Wilson and Jones (1990) in their studies of January seasonals in bond and debt instruments. Several other bond and debt instrument measures, found in the literature on stock market seasonals, were also examined. Wilson and Jones found that use of the CP30 as a control measure for inflation-adjustment strengthened the January effect.

The daily close-to-close in the CP30 (CP30CHG) produced the greatest explanatory power when regressed against the daily close-to-close percentage change in the DJIA. It is included in SIMS 2.0 for use as a control variable for any stock market index changes associated with daily changes in this relatively volatile measure of nominal interest rates and liquidity.

Table 3 contains descriptive statistics for both DJIA and CP30CHG from 1972 through September 2004.

THE EXPLANATORY POWER OF LIQUIDITY AND SMALL FIRM EFFECTS

Cataldo (1998) provided descriptive regression model results for all SIMS 1.0 dummy variables (Table 9, pp. 214–215). The statistical significance of dummy variables for each stock market seasonal event date was provided for reference. Table 4 provides an extension, but focuses only on CP30CHG and R2000CHG as dependent variables (DV), using Eq. (1), as follows:

$$\mathrm{DV}_i = \text{SIMS Event-Based Dummy Variable}_i + \varepsilon_i \qquad (1)$$

STOCK MARKET SEASONALS AS A FUNCTION OF INTEREST RATES OR *LIQUIDITY*

When focusing on interest rates or *liquidity* (CP30CHG; 1972-), January (JA) month-of-the-year (MOY) effects are significant (see Table 4). The

Table 4. Results of Descriptive Regressions with Significant Independent Variables Where the Dependent Variable is (1) CP30CHG and (2) R2000CHG.

		Liquidity	Small Firm
Dependent variable		CP30CHG	R2000CHG
Seasonal category		*By category*	*By category*
MOY	JA	S	n.s.
	MR	S	n.s.
	JN	S	n.s.
	JL	S	S
	AU	S	n.s.
	OC	n.s.	S
	DE	S	S
DOW	M	S	S
HOL – Separate	L*P*1	S	n.s.
	E*N*1	S	n.s.
	C*N*2	S	S
	C*N*1	n.s.	S
	C*P*1	S	n.s.
	NY*N*2	n.s.	S
	NY*N*1	S	S
	NY*P*1	S	n.s.
ALLHOL – Aggregate	*N*1	S	S
	*P*1	S	n.s.
SC	*P*1	S	S
EOM	*N*1	n.s.	S
	P2	S	n.s.
JAN	*N*2	n.s.	S
	*N*1	S	S
	*P*1	S	n.s.
	*P*2	S	S
	*P*3	S	n.s.
	*P*4	S	n.s.
	*P*6	S	n.s.
	*P*7	S	n.s.

Note: n.s. = not significant and S = significant (at the 10 percent level). MOY = Month-of-the-Year, DOW = Day-of-the-Week, HOL = Holidays, SC = Special Closings, EOM = End-of-the-Month, and JAN = January effects. A complete legend is contained in the Appendix Table.

March (MR), June (JN), July (JL), August (AU), and December (DE) MOY effects, as well as the specific January effect event dates (JAN*N*1 through JAN*P*7 trading days), also produce significant results. These December-to-January seasonal stock market patterns (DE, JA, and JAN*N*1 through JAN*P*7) are consistent with the literature, provide additional support, and suggest that SIMS 2.0 has captured the January effect.

With few exceptions, Day-of-the-Week (DOW), holiday (HOL),[4] and NYSE SC effects are not significant. Tax payment (TP) effects, generally, require a correlate for identification, and are also not significant (not presented in Table 4). Results suggest that these stock market seasonals are not a function of *liquidity*.

ALLHOL effects remain significant, when testing the single dummy variable for the trading day immediately preceding (*N*1) and immediately following (*P*1) holiday trading days. Trading days surrounding the end-of-the-month (EOM) produce significant results for both last trading day-of-the-month (*N*1) and the second trading day-of-the-month (*P*2). EOM or turn-of-the-month (TOTM) effects were causally linked to *liquidity* by Pettengill (1989). These results, using SIMS 2.0, extend and provide additional confirmation of the significance of *liquidity* to the generation of TOTM stock market seasonals.

STOCK MARKET SEASONALS AS A FUNCTION OF *SMALL FIRM EFFECTS*

When focusing on *firm size* or *small firm effects* (1987 through September 2004; see Table 3), MOY, DOW, SC, and tax/estimate TP effects are insignificant (at the 10 percent level; see Table 4). Specific trading days surrounding the President's Day (P*P*1), Good Friday (G*P*1), and New Year's Day (NY*N*2 and NY*N*1) holidays produce significant results. When viewed in aggregate, the trading day immediately preceding holidays (ALLHOL*N*1) remains significant. These results cannot be compared to other studies, which have not focused on the separate holiday event dates, but suggest that specified holiday effects are a function of *firm size*.

The results, using SIMS 2.0 and summarized in Table 3, are consistent with Miller's (1990) hypothesis that these stock market seasonals are a function of *individual* investor trading behavior and/or *small firm effects*. Miller examined small firm effects in the context of the January effect, but the January effect is not the only application for the small firm effect-based control variable contained in SIMS 2.0.

Small firm effects represent a persistent variable in the examination of other financial economics literature streams. For example, in their examinations of the market for corporate law and the race-to-the-top and race-to-the-bottom hypotheses and theories, Daines (2001) found support for the selection of Delaware as the state of incorporation leading to improved firm and shareholder value. Subramanian (2004) replicated and extended the work of Daines, isolating and identifying *small firm effects* as the component responsible for Daines' results.[5]

EOM effects remain significant for the last trading day-of-the-month ($N1$). These results extend and provide additional confirmation of Ogden's (1990) findings, but with respect to *firm size*, as well as *liquidity*.[6]

SUMMARY

SIMS 2.0 can be downloaded, at no cost, from the author's faculty web site. This paper has provided some descriptive details of the update/upgrade from SIMS 1.0 (1998) and has specified possible applications for the control of stock market seasonals arising from *liquidity* and *firm size*.

These results may be statistical artifacts of the period (1972 through September 2004 for *liquidity* and 1987 through September 2004 for *small firm effects*). Therefore, researchers seeking controls for variables other than those of interest should either (1) incorporate the dummy variables directly from SIMS 2.0 into their data and/or (2) use SIMS 2.0 for separate examination of the sensitivity of their period under examination to these causal factors for stock market seasonals. These procedures will increase the rigor of their results and minimize the exposure of their findings to any failure to control for *noise*.

NOTES

1. A complete legend of the content of SIMS 2.0 is contained in the Appendix Table.
2. Other examples of SCs include an exchange closing on account of World War I from August through December 11, 1914, the funeral of former President Calvin Coolidge (January 7, 1933), a national day of mourning for Martin Luther King, Jr. (April 9, 1968), market closure due to Hurricane Gloria (September 27, 1985), and the funeral of former President Richard M. Nixon (April 27, 1994).
3. They maintain relevant web sites at http://www.stls.frb.org/fred/data/wkly.html.
4. These results for HOL effects are not inconsistent with Miller's (1990) hypothesis, suggesting that these stock market seasonals were a function of individual investor trading behavior and/or small firm effects. Miller (1990) examined the January effect in the context of his research on the intergenerational transfer hypothesis, where he posited that increased opportunity costs during the Christmas gift-giving and New Years Day holidays lead to a postponement or deferral of individual investment decision-making and, specifically, the purchases of equities (p. 39).

5. Daines and Subramanian used Compustat for their studies, where year-end market values represented a proxy for Tobin's Q. Researchers using month-end, quarterly, or annual measures contained in Compustat or CRSP databases are not controlling for TOTM and/or turn-of-the-year/January effects in their results. SIMS 2.0 provides a vehicle for the examination of the impact of TOTM and/or turn-of-the-year/January effects (as well as other seasonals) on CRSP-based statistical models or research designs. Similary, researchers using Compustat may choose to extend their research designs to subject a portion of their sample firms to the examination of daily measures, which will provide them with the means of determining the impact of these and other seasonals on their findings.

6. Ogden (1990) developed a TOTM liquidity hypothesis that associated demand for equities with (1) changes in investor liquidity positions, (2) the impact of changing monetary policy, and, in the case of the turn-of-the-year and/or January effect, and (3) the relative importance of December retail sales.

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APPENDIX. SIMS 2.0: UPDATED STRUCTURE AND LEGEND

Year	1885, 1886, ... , and 2004
Month	Where 1 = January, 2 = February, ... , and 12 = December
Date	Date of the month (1–31)
Day	Where 1 = Monday, 2 = Tuesday, ... , and 6 = Saturday
	Equity control measures
NASDAQ	NASDAQ index closing value
NASCHG	NASDAQ index "close-to-close" percent change (value)
NASVOL	NASDAQ index volume
NASVOLCHG	NASDAQ index "close-to-close" percent change (volume)
DJC	Dow Jones Industrial Average (DJIA) index closing value
DJCHG	DJIA index "close-to-close" percent change (value)
DJV	DJIA index volume
DJVOLCHG	DJIA index "close-to-close" percent change (volume)
SPC	Standard & Poors (SP) 500 index closing value
SPPCTCHG	SP index "close-to-close" percent change (value)
R2000	Russell 2000 (R2000) index closing value
R2000CHG	R2000 index "close-to-close" percent change (value)
	Debt control measure
CP30	30-Day commercial paper (CP) rates ($A2/P2$ non-financial)
CP30CHG	CP30 "close-to-close" percent change

Non-sequential seasonals

JA (January), FE (February), MA (March), AP (April), MY (May), JN (June), JL (July), AU (August), SE (September), OC (October), NO (November), and DE (December), where 1 = present and 0 = not present. M (Monday), T (Tuesday), W (Wednesday), R (Thursday), F (Friday) and S (Saturday), where 1 = present and 0 = not present

Sequential seasonals

P (President's Day), GF (Good Friday; Friday before Easter; anniversary of Christ's crucifixion), M (Memorial Day; May 30 or the last Monday in

APPENDIX. (*Continued*)

May), I (Independence Day; adoption of the Declaration of Independence in 1776), L (Labor Day; first Monday in September), E (Election Day first Tuesday after the first Monday in November in even years), VET (Veteran's Day; celebration of the end of World War I hostilities; first year was 1918; also celebrated for post-1945 period; formerly November 10–11), TH (Thanksgiving Day; fourth Tuesday in November), C (Christmas Day), NY (New Year's Day), and ALLHOL (all 10 holidays combined), where 1 = present and 0 = not present, separately, for each of the two trading days preceding (*N*2 and *N*1) and the one day following (*P*1) the holidays when exchanges were closed. SC (Special Closings) for *N*2, *N*1, and *P*1, where 1 = present and 0 = not present. EOM (Turn-/End-of-the-Month) trading days, including the first trading day preceding the EOM (*N*1) and the four trading days following the EOM (*P*1–*P*4), where 1 = present and 0 = not present. JAN (Turn-/End-of-the-Year/January Effect) for the 12 trading days surrounding year-end, including the two days preceding year-end (*N*2 and *N*1) and the 10 days following year-end (*P*1, … , *P*10), where 1 = present and 0 = not present. TP effects for the four trading days surrounding (*N*1, *P*1, and *P*2) and including (0) tax (estimated tax) payment event dates, where 1 = present and 0 = not present.

PART III:
FEATURE

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DEVELOPMENTS IN ACCOUNTING REGULATION: A SYNTHESIS AND ANNOTATED BIBLIOGRAPHY OF EVIDENCE AND COMMENTARY IN THE ACADEMIC LITERATURE (2003–2004)

Stephen R. Moehrle and
Jennifer A. Reynolds-Moehrle

ABSTRACT

In this article, we synthesize in annotated bibliography form, recent regulation-related findings and commentaries published in the academic literature. This annotated bibliography is the first in a planned series of bibliographies that will summarize regulation-related academic research for at least the period 1990 and forward. We reviewed academic outlets such as The Accounting Review, The Journal of Accounting Research, The Journal of Accounting and Economics, Accounting Horizons, The Journal of Accounting, Auditing & Finance, The Journal of Accounting and Public Policy, The Journal of Business, Finance & Accounting, Research in Accounting Regulation, and the Social Science Research

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Network. We annotate results of regulation-related research studies and key points from regulation-related commentaries.

INTRODUCTION

In this paper, we develop an annotated bibliography of findings in the 2003–2004 academic literature as they relate to accounting regulation. We reviewed key academic outlets including *The Accounting Review*, *The Journal of Accounting Research*, *The Journal of Accounting and Economics*, *Accounting Horizons*, *The Journal of Accounting, Auditing & Finance*, *The Journal of Accounting and Public Policy*, *The Journal of Business, Finance & Accounting*, *Research in Accounting Regulation*, and *The Social Science Research Network*. While research in these journals is aimed primarily at informing the academic audience, the findings are often relevant to the current regulatory debate as well. Our synthesis provides an annotation of the regulation-related literature for the benefit of the academic audience and provide a summary of findings to inform contemporary regulatory debate for the benefit of practitioners and regulators.

Our time period for this period is 2003 and 2004. Obviously, we could not review every article that is at least tangentially related to the regulatory debate. However, our taxonomy provides a basis to identify and discuss papers that are highly relevant to the most important regulatory topics during the period. For the years 2003–2004, our taxonomy is as follows:

- Corporate fraud, audit failures, and Sarbanes–Oxley reforms
- Principles-based versus rules-based accounting standards
- Accounting for employee stock option costs
- Regulation fair disclosure (Reg FD)
- International convergence
- Other: to include especially relevant studies for regulation that do not fall into any of the above categories.

CORPORATE FRAUD, AUDIT FAILURES, AND SARBANES–OXLEY REFORMS

The foremost issue for regulators during 2003–2004 was reforming a system that suffered many high profile financial frauds and collapses in the past several years (e.g., Enron, WorldCom, Global Crossing, etc.) and shoring up investor confidence in the system. Most of the reforms were established by or related to the passage of the Sarbanes–Oxley Act of 2002 (see Table 1). Reform elements mandated for public companies from an accounting perspective include the following:

- The Public Company Accounting Oversight Board (PCAOB)
- Enhanced company requirements to maintain internal control over financial systems
- Management evaluation of the effectiveness of the internal control systems
- External audit attestation to managements' evaluations of internal control systems
- CEO's and CFO's certification of their companies' internal control structure and the financial reports
- Increased financial disclosures requirements
- Significant transaction disclosures on a "rapid and current" basis
- More disclosures regarding off-balance sheet transactions and special purpose entities;
- Board audit committee requirements, including that all members be independent and at least one member be a financial expert
- Restrictions on corporate insiders profiting from trading the company's shares
- Requirements that CEOs and CFOs return bonuses and stock trading profits received during any 12-month period following a financial report that is subsequently restated due to manager malfeasance
- Executives report insider trades by the second day following a trade (this period was formerly 10 days)
- Increased penalties for certifying false financial reports ($5 million fine and/or a 20-year prison term)
- Stiffened penalties for criminal actions such as mail fraud and certain other employment retirement reporting or securities law violations
- New criminal offenses (e.g. destruction of documents to obstruct an investigation)
- Restrictions enumerated as to non-audit services which cannot be provided by a company's auditing firm and
- Establishment of an audit rotation regime whereby partner and the reviewing partner must rotate off of the audit every 5 years.

Table 1. Evidence and Commentary from the Academic Literature (2003–2004) Corporate Fraud, Audit Failures, and Sarbanes–Oxley Reforms.

The mission of the PCAOB	
Carmichael (2004)	Summarizes the PCAOB mission, its initial proposals, and discusses auditors' responsibility
Did the Sarbanes–Oxley reforms curb earnings management?	
Cohen, Dey, and Lys (2004)	Find (1) continually diminishing earnings quality from 1987 through 2002; (2) evidence that observed earnings management is related to opportunistic incentives; and (3) evidence of abrupt earnings management trend reversal after Sarbanes–Oxley was passed
Thompson and Larson (2004)	Find evidence that widespread loss of faith in financial reporting was not justified. Only about 8% of accounting restatements in 2001 were necessitated by accounting errors
Audit firm rotation	
Mansi, Maxwell, and Miller (2004)	Find that required investor bond returns (a proxy for reporting-related risk) inversely related to audit firm size and tenure
Myers, Myers, and Omer (2003)	Find positive relationship between auditor tenure and fewer abnormal accruals (a proxy for higher earnings quality)
Non-audit services	
Ashbaugh, LaFond, and Mayhew (2003)	Find no evidence of an association between non-audit fees and positive discretionary accruals or propensity to beat analysts' forecasts (proxies for low earnings quality). Further, they find no evidence of a market reaction to the magnitude of non-audit fees relative to the total fees
Kinney, Palmrose, and Scholz (2004)	Find that fees banned by Sarbanes–Oxley average only 6.4% of fees paid to auditors for companies that restated earnings (a proxy for poor reporting quality). Further, the authors find no significant positive association between non-audit fees and restatements

Larcker and Richardson (2004)	Conjecture that findings in Kinney (2004) and similar studies could be interpreted as evidence of an effective auditor forcing the restatement
Mauldin (2003)	Professional investor subjects in an experimental setting indicate that perceived independence is impaired by non-audit services. The subjects did not appear to differentiate their perception based on the nature of the services provided. Greater numbers of sell recommendations were observed as a result only in the case of non-audit services provided by the audit firm's associated and publicly traded consulting firm
Raghunandan, Read, and Whisenant (2003)	Use restatements as a proxy for poor reporting quality and find no evidence that high audit fees are related with poor reporting quality.
Corporate governance	
Anderson, Mansi, and Reed (2004)	Find evidence that cost of debt capital is lower for firms with more independent boards of directors, more independent audit committees, larger boards of directors, and larger audit committees
Bowen, Rajgopal, and Venkatachalam (2003)	Find some evidence that available accounting discretion was used by managers for efficient contracting to maximize shareholder value.
Davidson, Xie, and Xu (2004)	Find significant positive stock price reaction to announcement of appointment of a financial expert to audit committee.
Geiger and Taylor (2003)	Argue that CEO/CFO certification has caused substantially heightened reviews of reporting systems, controls, and quality. However, the authors stress that managers must continue to respect both the spirit and letter of the rules to realize continuing benefits
Holmstrom and Kaplan (2003)	Argue that Sarbanes–Oxley brings value to companies with weaker corporate governance, but brings little value to companies with strong corporate governance structure
Imhoff (2003)	Provides historical context for the current accounting environment (accounting, auditing, and corporate governance).
Klein (2003)	Summarizes reporting quality determinant findings in the extant literature
Mayhew and Pike (2004)	Find experimental evidence that auditor objectivity increases when investors select the auditor. The authors argue that this benefit is realized only if investors make the selection. It would not be realized if the board of directors or audit committee selects the auditor

Table 1. (*Continued*)

Rezaee (2004)	Argues that conformity with existing regulations as well as recent reforms may not be sufficient to restore investor confidence. The author provides a supply chain paradigm with interrelated controls to make the reporting process more effective. Some best practices are also provided
Ronen and Berman (2004)	Argue that recent reforms have: (1) increased the penalties for managerial malfeasance; (2) enhanced the role of directors and audit committee members; and (3) failed to address the major problem: agency costs of managers. The authors describe a potential solution – financial statement insurance
Sarbanes–Oxley compliance cost	
Engel, Hayes, and Wang (2004)	Present some evidence that Sarbanes–Oxley impacted the going-private decision. For example, the frequency of going private increased after Sarbanes–Oxley was passed. Also, abnormal returns around events that increased the likelihood of passage were positive for firms likely to be aided by reforms and negative for firms with less potential for reform-related benefits
Other regulatory ramifications of Sarbanes–Oxley	
McEnroe and Pitman (2003)	Sarbanes–Oxley grants the PCAOB audit oversight and regulation power, but the PCAOB proper has only two CPAs. As a result, the authors predict that the PCAOB will defer standard setting to the Accounting Standards Board (ASB). Given the heightened relevance, the authors argue for ASB reforms including finding alternative funding sources and naming full-time independent members to the Board that are not affiliated with companies or firms

The Mission of the PCAOB

Carmichael, D. R. (2004). The PCAOB and the social responsibility of the independent auditor. *Accounting Horizons*, *18*(2), 127–133.

Carmichael is the first Chief Auditor at the PCAOB. In his commentary, Carmichael focuses on the social responsibility of the independent auditor, proposes mechanisms for ensuring that audits meet society's needs, and considers ways that the PCAOB can be responsive to the expectations of the public.

Carmichael begins by introducing the PCAOB a private sector, independent, non-governmental body overseen by the Securities and Exchange Commission (SEC) and funded by the public companies and investment companies that benefit from independent audits. The PCAOB's charge as stated in the Act requires the PCAOB:

> To oversee the audit of public companies that are subject to the securities laws, and related matters, in order to protect the interests of investors and further the public interest in the preparation of informative accurate and independent audit reports for companies the securities of which are sold to, and held by and for, public investors (p. 127).

Carmichael describes the underlying mission of the PCAOB as seeking to restore the public's confidence in independent auditors. To this end, Sarbanes–Oxley gives the PCAOB the powers to:

1. register public accounting firms that prepare audit reports on the financial statements of public companies;
2. conduct inspections of the auditing practices of these registered public accounting firms;
3. enforce compliance by these registered firms and their associated persons with professional standards and securities laws;
4. investigate, discipline, and impose sanctions on firms and associated persons; and
5. establish or adopt by rule auditing, quality control, ethics, independence, and other standards related to the preparation of audit reports on the financial statements of public companies (p. 128).

Next, Carmichael comments on the best way to restore unwavering confidence in auditors. He points to the need for auditors to "understand and appreciate the social significance of auditing and the implications for how an audit should be performed" (p. 129). The PCAOB process must be directed by "what is necessary to protect investors and further the public interest" (p. 129).

Did the Sarbanes–Oxley Reforms Curb Earnings Management?

Cohen, D. A., Dey, A., & Lys, T. (2004). *Trends in earnings management and informativeness of earnings announcements in the pre- and post-Sarbanes–Oxley periods*. Working Paper. University of Southern California and Northwestern University, June.

Cohen et al. examine whether financial reporting appears to have improved post-Sarbanes–Oxley. The authors have studied earnings management and relative earnings informativeness in two time-period regimes that they call the "pre-Sox" period (1987 through the second quarter of 2002) and the "post-Sox" period (the third quarter of 2002 through the end of 2003). The "pre-Sox" period is then further divided into two periods: the "pre-scandal" period (1987 through the time of the Enron collapse) and the "scandal" period (the time of the Enron collapse through the passage of Sarbanes–Oxley). The authors find evidence of increasing earnings management throughout the "pre-scandal" and "scandal" time periods, with the increases found primarily in poorly performing industries. The authors further find that the earnings management is positively associated with compensation derived from bonus and option compensation. Following the passage of Sarbanes–Oxley, they find that the trend of increasing earnings management reversed abruptly. This evidence suggests that Sarbanes–Oxley and heightened regulatory scrutiny has had an impact. The authors also have examined whether Sarbanes–Oxley reforms led to more informative earnings announcements. After controlling the reduced earnings management, the authors did not find evidence suggesting that earnings announcements were more informative.

Thompson, J. H., & Larson, G. M. (2004). An analysis of restatements on financial reporting: Is the loss of investor confidence justified? *Research in Accounting Regulation, 17*, 67–85.

Thompson and Larson examine financial statement restatements during 2001 to investigate whether widespread loss of investor confidence in financial reporting was justified. A total of 150 restatements were made, of which only 82 of the companies filed a form SEC 8-K. The authors used these 8-K filings to investigate the nature of the restatement. The 82 companies reported a total of 89 reasons for the restatements. Mergers and acquisitions necessitated about 25% of the restatements, changes in segment reporting led to about 24% of them, and discontinued operations and divestitures led to 18% of them. Only about 8% of the restatements in 2001 involved accounting errors. Interestingly, all of these error-related restatements resulted in a decrease in pretax profits. The authors conclude that the loss of faith in financial reporting does not seem justified based on their evidence. Hence, recent reforms should serve to further strengthen a system that was already working quite well.

Audit Firm Rotation

Sarbanes–Oxley does not call for mandated audit firm rotation, but regulators have debated whether such rotation would increase auditor independence and earnings quality. Some evidence on this question is provided by the academic literature.

Mansi, S. A., Maxwell, W. F., & Miller, D. P. (2004). Does auditor quality and tenure matter to investors? Evidence from the bond market. *Journal of Accounting Research*, *42*(4), 755–793.

Mansi et al. provide evidence regarding the relationship between auditor tenure and audit quality by examining whether audit firm size and tenure affects audit quality. The proxy measure for audit quality used in this study is the return that debt investors require on bonds. Using a sample of firm-year observations from 1974 to 1998, the authors find that required returns are inversely related to audit firm size and tenure. That is, the bigger the audit firm and the longer the firm has audited the company, the less return debt investors require. This suggests that investors perceive higher audit quality associated with a company that is audited by a large firm and/or a firm that has audited the company for many years. This finding is especially strong for companies with non-investment grade debt. In addition, the authors find evidence that the market is valuing the large audit firms because of the higher potential to collect in litigation if investment losses occur. This evidence supports the decision not to require audit firm rotation.

Myers, J. N., Myers, L. A., & Omer, T. C. (2003). Exploring the term of the auditor-client relationship and the quality of earnings: A case for mandatory auditor rotation? *Accounting Review*, *78*(3), 779–799.

Myers et al. also examine whether longer auditor tenure is related to lower earnings quality. Using a sample of firm-years from 1988 to 2000, the authors also find evidence to refute the argument that longer auditor tenure with a client reduces earnings quality. They find the opposite. Using the dispersion and sign of abnormal accruals as proxies for earnings quality and controlling for firm age, size, auditor type (big N or non-big N), industry growth, cash flows, industry, and year – the authors find a positive relationship between auditor tenure and earnings quality. The authors interpret their findings as additional evidence against mandatory audit firm rotation.

Non-Audit Services

The Sarbanes–Oxley Act of 2002 banned firms from providing financial information system design and implementation services, internal audit services, and certain other services to audit clients. The logic underlying this ban is that fees for non-audit services could impair the independence of the auditor and reduce earnings quality.

Ashbaugh, H., LaFond, R., & Mayhew, B. W. (2003). Do nonaudit services compromise auditor independence? Further evidence. *Accounting Review*, *78*(3), 611–639.

Ashbaugh et al. examine whether non-audit fees are related to proxies for opportunistic earnings management (positive discretionary accruals and beating analysts forecasts). Frankel, Johnson, and Nelson (2002) have provided evidence of an association between discretionary accruals and high non-audit fees relative to total fees. Ashbaugh et al. hypothesize that the Frankel et al. finding was partially an artifact of a design flaw. Ashbaugh et al. change primarily two aspects of the design. First, they use a performance-adjusted discretionary accruals measure. Second, they partition the sample by income-increasing versus income-decreasing discretionary accruals. Third, they use total fees paid by the client rather than the ratio of non-audit fees to total fees. Using the revised design, Ashbaugh et al. find no evidence of an association between fees for non-audit services and discretionary accruals or propensity to beat the analysts' forecasts. Also, Ashbaugh et al. find no evidence of a market reaction to the magnitude of non-audit fees relative to total fees.

Kinney, W. R., Palmrose, Z., & Scholz, S. (2004). Auditor independence, non-audit services, and restatements: Was the U.S. government right? *Journal of Accounting Research*, *42*(3), 561–588.

Kinney et al. also examine whether independence is impaired by fees from audit clients for non-audit services. The authors examine firms that restated financial statements for GAAP violations (a proxy for low audit quality) during the period preceding the passage of Sarbanes–Oxley (1995–2000). The authors find that the average fees paid to the audit firm for Sarbanes–Oxley banned services totaled at most 6.4% of the total fees paid to the auditor. Only 5% of audit clients examined purchased any financial information system design and implementation or internal audit services from their primary audit firm. Further, the authors find no significant positive association between fees for financial information system design and implementation or internal audit services and restatements. The authors conclude that banning these ancillary services may affect few companies and may not improve the quality of financial reporting. The authors also find that providing tax services is negatively correlated with restatements, suggesting that audit firms definitely should not be banned from providing tax services to audit clients.

Larcker, D. F., & Richardson, S. A. (2004). Fees paid to audit firms, accrual choices, and corporate governance. *Journal of Accounting Research*, *42*(3), 625–658.

Larcker and Richardson also examine the relation between the fees paid to auditors for audit and non-audit services, corporate governance, and accounting quality. They used accrual choice measures as a proxy for accounting quality. Using a large pooled sample of firms in 2000 and 2001, the authors find little evidence that higher total fees paid to auditors are related to higher abnormal accruals. They do find that the ratio of non-audit fees to total fees is positively associated with accruals for about 8.5% of the sample. These firms tended to be small with lower book-to-market ratio, lower institutional holdings, and higher insider holdings. The authors interpret this evidence as suggesting that corporate governance differences interact with the magnitude of non-audit fees in explaining accrual choices.

Mauldin, E. (2003). Improving auditor independence – the principles versus standards debate. *Research in Accounting Regulation*, *16*, 159–169.

In an experimental setting, Mauldin examines the impact difference of non-audit services on perceived auditor independence. The experiment compared perceptions of independence impairment when no non-audit services are provided, when outsourced internal audit services are provided, and when merger and acquisition consulting services are provided. Using responses from 74 professional investors, Mauldin finds that investors perceive audit independence to be 50% less when the auditor provides non-audit services. Mauldin also finds that investors do not significantly differentiate their perceptions based on the type of non-audit services provided. Interestingly, she also finds that diminished independence perceptions did not always translate into sell recommendations. If the non-audit services were provided by the external auditor's local office, the perceived impairment of independence did not lead to more frequent sell recommendations. However, when the non-audit services were provided by the external auditor's associated, publicly traded, consulting firm – more sell recommendations are observed.

Raghunandan, K., Read, W. J., & Whisenant, J. S. (2003). Initial evidence on the association between nonaudit fees and restated financial statements. *Accounting Horizons*, *17*(3), 223–234.

Raghunandan et al. use a sample of 110 firms that restated their 2000 or 2001 financial statements to examine whether high non-audit fees are related to poor earnings quality. They also use restatements of financial statements as the proxy measure for poor reporting quality. They compare fees paid by the sample of restaters to a sample of 3,481 firms that did not restate their financial statements. They also find no evidence that high non-audit fees are related to poor reporting quality.

The evidence of Raghunandan et al. (2003), Ashbaugh et al. (2004), and Kinney et al. (2004) viewed in total, casts doubt on the importance of limiting non-audit services by the client's primary audit firm. It certainly supports the continuation of tax service provided by the primary auditor.

Corporate Governance

Corporate governance weaknesses are viewed as contributing to the accounting frauds. As a result, several regulatory reforms were designed to strengthen corporate governance. The following papers address issues related to corporate governance.

Anderson, R. C., Mansi, S. A., & Reed, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, *37*(3), 315–342.

Anderson et al. use a sample of 252 large industrial firms to provide evidence that the cost of debt is inversely related to board independence, board size, and audit committee independence. First, the authors find that debt costs are 17.5 basis points lower for firms that have a majority of their Board staffed by independent directors. Another 15 basis point reduction is found if the audit committee is comprised of only independent members. Second, each additional member of the board beyond the average sized board is associated with a 10 basis point reduction in the cost of debt financing. Another 10.6 basis point reduction is found for each additional member of the audit committee beyond the average. The authors also find lower debt costs for firms whose audit committee meets more frequently during the year. Specifically, they find a 7.3 basis point reduction in debt costs for the firm's whole audit committee meets four times during the year rather than the average number of meetings – three. Interestingly, the authors find little evidence that the debt market values financial experts on the audit committee. This evidence suggests that the market does recognize and reward corporate governance strengths and improvements.

Bowen, R. M., Rajgopal, S., & Venkatachalam, M. (2003). Accounting discretion, corporate governance and firm performance. Paper presented at the 14th annual conference on financial economics and accounting, Conference paper number 127.

Bowen et al. examine the association between accounting discretion attributable to poor corporate governance and subsequent firm performance. The authors use a two-stage process. First, they examine whether poor corporate governance is associated with greater accounting discretion. To measure accounting discretion, the authors develop an aggregate index based on abnormal accrual usage, accrual-based earnings smoothing, and a propensity for avoiding negative earnings surprises. They find that accounting discretion is greater when governance structures are weak.

Second, they examine whether firms with greater accounting discretion from relatively weaker governance exhibit poorer future performance. They find evidence that discretion from poor governance is actually associated with higher future operating cash flows and ROA. The authors interpret their findings by suggesting that, on average, managers do not exploit lax governance structures and use accounting discretion opportunistically to the detriment of shareholders. Instead, the evidence suggests that firms use available accounting discretion for contracting efficiency, and thus maximize shareholder value.

Davidson III, W. N., Xie, B., & Xu, W. (2004). Market reaction to voluntary announcements of audit committee appointments: The effect of financial expertise. *Journal of Accounting and Public Policy*, *23*, 279–293.

Davidson et al. examined 136 voluntary announcements by firms of appointments of directors to audit committees between 1990 and 2001. A majority of their sample (84 of the 136 announcements) occurred in 2000 or 2001 and were smaller firms listed on the NASDAQ (95 of the 136 announcements). They find significant positive stock price reactions, on average, when the new appointees to the audit committee have financial expertise. This finding contrasts with the findings of Anderson et al. (2004), who found no significant evidence that the debt market valued financial expertise on the board. Possible reasons for the different findings could be that the sample in the Anderson et al. study was comprised of primarily large industrial firms rather than the small NASDAQ firms in the Davidson et al. study. Also, Anderson et al. used debt pricing rather than equity pricing to examine the market's reaction to financial expertise on the audit committee.

Geiger, M. A., & Taylor III, P. L. (2003). CEO and CFO certifications of financial information. *Accounting Horizons*, *17*(4), 357–368.

Geiger and Taylor comment on the Sarbanes–Oxley requirement that the CEO and CFO certify the effectiveness of the company's internal controls and the accuracy of the company's financial reports. The authors applaud the requirements and offer evidence that the requirements have caused top management to focus on these important initiatives. However, the authors emphasize that management must continue to respect both the spirit and the letter of these requirements for the actions to remain effective into the future.

Holmstrom, B., & Kaplan, S. N. (2003). The state of U.S. corporate governance: What's right and what's wrong? *Journal of Applied Corporate Finance 15*, 8–20.

Holmstrom and Kaplan begin this treatise by pointing out that U.S. corporate governance practices were never bad as evidenced by the fact that the U.S. economy and stock markets performed will in the 1980s and 1990s on a nominal basis and relative to other countries despite the high profile collapses. Further, the overall governance system reacted quickly and decisively to the credibility concerns of market participants even before any regulatory actions were taken. The authors argue that subsequent regulation has made a great system even better. The reforms were especially positive for companies that previously had corporate governance weaknesses (e.g., independent directors and financial experts on audit committees). However, the authors argue that the additional regulation brings little value to companies with solid corporate governance. The authors caution that perhaps the greatest risk to continuing strength in the U.S. financial market system is a pendulum swing to overregulation.

Imhoff, E. A., Jr. (2003). Accounting quality, auditing, and corporate governance. *Accounting Horizons*, *17*(supplement), 117–128.

Imhoff provides context for the historical development of current accounting, auditing, and corporate governance structures. He then proposes changes to improve these structures with emphasis on corporate governance concerns. Among his proposals are the following: (1) prohibit present or past managers from serving as Chairman of the Board, from nominating directors, and from setting the Board's agenda; (2) prohibit outside directors from holding stock options in the company; (3) make the Board consist of one current manager and all other outside directors; (4) establish a continuing education requirement for Board members; and (5) require periodic audit firm rotation.

Klein, A. (2003). Likely effects of stock exchange governance proposals and Sarbanes–Oxley on corporate boards and financial reporting. *Accounting Horizons*, *17*(4), 343–355.

Klein summarizes research findings that provide evidence about the ultimate success of reforms mandated by Sarbanes–Oxley. Among her findings are the following: (1) financial fraud and earnings management is observed less often in companies with more independent boards; (2) more independent audit committees engage auditors that act more independently from management; (3) companies with audit committees comprised primarily of outside directors exhibit less earnings management; (4) companies that exclude the CEO from the compensation and nominating committees have more independent boards and more independent audit committees; and (5) companies that exclude the CEO from the audit committee exhibit less earnings management.

Mayhew, B. W., & Pike, J. E. (2004). Does investor selection of auditors enhance auditor independence? *Accounting Review*, *79*(3), 797–822.

Sarbanes–Oxley gives the audit committee power to retain and dismiss independent auditors. Mayhew and Pike use experiments to investigate how policies and procedures for retaining and dismissing independent auditors influence auditor independence. The authors designed and conducted their experiments before the passage of Sarbanes–Oxley. Thus, they do not test the effect of audit committee retention of auditors. The authors find that when investors selected the auditors in the experiments, auditors exhibited substantially greater auditor reporting objectivity. The authors interpret their results as suggesting that providing real power to non-managers over the hiring and firing of auditors could be a valuable enhancement to overall corporate governance. Further, the authors do not believe that Sarbanes–Oxley measures that empower the company Board audit committee to choose the auditor can create the benefits observed in their experiment where investors chose the auditor.

Rezaee, Z. (2004). Corporate governance role in financial reporting. *Research in Accounting Regulation*, *17*, 107–149.

Rezaee argues that mere conformity with regulation will not be sufficient to fully rebuild investor confidence. To this end, he introduces a corporate governance structure that would produce responsible corporate governance, reliable financial reports, and credible audit services. His paradigm is an interactive supply chain process involving all corporate governance participants: oversight, managerial, compliance, audit, advisory, assurance, and monitoring functions. The process consists of: (1) preparation and certification of financial statements by management with oversight by the Board of Directors; (2) verification and assurance of the financial statements by external auditors; (3) evaluation of the quality of the information by financial analysts; (4) assessment of compliance with regulations by standards setters and regulators; and (5) monitoring and use of information by investors and other stakeholders. The author then describes best practices for each of these mechanisms.

Ronen, J., & Berman, A. (2004). Musings on post-Enron reforms. *Journal of Accounting, Auditing & Finance*, *19*(3), 331–342.

Ronen and Berman acknowledge that recent reforms have increased the penalties for management and director malfeasance, and have enhanced the roles of boards of directors and audit committees. However, the authors believe that the reforms fail to address the major problem that besets American firms: the agency costs of managing corporations (i.e., managers and officers serving their interests to the detriment of shareholders). The authors argue for financial statement insurance as a market solution to the problem. Under this arrangement, the company would purchase financial statement insurance that provides "coverage to investors against losses suffered as a result of misrepresentation in financial reports" (Ronen & Berman, 2004, p. 340). The company would publicly disclose the name of the company providing the insurance and the total premium paid. The insurance provider would select and pay the auditor of the financial reports. The authors believe that this would generate vast economic incentive to produce high quality financial statements so that the company can negotiate and announce higher coverage amounts and/or lower premium payments. The coverage and premium amounts would, of course, be determined by the perception of the insurance company of the risk that the insured company would issue financial reports that contain misrepresentations.

Sarbanes–Oxley Compliance Costs

Compliance with Sarbanes–Oxley is costly. For example, Henry and Borrus (2005) cite estimates that compliance costs averaged about $35 million in 2004 alone for large companies. Empirical data related to this topic was just becoming available at the close of 2004. The following paper examines how Sarbanes–Oxley compliance costs affected companies.

Engel, E., Hayes, R. M., & Wang, X. (2004). *The Sarbanes–Oxley act and firms' going-private decisions*. Working Paper. The University of Chicago, May.

Engel et al. examine whether the expected costs of Sarbanes–Oxley drove a significant number of companies to go private rather than incurring the reporting cost of Sarbanes–Oxley. The authors have assembled samples of firms that went private just before and just after the passage of Sarbanes–Oxley. They find some evidence that Sarbanes–Oxley affected companies' going private decision. First, they find that the frequency of going private increased slightly. Second, they find abnormal returns around events that increased the likelihood that Sarbanes–Oxley would become law. Observed abnormal returns were related to firm size and share turnover. The authors interpret this finding as suggesting that the large fixed cost component of compliance was relatively less burdensome for larger firms and the compliance cost incurrence was more valuable for firms that more frequently seek external funding. Third, the market reaction to the going private announcement increased for smaller firms and firms with greater inside ownership post-Sarbanes–Oxley. The authors argue that the benefits of Sarbanes–Oxley would have been smaller for these firms. Thus, the market reacted more positively to the decision by these companies to avoid the Sarbanes–Oxley compliance costs.

Other Regulatory Ramifications

McEnroe, J. E., & Pitman, M. K. (2003). An analysis of the accounting profession's oligarchy: The auditing standards board. *Research in Accounting Regulation*, *16*, 29–44.

The PCAOB now oversees accounting firms and has the power to set auditing standards. McEnroe and Pitman point out that since the PCAOB has no more than two CPAs, it is likely that they will continue to adopt auditing standards set by other groups. The audit regulation leader in the U.S. currently is the Auditing Standards Board (ASB). The ASB is funded by the American Institute of Certified Public Accountants (AICPA). Given the importance of the ASB, the authors call for the following ASB reforms to establish credibility and expertise: (1) find alternative funding sources; (2) make it a full-time functioning board with members that sever their ties with firms or employers; (3) have 10 members (five former audit practitioners and five individuals not from public accounting but are knowledgeable about auditing. One of the five former practitioners should come from a Big Four firm, one from another national firm, two from regional and local firms, and one from a small firm. The other members would come from academia, internal auditing, governmental, and two from some international background); and (4) the ASB should report annually to the SEC and Congress in addition to reporting to the PCAOB.

PRINCIPLES-BASED VERSUS RULES-BASED ACCOUNTING STANDARDS

A debate regarding principles-based versus rules-based accounting standards is escalating prompted by fraudulent financial reporting that in certain instances complied with "bright line" rule specifications, but resulted in financial reports that did not reflect the underlying economic reality. Recent academic studies provide some information to inform this debate (see Table 2).

AAA Financial Accounting Standards Committee. (2003a). Evaluating concepts-based vs. rules-based approaches to standard setting. *Accounting Horizons*, *17*(1), 73–89.

Table 2. Evidence and Commentaries from the (2003–2004) Academic Literature Principles-Based Versus Rules-Based Accounting Standards.

AAAFASC (2003a)[a]	Argues that concepts-based would likely improve reporting but is not easily accomplished
AAAFASC (2003b)[a]	Supports consolidation rules for special-purpose entities that are more concept based
Herz (2003)	Summarizes challenges and changes at the FASB and the relative advantages and disadvantages of principles-based and rules-based guidance. He also stresses the need for continued neutrality in financial reporting and pressures that threaten neutrality
Nelson (2003)	Summarizes evidence pertinent to the debate from the behavioral literature
Schipper (2003)	Argues that US GAAP currently is part principles-based and part rules-based. Points out the widely held criticism that principles-based can reduce comparability, but she points out that we have to first understand what is the current state of comparability to assess the relative impact of concepts-based reporting. She also comments on the degree to which the more detailed guidance in current rules meet the needs of preparers and auditors and considers how behavior might change if implementation guidance were reduced

[a]American Accounting Association Financial Accounting Standards Committee.

The American Accounting Association Financial Accounting Standards Committee (AAAFASC) cite the extant academic literature to argue that a more concepts-based approach would likely improve standard setting, but will not be easily accomplished. The committee encourages the FASB to explicitly indicate the importance of professional judgment in interpreting and implementing concepts-based standards. The committee provides an example of concepts-based rules by converting the current pension accounting rules from rules-based to concepts-based.

AAA Financial Accounting Standards Committee. (2003b). Comments on the FASB's proposals on consolidating special-purpose entities. *Accounting Horizons*, *17*(2), 161–173.

In a separate article, the AAAFASC expresses support for consolidation rules for special-purpose entities that are more concept-based and avoid bright-line consolidating percentages such as the proposed 10% limit and the earlier, and now infamous, 3% line. Longer term, the committee calls for a move toward practice guidelines that emphasize economic substance rather than legal form.

Herz, R. (2003). A year of challenge and change for the FASB. *Accounting Horizons*, *17*(3), 247–255.

Herz provides an insider's viewpoint on the challenges and changes at the FASB. He outlines several advantages and disadvantages of principles-based accounting guidance and discusses other topics including the importance of neutrality in financial reporting, current challenges in U.S. financial reporting, the political environment, improving the speed and timeliness of accounting guidance, increasing the involvement of users in standard setting, and achieving international convergence.

To improve the speed and timeliness of FASB reaction to reporting issues, the FASB took the following actions: (1) reduced the number of votes needed to issue an exposure draft or statement from five to four; (2) reorganized the senior staff at the FASB to enhance focus and accountability; (3) reviewed their procedures and eliminated redundant or non-value adding activities; and (4) resolved to spend more time together and resolve more issues each time the Board meets.

To increase the involvement of users in the standard setting process, the FASB established the User Advisory Council, which is comprised of representatives from investor groups, rating agencies, mutual fund groups, banks, and other key users. Next, Herz addresses the principles-based versus rules-based accounting issue. Herz' view is that principles-based standards lay out the key objectives of good reporting in the topic of the standard, and then provides guidance explaining the objectives and relating each to common examples. Herz set forth advantages and disadvantages of principles-based standards. Herz concludes that principles-based standards are preferable if they lead to more useful financial reporting. His view is that they would, but he does not minimize the hurdles to proper implementation of principles-based standards in the U.S.

Herz concludes with two general propositions about the standard setting process: "First, neutral financial reporting is the bedrock of our system. Second, independent accounting standard setting that is free from undue constituent influence or political pressure and that is conducted in a systematic, thorough, and open due process is an essential ingredient to achieving the first proposition."

Nelson, M. (2003). Behavioral evidence on the effects of principles- and rules-based standards. *Accounting Horizons*, *17*(1), 91–104.

Nelson uses the behavioral accounting literature to provide suggestions about the conversion to principles-based reporting and constraining aggressive accounting behaviors. Nelson employs what he terms an "incremental approach." That is, he examines how, as a standard becomes incrementally more rule-based, the clarity of communication and aggressive accounting behavior by companies changes. Evidence of incrementally more rule-based standards includes quantitative thresholds, examples, exceptions, implementation guidance, etc. Nelson interprets the extant behavioral evidence as suggesting that regulators are most likely to cause accurate or conservative financial reporting by: "(1) standards that are imprecise enough to avoid precise safe harbors, thereby allowing incentive-consistent interpretation to take place; and (2) vigorous enforcement activity that tilts the balance of incentives away from aggressive reporting and toward accurate or conservative reporting" (p. 100). Dowdell and Press (2004) find empirical evidence to support Nelson's second suggestion.

Schipper, K. (2003). Principles-based accounting standards. *Accounting Horizons*, *17*(1), 61–72.

Schipper argues that U.S. financial reporting standards have both principles-based as well as rules-based aspects. The standards are principles-based as they derive from the FASB's conceptual framework. However, the standards often contain scope exceptions, treatment exceptions, and detailed implementation guidance that make them appear to be more rule-based.

Schipper points out that many wonder whether comparability would be sacrificed if a move to more principles-based guidance occurred. She offers that we must first establish "how much comparability actually exists in U.S. financial reporting" today. Further, she offers that comparability resulting from rules-based standards can often be "surface comparability." By that she means that fundamentally dissimilar economic arrangements are in some instances forced into the same accounting treatment.

Schipper conjectures that if standards are issued that have no exceptions, alternatives, or implementation guidance, then additional measurement expertise would be required of preparers. Schipper leaves as an open empirical question, how the investors would respond if the consistent application of principles-based standards led to greater earnings volatility. Regarding ultimate transition to principles-based standards, Schipper points out that comparability would be diminished temporarily during the transition period.

Accounting for Employee Stock Option Costs

The debate regarding how to account for the employee costs associated with share-based payments has continued for over a decade. Indeed, Herz (2003) was likely referring to this debate as the most recent and most profound example of political and constituent pressure impacting accounting regulation. The debate involves whether such costs should be expensed, and if so, how the expense amount should be calculated. Again, the academic literature provides some information to inform this debate (see Table 3).

Aboody, D., Barth, M. E., & Kasznik, R. (2004). Recognition of stock-based compensation expense. *Journal of Accounting Research*, *42*(2), 123–150.

Aboody et al. examine equity valuation effects of voluntary adoption in 2002 and early 2003 of Statement of Financial Accounting Standards (SFAS) Number 123 (the fair value method of accounting for stock options) as well as characteristics of early adopting companies. The authors predict that companies that are more active in the capital markets are more likely to

Table 3. Evidence and Commentaries from the (2003–2004) Academic Literature Accounting for Employee Stock Option Costs.

Aboody, Barth, and Kasznik (2004)	Find positive abnormal returns associated with early adoption of SFAS Number 123 (The fair value method of accounting for employee stock options). The authors interpret this evidence as indicating the value of sending a signal of more transparent reporting. However, from a regulatory perspective, the findings suggest that widespread stock price decreases would not be seen with recognition of formerly disclosed stock option cost amounts when SFAS Number 123 is implemented
Jain and Subramanian (2004)	Show that sophisticated estimations of employee exercise dates should be used in stock option valuation models to avoid underestimation of option values to employees and option costs to companies
Kirschenheiter, Mathur, and Thomas (2004)	Argue that the equity view of employee stock options is not optimal. Further, the authors argue that employee stock options should be treated as liabilities rather than as equity and should be revalued periodically for changes in option values
Landsman, Peasnell, Pope, and Yeh (2004)	Show that from a theoretical standpoint, the recognition of an asset and a liability for employee stock option costs and subsequent marking-to-market of the liability produces the best balance sheet and income statement estimates of employee stock option-related amounts. The authors find evidence that this method does indeed produces the lowest equity value prediction errors of four stock option accounting methods
Myring, Shortridge, and Bloom (2003)	Find abnormal returns for computer software firms around key events leading to passage of SFAS 121. The authors interpret the finding as evidence that managers of these firms lobbied against passage to maximize shareholder and manager wealth. The abnormal returns are related to proxies for political costs and debt covenant default concerns
Robinson and Burton (2004)	Find evidence of positive abnormal returns for early adopters and find evidence that early adopters did so in response to investors' concerns about the transparency of financial reporting

early adopt because of the positive signal about future prospects that is sent by the company's willingness to unambiguously reduce future earnings. The authors contend that the companies that are more active in the capital markets stand to gain more by sending this signal. Their findings support this prediction. The authors also predict that private incentives of the CEO and outside directors will impact the decision. They predict that firms with higher ownership by the CEO or outside directors are more likely to early adopt to benefit from the positive signal. However, firms with managerial bonuses that are highly sensitive to earnings reductions are less likely to early adopt. Their findings support these predictions as well. Finally, the authors find evidence that firms with greater information asymmetry and greater political scrutiny are more likely to early adopt.

From a regulation perspective, the market's reaction to the early adoption is most relevant. The authors find that early adopters experienced positive abnormal returns and this was especially true for companies that indicated a desire to increase the transparency of their financial reporting drove the decision to early adopt. This is especially interesting since these firms previously disclosed the amounts. Clearly, the signal sent by the early adoption is creating most of this effect. However, this evidence suggests that firms would not experience large stock price decreases simply because previously disclosed expense amounts are now required to be recognized.

Jain, A., & Subramanian, A. (2004). The intertemporal exercise and valuation of employee options. *Accounting Review*, *79*(3), 705–743.

Many popular options pricing models assume that employees will exercise options at a single point in time. If it is assumed that options are exercised over time, substantially different option values to the employee and costs to the company can result. Jain and Subramanian find that when the time to maturity, and/or the employee's relative risk aversion, and/or the stock price volatility exceed a threshold, models that assume a point in time exercise underestimate the value of options to the employee and the effective cost of the options to the firm. The authors also find that the proportion of total options exercised early by an employee is negatively related to his/her level in the firm, to the time to maturity, and to the stock's growth rate, and is positively related to the stock's short-term return Also, the authors find that the awarding of new options is positively related to the early exercise of existing options. The authors interpret these findings as suggesting a need to factor sophisticated predictions of employee exercise dates into valuation models.

Kirschenheiter, M., Mathur, R., & Thomas, J. K. (2004). *Accounting Horizons*, *18*(2), 135–156.

Kirschenheiter et al. argue in favor of treating employee stock options as liabilities rather than equity. Under the authors' model, the fair value of the options at the grant date would be recorded as a liability. The liability would be revalued periodically for changes in the value of the options. When the options are exercised, the liability would be closed out and the issued equity would be recorded. The authors believe this approach will eliminate or diminish problems with the equity view including: (1) reported levels of profitability and growth in profitability that do not reflect the economic realities; (2) equity market values that are less than the present value of projected free cash flows; and (3) wealth transfers between shareholders and option holders that are not fully reflected. Another advantage of the authors' approach is that errors in the estimate of the fair value of the options at the grant date would be corrected as the options are repeatedly marked to market value.

Landsman, W. R., Peasnell, K., Pope, P. F., & Yeh, S. (2004). ***The value relevance of alternative methods of accounting for employee stock options.*** **Working Paper. The University of North Carolina-Chapel Hill, Lancaster University, and National Taiwan University, July.**

Landsman et al. compare the equity valuation implications of four approaches to employee stock option accounting: Accounting Principles Board (APB) Number 25 (the intrinsic value method); SFAS Number 123 (the fair value method); recognition and expensing of an employee stock option asset; and recognition of an employee stock option asset and an employee stock option liability. The authors show that theoretically, only one of the approaches results in balance sheet and income amounts that fully reflect the dilution effects of employee stock options on existing shareholder value – the grant date recognition of an asset and a liability and subsequent marking-to-market of the liability. This is the method that Kirschenheiter et al. (2004) argued in favor of as well. The authors demonstrate that the other methods report overstated equity values. The authors produce empirical evidence that equity value predictions using the recognized asset and liability approach produced the smallest prediction errors as well, followed by the asset and expense method, the fair value approach, and then the intrinsic value approach.

Myring, F., Shortridge, R. T., & Bloom, R. (2003). The impact of statement of financial accounting standard 123 on equity prices of computer software companies. ***Research in Accounting Regulation*, *16*, 121–144.**

The computer software industry uses stock options liberally and lobbied fiercely against SFAS 123. Myring et al. examine the motivation for the fierce lobbying against the standard and how the standard affected the stock price for these firms. The authors did find negative abnormal returns to key events related to adoption. The authors interpret this as evidence that managers lobbied against the standard to maximize shareholder and personal wealth. The authors also find that negative abnormal returns were related to proxies for political costs (market value of equity and EPS) and debt covenants (ratio of debt to total assets).

Robinson, D., & Burton, D. (2004). Discretion in financial reporting: The voluntary adoption of fair value accounting for employee stock options. *Accounting Horizons*, *18*(2), 97–108.

Robinson and Burton investigate the stock market reaction to firms' announcements that the firm will adopt the fair value provisions of SFAS No. 123 and begin expensing employee stock options. The authors use a sample of 102 firms that announced their intention to adopt between July and September 2002 and a matched set of control firms. They find positive abnormal returns in the three days around the announcement, which suggests that the announcement was valuation relevant. The authors attribute the positive returns to a market response to a signal that the firm is committed to transparency in financial reporting. The authors also found that early adopting firms reported higher earnings than control firms in the three years before adoption, but did not earn higher market returns. The authors interpret this finding as suggesting that early adopters were firms that had the most to gain by enhancing the market's perception of their accounting reports. Adopters also had less stock option usage and less stock option expense than control firms. Nevertheless, the impact of stock option expense is significant for 43% of the adopting firms in their sample.

REGULATION FAIR DISCLOSURE

The SEC implemented Reg FD in October 2000. This regulation prohibits firms from disclosing value relevant information to select capital market participants without simultaneously disclosing the same information publicly.

Some were concerned that Reg FD would cause a decrease in the quality and quantity of information about firms because managers: (1) would not want to divulge too much information broadly and risk that competitors would exploit the information and (2) would not want to risk legal liability from inappropriate disclosure. Studies published in the academic literature have provided some information about this issue (see Table 4).

Bailey, W., Li, H., Mao, C., & Zhong, R. (2003). Regulation fair disclosure and earnings information: Market, analyst, and corporate responses. *Journal of Finance*, *58*(6), 2487–2515.

Table 4. Evidence and Commentaries from the (2003–2004) Academic Literature Regulation Fair Disclosure.

Bailey, Li, Mao, and Zhong (2003)	Measure investor disagreement as trading volume and forecast dispersion and find that disagreement increased following implementation of Reg FD. The authors did not find greater price volatility after enactment of Reg FD
Bushee (2004)	Find that companies, which previously held restricted access conference calls, reduced the information content of conference calls when they conducted open conference calls after Reg FD
Francis, Nanda, and Wang (2004)	Used sample of ADRs (exempt from Reg FD) and matched domestic firms and find no evidence that Reg FD effected market-based (returns volatility, trading volume, and information efficiency) or analyst-based measures (forecast dispersion, forecast accuracy, and report newsworthiness)of market information
Gintschel and Markov (2004)	Find evidence that disclosure of value relevant information was common before Reg FD and is observed less frequently following Reg FD. This is evidence that Reg FD might have reduced the valuation relevant information about companies
Heflin, Subramanyam, and Zhang (2003)	Find evidence that the market had more overall information about upcoming earnings announcements after Reg FD. Further, they find that Reg FD had little effect on analyst forecast accuracy and dispersion. Last, they find that companies more frequently offered voluntary forward-looking disclosures after Reg FD
Irani and Karamanou (2003)	Find a decrease in the number of analysts following firms and an increase in the forecast dispersion post-Reg FD
Jorion, Liu, and Shi (2004)	Point out that companies can still privately disclose information to debt rating agencies and find that credit ratings actions (upgrades and downgrades) contain more value relevant information after Reg FD. This evidence suggests that credit rating agencies gained a competitive advantage from Reg FD

Bailey et al. use trading volume, forecast dispersion, and other proxy measures for relative disagreement and differences of opinions among market participants to test the impact of Reg FD. They find that disagreement increased following the enactment of Reg FD. The authors also find that the quantity of voluntary public disclosures by companies increased post-Reg FD, but only related to the current quarters earnings. The authors interpret these findings as evidence that the quantity of information available to the public increased post-Reg FD. Further, the authors find evidence that analysts have greater difficulty forming forecasts beyond the current quarter post-Reg FD. Interestingly, despite the previous findings, the authors did not find greater price volatility post-Reg FD.

Bushee, B. J., Matsumoto, D. A., & Miller, G. S. (2004). Managerial and investor responses to disclosure regulation: The case of Reg FD and conference calls. *Accounting Review*, *79*(3), 617–643.

Bushee, Matsumoto, and Miller investigate the impact of Reg FD on the disclosure practices of companies by examining a group of firms that, before Reg FD, hosted restricted access conference calls. This group of firms is compared to a group of firms that voluntarily allowed unlimited access to their conference calls even before Reg FD. The authors find that firms that previously hosted restricted access conference calls were more likely to discontinue conference calls post-Reg FD. However, the overall percentage of firms discontinuing conference calls was small. Further, the authors do not find a change in abnormal returns when calls became unlimited access conferences. The authors interpret this finding as suggesting that firms that previously held restricted access conference calls did not decrease the information content of the conferences when they became unlimited access conferences. Price volatility during the calls did increase as did individual investor trading volume. Earlier studies did not find the greater price volatility (e.g., Shane, Soderstrom, & Yoon, 2001; Bailey, 2003). The authors speculate that this could be due to the less efficient use of the information by less sophisticated investors. The authors interpret their findings in totality by suggesting that Reg FD did not have a large impact on the disclosure practices of formerly closed call firms.

Francis, J., Nanda, D., & Wang, X. (2004). *Re-examining the effects of regulation fair disclosure using foreign listed firms to control for concurrent shocks*. Working Paper. Duke University, June.

Francis et al. study the impact of Reg FD on US firms' reporting environments by comparing U.S. firms to a group of industry and size-matched foreign-listed firms trading on U.S. exchanges American Depositary Reciepts (ADRs). ADRs are exempt from the provisions of Reg FD. The authors believe that this is a stronger design for testing the impact of Reg FD. They argue that earlier Reg FD studies may have had design weaknesses that distorted findings about the change in the information environment post-Reg FD.

They find no significant difference in the change in market information for the U.S. listed firms relative to the ADRs. Their market information proxies included both market-based measures (returns volatility, trading volume, and information efficiency) and analyst-based measures (forecast dispersion, forecast accuracy, and report newsworthiness). They interpret their findings overall by suggesting that the passage of Reg FD changed little.

Gintschel, A., & Markov, S. (2004). The effectiveness of regulation FD. *Journal of Accounting and Economics*, *37*(3), 293–314.

Gintschel and Markov use a sample of financial analysts' earnings forecasts and stock recommendations between October 1999 and October 2001 to investigate whether Reg FD affected how information is communicated to capital market participants. Reg FD was implemented in the middle of that time period. The authors find that the stock price impact associated with analysts' information dropped by an average of 28% from pre-Reg FD levels for the same analyst. They interpret this finding as consistent with a curtailment in the flow of private information from managers to analysts.

The stock price impact reduction is significant for both stock recommendations (22%) and earnings forecasts (34%). The authors also find that the price impact for information from prestigious analysts and optimistic analysts decreased the most. The authors believe this is a support for the change being caused by Reg FD rather than other confounding changes because prestigious analysts and analysts providing optimistic outlooks were more likely to be receiving valuable private communications in the pre-Reg FD era. Also, the stock price impact drop was especially large for stocks with the highest market-to-book ratios. The authors believe that analysts would have required and received more specific and firm-internal knowledge from these high growth firms pre-Reg FD. The authors interpret their findings in totality as evidence that Reg FD has reduced selective disclosures to financial analysts.

Heflin, F., Subramanyam, K. R., & Zhang, Y. (2003). Regulation FD and the financial information environment: Early evidence. *Accounting Review*, *78*(1), 1–37.

Heflin et al. also examine whether information flow to the capital markets before earnings announcements is reduced after Reg FD was implemented. The authors measure what they term the information gap for announcements before and after Reg FD is implemented. The information gap is the difference between the pre- and post-earnings announcement stock price after controlling for market-wide stock price movements. The authors compare three post-Reg FD quarters (fourth quarter of 2000 and the first and second quarters of 2001) to the same quarters in the prior year, which are pre-Reg FD. The final sample consists of 5,072 pairs of pre- and post-Reg FD observations.

The authors find a smaller information gap after Reg FD was implemented. This suggests that the market actually had more overall information about the upcoming earnings announcements in the post-Reg FD quarters. They also find that Reg FD had little effect on two other measures of information asymmetry – analyst forecast accuracy and analyst forecast dispersion. Last, the authors find that firms more frequently offered voluntary earnings-related disclosures to the capital markets after Reg FD was implemented. These findings suggest that Reg FD did not cause a decrease in the overall amount of information made available to capital market participants.

Irani, A. J., & Karamanou, I. (2003). Regulation fair disclosure, analyst following, and analyst forecast dispersion. *Accounting Horizons*, *17*(1), 15–29.

Irani and Karamanou examine the change in the number of analysts following a sample of firms and the dispersion of the analysts' forecasts after Reg FD was implemented. Using sample data from 1995 to 2001, the authors measure end of quarter mean number of analysts following firms and the mean earnings forecast dispersion for the analysts that follow the firms. Their post-Reg FD regime includes the fourth quarter of 2000 through the third quarter of 2001. They find a decrease in the number of analysts following firms' post-Reg FD and an increase in the forecast dispersion post-Reg FD. The authors interpret this evidence as suggesting that the additional cost of following firms post-Reg FD causes analysts to discontinue following select firms. Further, the analysts that continue to follow the firm have greater disagreement about future earnings at the firm.

Jorion, P., Liu, Z., & Shi, C. (2005). Informational effects of regulation FD: Evidence from rating agencies. *Journal of Financial Economics*, *76*(2), 309–330.

Reg FD has several exclusions including credit rating agencies that can still receive confidential information. Thus, it is possible that credit rating agency actions can contain inside information post-Reg FD. Jorion et al. use this unique setting to examine the change in the information environment post-Reg FD. The authors examine the change in the information content of ratings announcements post-Reg FD. The sample consists of 437 upgrades and 1,767 downgrades of corporate bonds issued by U.S. firms. The pre-Reg FD upgrades and downgrades took place between August 1998 and September 2000. The post-Reg FD upgrades and downgrades in the sample occurred between November 2000 and December 2002. The authors find that after Reg FD was implemented, credit rating upgrades lead to larger stock price increases and downgrades lead to larger stock price drops. This evidence suggests that credit rating agencies actions do contain more new information post-Reg FD. It follows that the information available to market participants (other than those privy to inside information such as ratings agencies) dropped. It also follows that the ratings agencies gained a strategic advantage from Reg FD.

INTERNATIONAL CONVERGENCE

Regulators are actively seeking to achieve convergence of U.S. accounting rules with international accounting rules. Some academic research provides evidence related to international convergence (see Table 5).

AAA Financial Accounting Standards Committee. (2004a). Commentary on the IASB's exposure draft on business combinations. *Accounting Horizons*, *18*(1), 55–64.

The AAAFASC provided comment on the International Accounting Standards Board's (IASB) exposure draft on business combinations. The committee views the exposure draft as having significant flaws. Among the recommendations are the following: (1) the exposure draft should not limit covered transactions as those that involve a change in control (i.e., a new reporting entity); (2) the committee supports the IASB's decision to

Table 5. Evidence and Commentaries from the (2003–2004) Academic Literature International Convergence.

AAAFASC (2004a)[a]	Comment on the IASB's exposure draft on business combinations. The committee views the exposure draft as having significant flaws. First, they do not believe that the rules should limit covered transactions to those that involve a change in control. Also, they believe that systematic amortization remains the best treatment of goodwill. The Committee endorses IASBs proposals to eliminate the pooling of interests method approve the disclosure provisions called for in the proposal
AAAFASC (2004b)[a]	The Committee favorably views the IASB's draft on share-based payments. However, they do not support the grant date valuation with no subsequent adjustments. Further, they argue that associated tax consequences should be recognized in income rather than as adjustments to equity
Leuz (2003)	Use Germany's new market as setting to examine whether information there is more or less information asymmetry for companies that use US GAAP versus companies that use International Accounting Standards (IAS). Leuz finds no significant difference in information asymmetry. Proxies for information asymmetry included bid-ask spreads, share turnover, and analysts' forecast dispersion
Marks (2004)	Marks argues that the costs of Sarbanes–Oxley compliance change the cost/benefit trade-off for foreign firms listing in the U.S. She contends that the U.S. should act quickly to adopt IAS to continue to hold a competitive advantage in the international market for stock exchange listings

[a]American Accounting Association Financial Accounting Standards Committee.

eliminate the pooling of interests alternative; (3) the committee feels that systematic amortization remains the best treatment of goodwill; and (4) the committee believes that contingent liabilities should be recognized in a business combination at fair value; and (5) the committee endorses the disclosure provisions called for in the exposure draft.

AAA Financial Accounting Standards Committee. (2004b). Evaluation of the IASB's proposed accounting and disclosure requirements for share-based payment. *Accounting Horizons*, *18*(1), 65–76.

The AAAFASC is largely supportive of the IASB's exposure draft on share-based payments. They support the expensing requirement with guidance about a valuation model, but no mandated valuation model. The committee does not favor the grant date valuation with no subsequent adjustments for equity-settled share-based payments. Instead, the committee supports exercise date measurement for all share-based payments. Further, the committee feels that the associated tax consequences should be recognized in the income statement rather than as adjustments to equity. Finally, if the IASB goes forth with grant date measurement, the committee supports footnote disclosure of exercise date information.

Leuz, C. (2003). IAS versus U.S. GAAP: Information asymmetry-based evidence from Germany's new market. *Journal of Accounting Research*, *41*(3), 445–472.

Leuz investigates whether information asymmetry is different for firms that use U.S. generally accepted accounting principles (GAAP) versus firms that use IAS. Leuz uses the unique setting of Germany's New Market in which firms must choose between IAS and U.S. GAAP for financial reporting purposes. However, the firms face the same regulatory environment. As a result, factors such as listing requirements, market microstructure, and standards enforcement are identical across firms. Using information asymmetry proxies such as bid-ask spreads, share turnover, analysts' forecast dispersion, and IPO valuation, Leuz finds no significant differences in information asymmetry between firms that used U.S. GAAP versus firms that used IAS in Germany's New Market. Thus, at least in this setting, the choice between IAS and U.S. GAAP appeared to have no significant effect on information asymmetry and market liquidity.

Marks, E. (2004). The Sarbanes–Oxley act: Costs and trade-offs relating to international application and convergence. *Research in Accounting Regulation*, *17*, 233–364.

Marks examines the ramifications of the costs of Sarbanes–Oxley compliance on international standard setting. According to Marks, the U.S. had been reducing the overall costs for foreign companies to list their stocks in the U.S. Sarbanes–Oxley has effectively reversed this trend as its terms apply largely equally to domestic and foreign firms. Marks thus concludes that the cost benefit tradeoff for foreign firms to list in the U.S. had changed post-Sarbanes–Oxley and she concludes that the U.S. may see a decline in foreign companies choosing to list in the U.S. Marks argues that the U.S. should act quickly to adopt IAS to continue to hold a competitive advantage for stock exchange listings.

OTHER REGULATION RELATED FINDINGS

Recognition Versus Disclosure

Regulators periodically consider the recognition versus disclosure issue (see Table 6) in various transactional contexts (e.g., stock option expense).

Aharony, J., & Dotan, A. (2004). A comparative analysis of auditor, manager and financial analyst interpretations of SFAS 5 disclosure guidelines. *Journal of Business, Finance & Accounting*, *31*(3&4), 475–504.

SFAS Number 5 requires that contingent liabilities be recognized in the financial statements if the contingent loss is "probable" and the amount of the loss can be estimated. If the contingent liability is only deemed to be "reasonably possible" or the amount cannot be reliably estimated, then the contingent loss is simply disclosed in the footnotes but not recognized. If the probability that the loss will occur is deemed to be "remote" then the contingent loss is neither recognized nor disclosed. Aharony and Dotan use an experiment to ascertain the beliefs of auditors, managers, and financial statement users as to the quantified definition of "probable," "reasonably possible," and "remote." The authors use audit partners and audit managers as auditor subjects, CFOs of large companies as manager subjects, and financial analysts as user subjects. The authors further split the audit sample into audit partner and audit manager.

The authors find that financial analysts assign the lowest probability percentage to the "remote" category. That is, financial analysts believe that certain amounts should be at least disclosed that managers and auditors would deem to not require disclosures. Audit partners and managers assigned the next lowest percentage to the remote probability. Audit managers had a higher perception of the probability of loss that can be considered remote. The percentage assigned to the remote definition between the auditor group as a whole and the manager group did not differ significantly. This finding is significant because it suggests that users would be denied

Table 6. Evidence and Commentaries from the 2003–2004 Academic Literature Other Regulation-Related Findings.

Recognition versus disclosure	
Aharony and Dotan (2004)	Use an experiment to show a perception gap between analysts (users) and CFOs (managers) and auditors. The analysts perceived lower probability contingent losses to require disclosure than did the CFOs and auditors
Barth, Clinch, and Shibano (2003)	Find a complex interaction of relevance, reliability, and user expertise. First, separate recognition is found to be more price informative than disclosure even with recognition of less reliable amounts. The authors find that aggregated disclosure results in greater price informativeness than simple disclosure when aggregated amounts have equal relevance and reliability. However, relevance impacts the informativeness. The authors find instances in which aggregate recognition of highly reliable amounts resulted in less price informativeness than disclosure and instances in which aggregate recognition of a less reliable amount results in greater price informativeness
Cotter and Zimmer (2003)	Use the Australian GAAP setting to show that the market differentially values recognized amounts that are more or less reliable. Also, the authors show that given a choice, management is more likely to recognize more reliably measured positive earnings amounts
Write-offs of fixed assets	
Riedl (2004)	Finds that write-downs of fixed assets after SFAS Number 121 are less associated with economic factors and more associated with "big bath" reporting incentive suggesting that SFAS Number 121 did not improve the reporting model
Conservatism in accounting	
Watts (2003a)	Discusses the trend towards greater conservatism in accounting and provides possible explanations related to contracting, litigation, taxation, and regulatory costs
Watts (2003b)	Documents increasing conservatism during the past several decades and offers four explanations for the increase: contracting, litigation risk, tax, and regulation costs
Earnings opacity	
Riahi-Belkaoui (2004)	Finds that more politically connected firms exhibit more earnings opacity. However, politically connected larger capitalization firms exhibit less opacity than smaller politically connected firms. Overall, political climate appears to explain earnings opacity better than the technical accounting climate

Table 6. (*Continued*)

Revenue recognition in long-term contracts	
Larson and Brown (2004)	Find that about one-third of firms with long-term contracts did not provide the disclosures that are currently required by the SEC and GAAP. Further, they find inconsistency of method choice within industries. Last, they find that input methods used twice as often as output methods despite the stated preference for output methods in SOP 81-1. The results support continued regulatory focus on revenue recognition issues
Quantitative market risk disclosures	
Thornton and Welker (2004)	Find a larger commodity beta shift for oil and gas producers post-FRR 48. The beta shift is consistent with new commodity price sensitivity and value at risk disclosures suggesting that FRR 48-mandated disclosures provide useful information to investors
The value implications of claim placement in the balance sheet	
Cheng, Frischmann, and Warfield (2003)	Find that the market prices redeemable preferred stock similar to neither debt nor equity items supporting the mezzanine placement. The authors also find that the market prices redeemable preferred stock like a debt item and minority interest like an equity item
Shelf registration	
Moehrle, Reynolds-Moehrle, and Stuerke (2004)	Find evidence that shelf registrants of debt, on (2004) average, exhibit a higher risk profile than non-shelf registrants. The authors point out that these findings are not consistent with the spirit of shelf registration and point to the need to reevaluate the criteria to qualify for shelf registration
Firm and investor reaction to accounting regulation	
Linsmeier and Carroll (2004)	Find abnormal returns for firms that would be affected by the proposed requirement of the use of the deferral method of accounting for investment tax credits. Results are consistent with the market pricing in less economic activity with passage
Does oversight impact accounting quality?	
Dowdell and Press (2004)	Find that SEC scrutiny of excessive write-offs of in-process research and development costs led to substantial downward restatements of recognized amounts and lower observed levels of write-offs ongoing
Green and Reinstein (2004)	Find that heightened regulatory and public scrutiny over financial service organizations did not reduce the frequency of fraud, but affected the types of frauds observed. Specifically, as scrutiny increased more frauds related to the withholding of information rather than creating fictitious information are observed

knowledge of contingent liabilities that they would have considered "reasonably probable." The authors point out that this problem could be overcome by requiring mandatory disclosure of any material contingent liability.

Barth, M. E., Clinch, G., & Shibano, D. T. (2003). Market effects of regulation and disclosure. *Journal of Accounting Research*, *41*(4), 581–610.

Historically, regulators have considered primarily the reliability of relevant information in deciding whether recognition or disclosure should be mandated. Barth et al. examine whether current disclosure versus recognition rules are optimal. The authors construct and analyze a theoretical model that contains a disclosure regime and three recognition regimes: (1) aggregate recognition with disclosure (recognized amounts are aggregated with other amounts in the financial statements, but explained in the footnotes); (2) separate recognition (amounts are reported as a separate line item in the financial statements); and (3) aggregate recognition without disclosure.

The authors find evidence that considering reliability alone is not sufficient. Instead, they find a complex interaction of relevance, reliability, and user expertise. First, they find that separate recognition results in greater price informativeness than disclosure even with less reliable amounts. Second, with aggregate recognition (i.e., recognition aggregated with other amounts), recognition results in greater price informativeness than disclosure given equal relevance and reliability of the amounts. However, the authors find instances in which aggregate recognition of a highly reliable amount results in less price informativeness than disclosure, and instances in which aggregate recognition of a less reliable amount results in higher price informativeness.

Cotter, J., & Zimmer, I. (2003). Disclosure versus recognition: The case of asset revaluations. *Asia/Pacific Journal of Financial Economics and Accounting*, *10*(1), 103–126.

Cotter and Zimmer use the Australian GAAP setting to provide evidence about recognition versus disclosure. Australian GAAP requires companies to disclose real estate revaluations, but gives them a choice of recognizing or not recognizing the revaluation in the financial statements. The authors first find evidence that firms are more likely to recognize rather than simply disclose upward revaluations when the value increase is more reliably measured (e.g., valuations are based on market values rather than value-in-use or values are mostly related to land rather than buildings). This setting allows the authors to investigate the impact on market prices and stock returns of recognitions and disclosures of amounts that differ in terms of reliability. The authors find greater share prices for firms that recognize rather than simply disclose real estate revaluations. Next, they investigate whether the stock price increase is due to the disclosed amount or simply that the amount was disclosed. They find evidence to support the latter. When the authors control for reliability, the price increment is no longer found. This suggests that the market is valuing the reliability signal rather than simply that the amount is recognized as opposed to being disclosed in the footnotes. From a U.S. regulatory perspective, the findings are relevant for at least two reasons. First, they suggest that given a choice, management would recognize only more reliably measured amounts. Second, the market seems to value recognition versus disclosure of similarly reliable numbers and also discounts less reliable amounts.

Write-offs of Fixed Assets

Riedl, E. (2004). An examination of long-lived asset impairments. *Accounting Review*, *79*(3), 823–852.

The FASB promulgated SFAS Number 121, "Accounting for the Impairment of Long-Lived Assets" to provide structure to the determination of whether a fixed asset is impaired and if so, how much of the cost should be written off. Riedl examined whether observed write-offs are more or less associated with economic factors and reporting incentives after the issuance of SFAS 121. The sample period is 1992–1998 and includes a treatment sample 455 firm-year observations that had asset write-offs and 2,299 that did not contain an asset write-off. Proxies for economic factors include a macro-economic factor: the change in GDP; an industry factor: the change in ROA for the industry as a whole; and three firm-specific factors: the change in sales, earnings, and operating cash flows. Proxies for reporting incentives include an indicator variable for change in management, a "big bath" variable when earnings are unexpectedly high, a variable for earnings-smoothing incentives, and a debt covenant variable.

He finds that write-offs reported after SFAS 121 are less associated with economic factors and more associated with the "big bath" reporting incentive than write-offs reported before SFAS 121. The author interprets the findings as suggesting that write-offs reported under SFAS 121 are less reflective of the underlying economics of the company than were write-offs pre-SFAS 121. This finding casts doubt on the effectiveness of SFAS 121 at restricting opportunistic earnings management using asset write-downs.

Conservatism in Accounting

Watts, R. L. (2003a). Conservatism in accounting part 1: Explanation and implications. *Accounting Horizons*, *17*(3), 207–221.

Watts, R. L. (2003b). Conservatism in accounting part 2: Evidence and research opportunities. *Accounting Horizons*, *17*(4), 287–301.

Watts (2003b) and other studies have documented increasing conservatism in the U.S. during the past several decades. Watts (2003a) discusses this trend and provides four explanations for conservatism in U.S. financial reporting related to contracting, shareholder litigation risk, taxation, and accounting regulation costs. The contracting explanation suggests that conservative earnings and net assets are beneficial to investors and other contracting parties because they represent a more efficient measure of performance and firm abandonment value by constraining the manager's ability to report opportunistically. Future litigation is more likely if future outcomes turn out worse than expected or previously reported. Thus, conservatism might also be used to minimize future shareholder litigation by accruing uncertain amounts such that errors would be more likely the understatement rather than an overstatement of reported earnings and net assets. Delaying the recognition of certain gains and accelerating the recognition of certain tax-deductible expenses minimizes taxable income. Thus, for tax purposes, conservatism can maximize shareholder value by minimizing the present value of tax payments for the firm. Finally, understated earnings and net assets minimize the political visibility for firms that might be subject to costly regulator scrutiny (e.g., accusations of monopoly rents).

Earnings Opacity

Riahi-Belkaoui, A. (2004). Politically-connected firms: Are they connected to earnings opacity? *Research in Accounting Regulation*, *17*, 25–38.

Riahi-Belkaoui examines proxies for managerial motivation to manipulate, poorly conceived accounting standards, and lax enforcement to examine determinants of earnings quality. Belkaoui uses measures of quality that capture earnings aggressiveness, loss avoidance, and earnings smoothing. He finds that across countries, political context explains earnings quality and opacity better than the technical accounting client. Earnings opacity is higher (quality is lower) for more firms that are more politically connected. However, opacity reduces (quality increases) as market capitalization increases. The author interprets these findings by suggesting that politically connected firms feel more empowered to be aggressive in its accounting choices. However, as the firm gets a higher market capitalization, it becomes more visible to market participants, who force higher quality financial reporting. Further, as enforcement of securities laws increases, earnings opacity reduces (quality increases). Interestingly, Belkaoui finds little evidence that the per capita number of auditors or the adoption of IAS significantly affect earnings opacity.

Revenue Recognition in Long-term Contracts

The SEC and the FASB currently have projects examining revenue recognition related to long-term contracts. A 2004 paper published in *Accounting Horizons* seeks to inform this discussion.

Larson, R. K., & Brown, K. L. (2004). Where are we with long-term contract accounting? *Accounting Horizons*, *18*(3), 207–219.

The AICPA (1955, 1981) Statement of Position (SOP) 81-1 and Accounting Research Bulletin (ARB) 45 provide most of the authoritative guidance for long-term contract accounting. Briefly, ARB 45 allows firms to choose between the percentage-of-completion method and the completed-contract method, but states a preference for the percentage-of-completion method when applying the method is practical. SOP 81-1 provides guidance on the application of ARB 45 and expands the provisions of ARB 45 beyond the construction industry to other goods and services. The SEC (1999) Staff Accounting Bulletin 101 reiterated support for ARB 45 and SOP 81-1 as they relate to revenues from long-term contracts.

Larson and Brown provide evidence regarding four questions related to long-term contracts: (1) What is current practice and are firms reporting the basic required disclosures? (2) Does comparability exist between or within industries? (3) What factors might influence whether firms report the basic required disclosures? (4) For firms reporting the basic required disclosures for long-term contracts, what factors might influence the choice of methods used to calculate the percentage-of-completion method? The authors' sample includes 55 Fortune 500 firms that reported long-term contracts during 2000. The authors found only one firm that uses the completed-contract method, which is consistent with the preference for the percentage-of-completion method stated in authoritative guidance. They find that about one-third of the sample firms did not provide the disclosures that are currently required by the SEC and GAAP (e.g., disclose the methods to estimate percentage-of-completion). The authors also find inconsistency of method choice even within industries. Also, input methods are used twice as often as output methods despite the stated preference for output methods in SOP 81-1. These points provide support for ongoing regulatory efforts related to long-term contracts and revenue recognition.

Quantitative Market Risk Disclosures

SEC financial reporting release (FRR) Number 48 requires SEC registrants to make quantitative value at risk disclosures in the 10-K for each category of market risk that the company faces. It was unsure whether such disclosures would provide useful information. The academic literature provides some evidence.

Thornton, D. B., & Welker, M. (2004). The effect of oil and gas producers' FRR No. 48 disclosures on investors' risk assessments. *Journal of Accounting, Auditing & Finance. 19*(1), 85–114.

Using a sample of oil and gas producers, Thornton and Welker examine whether the sensitivity and value at risk disclosures mandated by FRR 48 convey useful information to investors about the sensitivity of firms' stock price to commodity price changes. The authors use a matched control sample and find that first time disclosers under FRR 48 experience a larger commodity beta shift at 10-K filing dates post-FRR 48 consistent with commodity price sensitivity and value-relevant value at risk disclosures. These differential beta shifts were not found for the disclosing sample in the period before the firms began providing the FRR 48 disclosure. The authors interpret this evidence as suggesting that FRR 48-mandated disclosures provide useful information to investors.

The Value Implications of Claim Placement in the Balance Sheet

Cheng, Q., Frischmann, P., & Warfield, T. (2003). The market perception of corporate claims. *Research in Accounting Regulation*, *16*, 3–28.

Cheng et al. examine whether the market appears to price between various claims on assets more as a debt claim or an equity claim. Claims examined include minority interests, mezzanine claims (e.g., redeemable preferred stock and trust preferred stock), and preferred equity. The tests are conducted on 2,617 firms that reported minority interests or preferred stock during 1993–1997. They find that the market does not price redeemable preferred stock either as a debt claim nor an equity claim. This finding supports the current mezzanine presentation for these amounts. The market appears to price preferred stock as a debt-like item and minority interests as an equity-like item. The latter finding supports recent regulatory action regarding the presentation of minority interest.

Shelf Registration

Moehrle, S. R., Reynolds-Moehrle, J. A., & Stuerke, P. S. (2004). Shelf-registered securities: Is it time to re-evaluate the process? *Research in Accounting Regulation*, *17*, 3–24.

Moehrle et al. examine the risk associated with shelf-registered debt. Their work is motivated by the observation that many of the companies that experienced high profile financial collapses in recent years had debt on the shelf. A sample of 26,947 firm year observations with market value greater than $75 million (one of the shelf registration criteria) is used. Of these observations, 1,954 had shelf-registered securities. The authors find that shelf registrants have higher book-to-market ratios. Thus, the market values each $1 of shelf registrant net assets less than each $1 of non-shelf registrant net assets. The authors also find that shelf registrants are more highly leveraged, less profitable, and have are two to three times more likely to have an Altman's Z-score that suggests a high probability of financial distress. Their overall findings suggest that shelf registrants are, on average, more risky than non-shelf registrants. This is inconsistent with the spirit of shelf registration. The authors interpret their findings as suggesting a need to revisit the shelf registration criteria.

Firm and Investor Reaction to Accounting Regulation

Linsmeier, T. J., & Carroll, T. J. (2004). The effects of accounting regulation. *Research in Accounting Regulation*, *17*, 39–64.

Linsmeier and Carroll examine whether proposed accounting regulation (deferral method of accounting for investment tax credits) impacts market participants. The authors find abnormal returns to news that increases or decreases the probability that the deferral method would ultimately be codified. Further, the authors find that the observed abnormal returns are associated with changes in future ITC-qualifying investment as well as closeness to debt covenant violation. The authors interpret the findings as evidence that the proposed regulation did impact the stock price of firms that would be affected by the new rules and the impact was consistent with a market belief that the new rules would mitigate the ability of the tax credits to stimulate economic activity.

Does Oversight Impact Accounting Quality?

Regulators certainly impact the accounting and financial statements of companies via pronouncements of new guidance. Do regulators likewise affect company's accounting in their oversight function? A paper by Dowdell and Press examine this question.

Dowdell, T. D., & Press, E. (2004). The impact of SEC scrutiny on financial statement reporting of in-process research and development expense. *Journal of Accounting and Public Policy*, *23*, 227–244.

In 1998, then SEC chief accountant Lynn Turner expressed concern with excessive write-offs of in-process research and development (IPRD) costs. Dowdell and Press use this setting to test whether such scrutiny leads to change. The authors examine firms that completed business acquisitions accounted for as purchases between 1996 and 2001 and the purchase included IPRD. They assess the SEC's impact in two ways. First, they evaluate 71 firms that restated their IPRD expense. Second, they compare IPRD reporting in financial statements before and after the heightened SEC scrutiny commenced. The authors find that companies restated IPRD downward from an average of 66% of the acquired assets to 25% of the acquired assets. Further, the percentage of purchase price expensed to IPRD for acquisitions occurring before the SEC announcement was 63%. This average fell to 18% for acquisitions occurring after the SEC announcement. These results provide evidence that regulated scrutiny can create fast and lasting change.

Green, B. P., & Reinstein, A. (2004). Banking industry financial statement fraud and the effects of regulation enforcement and increased public scrutiny. *Research in Accounting Regulation*, *17*, 87–106.

Green and Reinstein examine whether increased regulation and public scrutiny in the banking industry changed the frequency and/or nature of observed bank frauds. They examine specific characteristics of enforcement actions against financial service organizations between for violations committee between 1982 and 2000. They find that the frequency of frauds did not change significantly across time. However, as regulatory oversight and public scrutiny increased, the frauds became increasingly likely to involve the withholding of information rather than creating fictitious information. The authors interpret their findings as suggesting that regulation and scrutiny can affect fraud strategies as much or more than fraud frequency.

CONCLUSION

Topics of pique regulatory interest in the 2003–2004 period include corporate fraud, audit failures, Sarbanes–Oxley reforms, principles- versus rules-based accounting standards, accounting for employee stock option costs, Reg FD, and international convergence. In this paper, we synthesize in annotated bibliography form, commentaries and findings in the recent academic literature related to the above topics as well as other topics of current regulatory relevance. While the academic literature is intended foremost to inform the academic community, findings in the academic literature can certainly be relevant to regulators as well.

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PART IV:
CAPSULE COMMENTARIES

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ACCOUNTING HARMONIZATION IN LATIN AMERICA: MOVING TOWARD IFRS

Mercedes Palacios Manzano

The status of accounting harmonization and/or adoption of International Financial Reporting Standards (IFRS) is different in each of the diverse countries across Latin America. Examples among the smaller countries of this region include some adopting IFRS in full, e.g. Panama, El Salvador, and Paraguay. IFRS are being implemented on a selective basis in countries such as Peru, Ecuador, Costa Rica, Uruguay, and Honduras. Yet a third group, including Colombia and Guatemala, are considering IFRS adoption in the future and studying the models used in other countries, but full IFRS adoption in this group is a mid-range or longer-term goal. Nevertheless, the clear trend is to bring accounting standards in line with international standards while recognizing the unique characteristics of the Latin American economies. This trend is illustrated in more detail by examining four larger countries in the region.

This research focused on the efforts that have been undertaken in two notable regions: the Economic, Accounting, and Administration MERCOSUR Integration Group (GIMCEA); and the North American Free Trade Agreement (NAFTA) countries. The four major economies in these regions, Argentina and Brazil (countries from GIMCEA) and Mexico and Chile (countries from NAFTA) have unique approaches, but all have a significant level of accounting regulation, and are moving toward international harmonization.

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In Argentina, accounting standards similar to IFRS were approved for implementation for fiscal years beginning July 1, 2002. In Brazil, harmonization processes are underway, evidenced by rules passed by different regulatory authorities but all clearly influenced by IFRS. The Brazilian Congress is considering a project to create a Committee on Accounting Standards to approve accounting standards in accordance with IFRS. Chile also has several different regulatory bodies issuing rules. While these proclamations have historically been substantially in line with US standards, recently accounting standard developments have tended toward IFRS. Mexico has historically tried to harmonize with IFRS, and the recent establishment of an independent national accounting standard setter is consistent with this direction.

A summary of the main differences among GAAP in these four countries contrasted with US GAAP and IFRS focuses on issues commonly found in practice. Despite substantial harmonization, noteworthy differences remain, including treatment of business combinations, property plant and equipment, intangible assets, inventories, capitalization of borrowing cost, and investments. Nevertheless, in the four Latin American countries studied, these differences are within reach of resolution in a relatively short time since the regulatory structures are already in place or nearly so.

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THE EFFECT OF MANDATORY AUDIT-FIRM ROTATION: A MONITORING PERSPECTIVE

Wuchun Chi

Legislators concerned with audit effectiveness and improved financial reporting enacted Section 203 of the Sarbanes-Oxley Act (SOX) (2002) , which mandates audit-firm rotation as one means of restoring credibility of the audit. However, this legislation imposes other requirements, including higher standards for the makeup and role of the independent board audit committee (Section 301). Joint requirements complicate the prediction of the effectiveness of mandatory rotation because it does not occur in isolation. This research focuses analytically on the economic costs of mandatory rotation in a setting with an enhanced role of an independent board audit committee.

Under the condition that such an independent audit committee exists, it would be representative of shareholders, particularly in ensuring objectivity of the audit process. Analysis demonstrates that the importance of auditor rotation declines in a situation with an audit committee as required by SOX.

Mandatory auditor rotation potentially increases audit fees in several ways. It forces the auditor–client relationship into a restricted period, thus increasing initial fees paid by the client because of the lack of audit firm incentive to offer low initial fees (low balling, DeAngelo, 1981). Furthermore, Lee and Gu (1998) showed that low balling can serve as a substitute

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for legal liabilities to maintain auditor independence; mandatory rotation removes this effect.

Mandatory rotation also can lead to loss of familiarity that is vital in an effective audit process. This loss both potentially increases costs and decreases audit effectiveness and quality of financial reporting because auditors have to gain experience and build client-specific assets in order to develop a greater ability to detect accounting irregularities. For instance, some recent empirical studies investigated the relationship between auditor tenure and discretionary accruals and found that short audit tenure leads to lower earnings quality (e.g., Johnson, Khurana, & Reynolds, 2002; Myers, Myers, & Omer, 2003; Ghosh & Moon, 2005).

The analysis also demonstrates that in a setting where side payments from the client to the auditor are possible, a more aggressive board strategy should be used to mitigate potential collusion between auditor and manager in the mandatory rotation setting, thus increasing monitoring costs. These costs, combined with increased audit fees, bring into question the effectiveness of mandatory rotation.

In summary, the economic consequences of imposing mandatory audit-firm rotation may lead to a higher audit fee payment, higher monitoring costs, and lower reporting quality. Therefore, this legislation, aimed at protecting the public interest, may indeed harm it by imposing economic costs that can be avoided in the presence of well-functioning audit committees. The important policy implication of this paper is that there is more to be gained from enhancing the function of board audit committees rather than focusing on audit-firm rotation.

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THE IMPACT OF INTERNATIONAL HARMONISATION EFFORTS ON ACCOUNTING DISCLOSURE REGULATION IN TURKEY

T. Çuruk and T. E. Cooke

International harmonization has been influenced not only by the International Accounting Standards Board (IASB), but also by the European Union (EU). The IASB operates through voluntary arrangements since it does not have regulatory or enforcement authority. For developing countries, adopting International Accounting Standards (IAS) has the advantage of avoiding the high cost of setting up national standards, effectively using technical skills of other nations.

The EU has been active in achieving regional harmonisation through a series of directives. The Fourth (FD) and Seventh Directives have been the most important affecting accounting in Europe. However, research on the effectiveness of the directives is inconclusive. Their influence may extend beyond the region through trading relationships, e.g. Switzerland, (Raffournier, 1995); changes from a controlled economy, e.g. Poland (Adams & McMillan, 1997); and effects on member states well before joining the EU (Tay, 1989; Lukas, 1992; Nasi, 1992).

To date a number of studies have been undertaken to evaluate the influence of EU directives and IAS on various countries. However, little attention has been given to the effectiveness of these two organisations on a developing

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country like Turkey, a country with aspirations to join the EU. Both organisations are likely to have had an impact on accounting regulation in Turkey.

The Turkish Commercial Code of 1956 was substantially influenced by Continental European Codes, particularly Germany, Italy and Switzerland, and as a consequence has been substantially influenced by tax rules (Tekinalp, 1992; Mugan, 1995). A major accounting change took place in 1989 through a Communiqué of the Capital Market Board (CMBC). The CMBC revised both disclosure and measurement rules with the latter appearing to be substantially influenced by the FD.

This research assessed the impact of the FD and IAS on Turkish regulation. Members of the drafting committee for the CMBC provided information via interviews, as well as via structured questionnaires to rank factors of potential influence. Comparative content analyses of the CMBC, against the FD and IAS, were undertaken, using sentence content as the coding unit.

The interview and questionnaire results found that the main factor was the FD, though some importance was attributed to the IAS, academicians, and the Turkish accounting profession. The content analysis revealed that all the main headings in the FD are dealt with in the CMBC, and that there is a strong association between the main disclosure issues in the CMBC and the FD. A similar analysis demonstrated less association between the CMBC and IAS.

The researchers concluded that external factors have influenced the development of accounting in Turkey and that the FD has had greater influence on the CMBC than IAS. The application by Turkey to join the EU has been influential in harmonizing accounting by hastening the embrace of the main contents of the EU FD. This is an important demonstration of regulatory influence extending beyond EU member states to aspirants.

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CORPORATE GOVERNANCE AND ACCOUNTING STANDARDS IN OMAN

Kanukuntla Shankaraiah and D. N. Rao

In recent years, the Oman economy has undergone some positive reforms, resulting in a more market-oriented economy. As the size of Oman industry is growing and expectations for information are also increasing, there is increased emphasis on good corporate governance. This requires adherence to uniform and proper accounting standards to reduce discretion and discrepancy, and to enhance the degree of transparency in information sharing.

In Oman, though the financial statements are prepared in accordance with International Accounting Standards (IAS), the requirements of the Commercial Companies Law of the Sultanate of Oman, and the disclosure requirements issued by the Capital Market Authority of the Sultanate of Oman, the disclosures are inadequate, creating a negative influence for a country seeking to increase its economic strength. With inadequate financial disclosures that are not sufficiently transparent, the country cannot hope to tap the GDR market and have its securities accurately valued. We examine the 2001–2002 annual reports of 10 top Omani companies representing different industries to report on the disclosure practices and to identify gaps that could be closed to improve corporate governance in Oman.

Practices: Nine (90%) of the sample noted the relevance of accounting standards to corporate governance, and 80% of the sample companies made regulated disclosures under 20–25 standards or policies. For inventory

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valuation, the sample companies adopted either 'lower of cost or net realisable value' or moving average. All 10 companies presented cash flow and changes in equity statements. Nine of the 10 used straight-line method for depreciation. The one construction company in the sample used percentage of completion method for revenue recognition. None of these companies disclosed research and development expenditures. The sample companies had no examples of accounting practice disclosures related to errors and changes, effects of changing prices, business combinations, or hyperinflationary economies.

Issues: Disclosure requirements are applied only to material facts, as defined by the disclosing company. A hybrid of cash and accrual accounting is allowed, creating the possibility for manipulation. The flexibility related to inventory valuation, depreciation methods and revenue recognition may create problems in interpreting the quality and reliability of financial statements, and may impair inter-company, intra-industry or inter-period comparison. The closed standards-setting process does not adequately consider domestic and indigenous problems and conditions that could provide some guidance towards appropriate disclosures. This situation defeats the objective of achieving good corporate governance in Oman.

To strengthen accounting standards and improve financial reporting and corporate governance in Oman, the Capital Market Authority in Oman, in consultation with other appropriate professionals and regulatory bodies, should develop some mechanism to limit the scope of alternative methods available by focusing on appropriate disclosures under Oman's domestic conditions to improve the relevance and indigenisation of accounting standards.

For a copy of the full paper, contact Prof. K. Shankaraiah, Dept. of Commerce, Osmania University, Hyderabad-500 007, AP, India, email: kanukuntlas@yahoo.com. This paper was presented at Accounting, Commerce & Finance: The Islamic Perspective International Conference V, Brisbane, Australia, June 2004.

PART V:
PERSPECTIVES

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STANDING AT THE CROSSROADS

Peter R. Bible

Today the accounting profession is standing at the crossroads. The corporate world recently closed two decades of unprecedented greed and corruption. As accountants, we presently find ourselves with an overly complex rules-based, mixed-attribute accounting model, the future of which could reside in the public sector. We will be faced with numerous problems as we attempt to converge U.S. standards with international accounting standards.

1. THE CROSSROADS

Which road to take: fair value or historical cost, private sector or public sector, principle-based or rule-based standards, and convergence or non-convergence with international standards setters?

2. PERSPECTIVE: THE DECADES TO THE 1980S AND 1990S

Much of the history can be viewed as a succession of actions and reactions. Accordingly, to comprehend the forces at play as we entered the twenty-first century, it is useful to understand the decades of the 1980s and 1990s that in many ways spawned the corporate scandals and the dysfunctional accounting model that greeted us as we began a new century.

I graduated from college in the spring of 1980, took the CPA exam, and began my professional career with the firm of Deloitte, Haskins & Sells in

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Columbus, Ohio. At that time, the U.S. economy had weathered a sustained period of inflation; the Financial Accounting Standards Board (FASB) had issued 38 statements and four concept statements; the Emerging Issues Task Force (EITF) did not exist; the Dow was at 600; the yellow pages for attorneys were actually yellow and required only three pages; the prime rate was at 21 percent; and the United States and Russia had accumulated enough nuclear power to destroy each other several times over. I never thought then that I would view these as the "good old days."

During the course of the 1980s, the economy recovered, the Cold War came to an end, the securities markets flourished, and the FASB – including the EITF – set sail on an overload of rules-based fair-value standards.

Something much more fundamentally wrong was emerging, however. In 1986, I went to Deloitte's National office to work in accounting research for two years. During that time, I helped develop EITF 86-16 and 88-16 on accounting for leveraged buyouts. After this two-year assignment, I relocated to the New York practice office to continue working on mergers and acquisitions activity until that market collapsed in 1991 with the RJR Nabisco deal.

From 1991 to 1994, I continued to work with Wall Street investment bankers on the development, pricing, and issuance of collateralized mortgage obligations. The transactions I worked on during this eight-year period became the subject of three movies and/or books: Wall Street, Barbarians at the Gate, and Liar's Poker.

If any of you have read these books or seen the movies, I can assure you that the excesses displayed were not exaggerated and, in fact, most were presented in the most favorable light possible.

In 1988, Michael Douglas in his famous "greed is good" speech in Wall Street laid out for us to ponder the fact that during the 1980s something fundamentally wrong was emerging. We will have to leave the root causes of this newly found obsession with wealth and power to the sociologists and historians. One thing had become unfortunately clear: JFK's rising tide was finding only certain yachts.

Very few of the transactions that I worked on were done to benefit Main Street; to the contrary, they were done to enrich a select few, many times excessively.

So the roaring 1980s came to a screeching halt. Ivan Boesky and Michael Milken were sent to jail by a young U.S. attorney for the Southern District of New York named Rudy Giuliani. Many of the corporate raiders and investment bankers sailed into the sunset. Unfortunately, their legacy of rampant misuse of insider information, obsession with wealth and power, and complete disregard for the U.S. securities laws would carry on. The

FASB's and the EITF's onslaught of rules-based fair-value pronouncements would also, unfortunately, carry on.

2.1. Sustained Economic Expansion, Unprecedented Market Performance: Greed, Rationalization, and Entitlement

The 1990s started as a period of reflection and reform, but would end in much the same manner as had the 1980s.

In 1994, I was assigned to a special unit in the firm tasked with defending partners and clients who had strayed over the line in the 1980s. In this role, I also conducted independent investigations for audit committees of alleged accounting irregularities. I believe this work is now called forensic accounting.

The two most memorable of these investigations involved publicly traded companies, which, at the time, were darlings of Wall Street. Both had grown exponentially through acquisitions accounted for by the purchase method. Both companies used purchase accounting to record what are now referred to as "cookie-jar" reserves that were subsequently released into income to create the illusion of profitability. One of these two companies liquidated in bankruptcy and the other survived and is now a household name.

What struck me at the time is that while the FASB and the EITF were preceding down the path that fair-value accounting was the answer to corporate corruption, here were two companies that used the oldest of the fair-value models to manipulate earnings.

In 1995, after four years as a partner, I left the firm and joined corporate America, first at GTE and now at General Motors. Little did I realize that the real fun was just about to begin.

Among other things, the decade of the 1990s was defined in large part by sustained economic expansion and unprecedented stock market performance. But the 1990s also sowed the seeds of the scandals that would follow, causing some to describe the decade, in hindsight, as a decade of greed, rationalization, and entitlement.

What happened? On the base of a long-standing bull market, the Dow started to grow as if it were on steroids. Reaching 2,000 for the first time in the late 1980s, the Dow peaked at 11,700 in January 2000. By the late 1990s, investor participation in the capital markets had broadly expanded with almost half of the households in the United States owning stocks.

The allure of the unlimited potential of technology and, more specifically, the Internet caused many of us to suspend judgment and common sense. Several of us threw money and careers at anything with dot.com at the end of its name. Fortunes were being made overnight by young kids emerging from garages and by financial brokers playing fast and loose with the market.

The marketplace is a stern taskmaster, however, and the rules of the marketplace will always prevail. Sooner or later, dreams collide with harsh reality. Eventually, only real value that results in cash flow is rewarded. Those who took shortcuts were discovered, and they reaped what they had sowed.

The dot.com bubble burst, the economy slowed, and the scandals emerged. The Dow lost 35 percent by July 2002. Depending on the asset mix, many investors lost one-third to two-thirds of their retirement accounts.

2.2. Reasons for the Dysfunctional Behavior

Why did this happen? There have been numerous explanations and will be many more to answer this question. Ultimately, no matter what the surrounding climate, dysfunctional behavior during the 1990s and the scandals that followed can be traced to failures of the human condition more than financial manipulation or wizardry with numbers.

In the 1990s, there existed in many people a sense of entitlement to wealth that seemed to be there for the taking, even it if meant bending the rules a bit. The supposedly smart but misguided move was to be aggressive and take risks on a future that would certainly bail out or cover up today's manipulation. This was a time ripe for abuse.

As stocks declined and the market correction continued, losses mounted, and improper practices within the capital markets were discovered. Horrendous stories emerging from Global Crossing, Enron, WorldCom, Health South, Tyco, Adelphia, Xerox, Rite-Aid, and many more rocked the marketplace.

2.3. Results of the Climate in the 1990s

What did we get? Congress stepped in with the Sarbanes–Oxley Act of 2002, and the Public Company Accounting Oversight Board was born. The FASB, under harsh criticism, issued FIN 45, FIN 46, and EITF 01-08, three of the worst accounting standards ever issued.

The New York Stock Exchange weighed in with its own set of corporate governance standards, and the SEC issued a slew of new rules. We lost both a major accounting firm and the AICPA's ability to set auditing standards.

Ultimately, the legacy of the 1990s was a period of euphoric economic optimism combined with a crisis in the human condition resulting in corporate scandals that rocked the marketplace and changed how we do business forever.

3. AGAIN AT THE CROSSROADS

So now we are back at the crossroads. Which road do we take? Without the benefit of time travel, we have only history to guide us down the appropriate path.

3.1. Standards Setting: Private or Public Sector?

Let us start with the easy issue: private versus public sector standards setting. Unlike others in the preparer community, I do not believe that the FASB has been a failure. I believe that the FASB has advanced the accounting model to the benefit of the markets and the economy.

The FASB allowed itself to be unduly influenced, however, by those who believe that fair value is the answer to all ills including those of the human condition. Proponents of fair value claim that it is a more relevant concept than others, but have yet to articulate why this is so.

As a result, today's preparers of financial statements must contend with a set of rules that preclude a thorough knowledge, are not easily translated for those responsible for operating the business, and produce financial statements that even the most sophisticated users cannot readily understand. In short, what we are left with is a model that I fear has lost its relevance.

Standards setting, however, should be allowed to remain in the private sector. Some believe that this battle has already been lost and that the Financial Accounting Foundation will eventually be folded under the Securities and Exchange Commission. For this reason, I believe that it is important for the FAF to act quickly to revamp the way accounting standards are developed. For example, I find it interesting that the preparer community's participation on the EITF has been limited so that it cannot block a consensus.

On one occasion a member of the FASB told me that if Statement 133 had been issued earlier, the collapse of Enron could have been avoided. On another occasion, a different board member told me that we should not be allowed to apply Statement 106 to the Medicare reform passed in late 2003 because it will serve only to increase our year-end bonuses.

One does not need to look much past the accounting for negative goodwill in Statement 141 or the accounting for exit activities in Statement 146 to realize that much of the modern hierarchy is based on the perceived need to counter abuses. This is not the framework on which an advanced society should be setting accounting standards.

3.2. International Standards: Convergence or Nonconvergence?

Let us look at the other easy issue: Convergence or nonconvergence with international standards setters.

I have been very impressed by the members of the International Accounting Standards Board whom I have dealt with, and I believe that ultimately convergence is in the best interest of efficient global capital markets – but what is the hurry? After all, we are principally dealing with a continent whose individual members have been at war with each other for most of recorded history. Even Sir David's home country has yet to join the European Union. I believe that the rush to converge was brought about unfortunately by the EU's reaction to Sarbanes–Oxley.

In the information systems world there is a movement toward what is called global common systems. Those of us who have pursued this strategy have found it to be a fool's errand because customs, regulations, and governments are still very much based on the geographic rather than the marketplace paradigm. I think we are years away from local governments embracing world markets.

Perhaps the lower cost labor pools in Eastern Europe, India, Korea, and China will help advance this paradigm shift. For now, however, short-term convergence, like global common systems, looks to be a fool's errand. One does not need to look further than the attempt to converge on APB 23 to realize that we are moving too fast.

3.3. Basis of Standards?

Now for the two more difficult issues: Should the profession be governed by rules-based or principle-based standards and historical cost versus fair-value based standards? These two issues are perhaps the most affected by the legacy of the 1980s and 1990s. A cold reality today is that those of us left standing have to reap what others have sowed.

The Federal Bureau of Investigation, along with the SEC Enforcement Division and the Internal Revenue Service, are presently investigating 158 large-scale corporate fraud cases, 16 of which have losses in excess of $1 billion each. These agencies are opening two to six new corporate fraud cases a month and are presently handling more than 2,500 cases involving securities fraud. In 1998, 5 percent of financial fraud actions involved Fortune 500 companies; in 2003, 17 percent involved Fortune 500 companies.

The downfall of both principle-based and fair-value based standards is that both required the use of judgments. Judgments in today's world come with the harshest of 20-20 hindsight. Even NFL quarterbacks have an easier life. First, they make a lot more money, and second, they are subject to criticism only on Monday mornings – not for years of subpoenas and depositions.

As much as I would like to go back to the days of the Accounting Principles Board, the legacies that we have inherited and the litigious country in which we live make principle-based standards, like the APB itself, a fond distant memory. Perhaps some day, with tort reform and a shift in the present human condition, we can return to the good old days and principle-based standards.

Most fair-value accounting measurements are mathematical or market based and are only as relevant as the prevailing conditions at the time. Valuation experts and actuaries alike will tell you that their work is as much about the brush as it is about the pen. I want to contrast that statement with the illustration of a check written for $1,000, cashed for $1,000, and recorded as $1,000. Throughout all of humankind, this transaction will remain a $1,000 transaction. Historical cost is the most relevant measure, and it can be audited leaving nothing to doubt or to chance. Fair value does have its place – and to think that Statement 33 had it right! – in a footnote.

My proposal for fair-value financial statements is to first take the current accounting literature and throw out Concept Statement 7 and all standards on which it was based. Next throw out Statement 133 and any other standard that requires market-based accounting subsequent to initial recognition except for, of course, lower of cost or market. Take the resulting financial statements and make them the primary financial statements.

Take those financial statements, replace historical cost equity with the company's market cap at the end of the reporting period, and record an asset or liability for the market's perception of the company's future earnings and dividend capacity.

Take those financial statements and put them in a footnote – radical? Yes; doable – yes; auditable – yes; relevant – yes. After all, why pursue valuation theories for assets and liabilities when the equity markets value our companies for us every day?

4. AT THE CROSSROADS: EUGENE FLEGM'S PREDICTION

In conclusion, I would like to pay tribute to Eugene Flegm, who held my position in the 1980s. In 1984, he wrote the book *Accounting: How to Meet the Challenges of Relevance and Regulation?* Much has changed in the United States and overseas since that book was published 20 years ago.

Significant economic, political, and social events; developments in the fields of medicine, science, and communications; and increased threats of terrorism have changed the way we live and how enterprises conduct business.

In that book, Gene warned that

> … if the accounting profession cannot provide financial data that meets the challenges of high expectations, validity, relevancy, and objectivity, it will become an army of technicians filing detailed, specific reports with regulatory agencies pursuant to an ever rising tide of rules and regulations that will still not meet the need for objective relevant data.

Unfortunately, his warning was prophetic.

THE PROFESSION'S CORE VALUES: CONNECTING OUR PAST TO OUR FUTURE

S. Scott Voynich

ABSTRACT

During this conference we are celebrating the 10th Congress that brings together the most renowned accounting historians from throughout the globe. We are also celebrating another event further back in our history. This program began in St. Louis in order to commemorate the 100th anniversary of the first truly international gathering of accounting professionals.

What brought those individuals together in 1904 and what bring us together in 2004 is a shared sense of purpose and a belief in a set of core values that holds true now as it did then. These values hold whether the individual accounting professional works for a small firm, a large corporation, or any type of enterprise in between.

These core values of integrity, competence, and objectivity are the time-tested building blocks for what has been a truly successful and honored profession. They are the basis upon which our individual clients and employers come to see the unique value that a CPA brings to the effort at hand. They are the basis of any opportunities our profession has had to expand the range of services offered beyond traditional auditing and tax compliance work.

Over the course of its history, the AICPA developed the world's largest and most prestigious accounting library. Now brought together in one place

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are an extensive photograph collection and approximately 190 rare volumes documenting the history of accounting. Just as studying what the pioneers of the accounting profession believed and how they acted on those beliefs can serve each and every one of us today, future generations of the profession will surely look back at our beliefs and actions. If we hold true to our core values, even as we adapt to the ever-changing environment in which we practice, we can ensure that we can be looked upon as fondly as we look upon those who built our profession 100 years ago.

Chairman, AICPA Board of Directors. Presented at the 10th World Congress of Accounting Historians, Oxford, Mississippi August 4, 2004.

We have a long and illustrious history, and I am proud to offer a snapshot of where the profession stands in 2004.

I recently paid a visit to your website, and noted with interest some of the official records from the first World Congress of Accountants, held at the St. Louis World's Fair almost exactly 100 years ago, in September of 1904. I was particularly interested to note what one of the speakers, Francis W. Pixley, the immediate past president of the Institute of Chartered Accountants in England and Wales, had to say about our professional responsibilities.

"I am sure you will agree with me," Pixley wrote 100 years ago,

> that … the doctrines we lay down for ourselves … must … not only have a great and abiding influence on our successors, but also show the financial and commercial community of the present day whether they can confidently entrust us with the great and important duties we profess to transact, so as to secure for ourselves and our successors that general feeling of confidence without which no profession can flourish even for a time, much less endure, as we hope ours will, in the ages to come.

Well, I think we as a profession continue to feel that same responsibility. Despite some setbacks, I think we have flourished, and the changes we have seen during the past few years have only made us stronger. I think that is because of our commitment, as Pixley said, to "the doctrines we have laid down" over the years.

Much has changed in the profession during the past 100 years, of course, because much has changed in business. But what has not changed is our commitment to the doctrines of ethical behavior and a recognition that we, the certified public accountants in the United States, hold a public trust.

CODE OF CONDUCT

One of the unique characteristics of any profession is the existence of a code of conduct to guide behavior and measure performance. That has always been something taken very seriously by our profession. In fact, just a few months after the first World Congress of Accounting Historians, in early 1905, the American Association of Public Accountants adopted its initial set of ethical rules. (The American Association was the first professional accounting association in the United States, a predecessor to the AICPA.) A dozen years later, in 1917, another AICPA predecessor, the renamed Institute of Accountants, established a code of ethics with eight very specific rules. Some were rather vague, such as a warning against "engaging in activities incompatible with the practice of public accounting." Others were much more specific, including a prohibition against "soliciting clients of other members of the Institute."

Over the years the profession's code of conduct evolved to adjust to the ever-shifting business environment, but certain principles have never gone out of style. Most recently, 20 years ago, the Special Committee on Standards of Professional Conduct, commonly dubbed the Anderson Committee after its chairman, George Anderson, restructured our code of conduct into two sections – principles and rules. The principles are aspirational and goal-oriented; the rules establish minimum levels of behavior and are enforceable.

The Anderson Committee was spurred by high-profile bank failures and corporate bankruptcies as Congress, the SEC, and the FTC all put enormous pressures on the accounting profession to accept additional responsibilities or be prepared to have the federal government take those responsibilities away from us. Sound familiar? These new standards, the Anderson report declared, "require an unswerving commitment to honorable behavior even at the sacrifice of personal advantage."

The standards apply to all members of the AICPA, whether in public practice, industry, government, or academia, and reaffirm the "essential role in society" played by CPAs. According to the Anderson report, "in discharging their professional responsibilities, members may encounter conflicting pressures from clients, employers, and the public at large. In resolving those conflicts, members should act with integrity, guided by the precept that when members observe their responsibility to the public, clients' and employers' interests are best served."

VALUING OUR HISTORY

The profession's code of conduct continues to serve us well, and is no less relevant now that some of our self-regulatory responsibilities related to public companies have shifted to the Public Company Accounting Oversight

Board (PCAOB). Ours is a profession that values our history. In fact, the Institute's previous three top staff executives, what we now call president, John Carey, Wally Olson, and Phil Chenok, all published books describing their tenures as president. Collectively they trace the profession from 1896 to 1995, so we are fortunate to have a written record of our history. We are also fortunate to have our archives preserved, catalogued, and made available here at the University of Mississippi Library in Oxford.

One of the interesting common denominators of each of these books, by Carey, Olson, and Chenok, is that each author refers to his years as president as the most tumultuous in the history of the accounting profession. At the time they wrote their books, this was no doubt true for each of them. Certainly our current president, Barry Melancon, will be able to make that same statement when it comes time for him to write *his* book.

Yes, CPAs have just come through a few tumultuous years. We have all been witnesses to the financial malfeasance on the part of a few individuals which has resulted in high profile indictments and bankruptcies. The entire financial reporting process has been called into question, prompting a number of significant reforms. The most prominent reform, of course, was passage of the Sarbanes-Oxley Act of 2002, the most significant piece of legislation to affect the profession in 70 years. As you know, it created the PCAOB to establish auditing, quality control, and ethical standards for auditors of public companies. The PCAOB also has the authority to inspect the work of auditors of public companies and impose disciplinary and remedial sanctions against them for any violation of its rules, securities laws, or auditing or accounting standards.

While these specific responsibilities are no longer part of the AICPA's portfolio, it would be a mistake to conclude that the Institute is no longer a key player in the auditing of public companies. I shall elaborate on some of the ways we are still active in a moment, but the most obvious one is that our members perform more than 17,000 public company audits conducted each year in the United States.

CPAs know that being entrusted with the responsibility for auditing public companies is one of the greatest honors that could be bestowed on our profession – or any profession. Seventy years ago regulators legally entrenched our audit assignment at a time when it was desperately important to restore confidence in the financial markets. That was nothing less than a vote of confidence – confidence we have earned in the past and will continue to justify in the future.

Not only do CPAs have the unique statutory responsibility to conduct public company audits, but the AICPA has acted quickly to respond where appropriate and to adapt where appropriate to the whirlwind of changes touched off by Sarbanes-Oxley. We have been active on a number of different fronts to assure that our members have the information, guidance, and practical tools to understand the issues, manage their practices, and above all, continue to deliver the highest quality audit services that their clients need and the public deserves. We respect the role of the PCAOB, and we are working diligently to ensure that our members who audit publicly held companies and who are employed by publicly held companies have the information, guidance, and tools that they need to implement Sarbanes-Oxley's provisions.

At the same time, the AICPA has not been shy about offering our opinions to the new PCAOB – opinions that reflect the views of members active in this practice area On dozens of occasions we have communicated our views directly, supporting most of the Oversight Board's new rules and recommending that others be made more stringent. In advising the PCAOB on any changes it might be considering to standards set by the AICPA's Auditing Standards Board (ASB), our overriding goal is to end up with rules that lead to more effective audits, to the ultimate benefit of the investing public.

At the same time, the AICPA is telling the PCAOB when it feels new regulations would do more harm than good. We have wholeheartedly supported the aims of Sarbanes-Oxley, but have worked equally hard to encourage a reasoned approach to its implementation, especially as we consider needs outside of the public company arena. We have warned, for example, of the dangers to the U.S. economy if the same new requirements for public companies are allowed to trickle down to private businesses, something Congress never intended or included in its legislation.

It is important to remember that the auditing of public companies, while critical to the health of the American financial system, represents a very small percentage of the total number of audits conducted in the United States each year. The AICPA continues to be a focal point in determining how all organizations are audited – not just public companies, but also private businesses, government agencies, non-profit organizations, even employee benefit programs. The AICPA continues to set standards for the vast majority of these audits, and is the first place more than 350,000 CPAs turn to for advice, best practices, technical support, and guidance. State accountancy boards have long looked to the AICPA to establish standards of behavior and practice for the profession. The laws of a substantial majority of states specifically point to AICPA auditing standards as the measure by which auditors of financial statements are judged. And the National Association of State Boards of Accountancy (NASBA), has recently re-affirmed the AICPA's role in updating and revising auditing standards for audits of private companies by endorsing language to that effect in the revised Uniform Accountancy Act. We take these responsibilities very seriously, and have reconstituted the AICPA's ASB to ensure that constituents of privately held company financial statements are strongly represented.

In the United States there are three auditing standard setters: the PCAOB for publicly held companies, the ASB for all entities not covered by the PCAOB, and the General Accounting Office (GAO), which works with the ASB for governmental entities. We appreciate the leadership of David Walker and William McDonough, the leaders of the GAO and PCAOB respectively, in the formation of a Coordinating Forum. In this new venue we are working with the PCAOB and the GAO to keep all our standards as consistent as possible. We have agreed on a collective mantra, "We will not have differences for difference sake."

We have also taken steps to make clear to our members that they must follow applicable PCAOB or GAO standards in order to be in conformity with the AICPA Code of Conduct. Likewise, we are working diligently to ensure that our members who audit privately held companies and work for privately held companies conduct their work in accordance with standards that appropriately meet the needs of users of privately held company financial statements.

AUDIT QUALITY CENTERS

Allow me now to take a few minutes to discuss some of the many initiatives the Institute has undertaken recently to improve audit quality.

Within the past year, the AICPA has created three separate centers to focus on audit quality in three distinct environments – audits of publicly held companies, governmental or "Yellow Book" audits, and audits of employee benefit plans (EBP). Each center is designed to provide a focal point for practitioners to gain access to specialized information and practical tools. They are designed to create a community of professionals committed to excellence – a community that can share experiences and best practices. That may be the most important benefit – the opportunity for dedicated CPAs to learn from and inspire each other. In each of the centers, firm membership is voluntary, with member firms demonstrating their commitment to quality by signing on. Each is web-centric – delivering access to valuable resources online.

But the centers are much more than just web sites. They provide a yardstick for professionals to measure their own performance, a constantly expanding resource library to draw upon, and a bully pulpit to reiterate values fundamental to auditing. We believe that the establishment of these centers will improve the quality of audits of public companies, governmental institutions, and employee benefit programs, and will make a powerful statement to members of our profession about expectations for performing quality audits.

Let me take just a moment to touch on each Center individually. The first audit quality center we established was the Center for Public Company Audit Firms (CPCAF), which is fundamentally a restructuring of the SEC Practice Section. We anticipate SECPS member firms will largely make up the now-voluntary CPCAF, which opened for business on January 1st of this year.

In today's environment, in the aftermath of the Sarbanes-Oxley Act and the establishment of the PCAOB, there have been a significant number of changes that need to be understood and absorbed by everyone involved in the financial reporting process. The purpose of the CPCAF is to help CPAs involved in public company audits by being a sounding board to interpret these new requirements.

In addition to providing up-to-date information about regulatory developments, best practices, and technical matters, the CPCAF also acts as a liaison to the SEC and PCAOB. With all of the challenges we have faced over the last couple of years, some have asked, "Are we still effective with regulators and legislators?" I can confidently say that we are actually more effective today than we were before the difficulties of the last few years. We have been working behind the scenes, without public credit, for the right answers, giving support to new regulatory while authorities while they develop their infrastructure. We have truly walked the talk and demonstrated our values in action and that work is bearing fruit.

During the past few years the AICPA has also taken significant steps to strengthen the quality of employee benefit program audits. Each year more than 5,000 CPA firms audit the financial statements of about 80,000 EBPs. That dwarfs the number of CPAs involved in the 17,000 public company audits conducted annually.

All CPA firms in the United States which audit EBPs are being urged to join the new EBP Audit Quality Center. In the short time since its launch this past spring, over 500 firms have already signed on. The Center provides its members with regular updates on current issues and trends, a single voice in representing the interests of EBP auditors, and a comprehensive set of resources to help firms establish best practices that will ensure the quality of EBP audits and help protect the retirement savings of millions of Americans. I believe that membership in the Center will send a powerful statement about our profession's commitment to excellence in this area.

A third audit quality center is scheduled to launch this fall. The Governmental Audit Quality Center will give auditors of government audits, including Yellow Book audits done under GAO government auditing standards, its own resource center and provide an array of benefits and opportunities similar to the existing centers.

More than anything else, all three audit quality centers are a reiteration of the commitment of our profession to provide advice that can be trusted. They are also a sign of our profession's commitment to willingly and thoughtfully raise the bar on our *own* expectations, in the pursuit of excellence.

CORPORATE GOVERNANCE

In addition to the three audit quality centers, the AICPA has also embarked on a number of initiatives to improve corporate governance, making it clear that good corporate governance practices should be a priority for *all* organizations no matter what their capital structure – publicly traded, privately owned, or not –for profit.

For example, we, as a profession, believe we can play a significant role in helping to improve the effectiveness of audit committees, which in this new Sarbanes-Oxley environment have a significantly enhanced role in the corporate governance process. Again, we can rely on our history to lay the foundation for what we are doing today. Almost 20 years ago, before Enron or WorldCom were even incorporated, the AICPA's National Commission on Fraudulent Financial Reporting issued 49 recommendations to deter fraudulent financial reporting, many of them directed toward top management of public companies. Chaired by former SEC Commissioner James Treadway, the Commission sounded the call that the integrity of the financial statement involved more players than just the outside auditor. The Treadway Commission urged public companies to create an environment conducive to fraud prevention, including strict enforcement of a written code of ethics and an independent audit committee vigilantly overseeing an effective internal reporting system.

Treadway's five sponsoring organizations subsequently took up the mantle under the auspices of COSO, the acronym for the Committee of Sponsoring Organizations of the Treadway Commission. Today, COSO's framework for requiring that management of a public company report on the effectiveness of internal control encompasses all the objectives in this area spelled out by the new Sarbanes-Oxley Act. Just this year, COSO issued an exposure draft for a new framework, this one focused on overall risk management. The AICPA and our members will continue to support and provide intellectual resources to COSO in this important work.

AUDIT COMMITTEE EFFECTIVENESS CENTER

A new section of the aicpa.org website, the Center for Audit Committee Effectiveness, now acts as an umbrella for the various AICPA initiatives aimed at strengthening the effectiveness of audit committees. Real-life case studies illustrate the practical implications of fraud and explain how to face unfamiliar ethical situations. Issue briefs explain the most recent SEC rule-making and the AICPA's position on them. In several cases, the AICPA is recommending that the SEC go beyond the provisions of Sarbanes-Oxley. The new law, for example, requires that at least one member of a company's audit committee be a "financial expert." The AICPA is recommending that number be upped to a majority of members. The Institute also believes that not only should CFOs have to sign a code of ethics, but also directors, officers, and employees.

AUDIT COMMITTEE TOOLKIT

One of the first new products available through the Audit Committee Effectiveness Center is the Audit Committee Toolkit, created as a primer for audit committee members, regardless of their financial sophistication. It is specifically aimed at the more than 15,000 small and medium size public companies, as well as the many more private organizations which may also want to have an audit committee overseeing their financial reporting process.

The Toolkit provides comprehensive advice on audit committee duties, such as setting an agenda, conducting executive sessions, and evaluating the effectiveness of auditors and audit committees. It also offers basic information on important topics such as internal controls, anti-fraud accountability, and off-balance-sheet transactions. Distributed both in print form and in a series of downloadable Word documents, the toolkit answers such questions as "What are the basics of establishing an effective internal control system?" and "How can an audit committee determine whether such a system has in fact been established?'' It offers a host of practical advice about the regulatory responsibilities of audit committees and how public companies can comply with the paperwork required by the SEC.

AUDIT COMMITTEE MATCHING SYSTEM

Another successful component of the Center for Audit Committee Effectiveness is the Audit Committee Matching System, which provides companies access to a database of CPAs who may meet the skills and experience necessary to serve on boards of directors and their audit committees. In today's environment, corporate boards are looking for increased sophistication in those they choose to serve on audit committees. As noted earlier, the SEC now mandates that at least one audit committee member be a financial expert, and has some very specific definitions of what they consider to be a ''financial expert.'' This matching service allows companies to find members of the AICPA who meet these criteria.

FRAUD PREVENTION

At the heart of all our efforts to improve the audit and corporate governance are new measures to deter and detect fraud. I think it is important to remember that the worst of the financial scandals of the past few years had at their core fraudulent activities that went undetected or undeterred by auditors, by boards of directors, and in many cases, by top management as well. As a result, all these players have been challenged to enhance their behavior and to increase their vigilance.

The AICPA is working aggressively to support the efforts of all these groups. In October 2002 the ASB took a giant step toward making the audit a more powerful tool for discovering fraud with a new audit standard, SAS 99. The ASB tackled head on the natural tendency for the auditor and the client to develop a feeling of mutual trust. The new standard warns auditors about getting too close to management or assuming their honesty, and makes it extremely clear that every engagement should be approached with skepticism.

SAS 99 explains how auditors can adopt a more critical, skeptical mindset, and how to be alert for some very specific risk factors, including a lack of internal control that would allow for management override. It suggests that auditors ask tough questions, and make certain the answers are supported by financial evidence. It requires the audit team to "brainstorm" among themselves to ask each other about the potential for a material misstatement. This brainstorming concept is new to auditing literature, and is to be applied with the same intensity as any other audit procedure.

A CHALLENGE TO CORPORATE MANAGEMENT

The other revolutionary aspect of the new fraud standard is that in an attached exhibit, called "Management Antifraud Programs and Controls," it challenges corporate management to become equal partners with their auditors to create an environment resistant to the existence of illegal activities. Seven professional associations,[1] including the AICPA, issued the exhibit as a set of recommendations for boards of directors, audit committees, and management.

The recommendations fall into three broad categories. In the first place, the exhibit focuses on creating a culture of honesty by setting a "one at the top" for ethical behavior. As part of that process, employees should have a means to communicate wrongdoing without fear of retribution.

In the second place, the exhibit recommends establishing some very specific antifraud controls. It spells out how organizations can identify risks, take steps to mitigate them, and implement effective internal controls.

And finally, the exhibit puts the responsibility for evaluating management's anti-fraud controls squarely on the audit committee. It makes it clear that while internal and external auditors can help ensure that controls are operating effectively, such reviews should be reported directly to the audit committee, since that was where the buck stops.

ANTIFRAUD AND CORPORATE RESPONSIBILITY PROGRAM

SAS 99 and its exhibit form the cornerstone of the AICPA's Antifraud and Corporate Responsibility Program, established to provide guidance and tools to combat fraud. Many of the resources are aimed directly at CPAs, such as a new competency model that allows CPAs to self-assess their skills and get specific suggestions on how to fill any gaps in their knowledge. It also includes new anti-fraud CPE programs and real-life case studies of unethical accounting practices that provide examples of different kinds of fraud and how a CPA should react once fraud is discovered.

Other resources are aimed at corporate management. The Antifraud Program includes, for example, a one-hour CD-ROM entitled, "How Fraud Hurts You and Your Organization." It was developed by the AICPA and the Association of Certified Fraud Examiners to help businesses train their employees to detect and deter fraud.

DISCIPLINE AND PEER REVIEW PROCEDURES

An undercurrent of all the AICPA's anti-fraud activities is our commitment to penalize any member who breaks the rules. As the national professional organization representing the best of the profession, we can not tolerate those who veer from our profession's commitment to high-quality performance and integrity. That is why we have put in place, through a combination of member referendums and leadership actions, a number of enhancements to our disciplinary process. These enhancements provide us with greater flexibility to act in the public interest in the event any member violates our profession's code of ethics. They also introduce a new level of transparency to the process.

People expect more from a CPA than simply to do a good job. All of us – whether we are in private practice, working for a corporation, in government, or education – are expected to honorably provide excellence. This expectation is a badge of honor – the legacy of our profession's hard-earned reputation for integrity, competence, and objectivity that was built over a century of delivering high quality service.

As part of this effort, the standards for the program administered by the AICPA's Peer Review Board have been revised several times to expand its reach and strengthen its effectiveness. As a component of the new CPCAF, a program is being developed to assist firms that are registered with and inspected by the PCAOB to meet their state licensing and other regulatory requirements by having a peer review of their non-SEC practice that will co-exist with the PCAOB's inspection of member firms' public company audit practice.

Peer review was originally designed as an educational and remedial program, with members expecting, and the AICPA delivering, confidentiality throughout the process. But the regulatory environment has changed, and users of peer review have expanded to include regulators, clients, and credit grantors, all of whom expect greater transparency. The Institute has taken note, and in May 2004 our Governing Council approved a resolution directing the Peer Review Board to give State Boards of Accountancy access to peer review files on two conditions: if the State requires mandatory peer review and the remittance of peer review information as a condition for relicensure, and if the member firm gives its approval to send the information to the state board.

The AICPA Council and the AICPA Board of Directors have both expressed strong support for increased transparency of peer review results, and a comprehensive member education program is currently underway to educate our members about transparency issues, and to assess their own attitudes. This is expected to continue into the first part of 2005, at which time a member referendum may be considered. In the meantime, the AICPA will continue to work closely with NASBA, individual state boards and other regulators to increase transparency.

PRIVATE COMPANY FINANCIAL REPORTING

The importance of all the efforts I have talked about today stems from the vital role that CPAs, our members, play in the transmission of information to various stakeholders about the organizations they serve. A large majority of AICPA members perform this work in the private company environment. This is not surprising, considering that there are less than 17,000 public companies in the United States, compared to more than 22 million private companies.

Indeed, helping our members serve privately held businesses, the true engine of the U.S. economy, consumes a great deal of our focus. Over the past year or so, many of them these members expressed some concerns regarding the application of GAAP, particularly some of the newer and more complex standards, to the companies they work with. These practitioners point out that most GAAP principles were developed with the financial statements of large public companies in mind for use by participants in public securities markets. At the very least, some believe, GAAP should permit non-SEC registrants to measure certain items differently than SEC registrants.

Other CPAs and financial statement users, however, counter that creating two separate sets of GAAP standards would only further confuse best practices in financial reporting. They fear it would contradict the message the accounting profession is currently sending concerning the importance of transparency, full disclosure, and vigilance against fraud. They also say that there are already various measures small private companies can use besides GAAP to accurately report their financial results.

One of my predecessors as AICPA Chairman, Jim Castellano, has been asked to lead a special task force to investigate this situation. The issue is a thorny one. It pits the common sense idea that small, private companies do not necessarily require the same reporting requirements as the largest multibillion dollar conglomerates, against the notion that users of financial statements have the right to be confident that all companies, regardless or size or ownership, have complied with the same set of generally accepted accounting standards.

This is an issue which has vexed the profession for decades. As far back as 1929, a special committee of the AICPA's predecessor organization addressed the issue in a pamphlet entitled *Approved Methods for the Preparation of Balance-Sheet Statements*. Since then, a number of special committees and task forces have studied the problem. In 1994 the AICPA's Special Committee on Financial Reporting went so far as to recommend that "companies should report only those elements of information that users agree are needed in the particular circumstances." The following year the PCPS established a special task force on standards overload which initially called for relaxing certain standards for small, privately held companies, but in the end limited its recommendations to helping them comply with existing standards.

The trend toward more fair market value accounting and FASB's understandable need to focus on the complex financing aspects of public companies in the new Sarbanes-Oxley world has led to a new round of discussions. The first assignment for the Private Company Financial Reporting Task Force is get input from all the constituents of private company financial reporting – preparers, auditors, and users. This is being done all over the country, in focus groups, on-line surveys, and in one-on-one interviews. The purpose of this dialogue is for the Task Force to determine if general purpose financial statements prepared for private companies' stakeholders are meeting their needs. If they find that this is not the case, they have been asked to clearly define the problem and propose a solution on behalf of the profession and the non-SEC registrant community. The Task Force is scheduled to report its findings by the end of this year and, if necessary, propose a solution shortly thereafter.

COMPUTERIZED EXAM

Probably nothing better reflects the need for our profession to adapt to the profound changes that have taken place in the financial and business environments than the Uniform CPA Examination. The exam is used to admit individuals into the profession after they have demonstrated the knowledge and skills necessary to protect the public interest. Earlier this year we completed the conversion of the CPA Examination, which has a long and trusted history as a key part of the licensing of CPAs, to a computer-based test. The April 5th launch was the culmination of an unprecedented collaboration between the AICPA, NASBA, and the world's leading testing company, Thomson Prometric. This $20 million project has been hailed as a major breakthrough in the world of professional testing.

As we all know, some of us with more painful memories than others, the paper-and-pencil-based exam used to be administered in large auditoriums, in May and November of each year, to accommodate hundreds or thousands of CPA candidates simultaneously. With the computerized format, the exam is available almost year-round. Candidates in most states may choose to take any or all of the four sections in one sitting, although in most jurisdictions candidates must pass all four exam sections within 18 months.

In addition to giving candidates unprecedented flexibility in how they can study for and take the exam, the computerized test finally moves away from memorization and instead examines the knowledge and skills new CPAs will actually use. It uses simulations to demonstrate proficiency in four skills necessary for entry level CPAs – research, analysis, judgment, and communications. Each simulation includes a case study in which candidates are presented with a company's financial information and asked to analyze a particular accounting issue. The candidate can then research the problem using online databases, everything from FASB pronouncements, to present value tables, to CPI indexes or tax depreciation charts. They are then asked to find the relevant information and apply it to a practical situation. Candidates can even cut and paste the appropriate sections from a database directly into their answers. The exam tests not only a candidate's research and analytical abilities, but also whether he or she can then communicate those findings clearly and concisely in written form. These are very different skills than the exam has measured in the past and represent a major improvement in our ability to ensure that entry-level CPAs are prepared to take on their statutory and public interest responsibilities.

CPA AMBASSADOR PROGRAM

As I think I have made clear, the AICPA has responded to recent events with a flurry of new initiatives to help CPAs, corporate management, and the investing public retain their historic trust in this country's financial reporting process. Fortunately for our profession, despite the difficulties of recent years, the public has retained its high regard for individual CPAs. This has been demonstrated in survey after survey. We do not intend to rest on our laurels, however. Now more than ever it is important for our members to speak out in their local communities about the unique role CPAs play in our economy and in the lives of individual citizens.

We recently have formalized this effort into what we are calling the CPA Ambassador Program, a community-based media and public speaking program presented entirely by local CPAs to diverse audiences throughout the United States. Working with the state societies, the program aims to focus attention on the value of the CPA profession, one community at a time.

Emerging from the challenges of the past two years are extraordinary opportunities for communicating why CPAs are the most trusted advisors to businesses and individuals. By harnessing the passions, intelligence, and insights of CPAs around the country, we hope to drive community and business leaders, employers, legislators, and others to a fuller recognition and appreciation of the enduring value of the CPA.

To help members in this effort, the CPA Ambassador Program offers CPA spokespeople access to top-quality media training, as well as extensive background information. Ambassadors have the opportunity to emphasize the CPA profession's commitment to battling fraud, improving auditing standards and quality, shoring up small businesses, and improving financial literacy.

FINANCIAL LITERACY

The last area I wish to address today is financial literacy, which is the subject of an important new commitment on behalf of the accounting profession. A recent Roper Poll commissioned by the AICPA exposed an alarmingly low level of financial literacy among U.S. citizens. It revealed that many Americans lack even the most basic understanding of how to prepare for their short- and long-term financial needs.

Last May the accounting profession pledged the support of the country's CPAs to help Americans become more financially astute with an initiative we are calling *360 Degrees of Financial Literacy*. It is an education program designed for everyone from school-age children to retirees. Its goal is to increase our country's level of financial literacy, defined as the ability to understand, evaluate, and effectively manage ones finances in order to make prudent decisions toward reaching major life goals.

Financial literacy provides the foundation for the major decisions of our lives. It allows us to buy a home, send our children to college, and plan for retirement. It enables Americans – 50 percent of whom own stocks directly or through 401(k)s or retirement plans – to understand the capital markets so they can be smart investors. When we have these powers, the health and vitality of our nation are strengthened as well.

You may wonder, why CPAs? The answer is simple. CPAs have long played a vital public interest role by helping Americans achieve financial well-being. They have the knowledge, objectivity, and integrity that are essential to help people become financially literate.

360 Degrees of Financial Literacy has already become the umbrella under which the profession's ongoing financial literacy programs are organized. Last year the AICPA and the National Endowment for Financial Education (NEFE) produced a "Disaster Recovery Guide" to help victims of disasters regain financial security. For the past two years, the AICPA and *Money Magazine* have co-sponsored Women's Financial Health Week, a public-education campaign that last year reached 80 million consumers through print, electronic and online media coverage.

We also launched the CPA Information Package, called *iPACK*, to provide effective, easy-to-use tools that teachers across America can use to give students a good grounding in financial literacy. Last year the AICPA Foundation funded *Financial Smarts for Teachers*, a program California Jump$tart created with the California Society of CPAs to help instructors understand their own financial lives.

Start Here Go Places is the AICPA's award-winning student recruitment program. We recently built on this program's success by adding a new *Money Means Business* game, which lets students of all ages practice the basics of money management in an entertaining, virtual environment. And we have produced two television shows – *Penny Wise*, that offers basic money management skills; and *Business Building Blocks*, that provides information on accounting principles.

In our most recent initiatives, we have taken on a number of partners in order to maximize our resources. Teaming up with *USA Today*, we are offering a series of weekly financial hotlines on the newspaper's web site. CPAs who have earned the Personal Financial Specialist credential will answer questions submitted by the paper's online readers. With the NEFE, we have embarked on a national financial literacy PSA campaign, with a launch date scheduled for early 2005. It will include focus on women's financial literacy, capitalizing on the tremendous success of the AICPA's Women's Financial Health Program. And in another venture with NEFE, we, along with five other organizations, are sponsoring the Project for Financial Independence, which trains CPAs to give free financial guidance to individuals who can not afford an advisor or are facing unusual financial difficulties.

Moving forward, we will also continue to partner with state CPA societies. Many of them are already active in this area – California, Michigan, New Jersey, Ohio, and Missouri have outstanding programs in place. Our grassroots team will work to help these and other states broaden their outreach.

And finally, in a major new initiative, during the coming year we will be launching an ambitious Web site that will include financial literacy education tools based on the 360-degree approach. Consumers will be able to find information they can use to support sound financial decision-making at every stage of their lives. The site will also contain resources for CPAs to use in educating and supporting consumers.

CONCLUSION

Whoever said, "may we live in interesting times" was not thinking about the beginning of the 21st Century in America. But here we are, still the greatest profession in the world, trying to become greater, to excel and do the right thingin a difficult environment, in difficult times. To be successful we must understand our past and build on our foundational strengths before we can define our future. There is no doubt that the keys to our future lie in the lessons learned from our history. I am honored to share part of the history and part of the future with you today. Thank you.

NOTES

1. AICPA, Association of Certified Fraud Examiners, Financial Executives International, Information Systems Audit and Control Association, Institute of Internal Auditors, Institute of Management Accountants, National Association of Corporate Directors, Society for Human Resource Management.

THE REIGN OF CONFUSION

Robert H. Colson

ABSTRACT

The purpose of this essay is to organize my anecdotal experiences concerning financial accounting issues during my time at the New York State Society of Certified Public Accountants (CPA) between June 1999 and August 2005. The focus of the essay is on financial accounting rather than auditing, because auditing depends on the standards that govern recognition, measurement, presentation, and disclosure in financial statements. I have chosen the title for this essay deliberately to evoke the circumstances of Dickens' novel, especially as it relates to the roles that individuals play in setting and implementing public policy. An idea that shapes public policy begins with individuals, and individuals, in the web that expands from the idea's central focus, implement them through statutes, regulatory actions, and standards. The essay begins with an attempt to distill into a few "symptoms" and "diagnostics" a wide range of experiences. Then, there is an "essay" to rationalize the elemental causes for the current reign of confusion. It ends with a perspective on next steps.

THE SYMPTOMS

Between June 1999 and August 2005, I interacted daily with a wide range of financial statement users, preparers, and auditors as well as standards-setters here and abroad, state and federal regulators, stock exchange executives,

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state and federal lawmakers, attorneys from the Department of Justice and State Attorneys General, plaintiff and defense attorneys, and academics. Although many used the same words and phrases, there was frequently little correspondence between their referents to the realities in which they operated and their words and phrases. When you drilled to the most micro level, people would often agree on specific accounting treatments, but for remarkably different reasons. In other words, accounting – the language of business – was itself a problematic medium of thought exchange. People simply meant very different things even though they used the same word, for example "asset." Following is an overview of types of confusion people expressed.

- Financial statement users uniformly complained about the relevance of financial statement information for their purposes. In one corner, bankers complained that they were unable to understand the financial statements from creditors and, worse, that company management and their independent accountants were unable to explain the financial statements. In another, analysts – whether buy- or sell-side equity analysts or credit analysts – sought additional disclosures in order to make proprietary adjustments to reported income (in all cases) and to asset and liability values (in many cases). In the third, attorneys were increasingly reluctant to write contracts using income from Generally Accepted Accounting Principles (GAAP) financial statements as a basis for distributions because GAAP income was so indeterminate. In the fourth, those responsible for not-for-profits worried that GAAP financial statements were overly focused on the timing and classification of transactions to the exclusion of their fiduciary responsibilities.
- Financial statement preparers, almost uniformly, complained about the complexity of standards and the indeterminate nature of many of the numbers required for the financial statements. In a curious turn, their concerns often led them to demand additional rules, in essence as a safe harbor against the ambiguity of the indeterminacy in the numbers they were reporting. Alternatively, they would pine for a return to cost allocations where the issues of ambiguity are not computational.
- Financial statement auditors also faced the consequences of the indeterminacy in terms of the expanded litigation risks they experienced, as second-guessing with 20–20 hindsight became a very large part of their landscape. Although, like the other groups, they aligned in favor of accounting principles rather than rules, they, too, consistently demanded specific rules as a safe harbor against second-guessing.

- Reasonable discourse about the fundamental issues in accounting was rare in my experience. It occurred only when there were like-minded individuals in the discussion. A small number of participants in the debates love argumentation for its own sake, and they would engage with relish in promoting their positions. Most were unwilling to engage in such antics, however, and, although entertained by them, would either say nothing or just ask clarifying questions. The discussions consisted almost uniformly in presentations of firmly held positions. There were few informed intellectual discussions of financial accounting issues in public forums.

DIAGNOSTICS

The symptoms I saw daily reflected a very few fundamental differences in concept about accounting. Some would call these differences incompatible rather than fundamental, but I would like to avoid the implication of mutually exclusive alternatives in order to maintain the hope that reasonable solutions are possible. Here is my diagnostic characterization of some dimensions of these fundamental differences.

- There was an adequate consensus about the purposes of accounting when formal accounting standards originally arose to justify the concept of "general purpose financial statements." Essentially, there was a broad consensus from about 1930–1970 that the role of accounting was to determine income. Board of directors could use determined income to declare legal dividends, analysts could project income into the future for valuation or debt capacity purposes, and attorneys could write contacts based on it. The determination of income was equally valuable to private and public companies, as well as to many other entities.
- By 1980, however, this consensus had changed, at least with respect to public companies, with a new emphasis on asset and liability valuation as the most important goal of accounting addressed by the standards-setters. In part, the balance sheet valuation view arose because of the nascent deregulation in the financial services areas and the reluctance to implement lower of cost or market for investment portfolios. The asset and liability recognition view led inevitably to fair value measurement with its imbedded modeled projections. That is, accounting changed from determining the effects on income of past events to the projection of economic value from modeling assets and liabilities according to the Financial Accounting Standrads Board (FASB's) fair value measurement approach.

Many expressed difficulties with the accounting standards because they did not understand the fundamental change in orientation that had taken place. Others understood the change and were alarmed because, in their view, the new approach was inappropriate for their purpose.

- For some, the alarm stemmed simply from the unfamiliarity of the new approach. For them the change from revenue recognition and expense matching to asset and liability recognition and fair value measurement was confusing because it differs from what they originally learned. For others, however, the alarm stemmed from what is lost in the new approach.
- In the U.S., some aspects of public policy, statutes, and regulatory activity have placed accounting in a governance role associated with fiduciary responsibilities, whereas other aspects have placed accounting in an economic information role. Many, including the standards-setters and public policy makers, have found it very difficult to distinguish the two roles. Consequently, those that favor the economic information role almost uniformly assert that it also covers the governance role. On the other hand, those focused on governance almost uniformly reject the economic information role as dealing responsibly with their concern.
- Accounting has become less attractive intellectually because of the public policy position that its practice consist mostly in clerical activities governed by a single set of detailed bookkeeping rules. The federal government has articulated this position well for over 100 years in many different arenas, far beyond the realm of the SEC. Such a view leads to increasingly detailed prescriptions of the model, sometimes to the frustration of its relevance for other concerns, somewhat like learning all the detailed technology of map-making without considering why or for whom.

The inability to deal constructively with the differing expectations of accounting's role, and the polarization among different perspectives, has had a debilitating effect on accounting knowledge. Although every profession in a democracy is subject to the will of the people through voting processes, the balance between what subject matter experts determine and what constituencies determine in accounting would be alarming if reproduced in other professions. Would it be in the best interests of the public good for non-subject matter experts to determine engineering or medical standards and procedures? For the most part, accounting knowledge, as reflected in standards, has reflected political processes among the constituencies rather than accounting specific knowledge content. The consensus about "general purpose" financial statements no longer existed by 1999 to such an extent that

I regularly heard comments that essentially characterized financial statements as "no purpose."

CAUSES

The recent congressional efforts to redress some of the perceived problems in accountancy, albeit beneficial in the short-run to forestall a mounting crisis in financial reporting by public companies, unfortunately do not address the fundamental public policy issues. On the contrary, they reinforce aspects of the prevailing public policy paradigm at the root of the problem. Whether accountancy survives in this country as a professional activity in the most fundamental sense (an occupation with a specialized knowledge base requiring specialized education, training, and experience whose qualified practitioners are the avowed experts) or becomes a government-regulated business like banking, insurance, and stock brokerage, hangs in a precarious balance. Although a clever commentator could extrapolate the current trend to suggest long-term professional orientation, the most obvious assessment is that accountancy, at least in its application to public companies, has already left the realm of individual professional responsibility and entered that of pure business regulation.

Most accountancy concepts historically arose in countries with more hierarchically organized societies than that in the U.S. The very terms "accountancy" and "accounting" reflect the fundamental idea of accountability imbedded in the expectations of rendering account of financial stewardship to others, usually upward in a hierarchy of ownership. These concepts moved formally from hierarchical organizations to market organizations with British statutes regulating joint stock companies during the mid-nineteenth century. Joint stock companies had existed for several centuries subject to common law governance. Among the common failures in joint stock companies before the statutes was the difficulty of raising capital because of the lack of shareholder protection. The companies' acts, on the other hand, made clear the responsibility of the company directors to render an accounting to shareholders, so they could determine whether the directors had conducted the affairs of the company according to the company's purposes. All corporations (not just public companies) had a duty to report to shareholders. Within 20 years, the profession of independent auditor arose, whose primary purpose was to render a judgment, passed along to shareholders for their use at the annual meeting, about whether the directors of the company had conducted its affairs in such a way as to further the purposes of the enterprise. Shareholders would subsequently use this information and judgment to ratify or replace the directors. If the directors had expended resources on non-business purposes and the auditors failed to report such expenditures, then the auditors were jointly and severally liable with the directors for those amounts. In other words, the fundamental purpose of accounting and auditing was for the governance exercise of choosing directors by shareholders. Although the details have evolved over the years, the fundamental focus on the governance function has remained part of the statutes.

Accountancy, as a professional activity, came to the U.S. from Great Britain in the years after the Civil War, principally to look after British investments in the U.S. economy. The British accountants brought their concepts, practices, and institutional arrangements with them. They wrote books and taught courses in accounting, with the results that many of accounting's fundamental concepts as well as public expectations about accounting concern governance issues. Many of these concepts became part of the culture of the accounting firms that grew in the U.S.,which have roots in Britain. The strength of their cultures maintained continuity with their origins far after public policy in the U.S. had created a different demand for accounting.

These public expectations become particularly apparent during congressional hearings after major corporate failures. The outcry for "red flags" and "early warning systems" reflected the expectation that accounting should provide information about when managers and directors fail to conduct corporate affairs appropriately. By the late 1970s, however, the leadership of the largest accounting firms had begun to change their approaches to fulfill public expectations about insuring losses, but they did not fully comprehend the breadth and depth of the policy expectations.

A different corporate governance landscape arose in the U.S. from the one on which most accounting concepts are based. The division of authority between the states and federal government over commerce in Article 1 of the U.S. constitution creates circumstances where conflicting demands arise. The fragmented demands from these different environments led to confusing and in some cases contradictory purposes for accounting. Accountants are unable to come up with a terse mission statement for what they do. Doctors heal, attorneys advocate, but what do accountants do? This aspect of the reign of confusion also shows up in the state licensing laws. States generally regulate professional practice. In New York, for example, the law of the professions regulates the practice of approximately 40 professions (medicine, engineering, nursing, veterinary, architecture, etc.), but regulates

Certified Public Accontants (CPAs), licensed massage therapists, licensed social workers, and licensed court recorders by title. The Uniform Accountancy Act (UAA) also deals with the fundamental policy ambiguities about accounting through regulation by title. New York State regulates doctors when they prescribe, admit, and operate but not when they give advice about diets. It regulates pharmacists when filling a prescription but not when selling a candy bar. Under the UAA, states regulate CPAs for all services.

Individual states enacted corporation laws whose primary purpose was to create a favorable climate for the incorporators (directors and officers) rather than to provide accountability to shareholders. Even today, few, if any, state corporation laws require directors and officers to render an accounting to shareholders. In some states, substantial minority shareholders without board of director representation can petition a court for access to financial statements under certain conditions and for demonstrated cause. I am not aware of any state that requires corporations to report under any specific set of accounting standards as part of its corporations act.

On the other hand, states require certain financial institutions, medical institutions, insurance companies, and public utilities to account in highly specified ways to regulators under various statutes. Although state corporation laws do not address accounting, state professional licensure laws usually require CPAs to follow generally accepted accounting standard while auditing companies. In the U.S., state laws generally do not align accounting and auditing with corporate shareholders' governance interests, nor do they address directly the public expectation that accounting and auditing contribute to their protection.

When the federal government has engaged in corporate accounting and auditing issues, on the other hand, it has frequently skirted areas already addressed by the states. Because the states have established their priority with respect to corporate governance, the federal government has focused on areas tangential to governance in its approach to accounting and auditing. Consequently, federal statutes have prescribed standardized bookkeeping systems and reporting rules for statistical data collection or regulatory purposes, rather than accountability to shareholders for private governance purposes. The standardized bookkeeping required by the Interstate Commerce Commission (now defunct) and various federal banking regulatory bodies, have molded accounting and auditing in a number of regulated industries.

The most tenacious attempts at standardizing accounting into a set of sophisticated bookkeeping rules has emanated from the Securities and

Exchange Commission through various "private sector" boards, whose power extends to a select group of corporations, chartered by states, that list their securities on public exchanges in the U.S. The purpose of these rules has been to provide information for trading equity securities. Their orientation has increasingly concerned data for use in decisions to buy and sell shares of stock in a company, with a clear focus on whether the current share price of the company's stock requires adjustment. Such an equity valuation orientation differs qualitatively from the governance orientation of much of accountancy's conceptual history. The principal problem that has arisen from this arrangement is that most of the entities subject to the private sector boards' rules rarely, if ever, have any user demand for equity valuation.

I am proposing a case about the origins of the reign of confusion: It arises from public policy rather than from accounting, so disputations about accounting standards will not reduce the confusion. A part of that public policy cause arises from the nature of federalism in the U.S. and from the different ways that state and federal policy setters have formalized accounting's role in statutes and regulation. Another part of the public policy cause arises from the different uses ascribed to accounting in common law and in various federal and state statutes and regulatory bodies. Accounting can affect these understandings and expectations over time, but only if knowledgeable individuals are constructively engaged in the public policy arena. Accounting contributes to the confusion when it asserts its independence from public policy by avowing one accounting model as suitable for all these different uses.

STARTING POINTS

If it is important for accountancy to grow in relevance across its diverse user groups, then greater formal recognition of their orientations must develop. Otherwise, at least some will begin looking for alternatives to satisfy their demands. The issue is whether the unitary approach to accounting standards setting that has characterized the private sector will be sustainable, or if accounting standards will fragment by user constituency. The least satisfactory fragmentation would be one based on size or ownership dispersion. A more meaningful fragmentation would be one that accommodates different fundamental uses. The best solution would maintain the integrity of a single conceptual base with different branches by use, but the standards-setters currently seem unable or unwilling to adjust their scope beyond equity valuation purposes.

The most difficult pieces to unite are the ex post governance use and the ex ante economic valuation use. The governance purpose encompasses some pieces of the demand for information about all entities. Data collected for governance purposes can also be adjusted to arrive at data for economic valuation purposes, but not necessarily the other way around. Accounting information for governance purposes logically and temporally precedes generating information for economic valuation purposes. Again, the standards-setters have taken a contrary position in recent years.

It is also striking how little is known among accountants about public policy impacts on accounting, and equally striking how inarticulate accountants can be when confronted with adverse public policy circumstances. Accountants usually attribute such difficulties to the "expectations gap," another characterization of the reign of confusion caused by diverse and incompatible public policy. If there were one accounting academic researcher interested in public policy issues for every 50 interested in public company equity valuation, perhaps there would be less of a problem to overcome.

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FASB AND THE IASB VERSUS J.R. HICKS

Joel Jameson

ABSTRACT

The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB), in asserting their preference for the "asset and liability view" of income over the "revenue and expense view," have mistakenly invoked J.R. Hicks as grounding their position. In fact, Hicks argues that income based upon the "asset and liability view" is irrelevant when windfalls are present and that non-objective analysis is required to remove such windfalls to obtain an income measurement suitable for decision making. Hicks' objective is actually aligned with the intention of the "revenue and expense view." Given that both FASB and the IASB hold Hicks as a foundational authority, it is incumbent upon both of them to pursue accounting standards that remove windfalls as he suggested.

In May 2005, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) announced the beginning of a joint project to develop a converged conceptual framework that will help to develop future accounting standards internationally.

Their paper, "Revisiting the Concepts – A New Conceptual Framework Project," mistakenly invokes Nobel laureate economist J.R. Hicks as

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grounding their "asset and liability view" of income determination, while arguably he is more aligned with the intent of the opposing "revenue and expense view." In the paper, FASB and IASB (2005) define the "asset and liability view" of income as:

> a measure of the increase in the net resources of the enterprise during a period, defined primarily in terms of increases in assets and decreases in liabilities. (p. 7)

and they define the "revenue and expense view" of income as:

> the difference between outputs from and inputs to the enterprise's earning activities during a period, defined primarily in terms of revenues (appropriately recognized) and expenses (either appropriately matched to them or systematically and rationally allocated to reporting periods in a way that avoids distortion of income.) (p. 7)

In championing and adopting the "asset and liability view" of income, FASB and IASB (2005) attempt to ground their position:

> [The 'asset and liability view' of] income is *grounded in a theory prevalent in economics:* that an entity's income can be objectively determined from the change in its wealth plus what it consumed during a period. (p. 7)

and then they paraphrase and quote Hicks:

> Hicks defines an 'income ex post' as the value of an entity's[1] consumption plus the increment in the value of its prospects during the period, and notes that it has 'one supremely important property. … [That kind of income] ex post is *not a subjective affair*, like other kinds of income; it is almost completely objective.' (Hicks, 1946, pp. 178–179; FASB & IASB, 2005, p. 18)

They conclude:

> By subtracting the entity's capital value – in accounting terms, its assets less its liabilities – at the beginning of the period from its capital value at the end of the period and adding its consumption during the period, the 'income ex post can be directly calculated.' (Hicks, 1946, pp. 178–179; FASB & IASB, 2005, p. 18)

The FASB and IASB attribution – "grounded in a theory prevalent in economics" – takes Hicks' words out of context. Furthermore, Hicks' "not a subjective affair" is an interim remark and not to be taken as final. Immediately following the quoted paragraph, Hicks (1946) dismisses the interim remark and refutes the "asset and liability view" by stating:

> This [interim remark] is a very convenient property, but unfortunately it does not justify an extensive use of the concept in economic theory … . On the general principle of 'bygones are bygones', it ['asset and liability view' income, i.e. comprehensive income] can have no relevance to present decisions. The income which is relevant to conduct must always exclude windfall gains; if they occur, they have to be thought of as raising income for future weeks (by the interest on them) rather than as entering into any

> effective sort of income for the current week. Theoretical confusion between income ex post and ex ante corresponds to practical confusion between income and capital. (p. 179)

Hicks rejects the "asset and liability view" because inclusion of one-time windfalls results in an income measurement that is not useful for decision making – the very purpose that FASB and the IASB deem as most important: "Usefulness in making economic decisions is the overriding objective … " (FASB & IASB, 2005, p. 3).

Hicks (1946) specifically focuses on income determination that provides guidance regarding what can be consumed and that has a predictive value. He states:

> The purpose of income calculations in practical affairs is to give people an indication of the amount which they can consume without impoverishing themselves. Following out this idea, it would seem that we ought to define a man's income as the maximum value which he can consume during a week, and still expect to be as well off at the end of the week as he was at the beginning. Thus, when a person saves, he plans to be better off in the future; when he lives beyond his income, he plans to be worse off. Remembering that the practical purpose of income is to serve as a guide for prudent conduct, I think it is fairly clear that this is what the central meaning must be. (p. 172)

On the very page that the FASB and the IASB paper draws quotations to supposedly ground the "asset and liability view," Hicks (1946) prescribes the following:

> It seems to follow that anyone who seeks to make a statistical calculation of social income is confronted with a dilemma. The income he can calculate is not the true income he seeks; the income he seeks cannot be calculated. From this dilemma there is only one way out; it is of course the way that has to be taken in practice. He must take his objective magnitude, the Social Income ex post, and proceed to adjust it, in some way that seems plausible or reasonable, for those changes in capital values which look as if they have had the character of windfalls. This sort of estimation is normal statistical procedure, and on its own ground it is wholly justified. (pp. 179–180)

Restated, Hicks is suggesting that "asset and liability view" income needs to be adjusted in a non-objective way to remove capital windfall effects in order to obtain an income that can be consumed and that reflects current and future-expected financial return, i.e. constant mathematically-expected future income.

Rather than supporting the "asset and liability view," Hicks argues for the objectives of the "revenue and expense view," which through matching and allocation, attempts to time-phase revenues and expenses to obtain an estimate of what can be consumed, and which by downplaying asset and liability value fluctuations attempts to obtain an income that excludes windfall gains – exactly what Hicks recommends.

Given that both FASB and the IASB hold Hicks as a foundational authority, it is incumbent upon both of them to pursue accounting standards that remove windfalls from income as Hicks suggested.

NOTES

1. Hicks does not discuss "entities" nor incorporated companies, but rather individuals and society as a whole.

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HOW FASB AND THE IASB SHOULD APPLY HICKSIAN THEORY TO CALCULATE INCOME

Joel Jameson

ABSTRACT

Both the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) inappropriately justify their "asset and liability view" of income determination based upon the published work of Nobel laureate economist J.R. Hicks. Hicks actually rejects the "asset and liability view" because the resulting income measurement includes windfalls. In this paper, Hicks' conception of income is expressed as a mathematical formula that yields an income estimate for individual assets and liabilities, ultimately to yield net income reflective of the "earnings power view" as espoused by Hicks and others.

INTRODUCTION

As put forth by Bromwich, Macve, and Sunder (2005) and by Jameson (2005), both the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) inappropriately justify their "asset and liability view" of income determination based upon the

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work of Nobel laureate economist J.R. Hicks. Hicks actually rejects the "asset and liability view" because it includes windfall (one-time) gains or losses, and instead argues for, in essence, an "earnings power view" that reflects current and future-expected financial return, i.e. constant mathematically-expected future income.

Historically, this "earnings power view" predates Hicks and came about because of investor needs in the late 19th Century to understand a company's current and future ability to generate a return. This "earnings power view" led to the development of the income statement and in turn the "revenue and expense view" of income determination (Previts & Merino, 1998). It has lost favor over the past several decades for several reasons, including its inability to handle value changes in assets and liabilities. Arguably, the "asset and liability view" espoused by FASB and the IASB is a reversion to 19th Century accounting theory prior to the development of the "earnings power view" and the income statement.

This paper builds upon Hick's thinking to develop a methodology to account for changes in asset and liability values on the income statement by adding two new sections. This methodology can be practically applied in conjunction with double entry accounting to serve investor needs for an "earnings power view" of net income determination. It resolves the decades long debate between the "asset and liability view" and the "revenue and expense view" of income determination by presenting a framework that serves both conceptions of income. It is particularly timely in light of the FASB and the IASB paper (2005): *Revisiting the Concepts – A New Conceptual Framework Project* announcing the beginning of a joint project to develop a common conceptual framework for developing future accounting standards.

HICKSIAN INCOME THEORY

Hicks (1946) defines income as:

> The purpose of income calculations in practical affairs is to give people an indication of the amount which they can consume without impoverishing themselves. Following out this idea, it would seem that we ought to define a man's income as the maximum value which he can consume during a week, and still expect to be as well off at the end of the week as he was at the beginning. Thus, when a person saves, he plans to be better off in the future; when he lives beyond his income, he plans to be worse off. Remembering that the practical purpose of income is to serve as a guide for prudent conduct, I think it is fairly clear that this is what the central meaning must be. (p. 172)

In mathematical terms, Hicksian income is thus,

$$I_s(t_0) = E[A(t_1)] - A(t_0) \tag{1}$$

where:

$I_s(t_0)$ = income for Period 0, at start of Period 0;
$A(t_0)$ = assets at start of Period 0;
$E[A(t_1)]$ = mathematically expected value of assets at end of Period 0.[1]

Where Hicks (1946) profoundly differs from the FASB and IASB paper interpretation is that Hicks is concerned with ex ante income, rather than ex post income. In other words, under Hicksian theory, income is estimated at the start of the period, rather than tabulated at the end of the period. Estimating, rather than tabulating, would seem to pose a difficulty. Hicks, however, offers guidance:

> It seems to follow that anyone who seeks to make a statistical calculation of social income is confronted with a dilemma. The income he can calculate is not the true income he seeks; the income he seeks cannot be calculated. From this dilemma there is only one way out; it is of course the way that has to be taken in practice. He must take his objective magnitude, the Social Income[2] ex post, and proceed to adjust it, in some way that seems plausible or reasonable, for those changes in capital values which look as if they have had the character of windfalls. This sort of estimation is normal statistical procedure, and on its own ground it is wholly justified. But it can only result in a statistical estimate; by its very nature, it is not the measurement of an economic quantity. (pp. 179–180)

Hicks is saying that, practically speaking, comprehensive income needs to be split between one-time windfall capital changes and mathematically expected re-occurring income that can be consumed. The above Eq. (1) thus becomes

$$I(t_0) + \Delta C(t_0) = A(t_1) - A(t_0) = \text{Comprehensive income} \tag{2}$$

where:

$I(t_0)$ = current income, estimated at end of Period 0;
$\Delta C(t_0)$ = change in capitalization in Period 0;
$A(t_1)$ = assets at end of Period 0, or beginning of Period 1 assuming no consumption of income.

Adding $A(t_0)$ to the two expressions on the left of Eq. (2) yields:

$$I(t_0) + C(t_1) = A(t_1) \tag{3}$$

where $C(t_1)$ = capitalization at end of Period 0.

$I(t_0)$ of Eq. (3) can be considered to have two components, namely, operating income and income from capital, respectively $I_0(t_0)$ and $I_c(t_0)$. Mathematically,

$$I_0(t_0) + I_c(t_0) + C(t_1) = A(t_1) \tag{4}$$

The operating portion of the income statement provides $I_0(t_0)$, an estimate of period income from operations. Subtracting $I_0(t_0)$ from both sides of Eq. (4) yields

$$I_c(t_0) + C(t_1) = a(t_1) \tag{5}$$

where $a =$ current net asset value, minus embedded current operating income.

Assuming that, on a statistical basis, $C(t_1)$ appreciates by r percent per period and $I_c(t_0)$ is consumed at the start of the period, then per Hicks' definition of income:

$$(1 + r)\, C(t_1) = a(t_1) \tag{6}$$

$$C(t_1) = \frac{a(t_1)}{(1 + r)} \tag{7}$$

inserting $C(t_1)$ into Eq. (5):

$$I_c(t_0) = a(t_1) - a(t_1)/(1 + r) \tag{8}$$

$$I_c(t_0) = a(t_1)\,(1 - 1/(1 + r)) \tag{9}$$

This Eq. (9), termed here the Ex Ante Equation, yields ex ante income for both assets and liabilities, and is based upon current value and expected future return or cost. In a double entry accounting context, it is applied to each asset and non-equity liability account with an appropriate value for r. For cash flows, r equals the expected rate of return used in present value analysis. For other assets and liabilities, r equals the expected market return.

HICKSIAN INCOME PRACTICE

To incorporate the above analysis into the standard income statement framework requires adding two new sections to the income statement: Market Income and Market Moves. Operating Income and Market Income are in a meta-section of the income statement called "Going Concern" that yields Net Income reflective of earnings power. This Net Income plus the new Market Moves Income yields Comprehensive Income, the change in net assets.

The first new section, Market Income, reports $I_c(t_0)$, ex ante income for each asset and liability. It contains Appreciation and Depreciation accounts that loosely correspond to the standard income statement accounts. Entries for this section are made by applying Eq. (9), the Ex Ante Equation, to each asset and non-equity liability account, with an appropriate value for r, thus yielding Hicksian income for assets and liabilities. The second new section, Market Moves, reports capitalization changes, i.e., $\Delta C(t_0)$ of Eq. (2), for each asset and liability. Its Gain and Loss accounts loosely correspond to the standard income statement accounts. Here, traditional asset write-downs are posted to these Loss accounts.

The total of the Operating Income plus the total of the Market Income yields going concern earnings-power Net Income. This Net Income is an estimated ex ante Hicksian income, namely, that which can be consumed by shareholders prior to the start of the next period, while leaving the shareholders and their company positioned to mathematically expect capital preservation and the same net income in the next period. Earnings power implicitly embeds the concept of going concern as discussed in Appendix A.

Here, asset and liability values are assumed to be as of the end of the current period. Their values are defined by either current market prices or present value analysis, and are assumed to embed both capital and income components, per Eq. (3). Liabilities are deemed "negative assets." Value changes in assets and liabilities are the result of market trends and fluctuations, or from present value analysis being updated because of the passage of time and new information.

Assets and liabilities are deemed as catalysts for generating Operating Income. They are catalysts in the literal chemistry sense of the word, namely promoting a result, yet being unaffected by the process. (See Appendix C for standard wear and tear considerations.)

To illustrate, suppose a Company is formed in 2000,[3] with \$5,000 in cash, a part of which is used to purchase a building. Suppose further that the Company and its shareholders expect a 10% return and use such a return in present value analysis. The building is estimated to appreciate 1% per year because of market trends. Cash earns no interest. (See Appendix B for handling cash that earns interest.)

In the first year of operations, the Company has \$1,000 in revenue and compensates its employees with a 10-year pension that has a present value of \$200. Hence, the operating portion of the income statement is as shown in rows 2–5 of Fig. 1(B), with Operating Income of \$800, which corresponds to $I_0(t_0)$ income of Eq. (4). The resulting balance sheet is shown in Fig. 1(A).

A
Balance Sheet 2000

	[A]	[B]
[1]	Assets	
[2]	Cash	2,000.00
[3]	Building	4,000.00
[4]	Total	6,000.00
[5]		
[6]	Liabilities	
[7]	Pension	200.00
[8]	Equity	5,800.00
[9]	Total	6,000.00

B
Income Statement 2000

	[A]	[B]	[C]	[D]
[1]	Going Concern			
[2]	Operating			
[3]	Revenue	1,000.00		
[4]	Expense: Pension	(200.00)		
[5]	Operating Income		800.00	
[6]	Market			
[7]	Appreciation: Building	39.60		
[8]	Depreciation: Pension	(18.18)		
[9]	Market Income		21.42	
[10]	Net Income			821.42
[11]	Market Moves			
[12]	Gains: Pension Fund	18.18		
[13]	Losses: Building	(39.60)		
[14]	Market Moves Income			(21.42)
[15]	Comprehensive Income			800.00

Fig. 1. (A) Balance Sheet 2000. (B) Income Statement 2000.

Market Income, $I_c(t_0)$ income of Eq. (9), is calculated for each asset and non-equity liability account, with an appropriate value for r. Since the building has an expected appreciation of 1% and value of \$4,000, using these two values in Eq. (9) yields

$$\$4,000\,(1 - 1/(1 + 0.01)) = \$39.60 \tag{10}$$

as Market Income for the building, which is shown in Cell B7 of Fig. 1(B) as something favorable to the Company. In simply holding the current financial-value interest in the building, the \$39.60 could be consumed or extracted with the expectation that the current financial-value will be renewed and income of \$39.60 will repeatedly be available for extraction or reinvestment in subsequent periods.[4]

Market Income is calculated similarly for the pension. Since the pension liability was calculated assuming an expected opportunity cost return of 10%, it would be expected to appreciate 10% over the upcoming period. Hence, using $r = 0.10$ in Eq. (9) yields

$$\$200\,(1 - 1/(1 + 0.10)) = \$18.18 \tag{11}$$

as Market Income for the pension, which is shown in Cell B8 as something unfavorable to the Company.[5]

Operating Income and these Market Incomes are summed to yield "earnings power" Net Income. Operating Income is assumed repeatable by definition. If the Company were to suspend operations in the next period, yet remain extant, its net asset value would increase an estimated \$21.42. Thus, summing the Operating Income and Market Income yields \$821.42 as "earnings power" Net Income. This is an ex ante income that is consistent with Hicks and that could be consumed by shareholders, while leaving the Company in a position to mathematically expect the same income in the next period.

Additional, useful information can and needs to be included in the income statement to indicate changes in capitalization and to tie the income statement with the balance sheet. Thus Eq. (2) is re-arranged to solve for $\Delta C(t_0)$, the change in capitalization in the period

$$\Delta C(t_0) = A(t_1) - A(t_0) - I(t_0) \tag{12}$$

Because, in practice, net assets are represented in multiple asset and liability accounts, and these accounts contain postings that do not change the net asset value of the Company, on an account by account basis, such postings are removed from $\Delta C(t_0)$ in order to isolate $\Delta C(t_0)$ into a pure form, i.e., reflective of mark-to-market reevaluations. Hence, Eq. (12), for an account by account basis, is re-written as:

$$\Delta C(t_0) = A(t_1) - A(t_0) - I(t_0) - T \tag{13}$$

where $T =$ postings that do not change the net asset value of the Company, i.e. non mark-to-market asset and liability postings.

The simplest way to implement Eq. (13) is to post only mark-to-market reevaluations and Market Income offsets to the Market Moves accounts. Mark-to-market revaluation will be introduced subsequently, but for now the Market Moves section of Fig. 1(B) shows only Market Income offsets. The building shows a loss, because part of its value is reclassified as income; the pension fund shows a gain, because part of its value is re-classified as (negative) income.

The summation of Net Income and Market Moves Income is Comprehensive Income of \$800.00, as shown in Cell D15 of Fig. 1(B).

Considering the next period, year 2001, assume that the Company repeats its performance and thus the operating section of the income statement is as before and as shown in rows 2–5 of Fig. 2(B). The balance sheet is shown in Fig. 2(A). In terms of its assets and liabilities, assume that the building appreciated in value by \$50. This is handled by debiting the building asset account and crediting the Market Moves Gain account. Assume that the \$200 pension liability of the previous period has increased to \$300 because of update-revisions and payment dates being closer. This \$100 loss is credited to the pension liability account and debited to the Market Moves Loss account.

A
Balance Sheet 2001

	[A]	[B]
[1]	Assets	
[2]	Cash	3,000.00
[3]	Building	4,050.00
[4]	Total	7,050.00
[5]		
[6]	Liabilities	
[7]	Pension	500.00
[8]	Equity	6,550.00
[9]	Total	7,050.00

B
Income Statement 2001

	[A]	[B]	[C]	[D]
[1]	Going Concern			
[2]	Operating			
[3]	Revenue	1,000.00		
[4]	Expense: Pension	(200.00)		
[5]	Operating Income		800.00	
[6]	Market			
[7]	Appreciation: Building	40.10		
[8]	Depreciation: Pension	(45.45)		
[9]	Market Income		(5.36)	
[10]	Net Income			794.64
[11]	Market Moves			
[12]	Gain: Building	9.90		
[13]	Loss: Pension Fund	(54.55)		
[14]	Market Moves Income			(44.64)
[15]	Comprehensive Income			750.00

Fig. 2. (A) Balance Sheet 2001. (B) Income Statement 2001.

At the end of period when the books are being closed, Eq. (9) is again applied to each asset and liability account as shown above. After obtaining \$40.10 as Market Income for the building, the amount is credited to the Market Income Appreciation account and debited to the Market Moves Loss account. Similarly, after obtaining the \$45.45 for the pension liability account, the Market Income Depreciation account is debited and the Market Moves Gain account is credited. These postings, together with the postings of the previous paragraph, result in Market Move values as shown in Cells B12 and B13 of Fig. 2(B).

The Market Moves section contains windfall changes in asset and liability values, with inferred current ex ante income removed. As can be seen, the building asset shows a gain, while the pension liability shows a loss. By removing ex ante income, capital windfalls are shown in an isolated pure form. Furthermore, forecasted ex ante Market Income is implicitly compared with actual ex post Market Moves income: when the two incomes are equal, Market Moves shows a zero value. So, for instance, if in 2001 the building had appreciated exactly the anticipated 1%, its value would be \$4,040; Market Income would be \$40, resulting in a zero value in the Market Moves section of the income statement. As it is, the building appreciated more than the anticipated 1%, and the extra gain (\$9.90) is shown in Market Moves as an asset value increase. (See Appendix D.)

The ''asset and liability view'' of income determination is supported by the income statement of Fig. 2(B). The aggregation of Market Income and Market Moves is gross capital change. So, for instance, the \$40.10 and \$9.90

yield the \$50 building appreciation. The two pension amounts, \$45.45 and \$54.55, sum to the \$100 increase in the pension liability. Hence assuming that an asset or liability is itemized in the Market Income and Market Moves sections of the income statement, the "asset and liability view" of income determination is supported on an individual account basis. The "asset and liability view" of income determination is also supported on an aggregate scale, since with the inclusion of Operating Income, the result is Comprehensive Income as shown in Fig. 2(B).

Perhaps more importantly, however, is that the Net Income is a current earnings power estimate. As previously explained, this is an ex ante income that is congruent with Hicks' thought: it could be consumed by shareholders, while leaving the Company in a position to mathematically expect the same income in the next period. This ex ante income is also congruent with the original objective of the income statement.

CONCLUSION

By building upon Hicks' definition of income, a mathematical formula has been derived to yield asset and liability income reflective of earnings power. Eq. (9), the Ex Ante Equation, provides current income for each asset and liability. This formula circumvents problems with the "revenue and expense view's" inadequacies regarding accounting for changes in asset and liability values. This formula also serves investors better than a simple "asset and liability view" by facilitating the separation of windfalls, that is one-time gains or losses, into re-occurring income and changes in assets and liabilities.

The algebra is such that the "asset and liability view" and the "earnings power view" are both supported in the resulting income statement. Net Income is as envisioned by Hicks and others who champion the "earnings power view" of income determination. Comprehensive Income is itemized and supports the "asset and liability view."

This "third way" methodology can be easily implemented operationally in the context of double entry accounting. Market Income and Market Moves accounts would need to be established for asset and liability accounts. Rather than posting asset and liability valuation updates via revenue and expense accounts, i.e. posting mark-to-markets, they would be posted via Gain and Loss accounts in the Market Moves section. The expected return/cost – i.e. r – of the Ex Ante Equation (Eq. (9)) for assets and liabilities defined as cash flows could be set equal to a company's expected rate of return used in present value analysis; r for other assets and liabilities could be set equal to the expected market return, i.e. a value calculated by standard methods. When closing the books, a batch computer program could be run to generate credits and debits that reflect application of Eq. (9) and also move the income component of assets and liabilities from the Market Moves section into the Market Income section.

Both FASB and the IASB thus have a choice to legitimately follow Hicks and appropriately define income for decades to come.

NOTES

1. Implicitly it is assumed here that consumption, if it occurs, occurs at the boundaries between periods. For an individual, the term "consumption" is self-evident, given Hicks' definition of income. For a company, consumption refers to dividend payments and other types of asset transfers to shareholders and is separate from company expenses incurred as the result of operations or extraordinary events.
2. Hicks does not discuss "entities" nor incorporated companies, but rather individuals and society as a whole.
3. Because end of period values are shown on the balance sheet and in the income statement, the Company is best considered as formed on December 31, 2000, with significant activity.
4. Though practically it could be difficult to extract the $39.60 from the building on a periodic basis, it is nevertheless income generated by the Company for its shareholders. Assuming perfectly competitive and efficient markets, the Company could theoretically borrow the $39.60 against the expected building appreciation. Furthermore, and most importantly, the objective is a short-term going concern income estimate assuming conditions remain "as is." See Appendix A for further discussion regarding going concern.
5. A useful perspective on this entry is to consider a swap, wherein the Company agrees to make a periodic perpetual payment to a third party, in return for the third party's assuming the pension liability. That periodic payment is $18.18, beginning in the current period, assuming a 10% expected return (see Appendix D).

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APPENDIX A. GOING CONCERN AND MATHEMATICAL DIFFERENTIAL CALCULUS

The accounting concept of "going concern" is analogous to the concept of the derivative in mathematical differential calculus, which is the basis for much economic, financial, and scientific analysis. The analogy occurs because both going concern and differential calculus, in effect, assume stationary conditions to yield estimates that can be the basis for forecasts. The point of this analogy is to demonstrate the scientific basis of going concern.

How both differential calculus and going concern are used to calculate income will be presented graphically to demonstrate the analogy. For ease of demonstration there are no windfalls, i.e. determinism is assumed, thus allowing a focus on comprehensive and net incomes that are equal. Afterwards, the analogy is used to refute known objections regarding going concern.

From a differential calculus perspective, a company's net assets as a function of time can be represented by Curve ABCGF as shown in Fig. 3. A financial economist might consider the curve and calculate its derivative at a Point B. This is mathematically done by bringing a second point infinitesimally close to Point B, while on the Curve, and obtaining tangent Line BD. The slope of this line is the financial economist's instantaneous income at Point B. The financial economist might use this tangent Line BD as an approximation of the curve. So, for instance, using the line yields an estimated net asset value represented by Point D at time t_p. Using differential calculus to determine Line BD, and then in turn using the line to forecast, is frequently done in economics, finance, and the hard sciences.

For accounting purposes, there is no smooth Curve ABCGF to apply differential calculus. Instead, accounting employs various strategies to estimate Points A and C, corresponding to the start and end of the accounting

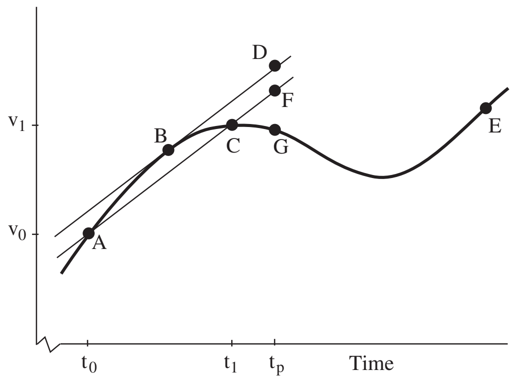

Fig. 3. Calculus and Going Concern.

period, t_0 and t_1. Directly estimating Points A and C can be difficult and uneconomic, if not impossible. Consequently, accounting employs its going concern assumption to, in effect, assume that the company continues "as is." This can entail making a projection into the future, which is then mapped back to the current period. So, for example, if the company purchases a machine, the machine might be projected to last two periods, which when mapped to the current period, results in a 50% depreciation charge, which is tantamount to a two-year straight-line depreciation. If this projection procedure were applied to the whole company, then the company might, "as is," be projected to arrive at a Point F in the future. With Point A estimated in the previous period and with the current estimate of Point F, then Point C can be estimated also. Income is represented by the difference between net asset value v_1 and v_0, or the slope of Line AC. Given Point C and the calculated income, net asset value can be estimated to be F at time t_p.

The analogy between differential calculus and going concern is based on two parallels. In both cases, the calculation procedure entails estimating the slope of a line that approximates the net asset value curve. In both cases, the resulting income and approximating line can be used to forecast future net asset value.

The case for going concern has been argued over the years. Yu (1971) supports the going concern concept, but seemingly does not realize the analogy with differential calculus. The most common objections are presented by Fremgen (1968) and Sterling (1968). These arguments are refuted by considering the analogy to differential calculus.

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The first objection is that going concern requires forecasting the future. As shown, no actual future forecast was used, nor required, to calculate income via either differential calculus or going concern. For example, the fact that net asset value will be at either Point G or Point E in the future is not considered nor forecasted.

The second objection is that going concern requires the company to be profitable. As shown, profitability was not used, nor required, to calculate income via either differential calculus or going concern. In both cases, the focus is determining an approximating line to Curve ABCGE, irrespective of its slope. For example, income can be calculated using both differential calculus and going concern for the period between Points C and G. Since the slope of the line defined by the two points is negative, the resulting income is a loss.

The third objection is that going concern requires estimated liquidation values. Again, as shown, no liquidation values were used, nor required, to calculate income via either differential calculus or going concern. This liquidation objection confuses "as is [of going concern]" with "what if [of liquidation]."

A final objection is that going concern yields a forecast. This is true, but it is also an objective. Hicks views income as being a forecast. Frequently in differential calculus, the objective is to yield an approximation, or forecast. The forecast yielded by going concern is a short term, "as is" forecast. The sciences have used such short term, "as is" forecasts to land a man on the moon. Accounting can legitimately generate such short term, "as is" forecasts to tell investors how a company is performing as of the reporting period.

In conclusion, the case for the validity of going concern is successfully made by its analogy to differential calculus and using this basis to refute objections.

APPENDIX B. CASH AS AN ASSET

If cash earned interest, then Eq. (9), the Ex Ante Equation, is applied with a slight modification. In moving from Eq. (4) to Eq. (5), operating income is expressly excluded from the capital amount that is the basis for Eq. (9). Since in Fig. 1(A) cash embeds Operating Income of $800, this Operating Income is subtracted prior to application of Eq. (9), the Ex Ante Equation. Hence to calculate Market Income for cash for the first period, year 2000, assuming $r = 0.5\%$:

$$(\$2000 - \$800)\left(1 - 1/(1 + 0.005)\right) = \$5.97$$

This \$5.97 would be included in the income statement, via a credit to the Market Income account and a debit to the Market Moves account.

APPENDIX C. ASSET DEPRECIATION

Though the body of the paper assumes that assets and liabilities are literally catalysts for generating Operating Income, actual operations may entail asset wear-and-tear and "using-up" assets. This is not problematic and the independence assumption remains valid. An asset can be independently and simultaneously used-up because of asset wear-and-tear and depreciated because of market trends.

Suppose, for example, that an auto-rental company's automobiles are the asset in question. In operations, wear-and-tear applies to the automobiles and such using-up should be expensed in the Operating Income section of the income statement. In addition, however, there is market depreciation of the automobiles because of the passage of time. Eq. (9), the Ex Ante Equation, can model such market depreciation, with a negative r, to yield Market Income depreciation.

APPENDIX D. EARNINGS TO SERVE THE CAPITAL MARKETS

Eq. (9), the Ex Ante Equation, supports a unification and congruency between accounting and finance.

Suppose a company with a single asset $a(t_1)$ at time t_1 and suppose that both the company and investors have an expected return of r. Accordingly, the expected return (earnings e) on $a(\mathrm{t}_1)$ is thus:

$$a(t_1)\, r = e \tag{D1}$$

Rearranging this equation yields the standard financial equation:

$$a(t_1) = e/r = \text{market capitalization} \tag{D2}$$

which implicitly assumes a start-of-period perspective and that earnings e occur at the end of the period. Replacing $I_c(t_0)$ in Eq. (9) with e yields:

$$e = a(t_1)\,(1 - 1/(1 + r)) \tag{D3}$$

Rearranging yields:

$$a(t_1) = e/(r/(1+r)) = ((1+r)/r)\, e = e/r + e \tag{D4}$$

The difference between Eqs. (D2) and (D4) is that the latter assumes that earnings occur, i.e. are calculated, at the start of the period. Eq. (D4) becomes Eq. (D2) after current period income (e) has been paid as dividends, i.e. the rightmost e disappears. From the reverse perspective, Eq. (D2) becomes Eq. (D4) as income accumulates in the course of the current period, i.e. incremental values of e are added to the right portion of Eq. (D2). Since each equation can be derived from the other, the presented Hicksian income calculation method is congruent with financial theory and thus better serves the capital markets.

PART VI:
BOOK REVIEWS

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The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron

By Bethany McLean and Peter Elkind. Penguin Group, NY, NY, 2003. 414 pages; $26.95. ISBN 1-5918-4008-2

Reviewed by Larry M. Parker
Case Western Reserve University

The Smartest Guys in the Room is a superb book about the Enron disaster. Fortune writers McLean and Elkind have done a masterful job of exploring the complexities of Enron. In general, the authors have presented a detailed, factual analysis without being judgmental. At first this reviewer was surprised the authors could present such incredibly unethical actions, both personal and corporate, in such a detached manner. However, one can appreciate the benefit of this approach. Many readers probably become increasingly angry as they progress in the book with the people and events the authors described. If the authors had injected their indignity (which they did only indirectly through quotes from others), I suspect some could have become too upset to finish the book. The accounts are often almost unbelievable. A drawback of this approach is that at times this reviewer felt he was reading a very long newspaper article, rather than an amazing story "of human weakness, of hubris and greed and rampant self-delusion; of ambition run amok; of a grand experiment in the deregulated world; of a business model that didn't work; and of smart people who believed their next gamble would cover their last disaster – and who couldn't admit they were wrong."(p. xxv).

Much of the book describes the cast of characters. It is fascinating to read about each person, but almost overwhelming to try to imagine all these people together in one organization. Any one of the key individuals seemed capable of severely tainting an organization, and some of the supporting characters were at least as deplorable as the key people. It is truly a situation in which a fiction writer would not be bold enough to invent such people, because readers of fiction would probably not be able to believe such low-life could exist – at least, not within one entity. Ken Lay, founder and CEO of Enron, may be the most well-known Enron figure, and clearly set the tone for the culture of Enron. Lay was, among other things, a ruthless hypocrite who pretended Enron was based on "Christian values" (p. 3). He touted Enron as sincere, honest and respectful, operating with "absolute integrity." (p. 89) In a memo he stated "Ruthlessness, callousness and arrogance don't belong here … . We work with customers and prospects openly, honestly and sincerely …" (p. 89). But in reality the completely dysfunctional culture created largely by Lay and COO Jeff Skilling created "corporate killers" (p. 121) who were encouraged to backstab and take advantage of anyone – customer, supplier, lender or fellow employee. Skilling, a former McKinsey consultant, persuaded outsiders that he was reinventing corporate culture by creating a Darwinian meritocracy. He believed that team players were losers. Skilling, whose personality seems almost maniacal, created a "chaotic, destructive free for all." (p. 56).

The authors describe many other fascinating characters in addition to Lay and Skilling to help explain the development of the entire Enron culture. A good example is John Wing, a "forgotten man of the Enron saga" (p. 44). This reviewer had never heard of him, but he was key to understanding much of the Enron culture. Wing was the founder of Enron International. He was loud, irritating, arrogant, cunning, fast, decisive and relentlessly ruthless. This executive was the first to demonstrate that Lay could be weak and indecisive, bullying the CEO time and again. Wing was one of the few who made real profits for Enron instead of just accounting or paper profits, but he was so nasty even Enron fired him three times – and rehired him each time. In addition to showing the path around Lay, Wing blatantly and repeatedly exploited Enron for his own gain, setting the stage for others to realize such actions would be tolerated, even encouraged. Wing pocketed millions when he left Enron, and was succeeded by Rebecca Mark, who had become successful in large part by sleeping with the boss, and who also succeeded in looting Enron. Mark and Wing also helped set the sexual precedent for the permissiveness that seemed prevalent in Enron. In fact, Wing escaped unscathed because he sold his Enron stock after Rich Kinder, President and COO of Enron, was ushered out by Lay. Lay moved Kinder out because Kinder was having an affair with Lay's executive secretary, infuriating Lay, even though Lay was having an affair with another of his secretaries. A member of the Enron Board of Directors, when asked about this apparent hypocrisy, simply summarized that "Some people would make the point that it was his own secretary, versus the boss's secretary." (p. 97).

Chapter 11, Andy Fastow's Secrets, alone might be worth the price of the book. Early in the chapter the authors explain, "there are only three ways for companies to fund … growth. They can take on debt, issue stock, or draw from their existing cash flow … . But all three of these tactics were ruled out by Enron.'' (p. 150). Fastow's job largely consisted of taking care of this situation. Securitization and establishment of Special Purpose Entities (SPEs) were the keys to his success – as long as it lasted. Fastow's early securitizations (basically, selling future revenues from contracts at a discount to generate cash) were actually legitimate, and sucked in institutional investors such as CALPERS and G.E. Later deals became more and more shaky, with few of the SPEs actually meeting the 3% requirement to remain off the books of Enron. But Fastow, aided by his equally manipulative lieutenants Ben Glisan and Michael Kopper, became a master of form over substance, and the auditors, Arthur Andersen, did not object. His deals deftly generated paper profits and cash, hid debt, and sometimes converted debt to equity. His manipulations fit nicely with Enron's overall approach to business, which had evolved to making deals of little substance. Few of the deals made by Fastow or Enron traders made sense. But Enron's Risk Assessment and Control (RAC), a dazzling group of risk assessment specialists who were supposed to stop moves that were too risky, was too weak to do anything. The head of RAC, Rick Buy, and the chief accounting officer, Rick Causey, were completely unable to stand up to Skilling, Fastow and other Enron executives. The auditors, Arthur Andersen, were more interested in facilitating Enron's plans than critically examining them.

The authors make it obvious that Enron was doomed long before its actual collapse. Rank and file auditors of Arthur Andersen, as well as national level partners, understood that Enron was trouble. Chase took out a billion dollar insurance policy to cover risk associated with Enron, and Citibank spread its risk by selling notes to investors. Those in the natural gas industry would no longer deal with Enron if it could be avoided. It is clear that Enron was in an inescapable death spiral of arrogance, greed, dishonesty, deceit, corruption and backstabbing. Enron executives were magicians capable of transforming the grim reality into the magnificent illusion desired by Skilling and Lay. But virtually all of the Enron's efforts, well described by the authors, simply delayed disaster. Enron was truly a financial time bomb that had to eventually explode. The Enron forays into electricity (including the California power fiasco) and almost comical broadband trading (''they didn't really *have* any business'' (p. 284)) described in later chapters simply provide the context for the denouement of the Enron tragedy.

Another impressive aspect of this book is that so much insight is provided into so many arenas. Enron International transactions help us understand why so many people in many countries distrust global capitalism. For example, the $20 billion Dabhol, India, scheme is one of the great international financial disasters, and probably deserves a book of its own. It stands as "the biggest fraud in India's history" and made India "a country where every single person hates one company." (p. 79). We can also understand how Enron's machinations provide abundant and appropriate ammunition for opponents of mark to market accounting and deregulation. Additionally, it is staggering to see how bright people from stalwart institutions such as McKinsey, Harvard and the late Arthur Andersen can become enmeshed in destructive patterns of greed. Enron, as presented by McLean and Elkind, provides a microcosm in which we can see much of what troubles society. The book does not provide an easy story line to follow, but it is well worth the effort to study the book and piece the facts into a remarkable tale.

Hetty: The Genius and Madness of America's First Female Tycoon

By Charles Slack. Harper Collins, 2004.
247 pages; $25.96. ISBN 0-06-054256-X

Reviewed by Julia E. S. Grant
Case Western Reserve University

Hetty Green, perhaps the richest woman in American history, amassed her wealth during the same historical period that many of America's fortunes were built, the years following the Civil War through the turn of the 20th century. One of her distinguishing features among her peers was her gender; another was her utter refusal to spend her money on personal comfort or appearances. The combination of these two characteristics created a woman who did not care how she looked, who did not care to socialize, and who spent her days cautiously and carefully taking care of business in the company of men. Given the norms of that time, or even, one can imagine, today, it is no wonder that she was dubbed "The Witch of Wall Street" by observers of her day. An unseemly woman, who was making more money than many men and who was not averse to personal competition, even to the point of embracing vindictiveness, was clearly a witch.

The biography covers Hetty Howland Green from her early years through her death, including some information about the disposition of her wealth by her son and daughter after they were no longer required to answer to their mother. The reader gets some sense of how this woman came to be well educated about financial matters, but there is little insight to be gained about the source and development of her peculiar personal habits. Referring to her Quaker upbringing seems scarcely adequate to explain her unwillingness to spend money even on keeping her own person and clothing clean and presentable. Such an upbringing does not address the potential sources of her personal greed or her peculiar vindictiveness demonstrated toward her financial adversaries. These sorts of psychological inferences are not the apparent purpose of this volume.

Slack makes a concerted effort to create a history of this interesting character from credible sources. He is careful to clarify when a part of the story is relying on public records versus hearsay. He has attempted to clear the record where possible, for example, indicating that Ms. Green never divorced her husband (nor he her, as some have written), though they were separated for many years. He has attempted, where possible, to provide competing versions of anecdotes when they exist. One example is the story appearing in many places about her allowing her son's leg to be amputated rather than get him appropriate medical care. Slack suggests to the reader that, while such a story is not out of the realm of possibility, it has not been documented; and it is inconsistent with her demonstrated love for her own children. Slack provides a picture of the miser, spending hours in a borrowed office, clipping her coupons. But he also provides accounts of her willingness to lend money at fair, even reduced rates, particularly to needy parties such as churches. Thus, in writing Ms. Green's story, Slack effectively presents the fact that there was more than one side to this complex woman, without drawing conclusions about what necessarily created these conflicting sides.

The lingering tragedy of Green's life and accomplishments is that nothing remains. Her demands on her children's lives led both to marry late and leave no heirs. Her insistence on leaving her money primarily to them left her legacy dependent on their tendencies, whether to do good works or lead the good life. One could argue that Hetty Green got what she deserved – little remembrance because of her lack of concern and engagement with other people. One could also argue that she was living the pure conservative vision – live and let live, survival of the fittest, and she individually was surely one of those. Thus a lasting public legacy might have seemed meaningless to her. In any case, her outstanding financial abilities and accomplishments deserve recognition for their own sake, and Slack has provided this recognition.

Slack does the reader a favor, briefly covering the economic and social contexts, as they are relevant to describing Green's actions and decisions, but leaving in-depth coverage of the contexts to other treatments in business history. He has created an educational biography that manages to be highly entertaining, and has created a book that makes the reader want to learn more – about Hetty Green, her contemporaries, and their times.

Accounting: How to Meet the Challenges of Relevance and Regulation (Revised)

By Eugene H. Flegm. Elsevier Ltd., Oxford, U.K., 2004.
314 pages; $95.00. ISBN 0-7623-1078-2

Reviewed by Songtao Mo
Case Western Reserve University

This book, volume 7 of *Studies in the Development of Accounting Thought Series*, was republished in 2004, 20 years after it was first published in 1984. Eugene H. Flegm, retired general auditor at General Motors, expresses his view of accounting standard setting and accounting regulation in historical context. The text of the book includes eight chapters. The titles are good summaries of the chapter contents:

Chapter 1: The Challenges Accounting Faces
Chapter 2: The Growth of Accounting
Chapter 3: Generally Accepted Accounting Principles: The Great Misconception
Chapter 4: The Rise of Standards Setters
Chapter 5: Public Accounting and Corporate Responsibility
Chapter 6: Managerial Accounting, Inflation, and Capital Formation
Chapter 7: The FASB and the Conceptual Framework
Chapter 8: The Future of Accounting

Flegm explicitly states that the book is written from the perspective of a managerial accountant. More exactly, the assumption of the analysis is that " …management does not have different goals from the *long-term* investor or creditor." (p. 59, Chapter 4). The book provides a wide range of historical information, which is closely related to the development of the accounting profession, standard setting and regulation. The author's description of financial statements from the perspective of the "preparer" provides a wealth of thought. For instance, Flegm states:

> The basic conflict between regulators and managerial accountants comes from the need for the regulators to curb the abuses of accounting by the managerial speculator and the misconception on the part of regulators that they should serve the needs of the short-term investors, that is, the investing speculator. (p. 60, Chapter 4)

His comments on regulation and the classification of investors are interesting. What is the appropriate classification of the investors? What interests are the regulators serving? Long-term investors or short-term investors? Current investors or future investors? This question still remains unsolved.

Along with rich descriptive materials, Flegm presents several themes in the book.[1] First, he adopts a broad definition of accounting profession, which should include both public accounting and managerial accounting. Second, based on his observation of accounting origins, Flegm describes the tradition as "concepts of discipline and transaction-oriented" (p. 255); third, it is highly unlikely that accounting practice could be covered by a set of accounting principles; fourth, the debate between "historical cost-based model" and "value-based model" rests on the various choice between relevance and reliability. Finally, Flegm stresses the importance of management integrity and corporate governance.

Flegm is a strong advocate of the historical cost model and principles-based accounting. Occasional outbreaks of frauds push public accounting to seek safety in specific rules. Flegm questions the usefulness of "more rules" and points out that the proliferation of accounting rules greatly increases the burden of the preparers. Furthermore, he believes that the historical cost model would help in providing objective and reliable accounting information. Predictions based on accounting data, on the other hand, could be misleading and unreliable. He recommends that some qualitative analysis be added as supplements to quantitative financial reporting. By doing so, he says, that the accounting profession could achieve the objectives of relevance and regulation.

Flegm suggests that the development of internal management reporting systems could help in standard setting for the external reporting system (p. 178, Chapter 6). This is a wild and impractical idea, as the author himself admits. The key issue lies in the fact that the two reporting systems have different audience and purposes. The divergent nature of the systems might not allow too much standard blending, which aims to simultaneously serve the two different purposes or reporting.

In terms of corporate governance, problematic management integrity is placed on the top of all factors leading to frauds. In the foreword of republication, the author writes:

> The problem is TOP MANAGEMENT FRAUD. A financial reporting model based on historical cost can be the foundation for building a reliable internal control system which, with a strong SEC, can make such fraud very difficult while providing reliable information as the foundation for the process of building an enhanced business reporting model. (Author's foreward to Republication, p. xlix).

The argument is not entirely convincing as to how and why managers, who are normally in charge of the internal control, would be in favor of any plan against themselves.

Relevance and reliability are important accounting qualities and are closely related to concepts of "earnings quality". In capital markets research, the key element is to investigate the relationships between information and firm value. Thus, value relevance of accounting information is actually tied to explanatory and predictive power of the information acquired. Consequently, understanding earnings quality, a hotly debated topic over the last two decades, leads to essential philosophical inquiry. Fundamentally, the difference between Flegm's view of accounting and that of positive accounting can be traced back to the discussion of "accounting is art" or "accounting is science". The former focuses on the accounting function of interpretation while the latter holds that, as a branch of economics, accounting serves for the purpose of measuring and communicating economic information.

As there are concerns that accounting theory and practice are left behind by economic changes and financial innovations, the gap between accounting academia and professional practice has not ceased widening. By presenting insightful thoughts at a conceptual level, his book can definitely serve as a bridge of communication. Also, it provides very interesting insights into the accounting development and such issues as relevance and regulation from a managerial accountant' point of view. It is also a very good reading for PhD students to gain knowledge in accounting history and learn how to approach issues from different angles.

NOTES

1. These themes are summarized from Chapter 8 "*The Future of Accounting*" (pp. 255–256).

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