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Preface

The term 'project financing' was coined and first used in the early editions of this book to segregate and describe certain kinds of instruments and certain types of transactions with unique characteristics which enabled promoters of a project financing transaction to shift debt burden, operating risk and accounting liabilities to third parties, while at the same time retaining significant benefits of the project. In the ensuing years the term project financing has acquired a unique definition as a financing with off-balance sheet and shifted liability characteristics.

In a project financing, the project, its assets, its contracts, its inherent economics and its cash flows are segregated from its promoters or sponsors in order to permit a credit appraisal and loan to the project, independent of the sponsors. While in the final analysis lending to a project requires strong credit support from some source, frequently this support can be accomplished in an indirect or contingent manner which may have little or no impact upon the sponsor's debt capacity when compared to a direct borrowing. In some circumstances the credit of third parties unrelated to the sponsor can be used to support the credit standing of the project.

Since the first edition was published, the financial and capital markets have undergone tremendous change and a host of new structures and instruments have been created to meet the financing needs of businesses. Traditional commercial banking has been severely displaced by new financial instruments and products. While those of us in the financial business might like to think we are getting smarter in designing new products, a major reason for this rapid development is undoubtedly due to the more efficient dissemination of information and sharing ideas as a result of improved and more rapid communication. Information including techniques for financial analysis which used to be restricted to a few so-called experts is now available to anyone with an up-to-date personal computer through readily accessible data information services, the internet, and off the shelf software. The information age has arrived, and the future looks bright indeed for development of new and useful financing techniques.

The age of electronic data transfer and the internet has also given rise to financing internet start-up companies by methods that defy the traditional rules of project finance. Such financing which is often based solely upon rosy unsubstantiated financial forecasts is confined to equity related securities that are usually provided by professional venture capital firms (called VCs) or professional venture capital funds. Both the risks and possible rewards are huge. While this is a narrow exception to the rules of project finance, it deserves mention as an exception.

This book does not hold itself out as having the pretensions of an intellectual treatise. Rather, it is merely intended to provide a conceptual starting point for the further development of the reader's ideas on project financing. It is hoped that it may also serve as a useful checklist for specific project financings. Perhaps more important, however, the book is a compendium of concepts and structures that can be applied at any stage in the analysis of an anticipated or proposed project financing.

Although largely based on methods developed and widely used in the United States, the ideas and concepts presented can be profitably employed by financial managers worldwide. Project financing is global financing, and financial executives everywhere will find that the successful conclusion to such financing

depends in no small measure upon the bringing together of a number of disciplines, experts and analytical techniques. This book attempts to provide a useful road map as to how to marshal those resources for an effective and profitable result.

A project financing requires careful planning at its early stages in order to achieve the maximum desired result of a segregated financing at as low a price as possible. The entity to house the project must be carefully chosen. Financial instruments to be used to evidence debt obligations and equity must be reviewed. Joint venture partners or investors and lenders must be carefully selected. Borrowing options must be preserved. Any supply contracts or sales contracts must be carefully drafted.

The operating climate and political stability of the environment for the project must be satisfactory. A system of laws protecting property rights of creditors and owners must be in place. A stable and predictable rule of law is a crucial ingredient for project financing.

In the final analysis, the ultimate financial engineering of a project financing is only limited by the imagination and care of the financial adviser in making use of the circumstances of the transaction and the tools at hand.

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San Francisco CA
Frank J. Fabozzi, Adjunct Professor of Finance
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New Haven, CT.

1

An overview of project finance

Although the term 'project financing' has been used to describe all types and kinds of financing of projects, both with and without recourse, the term has evolved in recent years to have a more precise definition:

> A financing of a particular economic unit in which a lender is satisfied to look initially to the cash flows and earnings of that economic unit as the source of funds from which a loan will be repaid and to the assets of the economic unit as collateral for the loan.

A key word in the definition is *initially*. While a lender may be willing to look initially to the cash flows of a project as the source of funds for repayment of the loan, the lender must also feel comfortable that the loan will in fact be paid on a worst case basis. This may involve undertakings or direct or indirect guarantees by third parties who are motivated in some way to provide such guarantees.

Project financing has great appeal when it does not have a substantial impact on the balance sheet or the creditworthiness of the sponsoring entity. Boards of directors are receptive to proceeding with projects which can be very highly leveraged or financed entirely or substantially on their own merits. Industries engaged in the production, processing, transportation or use of energy have been particularly attracted to project financing techniques because of the needs of such companies for new capital sources. Enterprises located in countries privatising state-owned companies have made extensive use of project financing.

The moving party in a project is its promoter or sponsor. A project may have one or several sponsors. The motivation of construction companies acting as sponsors is to profit in some way from the construction or operation of the project. The motivation of operating companies for sponsoring a project may be simply to make a profit from selling the product produced by the project. In many instances the motivation for the project is to provide processing or distribution of a basic product of the sponsor or to ensure a source of supply vital to the sponsor's business.

The ultimate goal in project financing is to arrange a borrowing for a project which will benefit the sponsor and at the same time be completely non-recourse to the sponsor, in no way affecting its credit standing or balance sheet.

Indeed, project financing is sometimes called off-balance sheet financing. One way this can be accomplished is by using the credit of a third party to support the transaction. Such a third party then becomes a sponsor.

However, projects are rarely financed independently on their own merits without credit support from sponsors who are interested as third parties who will benefit in some way from the project.

There is considerable room for disagreement between lenders and borrowers as to what constitutes a feasible project financing. Borrowers prefer their projects to be financed independently off-balance sheet. Lenders, on the other hand, are not in the venture capital business. They are not equity risk takers. Lenders want to feel secure that they are going to be

repaid either by the project, the sponsor or an interested third party. Therein lies the challenge of most project financings.

> The key to a successful project financing is structuring the financing of a project with as little recourse as possible to the sponsor while at the same time providing sufficient credit support through guarantees or undertakings of a sponsor or third party, so that lenders will be satisfied with the credit risk.

There is a popular misconception that project financing means off-balance sheet financing to the point that the project is completely self-supporting without guarantees or undertakings by financially responsible parties. This leads to misunderstandings by prospective borrowers who are under the impression that certain kinds of projects may be financed as stand alone self-supporting project financings and, therefore, proceed on the assumption that similar projects in which they are interested can be financed without recourse to the sponsor, be off-balance sheet to the sponsor and be without any additional credit support from a financially responsible third party.

It would be a happy circumstance if it were possible simply to arrange a 100 per cent loan for a project (non-recourse to sponsors) which looked as though it would surely be successful on the basis of optimistic financial projections. Unfortunately, this is not the case.[1]

There is no magic about project financing. Such a financing can be accomplished by financial engineering which combines the undertakings and various kinds of guarantees by parties interested in a project being built in such a way that none of the parties alone has to assume the full credit responsibility for the project, yet when all the undertakings are combined and reviewed together, the equivalent of a satisfactory credit risk for lenders has resulted.[2]

This book discusses the methods, structures, and instruments which can be used to accomplish such a satisfactory credit risk and hence a successful project financing.

1. Checklist for a successful project financing

An independent economic unit which qualifies as a viable credit for project financing must usually meet the criteria, and have the characteristics, contained in the checklist shown in Exhibit 1.1. However, not all of the items listed are applicable to all project financings. Also, the criteria will be satisfied if the project has a guarantor willing to assume the financial exposure and the costs associated with some of the noted risks. On the other hand, if a project financing fails to satisfy any of the applicable criteria, both lenders and sponsors should be apprehensive and should address the problem to resolve the risk exposure before proceeding. (Each item contained in the checklist is discussed in more detail in Chapter 2.)

2. Causes for project failures

The best way to appreciate the concerns of lenders to a project is to review and consider some of the common causes for project failures, which include the following:

a. Delay in completion, with consequential increase in the interest expense on construction financing and delay in the contemplated revenue flow;
b. Capital cost overrun;
c. Technical failure;
d. Financial failure of the contractor;
e. Government interference;
f. Uninsured casualty losses;
g. Increased price or shortages of raw materials;
h. Technical obsolescence of the plant;
i. Loss of competitive position in the market-place;
j. Expropriation;
k. Poor management;
l. Overly optimistic appraisals of the value of pledged security, such as oil and gas reserves; and
m. Financial insolvency of the host government.

For a project financing to be successfully achieved, these risks must be properly considered, monitored and avoided throughout the life of the project.

The Eurotunnel project and its financing presents an interesting case study that illustrates the failure to address risks involved in project financing. A case study on the Eurotunnel project appears at the end of this chapter.

Exhibit 1.1: Checklist for a successful project financing

	Yes	No	Not applicable
1. A credit risk rather than an equity risk is involved.			
2. A satisfactory feasibility study and financial plan have been prepared.			
3. The cost of product or raw material to be used by the project is assured.			
4. A supply of energy at reasonable cost has been assured.			
5. A market exists for the product, commodity, or service to be produced.			
6. Transportation is available at a reasonable cost to move the product to the market.			
7. Adequate communications are available.			
8. Building materials are available at the costs contemplated.			
9. The contractor is experienced and reliable.			
10. The operator is experienced and reliable.			
11. Management personnel are experienced and reliable.			
12. New technology is not involved.			
13. The contractual agreement among joint venture partners, if any, is satisfactory.			
14. A stable and friendly political environment exists; licences and permits are available; contracts can be enforced; legal remedies exist.			
15. There is no risk of expropriation.			
16. Country risk is satisfactory.			
17. Sovereign risk is satisfactory.			
18. Currency and foreign exchange risks have been addressed.			
19. The key promoters have made an adequate equity contribution.			
20. The project has value as collateral.			
21. Satisfactory appraisals of resources and assets have been obtained.			
22. Adequate insurance coverage is contemplated.			
23. Force majeure risk has been addressed.			
24. Cost over-run risk has been addressed.			
25. Delay risk has been considered.			
26. The project will have an adequate ROE, ROI and ROA for the investor.			
27. Inflation rate projections are realistic.			
28. Interest rate projections are realistic.			
29. Environmental risks are manageable.			
30. Compliance with US Foreign Corrupt Practice Act of 1977 (FCPA).			
31. Protection from criminal activities such as kidnapping and extortion.			
32. A commercial legal system protecting property and contractual rights.			

3. Credit impact objective

While the sponsor or the beneficiary of a project financing ideally would prefer that the project financing be a non-recourse borrowing which does not in any way affect its credit standing or balance sheet, many project financings are aimed at achieving some other particular credit impact objective, such as any one or several of the following:

a. To avoid being shown on the face of the balance sheet;
b. To avoid being shown as debt on the face of the balance sheet so as not to impact financial ratios;
c. To avoid being shown in a particular footnote to the balance sheet;
d. To avoid being within the scope of restrictive covenants in an indenture or loan agreement which precludes direct debt financing or leases for the project;
e. To avoid an open-end first mortgage;
f. To avoid being considered as a cash obligation which would dilute interest coverage ratios, and affect the sponsor's credit standing with the rating services;
g. To limit direct liability to a certain period of time such as during construction and/or the start-up period, so as to avoid a liability for the remaining life of the project;
h. To keep the project off-balance sheet during construction and/or until the project generates revenues; and
i. To avoid a liability for IMF purposes.

Any one or a combination of these objectives may be sufficient reason for a borrower to seek the structure of a project financing.

Liability for project debt for a limited time period may be acceptable in situations in which liability for such debt is unacceptable for the life of the project. Where a sponsor cannot initially arrange long-term non-recourse debt for its project which will not impact its balance sheet, the project may still be feasible if the sponsor is willing to assume the credit risk during the construction and start-up phase, and provided lenders are willing to shift the credit risk to the project after the project facility is completed and operating. Under such an arrangement, most of the objectives of an off-balance sheet project financing and limited credit impact can be achieved after the initial risk period of construction and start-up. In some instances, the lenders may be satisfied to rely on revenue produced by unconditional take-or-pay contracts from users of the product or services to be provided by the project to repay debt. In other instances, the condition of the market for the product or service may be such that sufficient revenues are assured after completion of construction and start-up so as to convince lenders to rely on such revenues for repayment of their debts.

4. Accounting considerations

Project financing is sometimes called off-balance sheet financing. However, while the project debt may not be on the sponsor's balance sheet, the project debt will appear on the face of the project balance sheet. In any event:

> The purpose of a project financing is to segregate the credit risk of the project in order that the credit risk of lending to either the sponsor or the project can be clearly and fairly appraised on their respective merits. The purpose is not to hide or conceal a liability of the sponsor from creditors, rating services or stockholders.

Significant undertakings of sponsors and investors in projects subject to the US Financial Accounting Standards Board must usually be shown in footnotes to their financial statements if not in the statements themselves. Since project financings are concerned with balance sheet accounting treatment, familiarity with accounting terms used to describe or rationalise balance sheet reporting is important. Terms such as contingent liability, indirect liability, deferred liability, deferred expense, fixed charges, equity accounting and materiality are used to rationalise the appropriate positioning of entries in a sponsor's financial statements and footnotes. Accounting rules for reporting these types of liabilities are under continual review, as the accounting profession grapples with the problem of proper and fair disclosure and presentation of objective information to stockholders, lenders, rating agencies, guarantors, government agencies and other concerned parties.

5. Financial consolidation of subsidiaries

Rules for financial consolidation are basic to structuring a project financing. Briefly stated, for financial accounting purposes a more than 50 per cent-controlled subsidiary is consolidated on a line-by-line basis, with debt of the subsidiary shown as debt of the parent. In absence of control, the equity method of accounting is used for subsidiaries owned 50 per cent or less, which means the investment is shown as a one line entry. Debt of less than 50 per cent-owned subsidiaries usually does not show as debt on the parent's balance sheet. The same rules are applicable to partnerships. The accounting rules for financial consolidation present some interesting opportunities for off-balance sheet financing through the use of jointly owned corporations or partnerships in which the sponsor owns 50 per cent or less.

6. Meeting internal return objectives

Most companies set target rates of return for new capital investments. If a proposed capital expenditure will not generate a return greater than a company's target rate, it is not regarded as a satisfactory use of capital resources. This is particularly true when a company can make alternative capital expenditures which will produce a return on capital in excess of the target rate.

Project financing can sometimes be used to improve the return on the capital invested in a project by leveraging the investment to a greater extent than would be possible in a straight commercial financing of the project. This can be accomplished by locating other parties interested in getting the project built, and shifting some of the debt coverage to such parties through direct or indirect guarantees. An example would be an oil company with a promising coal property which it did not wish to develop because of better alternative uses of its capital. By bringing in a company which required the coal, such as a public utility, an indirect guarantee might be available in the form of a long-term take-or-pay contract which would support long-term debt to finance the construction of the coal mine. This, in turn, would permit the oil company's investment to be highly leveraged and consequently to produce a much higher rate of return.

7. Other benefits

There are often other side benefits resulting from segregating a financing as a project financing, which may have a bearing on the motives of the company seeking such a structure:

a. Credit sources may be available to the project which would not be available to the sponsor;
b. Guarantees may be available to the project which would not be available to the sponsor;
c. A project financing may enjoy better credit terms and interest costs in situations in which a sponsor's credit is weak;
d. Higher leverage of debt to equity may be achieved;
e. Legal requirements applicable to certain investing institutions may be met by the project but not by the sponsor;
f. Regulatory problems affecting the sponsor may be avoided;
g. For regulatory purposes, costs may be clearly segregated as a result of a project financing;
h. The project may enable a public utility sponsor to achieve certain objectives regarding its rate base;
i. Investment protection in foreign projects may be improved by joining as joint venturers with international parties, thus lessening the sovereign risk;
j. A more favourable labour contract or climate may be possible by separating the operation from other activities of the sponsor; and/or
k. Construction financing costs may not be reflected in the sponsor's financial statements until such time as the project begins producing revenue.

In some instances, any one of the reasons stated above may be the primary motivation for structuring a new operation as a project financing.

8. Tax considerations

Tax benefits from any applicable tax credits, depreciation deductions, interest deductions, depletion deductions, research and development tax deductions, dividends-received credits, foreign tax credits, capital gains, and non-capital start-up expenses are very significant considerations in the investment, debt service and cash flow of most project financings. Care must be used in structuring a project financing to make sure that these tax benefits are used. Where a project financing is housed in a new entity which does not have taxes to shelter, it is important to structure the project financing so that any tax benefits can be

transferred to parties in a position currently to use such tax benefits.

For US federal income tax purposes, 80 per cent control is required for tax consolidation, except in the case of certain foreign subsidiaries, in which 50 per cent control may require consolidation. Similar structures to those used in the United States are frequently applicable in other countries.

9. Disincentives to project financing

Project financings are complex. The documentation tends to be complicated, and the cost of borrowing funds may be higher than conventional financing. If the undertakings of a number of parties are necessary to structure the project financing, or if a joint venture is involved, the negotiation of the original financing agreements and operating agreements will require patience, forbearing, and understanding. Decision-making in partnerships and joint ventures is never easy, since the friendliest of partners may have diverse interests, problems and objectives. However, the rewards and advantages of a project financing will often justify the special problems which may arise in structuring and operating the project.

10. Principles apply regardless of project size

Discussions of project financing sometimes tend to focus on large complex projects. This might lead one to the conclusion that the project financing principles discussed in this book have little application to smaller, more ordinary financings. This is not the case. The same principles used to finance a major pipeline, copper mine, or Channel tunnel can be used to finance a cannery, a hotel, a ship or a processing plant.

11. Exception for internet start-ups

Internet start-up companies that are financed with risk capital in the form of equity present an exception to the traditional rules for project financing that should be noted. The rapid development of the internet and electronic data transfer have given rise to e-commerce business opportunities that can result in a few cases of very large growth potential and future profits. The risk for investors is also very high.

B2B (business to business) and B2C (business to consumer) commercial activities have the potential to replace traditional distribution and sales channels. Venture capitalists (VCs) and venture capital funds sometimes provide equity related securities to these proposed projects that are often based merely upon the reputation of the promoters and conjecture and optimistic financial projections. Another type of venture capitalist called an 'incubator' may provide small amounts of initial seed equity capital and advice to what they perceive as promising start-ups in their early stages. The time horizon of promoters of this type of company is often limited to the time it takes to go to the public markets or to find a buyer.

Since capital provided to this type of start-up company is equity type capital, rather than debt, the financing is not really project financing.

12. Building blocks of project financing

Before reviewing various specific project financings, it is necessary to discuss the building blocks of project financing. Briefly stated, these building blocks include debt in the form of notes, debentures, bonds, subordinated notes, term debt secured by a particular asset, non-recourse debt, limited-recourse debt, warrants, options, tax-exempt industrial revenue bonds, capital leases, operating leases, service leases, bank loans, short-term notes and commercial paper. This debt, in turn, may be restructured or combined with interest rate swaps and options and currency swaps and options. The debt is supported by the financial viability of the project, direct guarantees, contingent guarantees, indirect guarantees and implied guarantees. Projects are structured using subsidiaries, unrestricted subsidiaries, special purpose corporations, nominee corporations, jointly owned corporations, general partnerships, limited partnerships, joint ventures and trusts. These borrowings, guarantees and entities can be combined in a variety of ways to produce a viable project financing.

The method used must ensure that the state and federal income tax benefits from depreciation, and tax credits, interest expense and depletion will be used by the appropriate parties or by a third party lender who will share those benefits with the project.

The objective is to package and combine the undertakings of various parties interested in getting a project built in such a way that no one party has to assume the credit responsibility for the project, while at the same time providing a combination of guarantees and undertakings which, when viewed together, will constitute a bankable credit. If a single strong credit (such as a government agency) will provide a guarantee, the task of structuring the transaction as a project financing for the remaining sponsors is much easier.

The combinations of entities, guarantees, instruments and borrowings are limited only by the ingenuity of the architect of a project financing and the acceptability of the structure to investors and lenders. Various project financings which have been accomplished or are under active consideration are reviewed later in this book.

A company considering a project financing should review financial structuring methods used in other industries as well as its own industry. Some industries, such as the petroleum industry, have been successfully using various methods of project financing for many years. Structures used in one industry may be used, or may generate ideas, for new structures applicable to other industries. And structures used for a project in one country may also be used effectively in another country despite differences in laws and tax consequences.

Case study: Eurotunnel – A disaster for lenders

The 31-mile link under the English Channel between the UK and France is one of the most expensive projects in the world. It was the third attempt at a 'Chunnel' and came after the second had been cancelled by an incoming British government afraid of a huge increase in the capital budget for the project – a similar long-tunnel project in Japan had just been completed with a cost overrun of 100 per cent.* Financed by a consortium of 225 banks it is a project in which the construction phase, overall cost and start-up revenues were all underestimated. The proposed project financing failed the checklist (see Exhibit 1.1) on a dozen grounds, any one of which should have caused rejection. In May 1987, construction was expected to be completed by May 1993. In 1990, construction was estimated to be completed by May 1994. Actual completion occurred in December 1994. In the 1987 budget, total cost to build and open the tunnel was estimated to be £4.9 billion. In 1990 the estimate was raised to £7.5 billion. Actual cost was £9.7 billion.

Crucial to Eurotunnel is the fact that the project company was created by construction contractors to issue a construction contract to those contractors. Further, the project financing became almost a matter of national pride (and pressure) even though the construction budget was not finalised and the rail equipment not finally specified at the time the project was syndicated.

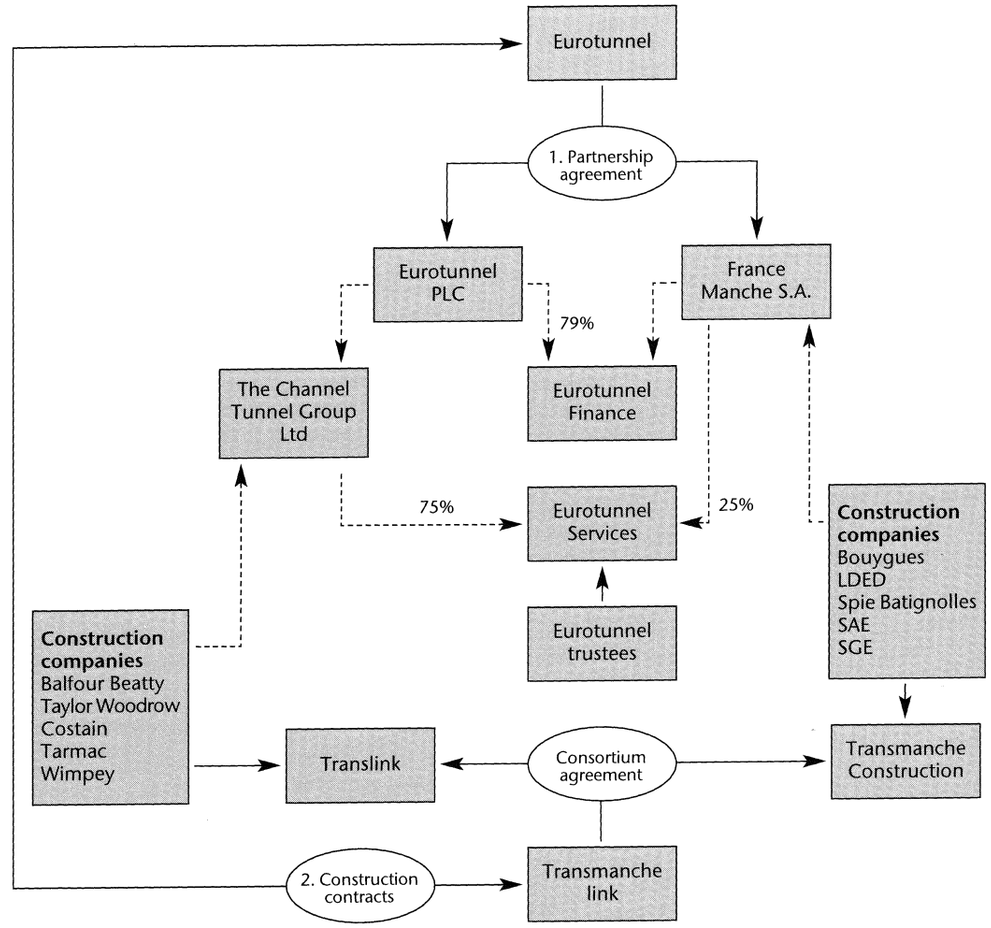
Bankers' egos and old school ties apparently got in the way of responsibilities to bank stockholders. Head bankers apparently approved the credit with its obvious many shortcomings rather than experienced project finance loan officers.

The equipment specification aspect was revisited during the construction period, with a cost increase to the project of £1 billion for fire safety on the rail shuttle cars. Yet, on 18 November 1996, the 21.42 train from Coquelles in France caught fire and the overall fire systems failed (compounded by human error), shutting down the system for six months.

The traffic, already building slowly, was naturally put off by this disaster. In addition, successive British governments failed to upgrade the rail connection from London to Folkestone at the entry to the English side of the tunnel, whereas the French have established their TGV express trains from the Coquelles portal to Paris. The ferry companies thus compete with Eurotunnel on many fronts, including price and convenience. Until the fast connection is in place from London, the project will continue to have difficulty servicing its massive debt which has been heavily restructured, including the conversion of almost half the US$12.5 billion debt into equity.

The very serious risk aspects of completion, traffic, infrastructure, force majeure, and operating aspects were either ignored or seriously misjudged in the various scenarios and refinancings in evidence in this mega transaction, with its concomitant mega write-down.

Case study: Eurotunnel *continued*



Summary

1. Partnership of The Channel Tunnel Group Ltd. and France Manche S.A. formed to proceed with the tunnel on behalf of five UK and five French contractors.
2. Construction contracts established for the Target Works, Lump-Sum Works, and Procurement (Equipment).

* See Tinsley, C.R., *Advanced Project Financing*, 1st Ed., Euromoney Books, 2000.

Notes and references

1. Lenders remember the old adage: at the start of the project financing, the promoter has the experience and the lender has the money; whereas at the end of the project financing, the lender has the experience and the promoter has the money.
2. The authors have tried to arrange this modest treatise in a logical sequence. However, the impatient reader may wish to turn immediately to Chapter 27, Guarantees, which are the lubricant to the success of many project financings.

Criteria for a successful project financing

Because project financings are often structured, using the undertakings and guarantees of several parties to assure a stream of revenue and cash flow to achieve the equivalent of a bankable credit, it is essential that lenders and sponsors thoroughly review and address all the risks involved. All the criteria outlined in this chapter should be considered separately, and as they interrelate to each other.

To place a project financing into perspective, it may be helpful to review briefly the different credit exposure which occurs at different times in the course of a typical project finance.

1. Risk phases

Project financing risks can be divided into three time frames in which the elements of credit exposure assume different characteristics (see Exhibit 2.1):

- engineering and construction phase;
- start-up phase;
- operations according to planned specifications.

Different guarantees and undertakings of different partners may be used in each time frame to provide the credit support necessary for structuring a project financing.

(a) Engineering and construction phase

Projects generally begin with a long period of planning and engineering. Equipment is ordered, construction contracts are negotiated and actual construction begins.

After commencement of construction, the amount at risk begins to increase sharply as funds are advanced to purchase material, labour and equipment. Interest charges on loans to finance construction also begin to accumulate.

(b) Start-up phase

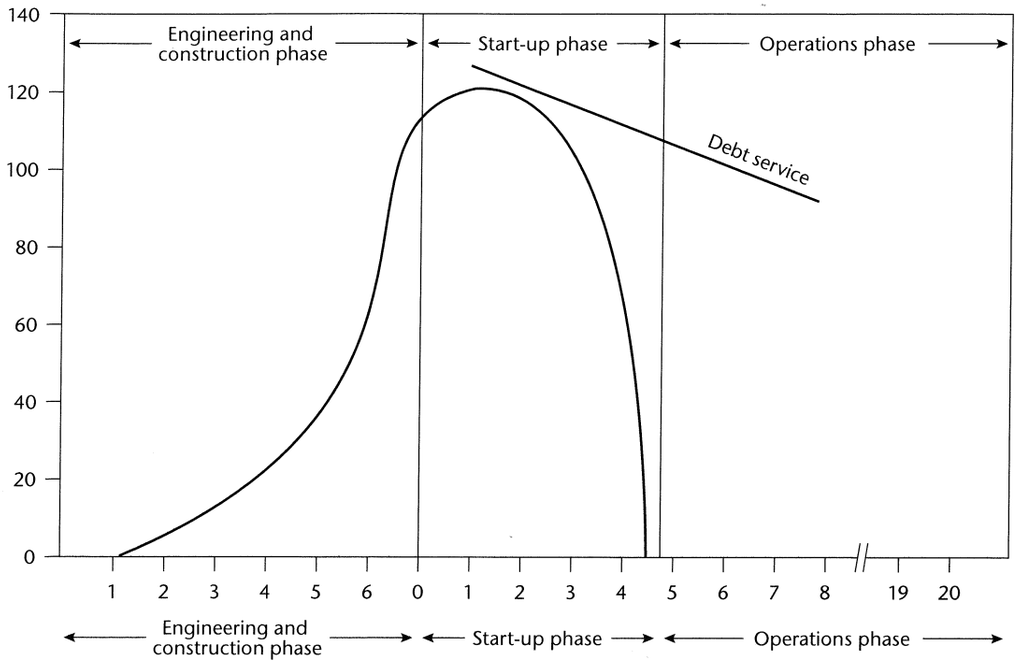
Project lenders do not regard a project as completed on conclusion of the construction of the facility. They are concerned that the plant or facility will work at the costs and to the specifications which were planned when arranging the financing. Failure to produce the product or service in the amounts and at the costs originally planned means that the projections and the feasibility study are incorrect and that there may be insufficient cash to service debt and pay expenses.

Project lenders regard a project as acceptable only after the plant or facility has been in operation for a sufficient period of time to ensure that the plant will in fact produce the product or service at the price, in the amounts and to the standards assumed in the financial plan which formed the basis for the financing. This start-up risk period may run from a few months to several years.

(c) Operations according to specification

Once the parties are satisfied that the plant is running to specification, the final operating phase begins. During this phase, the project begins to function as a regular operating company. If correct financial planning was done, revenues from the sale of the product produced or service performed should be sufficient to

Exhibit 2.1: Risk phases in a project financing (cost in US$ million)



service debt, interest and principal, pay operating costs, and provide a return to sponsors and investors.

2. Different lenders for different risk periods

Some projects are financed from beginning to end with a single lender or single group of lenders. However, most large projects employ different lenders or groups of lenders during different risk phases. This is because of the different risks involved as the project facility progresses through construction to operation, and the different ability of lenders to cope with and accept such risks.

Some lenders like to lend for longer terms and some prefer short-term lending. Some lenders specialise in construction lending and are equipped to monitor engineering and construction of a project, some are not. Some lenders will accept and rely on guarantees of different sponsors during the construction, start-up or operation phases, and some will not. Some lenders will accept the credit risk of a turn-key operating project, but are not interested in the high-risk lending during construction and start-up.

Interest rates will also vary during the different risk phases of project financing and with different credit support from sponsors during those time periods.

Short-term construction lenders are very concerned about the availability of long-term 'take out' financing by other lenders upon completion of the construction or start-up phase. Construction lenders live in fear of providing their own unplanned take out financing. Consequently, from the standpoint of the construction lender, take out financing should be in place at the outset of construction financing.

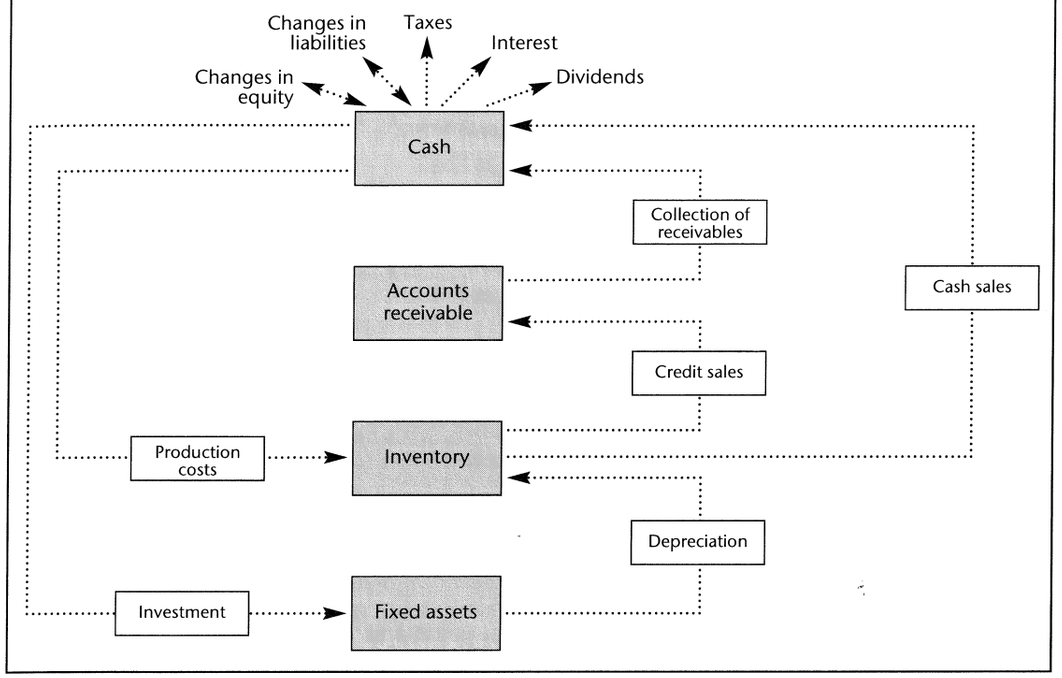
3. Review of criteria for a successful project financing

The previous chapter contained a checklist for planning and structuring a successful project financing. A discussion of each of the topics in that checklist follows.

(a) Credit risk rather than equity risk is involved

A *credit risk* should be involved in lending to the project rather than an *equity risk* or a *venture capital* risk.

Exhibit 2.2: Cash flow from production



Lenders are not in the business of taking equity risk even if compensated as equity risk takers.

Banks and other lending institutions are typically leveraged in the range of eight to ten to one. With such leverage, lenders cannot afford to take any risk in a project other than a lending risk. Banks and lenders that forget this, tend to get themselves in difficulty.[1]

The question of whether a credit risk or an equity risk is involved usually arises in connection with the adequacy of the underlying equity investment in the project, and the risks assumed by the sponsors and interested parties. An objective of many project financings is high leverage (or high gearing) of the debt to equity ratios. However, commercial lenders advance funds only on the basis that they will be repaid on schedule. A project borrower should approach potential project lenders with this in mind.

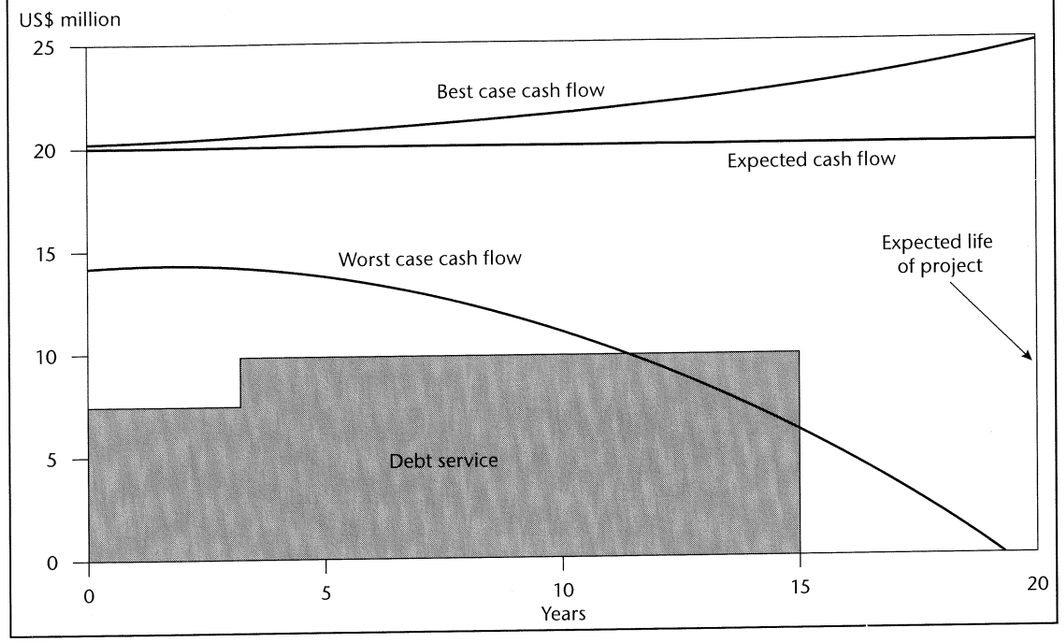
Potential borrowers seeking funds for a project which they acknowledge is risky will sometimes ask a lender: 'I know this is a risky project and not entitled to a particularly good rate of interest. However, there must be some rate of interest at which we can compensate you for the risk. Would you consider lending for five over Libor?'

The answer by a lender should clearly be 'No'. More than a lending risk is involved. Except in the case of small consumer loans, some lenders usually will not lend at more than 300 basis points over Libor, the prime rate or similar standard, on the theory that the spread in and of itself indicates that more than a lending risk is involved. The 3 per cent (or 300 basis points) spread may vary somewhat with different lenders. However a spread in excess of about 300 basis points is generally considered by most project lenders to indicate that more than a lending risk is involved.[2]

Some companies specialise in providing very high risk loans for start-up situations. However, they typically limit their investments to around US$5 million. Furthermore, they usually wish to be compensated by a share of the ownership and/or profits, as well as interest on their loan.

The equity in a project financing must come from sponsors or other sources directly interested in the project as users, suppliers, operators, contractors or administrators of government policy. Where the equity

Exhibit 2.3: Comparison of expected cash flow, best case and worst case (constant dollars)



investment is not sufficient to support the proposed borrowing, guarantees of some or all of the project debt will be necessary. The guaranteed debt becomes, in effect, the equity.

Project financings and start-up companies often use a layer of debt superior to equity in case of bankruptcy, but junior (subordinate) to senior debt. This subordinated debt has a high interest rate and may have an equity feature such as warrants for common stock or conversion rights for common stock. This type of debt is sometimes referred to as mezzanine financing and the notes are sometimes called junk bonds. Some finance companies specialise in investing in such subordinate debt. See Chapter 9 for a discussion of types of debt.

(b) Feasibility study and financial projections

EBITDA is the mother's milk of project financing. EBITDA refers to earnings before interest, taxes, depreciation and amortisation. EBITDA is the cash flow available to pay interest and debt principal.

Conservative projections of assured internally generated EBITDA cash flows must be prepared and justified by appropriate independent feasibility and engineering studies. The EBITDA cash flow projections must be sufficient to service any debt contemplated, provide for cash needs, pay operating expenses, and still provide an adequate cushion for contingencies. (See Exhibits 2.2, 2.3, 2.4 and 2.5.)

Lenders carefully review the projections to determine EBITDA debt coverage over the loan life. For example, lenders might expect two to one debt coverage over the project life, and one and a half to one over the loan life.

Assumptions used in the feasibility study must be realistic. Models should be prepared, and matrices of results should be produced, using different assumptions.[3] Worst case scenarios must be considered, and contingency plans prepared (see Exhibits 2.3, 2.4 and 2.5).

The feasibility study should cover all applicable points suggested in this chapter. The study will reflect the professional ability of the promoter, the degree of seriousness, and the resources the promoter assigns to the project.

The various conclusions of the feasibility study should be confirmed and supported by independent feasibility studies by outside reputable consultants on,

Exhibit 2.4: Another example of a worst case cash flow (constant dollars)

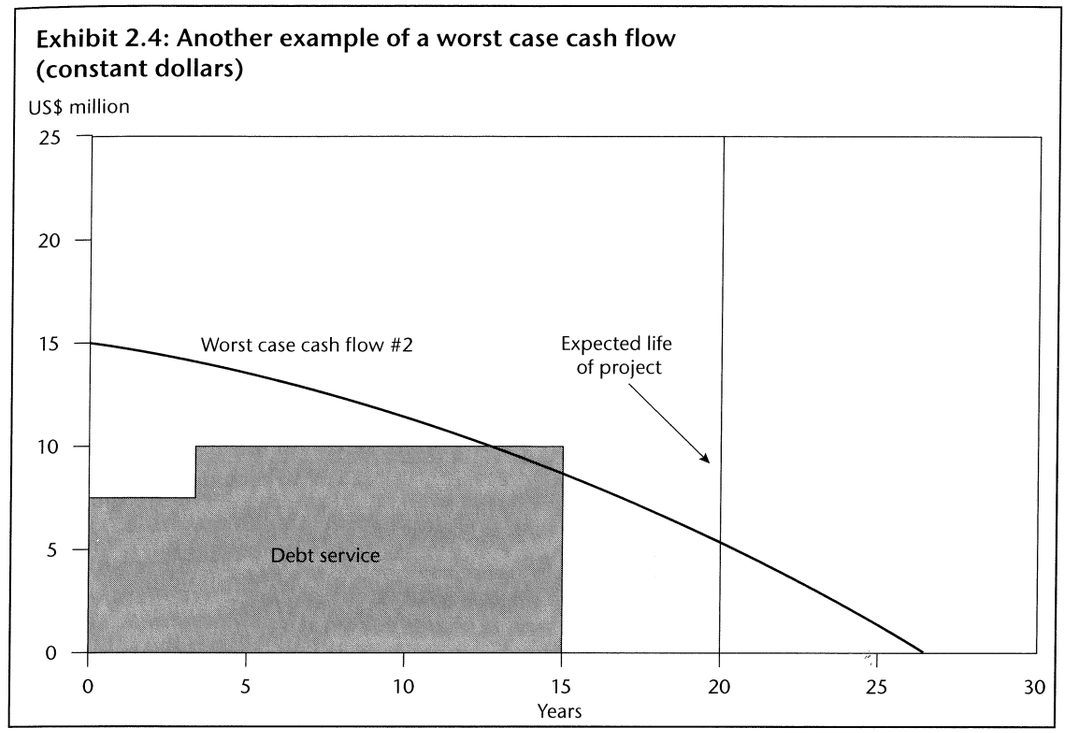
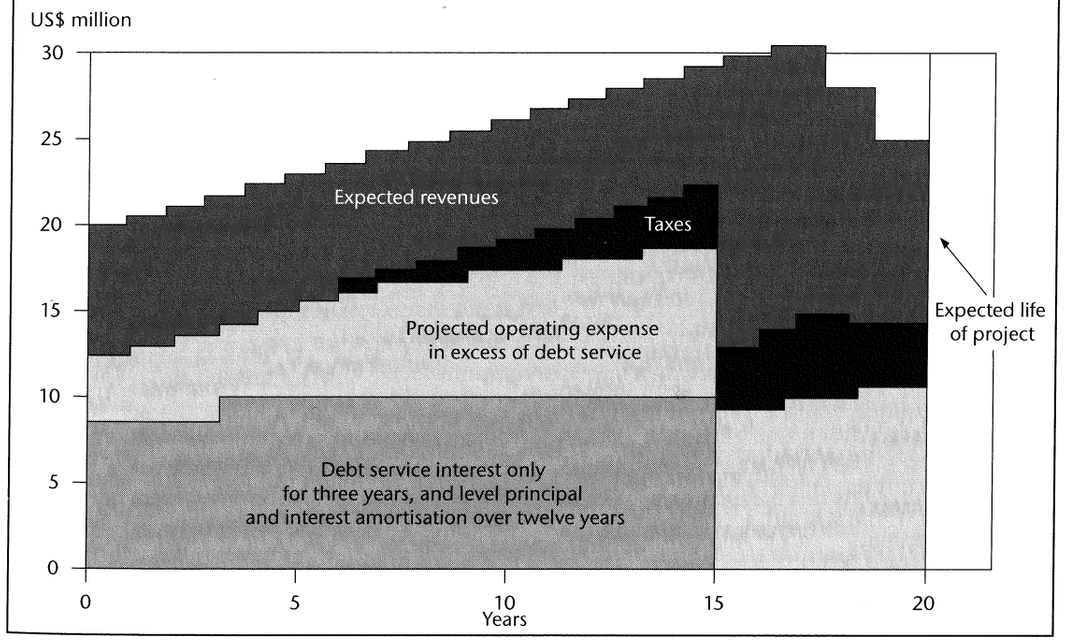


Exhibit 2.5: Revenues, operating expenses, taxes and debt service adjusted for inflation and escalation



for example, engineering, construction costs, production costs and the markets. An outside consultant might also be used to review the entire project and provide an independent opinion on the merits of the project.

The feasibility study, financial projections and supporting consultants' studies must confirm that the product, commodity or service can be produced at the costs contemplated, and marketed at the prices and profit margins contemplated.

The greater the lending risk assumed by the lender, the more complete, thorough and convincing the feasibility study must be.

The financial projections should be realistic since the various loan covenants and operating ratios required by the loan agreement will be established to conform to the financial projections.

(c) Assuring the cost of supplies and raw materials

Supply sources and contracts for feed stocks or raw material to be used by a project must be assured at a cost consistent with the financial projections.

Sources, and availability, of the product must be reviewed, possibly by a market analysis which indicates a satisfactory future supply at projected costs.

If the operator plans to import a raw material, product or energy source, it must have the ability to do so without payment of excessive fees or duties. Transportation costs for the product must be considered. The suitability of means of transport, and facilities such as harbours, warehouses, docks, rail lines, roads, pipelines and airfields should also be assessed.

Where a transportation company controls the only feasible method of transporting raw material to a project, the possibility of large future increases in transportation charges must be considered. Long-term transportation contracts (with escalation) must be explored.

Long-term take-or-pay contracts are sometimes used to ensure a user a source of supply. They are also used to provide credit support to project financings of facilities by suppliers.

A somewhat similar contract can be used by projects dependent on an assured source of supply, called a supply-or-pay, or put-or-pay, contract. In such a contract, the supplier is obligated to provide the product or service at certain prices (with escalation features) over a period of time.

Where the supply of a product to a project is vital, such a contract will enhance the project; absence of such a contract may raise serious concerns as to its viability. If the supplier cannot furnish the product, under such a contract it must provide the product from another source, or make up excess costs that the purchaser incurs in procuring the product from another supplier.

A long-term supply contract must also be enforceable. The reliability of the supplier, its ability to perform, and the risk that a supply contract with a foreign supplier may be subject to a *force majeure* interruption or an economic boycott beyond its control, must be considered.

The practical value of a long-term contract with a supplier, at an attractive price and where the supplier is a sole source, must also be considered. Will the supplier use the threatened prospect of very high prices on future renewals to force renegotiation of the supply contract before its term expires?

(d) Energy supplies at a reasonable cost assured

Energy costs are of paramount importance because of their escalation, and the possibilities of fluctuations in the future. In the past, a number of project financings got into serious financial trouble because of their failure to anticipate future rising energy costs.

Energy sources include electricity, natural gas, oil, coal and water. In cases of inadequate electrical energy supplies, the project may have to build its own generating plant, or provide back-up facilities.

Long-term supply contracts for feed stocks, coal or energy (with appropriate escalation provisions) are necessary for the financial feasibility of many projects.

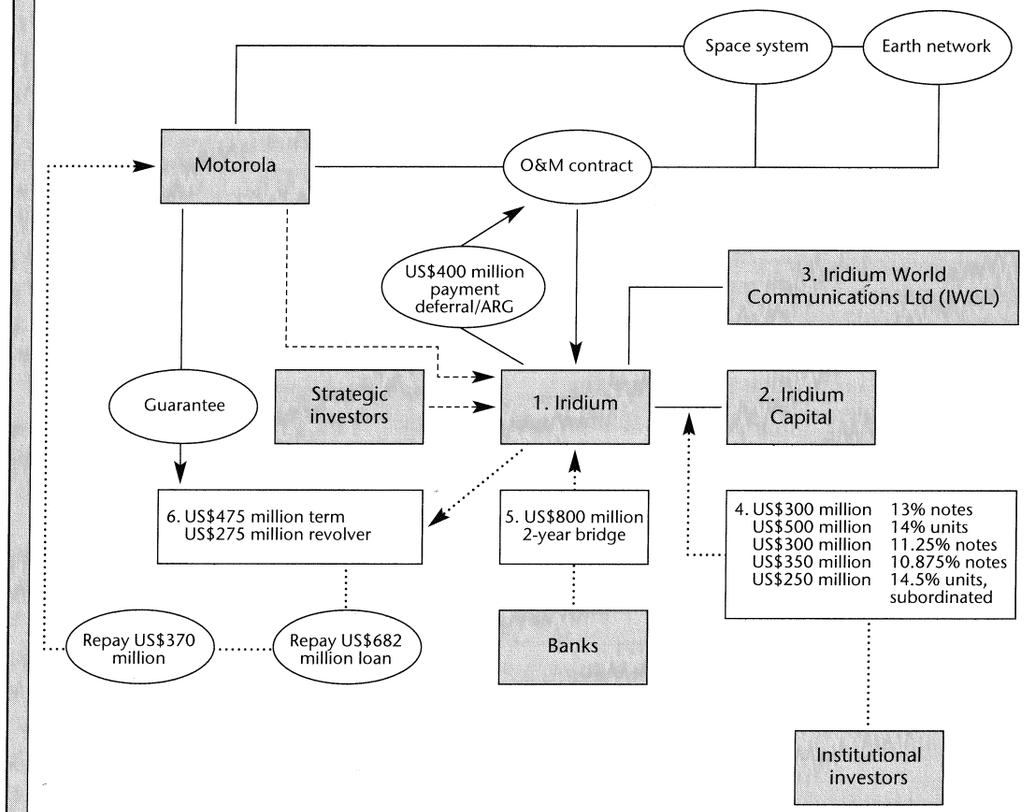
(e) A market exists for the product, commodity or service

The financial success of many project financings depends on the future existence of a market for the product, commodity or service produced or furnished by the project, and at prices which will provide the anticipated cash flows necessary to service debt, cover operating expenses and provide a return to the equity investors. Market surveys should provide a basis for the anticipated volume and price of the product, commodity or service to be produced. Internal marketing

Case study: Iridium – Feasibility and financial projections based upon incorrect market studies

The Iridium US$800-million bridge financing was the final step in a 10-year effort by Motorola to create a global satellite communications system. Launches commenced in 1994 with the aim of creating a system of 66 low-earth-orbiting (LEO) satellites which last five years in polar orbit.

When banks first evaluated the project, they were supplied with numerous cashflows and market targets. International call charges were set at US$4–7 per minute using handsets that cost US$3,000 each. According to one media lender, bankers had teams of project and telecoms lenders working side-by-side to evaluate the structure. 'People spent a lot of time with the projections' but quickly came to accept the technology risk. 'You don't have to get that many subscribers for this deal to pay out at US$3 per minute per call.'*



Summary

1. Motorola forms Iridium with strategic partners, most of whom have wireless telephone roaming rights, telecoms manufacturing capability, or supply satellites/launch services.
2. Iridium LLC establishes a number of special-purpose entities for capital raising, including Iridium Capital LLC and Iridium Operating LLC.
3. First raising money through private placements, Iridium made a US$240 million Initial Public Offering in June 1997 in Iridium World Communications Ltd (IWCL) for 8.5 per cent of Iridium LLC.
4. Junk bonds were issued including a series with warrants to purchase the common stock of IWCL.
5. The US$800 million two-year bullet-repayment bank facility refinanced an earlier one with an added 125bp.
6. At the same time as the bank facility was arranged, Motorola guaranteed two tranches of debt totalling US$750 million, most of which was used to repay debt to Motorola.

Case study: Iridium *continued*

However, the facts that the phones were heavy and call charges were expensive; Iridium handsets would not work inside a car or a building; and that the handsets were unreliable in a city with tall buildings seem to have escaped the scrutiny of the analysts. The US$200 million advertising campaign was launched before the Kyocera handsets were ready for distribution. And not all of the roaming agreements (to connect with land-based phones and cellular phones) were then in place. Furthermore, inexpensive easy-to-use cell phones experienced explosive growth throughout the world.

When Iridium collapsed in 2000 (the satellites literally scheduled to come down in flames – burnt up in the earth's atmosphere), it was projecting that it would gain 500,000 subscribers in its first year in service. This would have been more than triple the market size of the existing remote-connect satellite service, Inmarsat, which had 140,000 users for its laptop-sized phone after 20 years in business. At the end, Iridium had 20,000 subscribers.

* Project Finance International, *PFI Yearbook 1998*, Americas.

surveys prepared by the sponsor should be supported by independent marketing studies. Competing products, and competition from suppliers closer to the markets, or with less expensive sources of raw materials, feed stocks or energy should be studied carefully. (See Case study: *Iridium*.)

Some projects are financed on the basis of long-term contracts to sell the product, commodity or service produced by a project to one or more users at certain time intervals, and at agreed prices with appropriate escalation. The assured cash flow from such contracts ensures the economic success of the project, provided production costs are as anticipated, and the purchaser is reliable. There are two general types of such contracts: take-or-pay contracts, and take-and-pay contracts. In a take-or-pay contract, the obligation of the purchaser to pay is unconditional, even if the product, commodity, or service is not delivered. In a take-and-pay contract, the obligation of the purchaser is to take the product only if it is delivered. Take-or-pay contracts are tantamount to guarantees of a stream of revenue, if drafted carefully. (Take-or-pay contracts and take-and-pay contracts are discussed in Chapter 27.)

Where the project is to provide a service, such as transmission of a product through a pipeline, long-term through-put agreements are used to ensure a stream of revenue to service debt. Through-put agreements take many forms. Where used as a guaranteed source of the revenue (with appropriate escalation), the through-put obligor pays, whether the service is used or not. This type of an agreement is also called a tolling agreement, a minimum pay contract, an all-events-tariff, or a deficiency agreement. A cost-of-service tariff goes a step further and provides protection against escalating costs as well as the existence of a market. Through-put agreements are also used where a raw material is to be furnished to a project for some value-added services, such as a refinery (see Chapter 27).

(f) Transportation of product to market

Transportation costs for moving the product from the project facility to the market must be assured at a cost consistent with the financial projections. The method of transportation – whether by rail or ship – must be reviewed, together with the necessity for constructing any facilities needed for transportation, such as roads, railroads, harbours, docks, pipelines, warehouses or airfields. The vulnerability of the project to future increases in transportation costs by companies controlling the only feasible means to move the product to market must be taken into account. Long-term transportation contracts (with appropriate escalation) may solve this problem.

(g) Adequate communications

Adequate telephone equipment and/or communications equipment is essential to any project. The ability to use modern communication devices such as cell telephones, computer modems and facsimile machines must be considered. Telephone calls can take hours to complete in some parts of the world. Apart from frustration at such inadequacies, poor communication facilities result in costly delays in decision-making and in accomplishing objectives. The cost of providing radio/telephone communication should be taken into account for projects in remote locations.

(h) Availability of building materials

Building materials to be used must be available at a cost consistent with the estimated construction costs. The cost of transportation and the availability of local sources for building materials should be considered. Where possible, contingency plans should be made for the possible use of alternative building materials.

The ability to import building materials, manufactured goods and machinery needed for the project must also be established. Any import fees or duties should be reasonable. Existing or possible embargoes for political reasons must be considered. Projects often encounter difficulties because of inadequate planning for building materials: for example, relying on the availability of local supplies of cement, only to discover later that local supplies of cement are unavailable for some reason, with the result that cement has to be imported from long distances, at great cost.

(i) Experienced and reliable contractor

The expertise and good reputation of the contractor who is to construct a project facility must be well established. The contractor must have technical expertise to complete the project, so that it will operate in accordance with cost and production specifications. Ideally, the contractor should be a company which has previously successfully built similar projects. The contractor should be financially strong, since the financial failure of a contractor is a disaster few projects can survive. The contractor should also be large enough to have the resources to devote to, and solve, any problems that might arise.

Lenders to a project will be concerned about the choice of a contractor. They will require someone with an established reputation for building similar projects who can overcome any problems in engineering, construction, start-up or operation that might arise.

If the project is to be located in a developing foreign country, experience in doing business in that country or in that part of the world is very important. Even experienced contractors with good reputations have run into difficulties where they were unfamiliar with the climate, culture, government infrastructure, and the geographic circumstances of a particular project.

The contract, or a subcontract, in a project financing should not be awarded on the basis of a low bid unless the low bidder satisfies the criteria outlined above.

(j) Experienced and reliable operator

The operator must have the financial and technical expertise to operate the project in accordance with the cost and production specifications which form the basis for the financial feasibility of the project. The operator may be an independent company specialising in providing such a service. Alternatively, the operator may be the promoter, or may be one of the sponsors or co-sponsors of the project. In any event, personnel with experience and expertise in operating similar projects at other locations is essential.

Sometimes entrepreneurial companies see a chance to engage in new businesses which provide good investment opportunities, and they may proceed on the assumption that they will be able to assemble a good team to operate the new facility. However, these kinds of arrangements are fraught with problems. A number of reputable individual operating people, brought together to operate a project, will not necessarily work in harmony as a team. They will not be used to dealing with each other; each may come from a different background, and have a different way of doing things. It will take some time before such a group of people can be organised into an effective operating team.

Lenders prefer a project financing in which one of the sponsors has the technical expertise to operate the facility, and has experience of operating similar facilities. Alternatively, professional operating companies may be employed to operate the plant under long-term contracts.

The difficulty of assembling a good operating team has been experienced by some of the oil companies when engaging in the coal business. The international oil companies are among the best-managed companies in the world. They pay good salaries, they hire good people and they have great depth in management and administration at all levels. Yet when they have entered other businesses, such as coal mining, they have discovered that people who understand the oil business do not necessarily understand the coal mining business. Neither is it easy to assemble a team to operate coal mines.

In some foreign operations, in which a foreign joint venture partner or government agency assumes own-

ership control of the facility over a period of time, questions may arise over who will operate the facility and as to the competence of such an operator. Lenders seek protection against well-meaning or politically motivated host countries trying to take over the operating responsibility of a facility when they lack the experience and skilled operating expertise to do so. Protection can sometimes be provided by a long-term contract with an experienced operator which the host government guarantees will survive a change in ownership control.

(k) Management personnel

Good management personnel as well as experienced operating personnel are needed to operate a project. The general management of a project company makes the basic policy decisions, arranges the financing, provides information to lenders and investors, and is responsible for monitoring and administering the project company. Project financing loans generally have to be paid from cash flow. Good internal controls are essential. The ability to maintain production levels and market share is absolutely necessary. The management team must be experienced, reliable, and have a good working relationship with the project lenders. The sponsors must be able to attract and retain a good management team.

Entrepreneurial companies are often interested in project financing. They tend to be receptive to new lines of business, and use modern methods of leveraging their capital. However, such companies are often short of management personnel, and a large new project may put serious strains on the existing management, resulting in either the parent company or the project company being neglected.

Lenders will want both the project company and the parent's basic businesses to be well managed, and will be reluctant to lend to a project in which either the project or the leading sponsor seems deficient in management personnel.

(l) No new technology

The project should not involve new technology. The reliability of the process and the equipment to be used must be well established. If a new technology is involved, more than a lending risk will be involved, unless the project borrowings are guaranteed by a strong credit such as a government agency or a large company with an excellent credit standing.

If a project is to be largely self-supporting without an all-encompassing guarantee from a government agency or some other form of credit, lenders will insist that the project uses existing technology. Projects to produce oil from oil shale or tar sands, gas or oil from coal, energy from garbage, gasohol from feed grains or similar promising but untried processes, cannot be financed as a project financing in the absence of a guarantee from a very strong credit. Lenders who rely on cash flows from a project to service debt expect the project to be similar to other full-size working projects, with proven technology and engineering.

Electricity generating plants provide a good example. A good prospect for a project financing would be a 200 megawatt coal-fired plant, using standard machinery and equipment successfully used in other generating plants of similar size, and which may be purchased out of inventory from a manufacturer. On the other hand, a 500 megawatt lignite-fired plant to be built along the same principles, but with custom-built boilers, machinery and equipment not previously extensively used and tested in similar facilities will raise serious questions in the minds of lenders as to the feasibility of the project, and require greater credit support from guarantors.

(m) Contractual agreements among joint venture partners

If the project is a joint venture, the agreements between the joint venture partners are of considerable concern to lenders, who want assurance as to the identity of the companies and entities which will own and operate the project throughout the life of the loan (see Chapter 26 for a wider discussion of joint ventures). It is of particular concern that joint venture agreements contain satisfactory provisions on:

a. changes in percentages of participations by any of the partners;
b. withdrawal and replacement of partners;
c. addition of new partners;
d. responsibility rights, and obligations of partners to each other if one partner fails to meet its financial obligations or commitments to the remaining partners;
e. procedure for settlement of disputes among partners;
f. voting rights of the partners on operation and management of the project; and

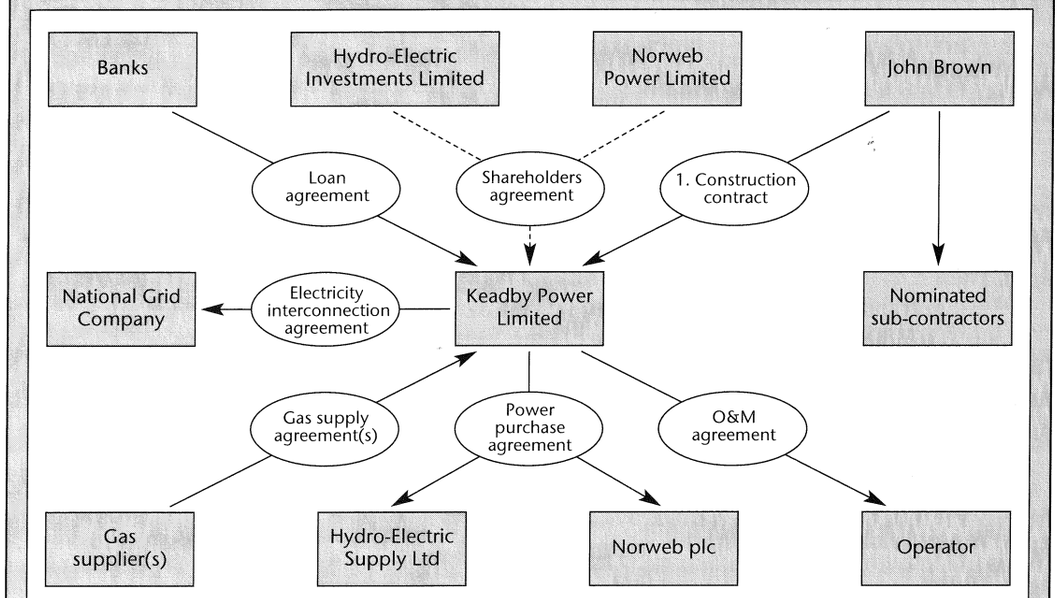
Case study: Keadby Power – Liquidated damages

The £375 million project financing for the 680MW Keadby Power station in South Humberside, UK, included a provision for liquidated damages (LDs) under the turnkey construction contract. LDs were split roughly equally between delay and underperformance with an overall cap of 20 per cent.

The LDs ran for 21 weeks of delay. If the plant's performance fell 3 per cent in two areas, fuel efficiency and power output, then 12 per cent of the LDs were payable, which would cut into the overall 20 per cent ceiling.

Typical of transactions that rely on such contractual completion support, the pre-completion margin of 115bp fell to 100bp upon completion. (Pre-completion margins are usually lower, reflecting the sponsor completion-support architecture.)

Because the turbines used at Keadby were the latest GE version, technology risk was substantial. Long delays were caused by heavy vibrations which had to be corrected. LDs of £2.6 million per week were payable for the 21 weeks of delay. However, the banks had provided a grace period of one year before commencement of principal repayments, which allowed the problem with the units to be resolved by GE and the contractor.



Summary

1. Under the turnkey contract, liquidated damages are capped at 20 per cent of the turnkey contract price.

g. assurance that the project facilities will be managed by a qualified operator for the life of the loan, particularly where the host country increases its ownership participation.

(n) Political environment, licences and permits

The political environment for the location of the project, and the type of project, must be reasonably friendly and stable. Any necessary permits must be readily available, and restrictions must be realistic. It must be possible to develop good working relationships with the government officials who will be involved with the project. See *Case Study: Dabhol.*

The need for a stable political environment is not confined to projects located in developing countries.

In recent years, a stable and friendly political environment has not always been assured for projects located in North America or Europe.

Hundreds of licences and permits may be required to build many kinds of projects in the United States, and some of these licences and permits are not available until after completion of the project – for instance, certain clean air and clean water licences and permits. A lender to a project must be assured that such permits will be granted in a fair and objective manner, based on standards which are known at the outset of the project.

Severance taxes can also seriously affect the economics of a project. A severance tax is a tax imposed on the production of a particular natural resource, such as gas, oil or coal. This is a popular way to raise revenue, since the local taxpayer/voter is subsidised. However, the uncertainty over future severance taxes can raise serious problems for a project financing, since they reduce the ability of the project to adjust prices to meet costs, make the product less competitive and adversely affect the ability of the project to service debt.

(o) No risk of expropriation

Expropriation can be direct or indirect; it can be fast or creeping. However, as far as lenders or owners are concerned, the result is the same. The risk of direct expropriation in a developing country is fairly obvious. The risk can be appraised by examining the infrastructure of the country, its neighbours, its history, its power structure. The hard questions which have to be answered are: who will be the likely new heads of state in the event of a political change, revolt or an invasion, and what will their attitude be towards the project, payment of the project debt, and living up to the agreements of the preceding government regarding the project?

There are many ways in which companies protect themselves when investing in projects in potentially unstable countries. One method is to obtain a concession agreement from the country, which spells out as many of the agreements between the project company and the government as is possible. Sometimes concession agreements are relatively short, and sometimes they are very lengthy. Sometimes separate agreements are entered into with the central bank and with the government bureau in charge of development of natural resources or industrial development. These agreements preserve continuity between the company and the government when changes occur in the host country leadership. However, they are best characterised as letters of general understanding, rather than binding commitments.

The risk of expropriation by a developing country can be greatly lessened if the project company is owned by a number of investors from a variety of countries. Prominent local investors from the host country should be involved, if feasible.

If, for example, a company needs a mineral product which is located in a developing country, it may be well advised to form a consortium of international investors and local investors to develop and own the project mine rather than trying to do it alone. The host country will be much less likely to expropriate a mine owned by a consortium of investors from, say, the United States, Japan, the United Kingdom, France, Germany and one of the Arab states.

It may, in fact, be to both the lenders' and investors' advantage if loans to the project are from an interna-

Case study: Dabhol – Political risk

India established a power regime for independent power projects (IPPs) whereby the developer would get a 16 per cent return at a 68.5 per cent availability (hours ready for use per annum) and subsequently declared fast-track project approval for a 2,500MW two-phase project at Dabhol near Mumbai (Bombay) in the state of Maharashtra. The Dabhol PPA was on a negotiated tariff, rather than a minimum rate-of-return power tariff. The first 695MW phase was to be fired with distillate fuel with the whole project later converted to regasified LNG fuel from the Middle East.

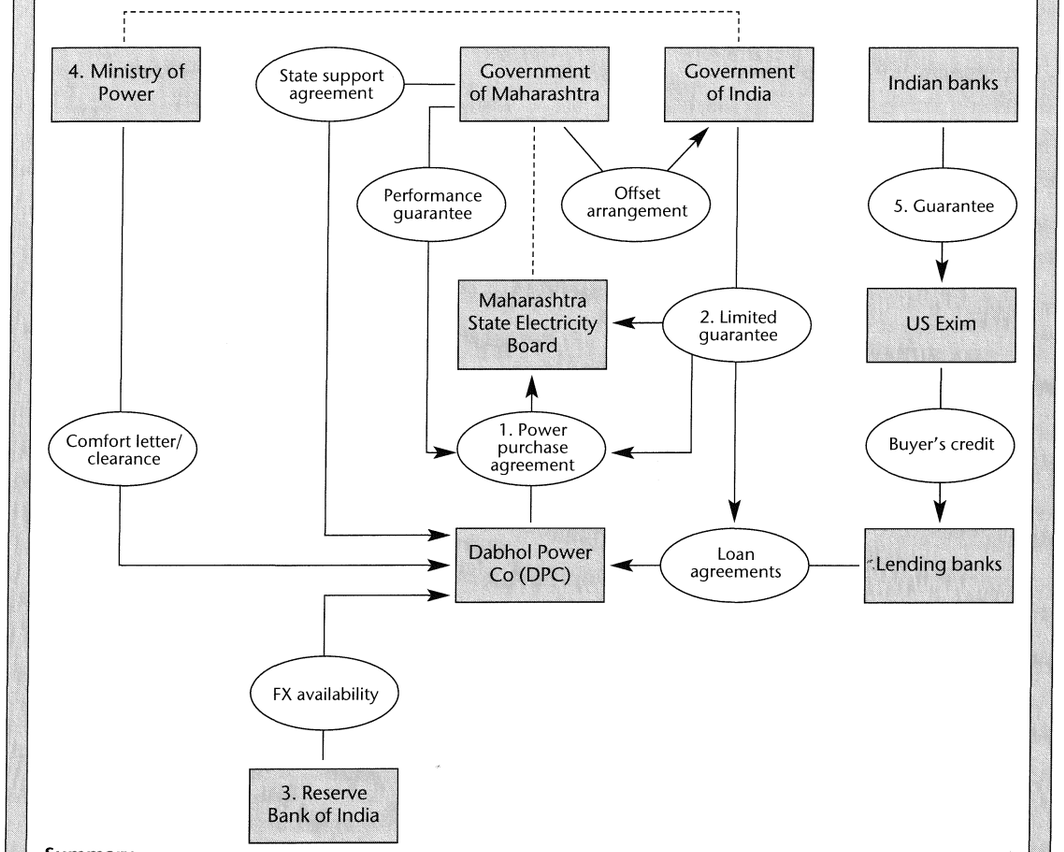
Fast-track approval meant that the credit of the Maharashtra state electricity board, MSEB, would be enhanced by the central government in New Delhi to the extent that the plant was ready for use per the PPA and/or delivered power. If the MSEB could not honour its payment obligations then New Delhi would cover the costs. Most SEBs in India are bankrupt due to difficulties, mainly politically inspired, in collecting bills and in stopping outright theft of power by communities, companies, and even other government departments.

In 1995, a few months after the deal was signed, and with about US$300 million of Enron's money invested, the state government lost an election to the Hindu nationalist BJP which promptly scrapped the PPA, claiming corruption, among other things. A rancorous exchange followed, which unfortunately included violence on the site.

Enron immediately moved to arbitration in London. The government's own outside local counsel resigned. Eventually a compromise was signed with a switch to naphtha as fuel for Phase 1, which gave a price reduction of approximately 22 per cent, together with an expanded overall project.

Phase 2 of the Dabhol project has also been project financed. However, the central government's guarantee only applies to the offshore lenders, causing a reshuffle of the intercreditor arrangements between Phase 1 and Phase 2 lenders.

Case study: Dabhol *continued*



Summary

1. MSEB issues power purchase agreement (PPA) to DPC for Phase 1.
2. India issues limited guarantee for the performance of MSEB.
3. Reserve Bank of India guarantees foreign exchange conversion rights for DPC.
4. India's Ministry of Power/CEA issues techno-economic clearance and comfort letters for the project.
5. Indian domestic financial institutions/banks issue guarantee to US Exim.

tional consortium of lenders, rather than just lenders from one country. Equipment for the mine, for instance, may also be purchased from suppliers in several countries and financed with export agency loans from those countries. These loans in turn might be intertwined with a loan from the World Bank or one of the area development banks, with cross-default clauses, so that a seizure of the mine, change of substantial ownership, or failure to pay debt will result in default of a number of international loans and jeopardise a country's credit to an unacceptable degree.

It is also possible to obtain insurance against expropriation. However, such insurance is expensive.[4]

Creeping expropriation can be as insidious as rapid expropriation. It can take the form of taxes, or failure to renew licences or import or export permits. It can be accomplished through changes in government policy on foreign ownership. Canada's past policy of discouraging foreign investment in natural resources, and divestiture of existing investments, may have been well-intentioned from the standpoint of Canadian policy, but was a form of expropriation from the standpoint of affected investors. The policies of some public utility commissions in the United States on assets to be included in the rate base have resulted in utilities having to sell securities at substantially under book values and, in effect, expropriating utility investors. Environmental restrictions in Europe and the United States have also resulted in utilities having to sell securities at substantially under book values, in effect expropriating utility investors. Many plants, mines and foundries have also had to be shut down for environmental reasons long before their economic lives were exhausted.

Creeping expropriation through taxes targeted at particular businesses and projects is popular with short-sighted politicians concerned with sources of revenues to support politically popular social programmes. One such example is the UK tax on revenues from North Sea oil production, which has doubled from the original rate of 35 per cent when the levy was first imposed in the early 1970s.

Government agencies created to market minerals from mines are a device to siphon off profits through sales commissions payable to the agency, and may be a precursor of nationalisation. The usual official explanation for such an arrangement is to halt alleged abuses in transfer pricing – ie, the over- or under-invoicing between foreign and domestic units of, say, a mining company to avoid taxation and to transfer capital.The former Zaire, Zimbabwe and other African mining countries have used this tactic.

(p) Country and sovereign risk

Country risk is usually defined as a risk of a lender making a cross-border loan to a private company. Country risk problems occur when the host country is not in an economic position to permit transfer of amounts of currency for payment of interest and principal on foreign debt to lenders. Country risk problems also occur when the country has an embargo on certain products, or will not permit repayment of debt, for domestic foreign policy reasons. An example of country risk problems which might arise is illustrated by the past experience in Iran.

The feasibility study should identify the country risk, appraise the significance of the risk and discuss how the project intends to address and avoid such risks.

Sovereign risk differs from country risk in that it refers to the risk of a loan to a sovereign nation by a lender located in another country. This has application in project finance where the sovereign nation is one of the investors or joint venturers in the project: a loan to the project is in part, at least, a loan to the nation. Financial advisers or lenders to a project can help sponsors to appraise and consider this risk.

(q) Currency and foreign exchange risk

Currency risk problems arise where revenues, expenses, capital expenditures and loans are in more than one currency and, therefore, subject the project to potential losses from currency fluctuations. Where this problem exists, strategies must be devised to match currencies of cash to be received in the future with cash required for future payments.

During construction, lenders will look to the sponsors to make up any foreign exchange losses by providing additional funding.

Careful analysis must be made of the expected cash flow of a project to determine what currencies will be used to finance the project, including the host country currency, and what currencies will be generated by the project. The exchange of one currency into another must be carefully managed. Hedging in forward currency markets should be done where possible at a reasonable cost. Hedging for the commodity produced may be possible, as may forward currency sales and swaps. A multi-currency loan may help control this risk. The bank or financial adviser to the project can provide expert advice and help in these problems.

If the project is located in a developing country, the rights and obligations of the project company to deal in local or foreign currencies should be spelled out in some kind of concessionary agreement with the central bank of the host country. Artificial conversion rates can, of course, significantly adversely affect the project.

(r) Adequate equity contribution

The key project sponsors or promoters must make equity contributions consistent with their capability, interest in the project, and risk of the project. Lenders will require the sponsors of a project to have a sufficient financial interest in it so that it will be difficult for the sponsors to abandon or ignore the project.

Entrepreneurial companies, however, are often the sponsors of projects. They like the leverage (high debt to equity ratios) of project financings, and they like the potential profits. However, such companies are constantly seeking new opportunities, and should one of their investments not work out as expected, there may be a tendency to neglect or forget about that project in order to concentrate on one with more promise. Lenders do not want sponsors to have that option.

(s) The project as collateral for 'asset lending'

Lenders may be willing to rely to some extent on project facilities and properties as collateral and security for debt repayment. Therefore, in planning a project, it is important to try to locate and structure the project and its facilities so that they may have value to third parties. To the degree that this objective can be accomplished, less debt support may be required from lenders.

Many projects are uniquely valuable to the parties involved, but it is certainly not a requirement of a project financing that the project have value to third parties. However, credit support for such projects must obviously then come entirely from other sources.

The term 'asset lending' is used to describe circumstances in which lenders are willing to look to the collateral value of the asset securing the loan as a significant back-up source of funds to repay the debt. In large equipment loans or leases, the value of the equipment if sold as used equipment is important if the transaction is structured as a project financing.

(t) Satisfactory appraisals

Independent appraisals of project assets must be available. The value of such reserves, of course, can play a major role in the project financing. Appraisals of reserves should be made if an oil or mining property is involved.

The risk in a resource project is that the actual production and the revenue derived from it will be insufficient to pay operating costs and amortise project debt in accordance with the financial plan.

A lender must be sure that potential ore deposits, gas fields or oil deposits necessary to the project actually exist. If a production-payment type of financing is involved, the value and amount of reserves must be of sufficient size to justify any collateral value sought by lenders. The quality of such reserves, the technical feasibility of recovery, the proportion of the reserves which are economically recoverable, and the ability and cost to extract such reserves must be ascertained to the greatest extent possible. The timing of recovery or production must be established. Some banks employ their own engineers to conduct such appraisals; private engineering firms are also available to perform such appraisals.[5]

Appraisals of plant and equipment valuable to third parties are necessary if such assets are relied upon to any extent as collateral. Such appraisals are also needed for insurance purposes.

(u) Adequate insurance coverage

An adequate insurance programme must be available both during construction and operation of the project. An uninsured casualty loss can be a disaster for all concerned. Risks should be evaluated and insurance coverage maintained at levels sufficient to provide protection. Reviews and changes in coverage should be made as conditions change. A project company usually has little cushion to fall back on in the event of such a loss, except for insurance proceeds.

Business interruption insurance will provide protection against the possibility that the project cannot be operated.

Insurance proceeds should be assigned to lenders. Loan agreements should be clear as to the circum-

stances under which the proceeds from a casualty loss must be used to restore the project or to repay the debt to the lenders.

Industry standards for loss deductibles are not necessarily appropriate for insuring a project.

Insurance proceeds during construction and/or start-up are sometimes payable to the sponsor or a company providing completion guarantee. This is satisfactory so long as a responsible sponsor or other guaranteeing party is required to complete or pay back the lenders, and has the financial resources to do so. Otherwise, the insurance proceeds should be assigned to lenders.

(v) Force majeure risk

Force majeure risks are those types of risks which result from certain events beyond the control of the parties to the project financing and thereby exempt parties from the legal consequences of non-performance. *Force majeure*, which literally translated means 'superior force', has developed into an international doctrine. The scope of *force majeure* risks is difficult to define.

Transaction documents in a project financing should include clauses which specify the events that excuse performance and the legal consequences of each event. The events commonly included in *force majeure* clauses are:

- 'war (declared or undeclared) or other military activity;
- strikes, lockouts and other labour disturbances.
- riots or public disorder;
- expropriation, requisition, confiscation or nationalisation;
- changes in laws, rules or regulations;
- blockades or other closings of harbours or docks;
- severe storms and natural disasters; and
- epidemics or quarantines.'[6]

The consequences from non-performance for each event should be specified in the contract.

Force majeure risks may also occur to key suppliers of raw materials or services such as transportation. Parties required to take the service or product of the plant under long-term through-put or take-or-pay contracts are similarly subject to such risks.

Lenders will seek to shift all risks of this sort to the sponsors, suppliers, and purchasers through contractual obligation or insurance protection.

The following are practical points when negotiating certain of the more common events included in *force majeure* clauses:

(i) '*War (declared or undeclared) or other military activity:* It may not be clear when a war or other military activity should provide an excuse for non-performance. For example, does the commencement of war or other hostilities involving the project country constitute a physical impediment to performance, or should there be a requirement of hostile activity at or near the project site?

(ii) *Strikes, lockouts and other labour disturbances:* While these events can physically prevent performance, they also raise questions as to foreseeability and avoidability. Have these events occurred frequently in the past? Should the conduct of a party's employees excuse performance? Or should these events be restricted to those involving the employees of others? Is a settlement of the dispute possible? Are replacement employees available?

(iii) *Expropriation, requisition, confiscation or nationalisation:* These events are often the source of lengthy *force majeure* negotiations. When the non-performing party resides in the project country and is prohibited from performing by an act of the government of such country, an award of damages by a court in another country may be unenforceable.

The issue becomes more difficult when the non-performing party is responsible to the government itself. Then, there is an argument that the non-performing party has caused the impediment and is not entitled to claim *force majeure*. But courts outside the project country may be reluctant to scrutinise what may be viewed as an act of state. Project documents should specifically prohibit non-performing government entities from claiming the benefit of the *force majeure* clause when the government itself is causing the impediment.

(iv) *Natural disasters:* Certain natural disasters such as severe storms or floods may be normal conditions during certain times of the year at the project site. Since these can be reasonably anticipated they should not excuse non-performance. To avoid ambiguity, it is worthwhile to exclude such events – as long as one party or the other has agreed to accept the risk.'[7]

(w) Cost over-run risk

Cost over-run risk occurs when the cost of construction or completion of a project facility is larger than originally estimated. This creates serious problems in a project financing, where the ability of expected revenue to cover operating costs and amortise debt is dependent upon the assumed cost of the project. Unless the remaining construction costs are paid, the facility will not be completed, and the project will not generate funds to repay project debt. This puts the entire project in jeopardy. An over-run cost with no provision for responsibility for payment puts considerable pressure on lenders to advance additional funds.

Over-run risk can be covered in a variety of ways.

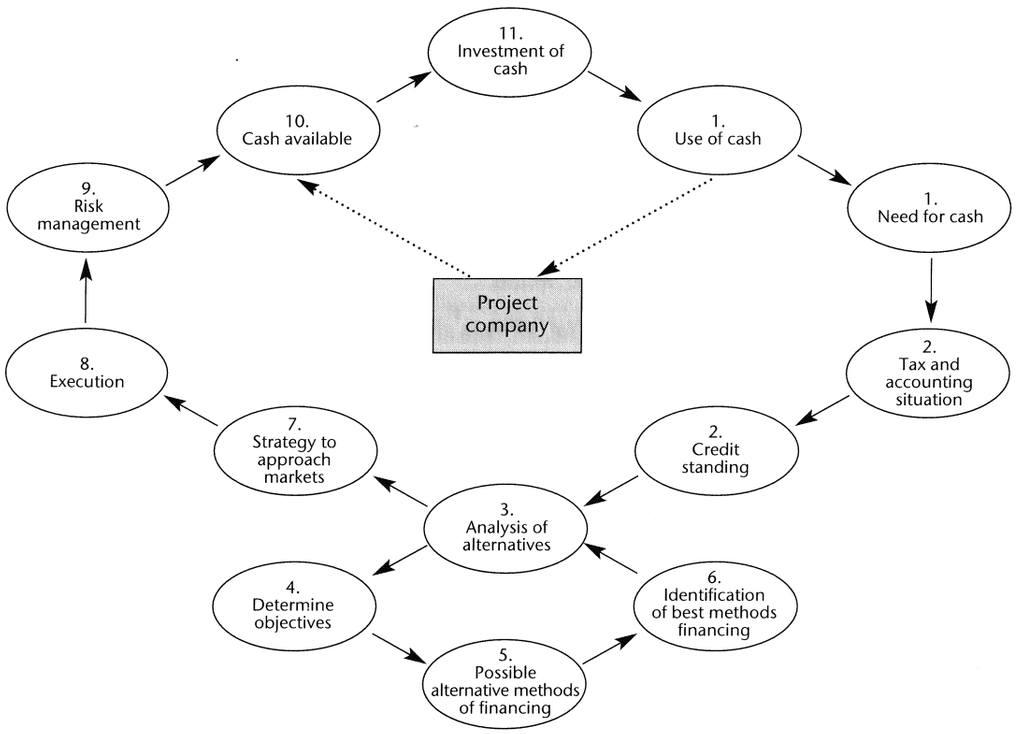
(i) *Additional capital by sponsor:* Under this approach, the sponsors or investors must agree to come up with the additional capital. This additional capital is sometimes in the form of subordinated debt rather than a capital contribution, permitting return of the additional investment to the investors on some basis other than as dividends or a distribution of capital, which might otherwise be in violation of loan agreements.

(ii) *Standby credit facility:* Another method of handling an over-run is through a standby credit facility from the original lenders. In such a standby credit arrangement, additional borrowings may have to be covered by a lengthening of take-or-pay contracts, or price adjustment of the product or service. Under such an arrangement, additional guarantees or capital contributions by sponsors may be necessary.

(iii) *Fixed-price contract:* Over-run risk can be guarded against to some extent if some form of fixed-price or turn-key contract can be obtained from contractors and subcontractors. In such an event, the contract price will be higher because of the higher risk for the contractor.

(iv) *Completion guarantee extension to debt maturity:* A completion guarantee by the project sponsor is an undertaking whereby the entire debt of the

Exhibit 2.6: Meeting continuing financing needs



project is guaranteed until the project is complete and operating according to specifications. This type of guarantee can contain a provision that debt will be guaranteed until maturity in the event completion is not achieved by a certain date. This puts pressure on the sponsor to provide cost over-run funds needed for completion.

(v) *Take out of lenders:* The loan agreement can require the sponsor to purchase the assets and take out the lenders if the project is not completed and operating according to specifications by a certain date. As a practical matter, such an agreement sets the stage for lenders to renegotiate the loan on more favourable terms and conditions.

(vi) *Sponsors' escrow funds for completion:* Under this arrangement, the sponsors provide an escrow account containing sufficient funds to complete the project.

An escrow account is, in effect, a trust fund established and funded by the sponsors. Funds are paid out from the escrow account for some specific purpose on the occurrence of some event. In the case of an escrow account to provide funds for completion, funds would be paid out to contractors to cover certified cost over-runs. Any excess not used would be returned to the sponsor upon completion.

(x) Delay risk

A delay in completion of a project facility creates a compound problem. Interest on the construction loan continues to run, thus raising the capitalised costs of the project and resulting in a cost over-run. At the same time, the expected stream of revenue is delayed since the plant cannot operate to produce the product or service. If the delay continues for any length of time, cost of labour and materials increases due to inflation.

Nuclear plants in the United States are examples of disastrous consequences of delays.

Methods of handling cost over-runs resulting from delays are the same as for capital cost over-runs.

(y) Adequate ROE, ROI and ROA

Lenders wish to ensure that a project has a satisfactory economic incentive as measured by projected ROE (return on equity), ROI (return on investment) and ROA (return on assets) for the sponsor investors. Lenders expect the investors in a project to be successful and to have the potential for being very successful. Lenders recognise that there is no better incentive for the success of a project than for the investors to have the potential to receive an excellent return on their investment.

(z) Realistic inflation and interest rate assumptions

The projections and feasibility study should assume realistic inflation rates. Projections in terms of current values are unrealistic. Financial advisers and lenders to the project should assist the project company to arrive at realistic inflation rates. Such rates will vary from country to country, which should be borne in mind when investors, lenders and equipment sources for a project are located throughout the world.

The feasibility study and projections must also include projections of fixed and/or floating interest rates which will be available to the project throughout construction and operation. This is an area where the financial adviser and/or lenders to the project can provide expert help. Since a substantial part of the capitalised cost of a project will consist of interest expense, it is important that realistic interest assumptions be used for financial planning in the feasibility studies.

(aa) Environmental risks

Both the sponsors and lenders to a project must be very concerned regarding harm to the environment which may result from the contemplated construction and operations.

Also careful investigation of the history of any environmental damage to the property resulting from past usage is warranted because the new owners and lenders to the project may be held liable for any environmental clean up required, regardless of when or how it occurred.

Environmental enforcement has approached the zeal of a religious movement in many instances. Insurance protection may only be available at exorbitant prices.

Environmental liability is also very dangerous for ship operators and their lenders and lessors. The Exxon oil spill in Alaska is an example of the potential extent of such liability.

(bb) Foreign Corrupt Practices Act

Substantial opportunities exist throughout the developing countries and particularly in China, south-east Asia and Eastern Europe for project financings.

Unfortunately for US companies in particular, bribery[8] is sometimes customary and necessary to gain contracts, permits, and even the right to bid on contracts. In the United States, the Foreign Corrupt Practices Act 1977 (FCPA) prevents US companies from bribing foreign officials and requires US companies' accounting practices to accurately reflect payments to foreign officials and agents.[9]

The FCPA seeks to export US domestic business ethics to the business cultures of other countries. Some US businessmen argue that FCPA creates a competitive disadvantage for US business – a disadvantage that their European or Asian counterparts do not bear.[10]

FCPA makes it unlawful to bribe government officials to obtain business, and it includes several types of prohibited behaviour in its antibribery provisions. Its basic prohibition is against making bribes directly, although a second prohibition covers the responsibility of a domestic concern and its officials for bribes paid by intermediaries.

The basic antibribery prohibition makes it unlawful for a company (as well as its officers, employees or agents) to offer, pay, promise to pay, or even authorise the payment of money or anything of value to a foreign official for the purpo
ing business or directing b

The second antibribery pro
a payment of any kind to any perso
or a part of the payment will be offered
to a foreign official as a bribe. A person need
ness a bribe taking place in order to know about it.

A company may not avoid liability under FCPA by closing its eyes and ignoring obvious facts that should have reasonably put the company on notice that its intermediary or agent was up to no good.

FCPA does provide several exceptions and affirmative defences. So-called grease payments to low-level employees who perform 'routine governmental action' are exempt from prosecution. In addition, FCPA provides an affirmative defense where the written laws of the foreign official's country permit the payment at issue. Another defense relates to payments made as reimbursements to foreign officials for expenses associated with visits to product demonstrations or tours of company facilities.

Nevertheless, US companies must exercise great care to comply with FCPA or risk the very expensive consequences.

Notes and references

1. There is truth to the expression: 'Owe the bank US$1 million and the bank owns you. Owe the bank US$10 million and you own the bank.'
2. Bear in mind that interest rates are cyclical. Larger than 300 basis point spreads over Libor are more acceptable when interest rates generally are high. Also, the discussion relates to senior secured debt, not to subordinated debt or so-called mezzanine financing.
3. Remember the proverb relating to use of computer programs and models: 'Garbage in, garbage out,' or its sequel: 'Garbage in, gospel out'.
4. See Chapter 28.
5. Over-optimistic appraisals of gas properties used as collateral for loans contributed to the failure of or near failure of several US banks.
6. R. Jay Fortin, 'Defining *Force Majeure*,' *Project & Trade Finance* (January 1995), p. 58.
7. Ibid., p. 59.
8. Bribery has many names throughout the world such as *bakshi, wairo*, and *romisi.*
9. The US Department of Justice has been quite enthusiastic in enforcement of FCPA. In 1994, Lockheed and two executives were indicted for bribes paid to an Egyptian consultant for assistance in arranging the sale of three aircraft. The company entered a plea of guilty and was fined US$24.8 million.
10. As a respected gentleman from India once observed to one of the authors: 'You Americans are very concerned about under the table payments. What you do not understand is that in most of the world there is no table.'

3

Use of a financial adviser

The employment of a financial adviser is essentially an economic decision. It is obviously beneficial when the cost of the adviser's value-added services are less than the ultimate savings, and in most project financings this will be the case. Moreover, many potential project financings will not be accomplished without the help of an experienced financial adviser.

The most important contribution of a financial adviser with a good reputation such as a bank or investment bank is the credibility they provide to the proposed project and its financial projections.

Since financial advisers earn their fees by arranging financing, they are motivated to ensure completion. It is necessary to package a proposed financing to appeal to the lenders and investors who have been identified as likely to provide funds on acceptable terms. A prospectus or offering memorandum covering points of interest must be skillfully targeted to investors and lenders and the firmness of their commitment carefully judged. This is usually a difficult role for the sponsor or management of the project company as they have other demanding responsibilities. Financial advisers (with good track records) can perform these services in a manner which is more likely to succeed.

A project financing may be broken down into four types of tasks for a lender or financial consultant:

1. Preliminary studies;
2. Planning;
3. Arranging financing; and
4. Monitoring and administering the loan agreement.

1. Preliminary feasibility study

The preliminary consulting and feasibility study takes place at the outset of a proposed project financing. The purpose is to determine whether the proposal has sufficient merit to warrant further expenditure of time and effort to bring it about. Many projects flounder as these problems are addressed. At this stage, the function of the lender or adviser is to:

a. determine the objectives of the sponsor;
b. review the plan of the sponsor;
c. raise questions and issues which must be answered; and
d. suggest alternate ways to accomplish the sponsor's objectives.

It is important to have knowledgeable financial consultants involved at an early stage in any project financing. There are many instances of companies spending thousands or even millions of dollars on engineering feasibility studies and prototypes when a project is not financially feasible.

Some projects proceed significantly towards completion of construction before expert financial advice is sought – to investigate financing available from alternative equipment sources, to explore tax lease alternatives and government incentive programmes, and to take advantage of export financing programmes – with the result that the financing of the project is much more expensive than would have been the case had alternative financing plans been explored at an earlier stage. Once contracts are let and partnerships formed, it is very difficult and expensive to renegotiate to meet project financing objectives. However, such restructuring is sometimes necessary where financial planning has been neglected.

On the other hand, some proposed projects are incorrectly rejected at early stages on the grounds that financing cannot be arranged. Expert project financ-

ing advice in such circumstances might provide a workable and feasible financing plan for such a project.

2. Planning

The planning phase covers everything from the initial consulting and review of the preliminary feasibility study to arranging the financing. This phase includes an analysis of the project in which all of the relevant factors in a complete feasibility study are evaluated.

As noted earlier, the financial adviser provides credibility by helping to prepare and in effect endorsing the financial projections. A financial consultant can assist in providing useful assumptions to be used in the feasibility study for such factors as interest rates, currency exchange risks and inflation risks. A financial consultant can also advise on the best way to arrange financing of the project, taking into consideration the currencies the project will generate, the location of the project and the capital needed. Consultants can help with formulating accounting objectives and in projecting the amount of capital needed to finance the project. Advice can be provided on the amount of equity support and borrowing which will be required. Proposed loan terms can be prepared, based on the cost of the project, the expected interest rates, the expected inflation rates, the projected economics of operations, and the anticipated cash flow.

The consultant can also assist with negotiations with government agencies and suppliers, and with preliminary negotiations with the private debt markets. Appraisals can be provided and reviewed for accuracy. The financial consultant can prepare a financial model of the project and test the feasibility of the various financial plans with various risk case scenarios

3. Arranging the financing

Having assisted in the preparation of feasibility studies, and in planning the best method for financing the project, the financial consultant is in a position to prepare and present information regarding the proposed project financing to prospective lenders.

Typically, an information memorandum (called an offering memorandum) is prepared, which discusses the following points.

(a) The sponsors and promoters of the project are identified

The background and track record, as well as the experience and reputation of the principal officers, are described. The purpose is to establish a reputation of expertise, responsibility and integrity for the sponsors. While the information is factual, a financial adviser is in a much better position to present impartially facts which support the premise that the sponsors are well qualified to undertake the project in question.

(b) Other interested parties to the project are identified

This portion of the offering memorandum identifies third party guarantors, other than the sponsors, who will be making an important contribution to the success of the project. These parties include suppliers of equipment to the project, suppliers of raw materials to the project, takers of products from the project, the contractor and various interested governmental agencies. A description of each of the interested parties and their pertinent qualifications and expected contributions to the project is included.

(c) Location of the project

Any special problems which are apt to arise in connection with the project because of its location are discussed.

(d) Estimated construction costs

The estimated construction costs and the basis for that estimate is set forth. The construction schedule and the expected cost of interest on the construction loan are explained. The purpose of this section is to establish the total capitalised cost of the project which will have to be financed.

(e) The financial plan

This section of the memorandum reviews the cash flow projections for the project and the expected use of those funds, including the principal and interest payment of the debt. It explains the assumptions used, and the working capital needs of the company. Equity contributions, supplier loans and other borrowings are discussed. Contingency plans, in the event some of the key assumptions are not correct, are reviewed.

(f) The proposed terms for financing

This is the heart of the memorandum, and outlines the amounts, priorities, maturities and timing of the financing.

The offering memorandum is described in greater detail in Chapter 4.

4. Monitoring and administering the financing

The monitoring and administrative duties of a financial consultant and adviser break down into three time frames, consistent with the risk periods discussed in Chapter 2:

1. Construction;
2. Start-up; and
3. Operations.

(a) Construction

Monitoring the project during construction entails matching the take-down of debt to the financial plan and construction schedule. If the loan agreements permit a choice of alternative currencies or terms, the financial adviser can provide advice on the advantages and disadvantages of the different financial strategies. Hedging advice can also be given.

It is important that the construction be kept on schedule and that the lenders not be caught by surprise with delays in construction and over-run exposure. Estimates to complete are prepared from time to time, with the help of internal accountants, to prevent such surprises. These can be verified by independent accounting firms to give such studies more authenticity.

(b) Start-up

Administration of the loan agreements during the start-up period involves monitoring the actual operating costs and economics of production against the financial plan and production goals. The market for the product or service, and the sales revenues realised, are compared against the original financial plan.

Unexpected problems which may affect the economics of the project are tracked, such as additional costs imposed by regulatory authorities, or unforeseen taxes. If different currencies are generated by sale of the product or service, advice is provided on ways in which such currencies can be swapped or converted to service debt principal and interest payments.

(c) Operations

Once it is clear that the plant is operating to the projected costs, volumes and efficiencies contained in the operating plan and financial plan, completion guarantees may drop away from the project as it begins to assume the characteristics of a going concern rather than a project financing.

The duties of the financial adviser then become the traditional responsibilities of monitoring operations, cash flows, ratios and other developments which may have a positive or negative effect on the company (see also Appendix C – a risk classification system).

As risks become known and confidence in the success of the project grows, opportunities for savings through refinancing can be explored.

At all stages it is to the advantage of the borrower and the agent or adviser to avoid surprises for the lenders. In the event of any kind of trouble developing, lenders feel more secure if they are fully informed, even if the news is not good. It is very disenchanting to lenders to learn of momentous developments at short notice. Once lenders feel they are not being informed, they are apt to begin assuming and imagining the situation to be more perilous than it may be. Lenders under such circumstances are more apt to act precipitously.

5. Selection of an outside adviser

The sponsor of a large project financing will usually seek the assistance of a financial adviser in arranging a project financing. Candidates to serve as financial adviser include:

a. Commercial banks;
b. Merchant banks or investment banks;
c. Major contractors;
d. Major finance companies; and
e. Independent consultants.

Unless some special circumstances call for use of a major contractor or independent consultant, the choice narrows down to either a commercial bank or a merchant bank or major finance company.

Characteristics of a potential financial adviser which a sponsor should consider include: reputation, standing in the market-place, knowledge of the industry, past relationship with the sponsors, technical exper-

tise, familiarity with any country risk, and compatibility with the officers assigned to the project.

Another characteristic which is often important is the ability to commit or underwrite a part or all of the project debt. Commercial banks and major finance companies have the edge in being able to provide this service.

Commercial banks tend to be relationship-oriented, whereas investment banks are more transaction-oriented.

Investment banks (and merchant banks) argue that they can do a better job for a borrower because they are impartial, since they do not provide debt to the transaction. They point out that a bank lender which arranges a transaction cannot be impartial because of a conflict of interest between its role as adviser and its role as a lender.

Commercial banks point out that investment banks have the same close relationships with certain banks and possible conflicts of interest. Commercial banks also act as financial advisers under circumstances in which they agree not to participate in any loans to the project in order to preserve their independence and impartiality.

In any event, the distinction between commercial banks, finance companies and investment banks has become less clear in recent years, as banks and finance companies have begun to offer investment banking services, and investment bankers have expanded into banking services. Both become endorsers of the financial projections and offering memorandum.

6. Engagement letter

Once a decision has been made to employ a financial adviser, an engagement letter should be signed with the adviser. This engagement letter should be carefully negotiated to spell out the fees to be charged to the sponsor at various times and under various circumstances. The scope of work to be performed, the people to be engaged, and the timetable for such work by the adviser to earn those fees should be set forth. If the adviser is to be responsible for raising debt and/or equity, the fees for such work, who will pay those fees, and when those fees will be paid should be described. The right to terminate the contract, and the liabilities of the parties in the event of such termination should be agreed. One of the purposes of an engagement letter is to prevent future misunderstandings.

The adviser may require a preliminary engagement letter and a retainer fee before taking a serious look at the proposed project. This is reasonable. From the standpoint of the adviser, it separates the serious promoter sponsor from the casual tyre-kicker. The preliminary engagement letter limited in scope can be amended to a more formal engagement letter at a later date if the project looks feasible.

The offering memorandum

In arranging a project financing, an offering memorandum should be prepared with the extensive help of financial advisors, which fully describes the project and outlines management's policies and plans. One of the primary purposes of hiring a financial adviser is to have the financial adviser prepare the offering memorandum in a form and substance that will appeal lenders.

A Microsoft Powerpoint (or similar program) presentation should be prepared which summarises the offering memorandum.

The offering memorandum may also be called the financing memorandum, proposal or prospectus. The purpose of this document is to provide lenders with the information needed to make a preliminary credit decision. It is the most important selling tool in seeking financing from lenders and investors. A well-prepared memorandum and Powerpoint summary will impress lenders with the planning ability and general competence of management. A poorly prepared offering memorandum will have the opposite effect.

It is important that the assumptions underlying the business plan outlined in the offering memorandum and Powerpoint summary are realistic and that the financial projections are attainable, since the loan covenants and ratios will closely track the financial projections. Pro forma statistics of projected cash flow and financial condition qualify the strategic plan for the project company and demonstrate the ability of the company to service its debt.

Cash is king. Lenders are primarily concerned internally generated cash will cover debt service over the life of the project and over the life of the loan, with a large margin of safety such as 2:1 and 1.5:1, respectively.

The offering memorandum should contain the following information.

1. Proposed financing and summary of terms

The offering memorandum should begin with a one-page summary which briefly describes the proposed financing. This should be followed with a summary of terms for each type of financing requested containing the information shown in Exhibit 4.1, and briefly described as follows:

a. The amount, timing and purpose of the financing;
b. The type of financing requested (such as unsecured debt, equipment leases, secured debt, subordinated debt, convertible debt, debt with warrants, etc.);

Exhibit 4.1: Summary of terms

Amount:
Type of financing:
Use of proceeds:
Take-down dates:
Final maturity and average life:
Interest rate:
Commitment fee:
Definitions:
Financial covenants:
  Required prepayments –
  Optional prepayments without penalty –
  Restriction on refinancing –
  Optional prepayments under certain circumstances –
  Optional prepayments with penalty –
Protective covenants:
  Working capital –
  Short-term debt –
  Long-term (funded) debt –
    Senior
    Subordinated
  Lease obligations –
  Dividends, other stock payments, and repurchases of stock –
  Guarantees and other contingent liabilities –
  Supply and purchase contracts –
  Mortgages, liens and other encumbrances –
  Sale and lease-back transactions –

c. A description of the securities to be offered;
d. The proposed interest rate;
e. The proposed currency;
f. The proposed final maturity, repayment schedule and average life; and
g. A brief description of the proposed covenants to be included in the loan agreement.

2. The project company

Summarise important background information regarding the project company such as its date and state of incorporation and organisation. With respect to the latter, provide the names, locations and proposed lines of business for the project. If the project company is already in existence, briefly state and explain any recent financial results and management's plans and expectations for the coming year.

3. Capitalisation

Based on the most recent balance sheet, state the project company's existing and/or pro forma capitalisation using the format contained in Exhibit 4.2. Describe all proposed long-term debt and lease obligations as shown in Exhibits 4.3 and 4.4, respectively. Provide a breakdown of existing and proposed short-term bank lines, and if applicable, indicate usage by month for the past year or two. State and explain any contingent liabilities or guarantees. Give a complete breakdown of equity ownership. The percentage ownership of officers, directors and any other major stockholders should be described. Emphasise the ownership of financially strong stockholders.

4. Products/markets

Describe the project company's product(s) or service(s) and the market(s) for each. Discuss historical and projected growth in the markets served. If the project company has been in existence, show sales and pre-tax profits by major products for the past five years using the format contained in Exhibit 4.5. Describe any plans for major new products or services. Discuss the project company's research and development programme.

5. Marketing

Discuss the project company's marketing strategy. Outline how it plans to sell and distribute its products or services and how they are priced. Describe the company's customers and any concentration of sales volume among them. Describe any sales contracts. Describe any take-or-pay contracts, take-and-pay contracts or similar arrangements.

6. Competition

Describe the nature of competition in the project company's industry. Name the major competitors and, if practical, show the market share enjoyed by each. Explain the company's projected position in the industry. Describe strengths and weaknesses of competitors. Industry trade growth publications and government data should be included if appropriate to define the company's position in the market.

7. Manufacturing and production

State the location, nature, physical size, capacity and utilisation of the company's existing and proposed manufacturing and/or production facilities and whether they will be owned or leased. Detail proposed capital expenditures for the next five years. Briefly describe the company's manufacturing methods and costs. Discuss sources, availability and cost of the raw materials and/or components used. Describe any existing or proposed supply contracts for raw material, feed stock and energy. Indicate the company's status under federal, state and local environmental and OSHA regulations.

8. Management/personnel

Provide an organisation chart. Give brief biographies for key members of management, indicating salary and bonus arrangements. Name the company's directors, indicating their outside affiliations. State the size of the proposed company's labourforce and its nature (eg, level of skills, unionisation, strike history, current contracts).

9. Business risks

Explain the major business risks faced by the company and their historical impact. Indicate what steps management is taking to minimise these risks. Discuss any pending litigation that may affect the company.

10. Historical and other financial information

a. If the project company has an operating history, summarise the project company's audited income statements, balance sheets, sources and uses of funds statements and related statistical data for the past five years. Sample formats are contained in Exhibits 4.6, 4.7, 4.8, and 4.9, respectively. Definitions for suggested ratios are included in Exhibit 4.10.
b. If the project company has an operating history, explain any abrupt changes or sustained deterioration in the financial statistics (eg, abrupt declines in sales and earnings, large increases in receivables or inventories unaccompanied by increasing sales, etc.). Be specific in pin-pointing problems, indicating what actions the company has taken or is taking to resolve them.
c. If the project company has been in existence and has made any important acquisitions during the past five years, explain their rationale. Provide income statements and balance sheets for the acquired company for the three years prior to acquisition. In addition, indicate the price and form of the transaction.
d. Describe the project company's financial policies (ie, dividend policy, capital structure policy, return on investment objectives, etc.), management information systems, operating capital budgeting and long-range financial planning procedures. Describe any existing loan and/or significant lease agreements, and indicate the availability of the current year's operating budget.
e. If information is available, compare the project company to major competitors in terms of projected sales volume, margins and returns. Also, compare the company's projected capitalisation and related ratios (see Exhibit 4.7) to those major competitors.
f. If the project loan will be supported by a guarantee or long-term contract from a sponsor, include the following information regarding the sponsor with the financing memorandum, or indicate if it is available upon request:
   i. annual reports and pertinent SEC filings for the past five years;
   ii. if applicable, consolidating financial statements for the past five years;
   iii interim reports for the current year;
   iv. the most recent 10-K and proxy statement; and
   v. any recent prospectuses.

If the project loan or lease will be supported by the collateral value of the project or equipment being financed, appraisals of the project or equipment should be included, both new and forecast used at various dates after being placed in service.

11. Plans and forecasts

a. Provide income statements, balance sheets, and sources and uses of funds statements forecasts for the next five years. The forecasts should incorporate the proposed financing. The formats contained in Exhibits 4.6, 4.7 and 4.8 are suggested. Provide statistical data for the forecast period using the format contained in Exhibit 4.9. The forecast should be broken down by major divisions or subsidiaries. Detailed assumptions should accompany the forecast.
b. Explain, in detail, the use of the proceeds from the proposed financing. Where the proceeds are to be used for construction of a facility, the presentation should indicate projected cost, the amount of the initial investment, the estimated future investment, and the earnings and cash flow the investment is expected to generate. The facility should be described. The contractor should be identified and any special arrangements with the contractor discussed.
c. Describe the project company's future direction. Discuss any plans for major changes in the organisation, management or operating policies.
d. Outline future capital requirements and plans for financing such requirements.

12. Each case different

All the information outlined above will not be required in every case. However, a presentation which follows this approach should contribute to the successful arrangement of a project financing.

In many project financings the company will be newly established and have no past operating history, and in such cases heavy emphasis on the projected financial statements and rationale for the financial outlook is essential.

In such instances background information and the operating history of the key sponsor and/or guarantor is appropriate, including all of the information described above.

Exhibit 4.2: Existing and pro forma capitalisation

(Dollars in thousands)

	December 31, 19____ ACTUAL		December 31, 19____ PRO FORMA	
Short-term debt	US$____		US$____	
Long-term debt	US$	%	US$	%
Senior				
Subordinated	____		____	
Preferred stock*				
Common stock				
Surplus				
Retained earnings	____		____	
Total long-term capital	US$____	100%	US$____	100%
Senior long-term debt/ Total long-term capital				
Long-term debt/ Total long-term capital				
Total debt/total long-term capital + short-term debt				

*At liquidation value.

Exhibit 4.3: Schedule of long-term debt*

(Dollars in thousands)

Long-term debt	Year-end before proposed issue	Repayments									
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Description of existing debt (mortgage notes, etc.)											
Sub-total	____	____	____	____	____	____	____	____	____	____	____
Proposed issue											
Total	____	____	____	____	____	____	____	____	____	____	____
Ending current portion											
Ending L-T portion	____	____	____	____	____	____	____	____	____	____	____
Interest expense:											
Short-term debt											
Long-term debt	____	____	____	____	____	____	____	____	____	____	____
Total											

*As a continuation of the schedule, provide the following information on each of the company's existing long-term debt obligations:
1. Interest rate and final maturity.
2. Source of the financing.
3. Major protective covenants.

Exhibit 4.4: Schedule of lease obligations

(Dollars in thousands)

Type of asset leased	Finance leases[1] Minimum annual rental payments 19____	19____	19____	19____	19____	Next five year period	Next five year period
List groups if appropriate.	____	____	____	____	____	____	____
Total	____	____	____	____	____	____	____
Present value of finance leases:							
Average interest rate used to compute present value:							

Type of asset leased	Other leases[2] Minimum annual rental payments 19____	19____	19____	19____	19____	Next five year period	Next five year period
List groups if appropriate.	____	____	____	____	____	____	____
Total	____	____	____	____	____	____	____
Total rentals payments	____	____	____	____	____	____	____

1. Long-term, non-cancellable leases whose original term constitutes a substantial portion (75% +) of the useful life of the underlying asset.
2. Cancellable leases and non-cancellable leases whose original term does not constitute a major portion of the useful life of the underlying asset.

Exhibit 4.5: Breakdown of sales and profits

(Dollars in thousands)

Year-ending (month and day)	Net sales 19____ US$	%	19____ US$	%	19____ US$	%	19____ US$	%	19____ US$	%	Pre-tax profit contribution 19____ US$	%	19____ US$	%	19____ US$	%	19____ US$	%	19____ US$	%
Product, division or subsidiary.																				
Total	=100%		=100%		=100%		=100%		=100%		=100%		=100%		=100%		=100%		=100%	
Less:																				
Corporate overhead																				
Other unallocated expenses																				
Interest (total)																				
Taxes											____		____		____		____			
NET INCOME											____		____		____		____		____	

Exhibit 4.6: Historical (projected) consolidated income statements

(Dollars in thousands)

	December 31,				
	19 ____	19 ____	19 ____	19 ____	19 ____
Sales					
Cost of goods sold					
Gross margin					
Selling and advertising expense					
Depreciation and depletion					
General and administrative expenses					
Research and development					
Rent expense					
Interest on funded debt					
Interest on short-term debt					
Other expenses (classify if material)					
Taxes (other than federal)					
INCOME BEFORE FEDERAL INCOME TAXES AND EXTRAORDINARY ITEMS					
Federal income taxes[1]					
Income before extraordinary items					
Extraordinary items (describe the specific items)					
NET INCOME					
Number of shares used for per share calculations[2]					
Earnings per share[2]					
Dividends per share[2]					
Return on total assets[3]					
Return on long-term capital[3]					
Return on equity[3]					

1. Distinguish between current and deferred income taxes. Disclose treatment and amount of investment tax credit and tax loss carry (back) forward credit, if applicable.
2. Should be adjusted for stock splits and stock dividends.
3. See Exhibit 4.10 for definitions of these ratios.

Exhibit 4.7: Historical (projected) consolidated balance sheets

(Dollars in thousands)

	December 31,				
	19 ____	19 ____	19 ____	19 ____	19 ____
ASSETS					
Current assets[1]					
Investments property, plant & equipment (gross)					
Accumulated depreciation					
Property, plant & equipment (net)					
Other tangible assets					
Intangible assets (list by type)					
TOTAL					
LIABILITIES & STOCKHOLDERS' EQUITY					
Current liabilities[1]					
Long-term debt (less current portion)					
Other liabilities					
Deferred taxes					
Stockholders' equity					
TOTAL					
Quick ratio[2]					
Current ratio					
Receivables turnover					
Inventory turnover					
Short-term debt/current assets					
Short-term debt/current liabilities					
Working capital ratio[2]					

1. Should be broken down by specific account.
2. See Exhibit 4.10 for a definition of this ratio.

Exhibit 4.8: Historical (projected) consolidated sources and uses of funds statements

(Dollars in thousands)

	December 31,				
	19 ____	19 ____	19 ____	19 ____	19 ____
SOURCES OF FUNDS					
Total					
USES OF FUNDS					
Total					
Required financing (as projected)					

Exhibit 4.9: Historical (projected) comparative data

(Dollars in thousands)

	December 31,			
	19 ____	19 ____	19 ____	19 ____	19 ____
Income before taxes					
Taxes					
Net income					
Total interest[1]					
Imputed interest on leases[2]					
Interest coverage:[3]					
Before-tax					
After-tax					
Interest and rental coverage:[3]					
Before-tax					
After-tax					
Depreciation					
Other non-cash items					
Cash flow/long-term debt[3]					
Long-term debt/net property, plant & equipment					
Net tangible assets/long-term debt[3]					

1. Interest on short-term and long-term debt.
2. Imputed interest on finance leases. If this data is not available, use 1/3 of total annual rentals.
3. See Exhibit 4.10 for a definition of this ratio.

Exhibit 4.10: Formulae for calculating various ratios for industrial companies

Fixed charge coverages:	
Interest coverage:	
Before-tax	$\frac{\text{Total interest expense + Before-tax income}^{1}}{\text{Total interest expense}}$
After-tax	$\frac{\text{Total interest expense + Net income}^{1}}{\text{Total interest expense}}$
Interest & rental coverage:	
Before-tax	$\frac{\text{Total interest expense + Imputed interest on Finance leases}^{2}\text{ + Before-tax income}^{1}}{\text{Total interest expense + Imputed interest on finance leases}}$
After-tax	$\frac{\text{Total interest expense + Imputed interest on Finance leases}^{2}\text{ + Net income}^{1}}{\text{Total interest expense + Imputed interest on finance leases}}$
Net tangible asset/ long-term debt	$\frac{\text{Stockholders' equity – Intangibles + Long-term debt}}{\text{Long-term debt (excluding current portion)}}$
Liquidity ratios:	
Cash flow ratio	$\frac{\text{Net income}^{1}\text{ + Depreciation}^{3}}{\text{Long-term debt}}$
Working capital ratio	$\frac{\text{Current assets – Current liabilities}}{\text{Long-term debt}}$
Quick ratio (acid test)	$\frac{\text{Cash + Marketable securities + Receivables}}{\text{Current liabilities}}$
Returns:	
Return on total assets	$\frac{\text{Net income}^{1}}{\text{Total assets}}$
Return on long-term capital	$\frac{\text{Interest on long-term debt + Net income}^{1}}{\text{Long-term debt + Stockholders' equity}}$
Return on equity	$\frac{\text{Net income}^{1}}{\text{Stockholders' equity}}$

1. Adjusted for the effect of non-recurring items.
2. Average implicit interest rate times present value of leases. If data are not available, substitute 1/3 total annual rentals.
3. Other non-cash items should be added.

5

Risks which a lender may assume

Any discussion of the risks which a lender may assume would not be complete without discussion of the increasing competition between banks and lending institutions over the past few years.

Private commercial banks have traditionally been a major source of funds for project financings. New banks entering the field of project financing, and anxious to carve out new relationships, have been particularly aggressive in seeking loans. This has been especially true in the case of quasi-governmental banks which are sometimes willing to accept greater risks than private commercial banks. This competition has led to erosion of pricing, lowering of collateral requirements, extension of maturities, and to lenders assuming greater credit risk.

This trend towards easier terms is not necessarily good for long-range, orderly availability of funds from private sources. Substantial losses by the private banking sector will result in a drying up of funds and a stiffening of terms, which will make future projects much more difficult to finance. Some balance is needed. Lenders must be adequately compensated for use of their funds on a fairly risk-free basis if they are to continue in business.

Lenders advance funds only where they are at least 99 per cent sure that they will be repaid with interest. Lenders advancing funds on any other basis are flirting with bankruptcy because of the high leverage of lending institutions. Investment companies which are leveraged two to one can take equity risks. Lenders such as banks which are leveraged 10 to one are not in a position to take equity risks.

After protracted loan negotiations in which borrowers are presented with what must seem to be endless demands for covenants, events of defaults and ratios, an exasperated borrower may ask a lender: 'Don't you people ever take any risk in a transaction?' The candid answer which most lenders will try to gracefully convey in polite terms is: 'No, we don't take any risk because our leverage requires that we not enter into a loan in which there is any hint that we will not be repaid.'

However, in spite of general denials of risk taking by lenders, there are certain transaction risks which lenders in some instances may feel comfortable in assuming. Such exposure is usually in the form of providing additional financing in certain circumstances. Such exposure may also carry a higher cost to the borrower.

1. Country risk

There is increasing pressure on lenders to assume some of the country risk in a project financing. Such country risk consists of a politically motivated embargo or boycott of a project, debt repayments or shipment of product which may reflect the foreign policy of the country. Country risk also considers circumstances in which the host country cannot permit transfer of funds for debt service because of its own economic problems.

In some circumstances, lenders may feel comfortable with assuming some or all of the responsibility and risk of solving such problems, should they arise.

The disinclination of lenders to participate in a loan to a particular project located in a particular country

does not necessarily indicate a lack of confidence in the project or the country. Most lenders like to diversify their portfolio risk as much as possible, to limit their credit exposure to particular companies, industries, countries, or geographic regions. Failure to participate may merely reflect that limits of exposure have been reached.

2. Sovereign risk

Lenders used to making credit judgements for loans to countries are in a position to make lending decisions where the project is owned or guaranteed entirely or in part by an agency of a country.[1]

3. Political risk

Political and regulatory risks are inherent in doing business. They affect all aspects of a project, from site selection and construction through completion, operations and marketing. They are difficult to evaluate. Where possible, these risks are assumed by sponsors. Where this is not possible, lenders sometimes assume such risks. Production payment contracts for oil or gas production in a developing country are examples of assumption of political risk.

The ultimate political risk is expropriation, and banks are sometimes exposed to this risk purposely by a borrower to lessen the likelihood of expropriation.

The distinction between country risk and political risk is a thin one.

4. Foreign exchange risk

So long as capital expenditures, operating expenses, revenues, and borrowings are in the same currency, exchange risk will not be present.

Where this is not possible or desirable, the lender may be asked to assume some of the risk through multicurrency loans which give the borrower an option, based on a fixed exchange rate, of repaying in different currencies. Lenders can sometimes hedge this risk, using the instruments described in Chapters 23 and 24.

5. Inflation risk

The lender must ultimately rely on projections of the cost of construction of the project, and the cost of operations.

Use of correct inflation factors in figuring these future costs is an area in which the lender usually has more expertise than the project company or its promoters. Therefore, by providing advice on inflation factors used in preparing projections and in later making a loan on the basis of such projections, a lender has assumed inflation risk which is present in the transaction. If larger borrowings are required because of higher than expected inflation rates, the lender may have to provide additional loans, and assume additional credit exposure.

6. Interest rate risk

Loans with floating interest rates may be used for construction loans and long-term financing, as well as for working capital and short-term needs. Forecasts of future interest rates used or project capitalised construction costs and future debt service requirements are dependent upon realistic interest rate assumptions. By providing advice on assumptions to be used in projections, it can be argued that a lender has assumed some responsibility for providing additional financing if future cash requirements are higher than expected, due to unanticipated increases in interest rates.

7. Appraisals

Some project loans to finance production of oil and gas are made on the basis of the appraised value of the resources, and the ability of an operator to recover such resources. Similar loans are sometimes made for mining coal or other minerals.

In such loans, lenders are required to take the risk that the resources actually exist and will be recovered. In making such loans, lenders must rely on opinions of internal appraisers, as well as independent appraisals.

This type of financing has been used extensively in North America, and for some very large financings of North Sea projects.

The accuracy of such appraisals, and the risks assumed by lenders in making production loans, has grown in significance as competition between lenders has increased the amounts which may be borrowed against expected production. A few years ago, there were only about five acknowledged energy banks in the United States with expertise to make production payment loans. Now many banks in Europe and the United States participate in such loans.

The failure of the Penn Square Bank in July 1982, however, and the near demise of Continental Illinois National Bank and Trust Company along with several Texas banks, awakened many lenders to the inadequacies in their lending practices.

8. Availability of permits and licences

Where permits and licences must be obtained and renewed before the plant will operate, the lenders, in effect, assume the risk that such permits and licences will be obtained in a reasonable time in the absence of any provision by the sponsors to pay these costs.

9. Operating performance risk

Once the project is complete and operating to specifications, it begins to assume the characteristics of an established operating company. As the completion guarantees drop away, the lenders in many project financings become dependent on the continued uninterrupted operation of the project and sale of its products or services to provide the revenues necessary to repay the project loans.

Where the project has been carefully planned, lenders protect themselves by requiring strict compliance with operating specifications and costs before the completion guarantee is terminated. The lending risk is similar to the risks encountered in commercial loans to independent companies engaged in similar businesses. The future cash flows of the project company are subject to unusual operating costs, raw material costs, regulatory risks, and markets for the products. However, the lenders will be protected to the extent they have laid off risks of raw materials and markets on to suppliers and users. The lenders can further protect themselves by requiring the project company to maintain ratios and loan covenants for maintenance of working capital, payment of dividends and build-up of cash. Lenders can 'sweep' the cash on a regular basis and use excess cash to repay principal or fund an escrow account for future loan payments.

10. Price of product

Where the project is to produce a commodity which is to be sold largely on the open market rather than under any long-term contract, the lender must appraise the future market for the commodity and make judgements as to whether such price projections are realistic. If a project loan is made on the basis of cash flows to be produced by such price projections, the lender obviously has assumed a commercial risk of the project. Lenders with particular expertise in a commodity are sometimes willing to assume such a risk.

Another approach to shifting risk of commodity prices to lenders is to provide for repayment of the loan to be based totally, or in part, on the future price of the commodity. This arrangement has upside potential as well as downside risk for the lender. The risk is certainly not a usual lending risk. In Chapters 23 and 24 we describe instruments that lenders can use to control this risk.

11. Enforceability of contracts for product

Even if a project is supported by take-or-pay contracts with adequate escalation clauses, a question still arises as to whether the contract is enforceable, and whether the contracting party is a reliable party which will live up to its contractual obligations. Possible *force majeure* defences to performance must be considered. Should a loan be made, for example, on the basis of a long-term contract to sell coal to a public utility – is it possible that the responsible public utility commission might declare the contract unenforceable at a later date?

A credit judgement has also to be made on the financial ability and integrity of the contracting party to live up to its contractual obligation.

12. Price of raw materials and energy

Where a project is dependent on its ability to purchase raw materials or energy at a certain price in order to produce its product at a competitive price, lenders may be willing to assume, on the basis of their knowledge of the markets, that such raw materials or energy will in fact be available at the projected cost.

13. Enforceability of contracts for raw materials

If a project has long-term contracts for raw material at attractive prices, which are used in the underlying financial projections, a question still arises as to their enforceability and as to whether the contracting party is reliable and will live up to the commitments. If the raw material is imported, the risk of import restriction or *force majeure* events in the exporting country must be considered. Lenders sometimes assume these risks by advancing additional loans.

14. Refinancing risk

If the project is arranged on a basis whereby the construction financing is to be provided by one group of lenders, and the long-term financing after completion of construction is to be provided by another set of lenders, the construction lenders run the risk of not being taken out by the long-term lenders. Construction lenders prefer long-term financing to be arranged at the time of the construction loan. However, this is not always possible because of long lead times.

Construction lenders can protect themselves by providing incentives to sponsors to arrange the long-term debt. This might be accomplished, for example, by gradually escalating interest rates, by triggering additional sponsor guarantees, or by requiring a take out by the sponsor.

Project financings tend to have the same group of lenders for both construction lending and long-term lending. Pay-out periods tend to be short, and many of these loans have floating interest rates.

15. Force majeure risk

Force majeure risks are those types of risks which result from events beyond the control of the parties to the project financing (see Chapter 2). The objective of lenders is to shift the various *force majeure* risks to the sponsor, or to the sponsor's suppliers and purchasers through contractual obligations or insurance protection. To the extent that those risks are not shifted, the lenders have assumed *force majeure* risk.

16. Completion

The completion risk sometimes assumed by a lender arises in circumstances where for all practical purposes it is impossible to complete the project or facility so that it operates to the full capacity and/or specifications originally envisaged. Sponsors do not want to be in a position of having to provide funds to attempt to complete a facility to specifications which require expenditures out of proportion to the benefit to be realised, or which seem impossible to achieve. Usually this risk can be handled with little exposure to the lender, but the loan may have to be extended for a longer term due to lower production than anticipated in the financial projections.

17. Environmental risk

Assessment of environmental damages resulting from a project can have an adverse impact on the project's cash flow. Lenders may not always be immune from litigation involving the violation of environment law. Consequently, before committing to a project, lenders should obtain legal advice about local environmental regulations. A lender may be able to obtain insurance against environmental risk.

18. Legal risk

The host country of the project may not be that of either the sponsor or the lender. Agreements may not be written so that they are valid and enforceable in the host country or the pertinent jurisdiction of the country. To minimise legal risk, the lender should use local counsel.

Notes and references

1. The exact status of a state agency is not always easy to ascertain.

6

Choosing a bank

Borrowers have a large choice of banks. There are over 500 commercial banks of significant size in the United States, as well as branches and representatives of most major European, Japanese, Canadian and Asian banks. In London, in addition to the large UK clearing banks, there are over 200 branches of American banks. Nearly all other major Japanese, European, Asian and Canadian banks also do business in London and Frankfurt. Tokyo has become a significant banking centre and over 70 foreign banks have branches there. Hong Kong also has significant banking resources.

A borrower should choose carefully when selecting a bank for a major banking relationship, either for conventional financing or for project financing.

1. Factors to consider in selecting a bank

Pricing is an important criterion for most borrowers when choosing a bank. Bankers will state privately that lenders seem little concerned with any other criterion.[1] However, competition is so intense that differences in pricing are small. Some of the following factors should be considered when selecting a bank.

(a) Size

If the project is a large one, the size of the bank should be related to the size of the project. The bank should have sufficient lending capacity to take on a significant part of any loan This criterion shortens the list of the banks eligible for some kinds of projects.

(b) Experience

The bank should be experienced. A lender does not want a bank which will run for cover at the first sign of trouble. A bank experienced in financing the particular kind of project involved is preferable, since it would already be familiar with any potential problems.

(c) Support

The borrower needs to feel confident that the bank will exert itself, and support the project in the event of a credit crunch or any other events which may result in restriction of funds available.

(d) Documentation

Documentation is always complex, involving covenants, negative pledges and ratio restrictions. However, lenders are under an obligation to protect their shareholders, and the skill of the borrower's counsel sometimes results in longer and more complex documentation than would otherwise be the case. Ultimately, the ratios and restrictive covenants are a matter for negotiation. What a borrower is seeking is a lender who tries to work around difficult covenants, where perhaps the same result can be achieved by some alternative language or course of action which will not restrict the borrower's ability to manage the project.

(e) Working relationships

The borrower must feel comfortable that the lender will be realistic, flexible and positive in finding solutions to problems, should some difficulty arise under the agreement.

(f) Leaving management decisions to management

Borrowers require a bank which will not try to interfere in the day-to-day operations or general management decisions of the project. Experienced loan

officers, who may be excellent at appraising credit risk, do not necessarily possess special skills in managing enterprises with which they have had no operating experience. Borrowers should not be overly polite with bank representatives when discussing the management of the project. If additional management expertise is needed, lenders should seek experienced outside help.

(g) Country exposure

Banks usually limit their credit exposure to loans in a particular country and particularly developing countries. The borrower should make sure the lender has adequate exposure capacity taking into consideration loans the bank has under consideration.

2. Choice of a sponsor by a bank

Having critically reviewed the factors a sponsor should consider in selecting a bank, it is only fair to also discuss the characteristics a bank seeks in a sponsor.

Bankers view their spreads and profits from lending as being barely sufficient for survival. Since inexperienced bankers may not differentiate the risks of project financings from conventional financings, the risk-reward ratio assumes even greater problems for a sophisticated lender in a project financing. This is not to say that experienced banks do not want to participate in project financings. However, it does mean such banks prefer doing business with sponsors and projects that will succeed.

The characteristics of a successful sponsor are:

1. The feasibility study and financial planning are professional and thorough.
2. The contractor and operator are experienced, have good track records, and are known for their integrity.
3. The market for the product and/or service to be produced by the project is assured.
4. Political problems and country risk problems are under control.
5. The identity, the authority, and continuity of the project manager is clear.
6. In a joint venture, the lender knows that a particular entity speaks for the project.
7. The continuity of the operating and financial management is assured over an extended period.
8. The management of the project has an excellent reputation.
9. There is confidence that communication with the manager will be excellent and that all pertinent financial and production information will be furnished correctly and on a timely basis.
10. The sponsor should be of some substance.
11. The sponsor is motivated by adequate projected profits to make the project succeed.
12. The sponsor has past experience in successful project financings and is aware of the kinds of problems that may arise.

Notes and references

1. Some will say that the definition of loyalty is one basis point.

Contacting lenders and investors

As the first step in locating lenders or investors for a proposed project financing, the project company (or its sponsor and its adviser, if any) should develop a list of potentially interested lenders and investors.

Once the list is formulated and refined, the company or its adviser should contact investors and lenders in order of probable interest. These contacts can be made by telephone or in person. Obviously a personal contact is most effective and is essential in most cases.

The purpose of the initial contact with an investor or lender is to present the offering memorandum and to motivate the investor or lender to focus on the proposal in order to determine whether the lender or investor has an interest in the proposed financing. As indicated in Chapter 4, the offering memorandum is a selling document and it should describe the proposed financing in sufficient detail to enable the lender or investor to determine their interest in the transaction.[1]

After reviewing the offering memorandum, the lender or investor will be in a position to discuss their views on the proposed financing.

As the next step, the interested lender or investor will typically want to visit the company to meet management, tour the facilities, and pose questions resulting from their preliminary credit analysis. This visit presents an opportunity for the company to size up the lender and to determine whether a good working relationship can be developed with the lender. The company should determine whether the lender is familiar with the company's industry and understands its problems. The company should ask the lender to characterise its policy regarding restrictive loan covenants and modifications of loan agreements.

Project financing is a two-way street. Because the project company's relationship with its lenders will be long term, choosing a lender is an important decision which should not be obscured by a desire to obtain the lowest possible interest rate.

After the initial meeting, the lender or investor will complete its credit analysis (discussed in Chapter 8). The lender and investor interested in proceeding with the loan or investment will then be prepared to enter into final negotiations with respect to rate and terms. Several meetings are usually necessary in the case of complicated financings. When an understanding has been reached, the lender will usually confirm the negotiated rate and terms by a commitment letter signed by both parties which indicates that final agreement is subject to approval of the project company's board of directors, the lender's (or investor's) loan committee, and the execution of mutually satisfactory loan documentation. The time required for approval is a function of the complexity of the project financing.

Once the lender's or investor's loan or investment committee approves the proposed financing, preparation of the loan agreement and other closing documentation begins. Usually, this involves several meetings and telephone conversations. Normally, the following parties are participants in these meetings:

1. The senior financial officer for the project company.
2. Other key members of the company's management as may be appropriate.

3. Company legal counsel and outside legal counsel if necessary.
4. Staff legal counsel of the lender or investor.
5. Special outside counsel for the lender or investor.

In addition to its own legal fees, the project company usually is responsible for the fee of the lender's special counsel, appraisal fees, and printing costs (if applicable).

If, for any reason, the amount of the proposed project financing approaches the size limit of an interested lender, it is in the best interests of the borrower to split the loan among two or more lenders to ensure that additional financing can be obtained if required in the future. In such cases, the interested lender assumes the role of lead lender. Once a lead lender is found, the credibility added to the financing usually makes it easier to find sources for the remaining portion. Indeed, the lead lender may even assist the company in locating additional compatible lenders. However, additional lenders will always have somewhat different views regarding the terms, which makes negotiating the loan more time-consuming and subsequent changes more difficult. As a practical matter, the number of participants should be kept to a minimum while ensuring that additional funds can be obtained.

Notes and references

1. As indicated in Chapter 4, the offering memorandum should be supplemented by a Microsoft Powerpoint slide presentation (or similar program), with hard copies. Many investors or lenders expect Powerpoint presentations as an economic use of their time to gain an introduction to a proposal. Consequently, the sponsor or adviser should be prepared to make such a presentation.

   The Powerpoint presentation is an excellent opportunity to get the lender or investor interested in reading and considering the offering memorandum. On the other hand, a poor presentation will have the opposite effect.

   In preparation for the meeting, the adviser or sponsor should telephone ahead to make sure the necessary equipment will be on hand. If there is any question about the availability of such equipment, the sponsor or adviser should carry the necessary equipment to the conference.

8

Credit risk appraisal

The objective of financial analysis by a lender or investor in a project company varies according to the specific interests of the party involved.

A trade creditor is interested primarily in the liquidity of a firm. A term lender, on the other hand, with a long-term credit exposure is more interested in the internally generated cash flow ability of the project company to service debt over the long run. The term lender evaluates this ability by analysing the capital structure of the firm, the major sources and uses of funds, its profitability over time, and its projections of future profitability.

An investor in a project company's common stock is concerned principally with present and expected future earnings and the stability of these earnings over time. As a result, the investor will concentrate analysis on the profitability of the company. The investor will be concerned with its financial condition in so far as this condition affects the stability of future earnings.

The management of a project company should be interested in all aspects of financial analysis that outside suppliers of capital use in evaluating the company. In addition, the management of a project company should employ similar financial analysis for the purposes of internal control and profitability on investment in the various assets of the company.

1. Credit analysis from the standpoint of a term lender

From an analytical point of view, banks generally prefer a strong, sound balance sheet as a starting point for providing term financing to a borrower. However, project companies are by their nature highly leveraged. Consequently, in a proposed project financing the future anticipated internally generated cash flow (EBITDA) is extremely important since that is the source from which loan repayments will be made. Thus, stability and growth in sales revenues and stability in expenses and profitability relationships to sales are very important in term lending and especially project financing.

The lender must thoroughly analyse the market and competition for the borrower's products, relations with suppliers, sources of raw materials or critical components, and the stability of important cost components of the borrower's operation. Such historic analysis is important only as it bears on the future when cash will need to be generated to repay the loan.

Likewise, projections of future sales, earnings, cash flow, and balance sheets are critical in evaluating the prospects for a term borrower in a project finance situation. The assumptions used in preparing the projections are as important as the numbers themselves. The lender needs to review the projections critically and to think through and test the validity of the underlying assumptions.

In reviewing projections, it is important to look at total cash needs of the enterprise. Loan payments and capital expenditures are significant cash requirements. A most common error made by term lenders in project financing is to provide funds to acquire fixed assets, but fail to provide working capital funds for the trading assets necessary to support the sales the new fixed assets will generate. It is easy to overlook cash needed to fund increased receivables and inventory to support sales growth.

In its credit analysis of a prospective borrower, a bank will consider both general management issues and detailed financial data.

General considerations in credit decisions

1. *Management.* The overall assessment of management's capability is extremely important in assessing credit risk for a project company. What are the management's objectives and how do they plan to achieve them? What are management's financial and operating policies? If the present management team has worked together in the past, has it been effective in implementing such policies? Has management provided for unforeseen events?
2. *Level and stability of earnings.* Project companies must demonstrate an ability to generate good revenues consistently and to maintain adequate coverages and margins. The relationship between the level and stability of future earnings and the total amount of long-term debt outstanding (existing debt + new issue + estimate of subsequent debt financing) is important in reaching a credit decision. Stability of earnings is generally more important than the earnings level. A project company with modest but relatively predictable future earnings will be viewed more favourably than a project company with high but volatile returns.
3. *The industry.* Where does the project company rank within the industry: (a) what are the trends within the industry and economy, (b) the company's position within its industry, (c) competition, and (d) past performance, if applicable.
4. *Financial resources.* A project company's current liquidity is important. Cash flow relationships and current assets are important both from the standpoint of relative size (eg, current ratio, net current assets) and of quality (eg, inventory turnover, receivables turnover, accounting procedures used to value inventories and receivables).
5. *Asset protection.* This might be called 'collateral protection'. Total long-term debt/net plant and net tangible assets/total long-term debt are calculated to determine the degree of protection afforded by the company's assets. The emphasis placed on asset protection varies with the nature of the industry. For example, it may be very important for real estate or natural resource companies.
6. *Indenture provisions.* Existing and proposed indenture provisions must be reviewed to determine the repayment schedule in the event of liquidation and whether management retains sufficient freedom of action to react to changes in the competitive environment without violating the terms of issue.
7. *Guarantees and securities.* When specific guarantees (eg, parental guarantees, bank letters of credit) exist or the debt is secured by a lien on tangible assets, further analysis is necessary to determine the value of these guarantees or liens.
8. *Cash trap.* Willingness to dedicate part of all of cash flow from the sale of the project's product or service to the payment of interest and principal on debt through the use of an escrow account designed to capture the cash flow before it reaches the project company.

2. Financial ratios

The analysis of financial ratios involves two types of comparison. First, the analyst can compare a present ratio with past and expected future ratios for the same company. The second method of comparison involves comparing the ratios of one firm with those of similar firms or with industry averages at the same point in time. General financial ratios for various industries are published by Robert Morris Associates, Dun & Bradstreet, and various other credit agencies and trade associations.[1]

Financial ratios can be divided into four types pertaining to liquidity, debt, profitability, and coverage. The first two types are ratios computed from the balance sheet; the last two are ratios computed from the income statement and, sometimes, from both the income statement and the balance sheet.

3. Liquidity ratios

Liquidity ratios are used to judge a firm's ability to meet short-term obligations. One of the most general and most frequently used of these ratios is the current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

The higher the ratio, the greater the ability of the firm to pay its bills. However, the ratio does not take into account the liquidity of the individual components of the current assets, such as inventory, receivables, etc.

The acid test ratio is a more accurate guide to liquidity and is expressed as follows:

$$\frac{\text{Current assets less inventories}}{\text{Current liabilities}}$$

Since this ratio excludes inventories, it concentrates on cash, marketable securities, and receivables in relation to current obligations and, thus, provides a better measure of liquidity than the current ratio.

Of course other components of the current ratio or acid-test ratio require verification. These include the liquidity of receivables and inventory. These must be viewed in relation to industry experience.

4. Debt ratios

Debt ratios are used to measure the long-term liquidity of industrial companies. Several debt ratios may be used. The debt/net worth ratio is computed by simply dividing the total debt of the firm (including current liabilities) by its net worth:

$$\frac{\text{Total debt}}{\text{Net worth}}$$

When tangible assets are significant, they frequently are deducted from net worth to obtain the tangible net worth of the firm.

However, project companies are typically highly leveraged and coverage ratios are a more appropriate method of analysis.

5. Coverage ratios

Coverage ratios are designed to relate the financial charges of a firm to its ability to service them. Bond rating services make extensive use of these ratios. One of the most traditional of the coverage ratios is the interest coverage ratio – simply the ratio of earnings before interest and taxes for a particular reporting period to the amount of interest charges for the period. It is important to differentiate which interest charges should be used in the denominator. The overall coverage method stresses the importance of a company's meeting all fixed interest, regardless of the seniority of the claim.

One of the principal shortcomings of an interest coverage ratio is that a firm's ability to service debt is related to both interest and principal payments. These payments are not out of earnings *per se* but out of cash. Consequently, a more appropriate coverage ratio relates the cash flow of the firm (approximated by earnings before interest, taxes, depreciation and amortisation) to the sum of interest and principal payments. The cash flow coverage ratio may be expressed as:

$$\frac{\text{Annual cash flow before interest and taxes}}{\text{Interest} + \text{Principal payments} \left[1/(1 - \text{Federal income tax rate})\right]}$$

Because principal payments are made after taxes, it is necessary to adjust this figure by [1/(1 – federal income tax rate)] so that it corresponds to interest payments, which are made before taxes. If the tax rate is 34 per cent and annual principal payments are US$100,000, before-tax earnings of US$156,250 would be needed to cover these payments.

A broader type of analysis would evaluate the ability of the firm to cover all charges of a fixed nature in relation to its cash flow. In addition to interest and principal payments on debt obligations, preferred stock dividends, lease payments, and possibly even certain essential capital expenditures are included. An analysis of this type is a far more realistic gauge than a simple interest coverage ratio in determining whether a firm has the ability to meet its long-term obligations.

6. Commercial debt ratings

In recent years, the use of public bond markets for project financing outside the United States has increased. For such issues, the rating assigned by recognised rating companies gauges the credit risk of the issue. The four commercial rating companies in the United States are (1) Standard & Poor's, (2) Moody's Investors Service, (3) Duff and Phelps Credit Rating Co., and (4) Fitch Investors Service. The rating systems use similar symbols, as shown in Exhibit 8.1.

The two most widely used systems of bond ratings are those of Moody's and Standard & Poor's. In both systems the term high grade means low credit risk, or conversely, high probability of future payments. The highest grade bonds are designated by Moody's by the letters Aaa, and by Standard & Poor's by AAA. The next highest grade is Aa or AA; for the third grade both rating agencies use A. The next three grades are Baa or BBB, Ba or BB, and B, respectively. There are also C grades. Standard & Poor's uses plus or minus signs to provide a narrower cred-

Exhibit 8.1: Summary of corporate bond rating systems and symbols

Moody's	*S & P*	*Fitch*	*D & P*	
Aaa	AAA	AAA	AAA	The obligor's capacity to meet its financial commitment on the obligation is extremely strong.
Aa1 Aa2 Aa3	AA+ AA AA-	AA+ AA AA-	AA+ AA AA-	An obligation rated 'AA' differs from the highest rated obligations only in small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.
A1 A2 A3	A+ A A-	A+ A A-	A+ A A-	An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.
Baa1 Baa2 Baa3	BBB+ BBB BBB-	BBB+ BBB BBB-	BBB+ BBB BBB-	An obligation rated 'Baa' or 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.
Ba1 Ba2 Ba3	BB+ BB BB-	BB+ BB BB-	BB+ BB BB-	An obligation rated 'Ba' or 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.
B1 B2 B3	B+ B B-	B+ B B-	B+ B B-	An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.
				(Obligations less than B are highly speculative or in work out.)

it quality breakdown within each class, and Moody's uses 1, 2, or 3 for the same purpose. Bonds rated triple A (AAA or Aaa) are said to be prime; double A (AA or Aa) are of high quality; single A issues are called upper medium grade, and triple B are medium grade. Lower rated bonds are said to have speculative elements or be distinctly speculative.

Bond issues that are assigned a rating in the top four categories are referred to as investment grade bonds. Issues that carry a rating below the top four categories are referred to as non-investment grade bonds, or more popularly as high yield bonds or junk bonds. Thus, the corporate bond market can be divided into two sectors: the investment grade and non-investment grade markets.

In 1993, Standard and Poor's established a project finance team to rate bond-backed projects throughout the world. This group has grown over the years and publishes an annual year book on infrastructure and project finance.

Moody's has also begun to rate projects outside the United States.

In its rating of power plant projects outside of the United States, Moody's will look at the following risks in assigning ratings: (1) power sales contract risk, (2) technology risk, (3) political and regulatory risk, (4) fuel risk, (5) economic risk, and (6) transaction risk.[2]

Some traditional lenders do not believe that a single rating can be used to assess all the risks associated with a project. According to one:

> '*You cannot rate a project with a group of numbers or letters. There are too many risks. A project is only as good as its weakest link. And that will be the ultimate problem. What will they do when the project goes wrong?*'[3]

The rating agencies argue that their rating system for projects in the United States has performed well.

The ability of project companies to penetrate the public markets for funds will be tied to some type of system that institutional investors can use to gauge project risk. Hopefully, such a rating system can be developed since the size of some infrastructure projects will require access to the public debt market.

Notes and references

1. Robert Morris Associates, an association of bank credit and loan officers, publishes industry averages based upon financial statements supplied to banks by borrowers. Eleven ratios are computed annually for 156 lines of business. In addition, each line of business is broken down according to four size categories. Dun & Bradstreet calculates annually 14 important ratios for 125 lines of business.
2. 'The Lure of the Bond Markets,' *Project & Trade Finance* (May 1994), p. 42.
3. Ibid.

9

Types of capital and debt

The capital markets are very pragmatic. To the capital markets, a project financing is simply an alternative investment opportunity. As such, a project financing must compete with other potential loans and investments on the basis of levels of risk, yields, terms and liquidity.

There are three general categories of capital and loans used in a project financing:

1. Equity;
2. Subordinate debt (sometimes called mezzanine financing or quasi-equity); and
3. Senior debt which in a project financing will usually be secured or asset-based. This includes large equipment leases.

1. Equity

The equity investment in a project financing represents the risk capital. It forms the basis for lenders or investors advancing more senior forms of capital to the project. Equity investors are the last in priority for repayment. However, the upside potential is substantial: this is the motivating factor for investors providing equity capital.

Equity is typically advanced as the subscription price for common or preferred stock.

Lenders look to the equity investment as providing a margin of safety. They have two primary motivations for requiring equity investments in projects which they finance:

1. Lenders expect the projected cash flows generated by the project to be sufficient to pay operating expenses, service debt, and provide a very comfortable margin of safety to meet any contingencies which might arise. The more burden the debt service puts on the cash flow of the project, the greater the lenders' risk.
2. Lenders do not want the investors to be in a position to walk away easily from the project. They want investors to have enough at stake to motivate them to see the project through to a successful conclusion.

The appropriate debt to equity ratio for a given project is a matter for negotiation between the sponsors and senior lenders. Many factors are taken into consideration, including customary debt to equity ratios for the particular industry involved, market expectations and risks, which include consideration as to whether the commodity or product is being provided to an assured market, evidenced by an unconditional long-term contract, or is subject to the uncertainties of general future market conditions. Just as in the case of going concerns, ratios for a project financing might range all the way from less than one to one to as high as three or four to one, with subordinated debt being counted as equivalent to equity for the senior lenders.

There is a popular misconception among some prospective project financiers that project financing requires little or no equity investment by the owners or sponsors of the project, and that the project can be completely financed on the basis of optimistic projections and financial plans. Lenders, reluctant to provide such financing, are told by such financiers that they simply do not understand project financing. However, unless guarantees are available from very creditworthy guarantors, lenders will always require a substantial equity investment in a project. Even where guarantees are available, lenders will still want spon-

sors or investors to have enough of an equity investment at stake in the project to ensure their continued interest and attention to complete and operate the project, and make it a success.

Although the dollar amount may not be large, holders of substantial debt may receive equity shares in connection with their subordinated loans as equity kickers.

Equity may be in the form of preferred stock as well as common stock. The preferred stock may pay a dividend, and may be guaranteed by a sponsor willing to guarantee but unwilling to own stock for some legal or other reason.

2. Subordinated loans

Subordinated loans, called mezzanine financing or quasi-equity, are senior to equity capital but junior to senior debt and secured debt. Subordinated debt usually has the advantage of being fixed rate, long term, unsecured and may be considered as equity by senior lenders for purposes of computing debt to equity ratios.

Subordinated debt can be advanced by an investor as part of its original investment in the project. A subordinated loan is often used by a sponsor to provide capital to a project which will support senior borrowings from third party lenders. The sponsor may, for example, be an owner of the project, a supplier providing subordinated trade credit, a user anxious to get the project operational, or a government interested in getting the project built.

Subordinated debt can sometimes be used advantageously for advances required by investors, sponsors or guarantors to cover construction cost over-runs or other payments necessary to maintain debt to equity ratios, or other guaranteed payments.

Where all or part of the assets of the project company are acquired as used property from an existing company, the seller is a logical source for subordinated debt. The project company in such a situation is often in a strong bargaining position to give a little on price in order to gain concessions on terms, interest rate, maturities, covenants and equity kickers.

Other conventional sources for subordinated debt include finance companies, risk capital companies and risk portfolio managers of insurance companies.

Subordinated debt can be generally or specifically subordinated. A general subordination is called a blanket subordination. A specific subordination spells out in detail the type of debt to which it is subordinated. Typically, a specific subordination may be limited to specific senior third party loans, which means that such subordinated debt ranks the same as other unsecured loans or trade creditors. In the event of liquidation, subordinated debt has claims on assets after unsubordinated debt.

The subordination language determines the precise extent and circumstances of subordination, including repayment of principal, payment of interest, term of the subordination, and a description of lenders and creditors to which the loan is subordinated. Subordinated debt by a sponsor has the following advantages over capital contributions:

1. As debt, the borrowed amount will eventually be repaid if the project is successful, without tax consequences, whereas a repayment of capital is more complex from a corporate and tax standpoint.
2. Subordinated debt contains a specific schedule for interest payments and repayment of principal. Dividends on stock are optional.
3. The project company may have restrictions on payment of dividends, which are not applicable to debt.
4. The advantages and upside potential of an equity stock position can be preserved by the sponsor lender through stock warrants or stock conversion rights under a subordinated loan agreement.
5. A greater market exists for risk debt loan funds than for risk equity.
6. The combination of subordinated debt with warrants or conversion rights enables a sponsor lender to orchestrate the time the sponsor assumes control for tax and financial accounting purposes.
7. Under regulating statutes such as anti-trust laws and laws regulating public utilities, a stock position may create problems which a subordinated loan will not create.
8. Interest paid on debt is deductible for income tax purposes.
9. A subordinated loan by a supplier in the form of subordinated trade credit for purchases from the supplier may have little downside potential for the supplier, yet may provide a degree of subordination useful to the project in borrowing working capital, as well as providing a source of working capital.
10. An interested government agency sponsor which cannot take an equity position in a project for policy reasons, may be able to provide subordinated debt as seed capital to attract senior debt.

Subordinated lenders are cash flow lenders. They are unsecured. If the subordinated lender is to be repaid, the project company must earn its way out of the senior debt. A sophisticated subordinated lender to a project must be satisfied that the project company can consistently generate operating earnings (ie, cash flow) in order to:

1. Service senior debt principal and interest; and
2. Build equity.

Subordinated lenders will be especially sensitive to the capabilities of the management of the project to production and market share while servicing debt.

Subordinated lenders in leveraged buyouts commonly use an earnings coverage test of net income after tax, plus interest, as a percentage of outstanding debt, and look for 20 per cent to 25 per cent as a target range. Subordinated lenders as well as long-term lenders usually do not add back depreciation since, over the long term, the company will need those amounts to replace plant and equipment.

Sweeteners (called equity kickers) used to attract investors include cheap stock at the time of the loan, warrants to purchase stock, or rights to convert debt to equity at reasonable prices allowing for upside potential.

(a) Equity kickers

In the case of weaker credits, lenders may require an incentive in addition to a relatively high interest rate to make a financing sufficiently attractive. Such incentives are called equity kickers. Basically, there are four types of equity kickers:

Convertible debt

Such debt is usually subordinated to senior debt. Either all or part of the principal amount of the financing is convertible into the common stock of the borrower based upon a specified ratio. Of course, the lender has the option to convert. Normally, the conversion price (ie, the price the lender pays for the common shares) is 20 per cent to 30 per cent above the market price of the borrower's common stock at the time the debt was issued. If appropriate, lenders typically require the borrower to register stock resulting from conversion if requested to do so.

Debt with stock warrants

This is similar to convertible debt. The debt itself may or may not be subordinated. A warrant, simply stated, is a call on a company's common stock at a specified price, usually at least 15 per cent in excess of the current market price if the stock is publicly traded. Of course, any number of warrants can be issued with the debt. Usually a lender has the option to use the debt to pay for the exercise of its warrants. Warrants have been the most popular type of equity kicker among lenders in the past. There are two principal reasons:

1. In many cases their use enables a lender to negotiate a more favourable overall deal as compared to using convertible debt. The relationship between the interest rate and the equity feature is less apparent in the case of debt with warrants than for convertible debt. As a result, by requesting warrants, it is easier for a lender to secure additional compensation over and above a high interest rate.
2. Debt with warrants gives the lender greater flexibility because the debt and equity features typically are separated. The lender can retain the debt portion of the financing and either sell the warrants or exercise them and sell the resulting common stock.

Original issue stock

At the time of the original loan the lender is permitted to purchase shares of common stock at a bargain price based on projections. This gives the lender an opportunity to share in the upside potential if the project is successful, with little downside risk.

Contingent interest

While not an equity kicker *per se*, a contingent interest arrangement requires the borrower to make interest payments over and above the coupon rate. The additional interest payments are normally tied to increases in some variable such as net income, net operating income or sales. A maximum overall rate typically is specified primarily to establish a ceiling on the cost to the borrower.

(b) Financial covenants

Privately placed subordinated debt contains various

financial covenants (consistent with senior debt) to ensure that the company's operations comply with its projections, or to allow the lender to become quickly aware of problems should they arise. Nearly all project finance subordinated debt will be privately placed and therefore contain various financial covenants.

Large publicly traded companies use so-called junk bonds as subordinated debt (mezzanine financing). These bonds are publicly traded and contain few financial covenants.

(c) Interest rate and term

The interest rate for project financing subordinated debt may be fixed but more likely will float unless swapped. The term will be in the range of three to ten years.

(d) Unsecured loans by sponsors

Unsecured loans by sponsors provide another source of quasi-equity for project financing, particularly where the senior debt is protected by a security interest in the key assets.

Stripped interest debt or zero coupon unsecured loans can also be used to provide a strip of financing between subordinated debt and senior debt where the senior debt has shorter maturities.

3. Senior debt

The senior debt of a project financing usually constitutes the largest portion of the financing and is usually the first debt to be placed. Generally the senior debt will be more than 50 per cent of the total financing. Most borrowings from commercial bank lenders for a project financing will be in the form of senior debt.

Senior debt is debt which is not subordinated to any other liability. It is first in priority of payment from the general revenues of the borrower in the event the borrower gets into financial difficulty.[1] However, senior debt falls into two categories:

1. Unsecured loans; and
2. Secured loans.

The distinction is important since senior debt holders have an advantage in liquidation over unsecured senior debt holders.

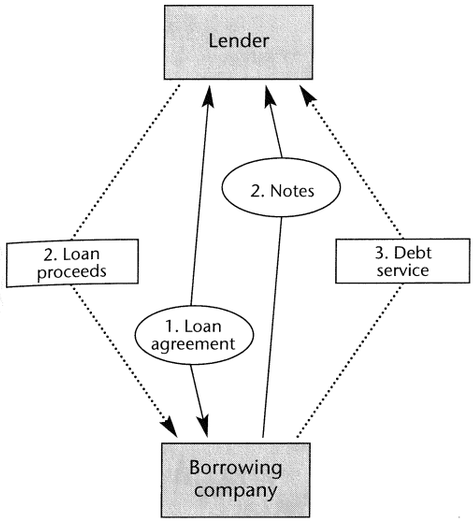
Senior debt can take a variety of forms:

1. The debt may be unsecured but still maintain its stature as senior debt if other classes of debt are subordinated by their terms.
2. The debt may be unsecured but protected by a negative pledge which prevents key and valuable assets of the borrower being pledged to some other creditor, thus preserving those assets for the senior debt holders.
3. The debt may be protected by a security agreement which is triggered by an event of default – such as the failure to meet a ratio requirement, or breach of some other covenant. In this type of arrangement, the lien evidencing the security interest usually may be perfected after the event of default occurs, is asserted and not cured. Some serious events of default give rise to an immediate right to perfect the security interest. Such a potential right to perfect a security interest in the valuable assets of a project is protected by a negative pledge.
4. The debt is secured by a lien on the borrower's key assets, which is perfected at the time the funds are advanced.
5. The debt may be protected by an assignment of proceeds from take or pay contracts or dedication of cash flows from sales to an escrow account to service senior debt.

(a) Unsecured loans

Some kinds of senior debt are referred to as unsecured loans. Typically, this is debt backed by the general credit of the borrower, and is not secured by a perfected security interest in any asset or pool of assets (see Exhibit 9.1). Such an unsecured loan will usually contain a negative pledge of assets to prohibit the liquid and valuable assets of the company being pledged to a third party ahead of the unsecured lenders. The loan agreement may include ratio covenants and provisions calculated to accelerate the loan or trigger a security agreement, should the borrower's financial condition begin to deteriorate. An unsecured loan agreement may also contain negative covenants which limit investments and other kinds of loans, leases or debt obligations of the borrower. Common affirmative covenants include agreements that the business will be properly managed, proper books and records will be kept, financial information will be furnished, insurance coverage kept in force, and the business operated according to law. Large unsecured loans are available only to the most creditworthy companies with long histories of financially successful operation and good relationships with their lenders.

Exhibit 9.1: Unsecured debt obligation



Summary

1. The borrower enters into a loan agreement with the lender.
2. The borrower signs and delivers notes to the lender, and the lender pays the loan proceeds to the borrower.
3. Debt service is paid directly by the borrower to the lender.

Since projects tend to be new enterprises with no operating histories, projects rely upon the reputations of their sponsors, owners, and managers for standing in the financial community. Unsecured loans are available to projects whose sponsors, owners, and managers have established good reputations with the financial community and where sufficient capital or subordinated loans have been provided to meet the equity risk capital needs of the project.

Banks and commercial finance companies are the usual source for senior debt for project financing. Banks are traditionally balance sheet and ratio lenders and many banks have project finance or industry specialists to follow and shepherd the loan. Most important, banks are generally the least expensive source for project financing.

Unsecured loans to projects are often provided by sponsors. Where the project intends to raise a significant amount of capital by secured loans or by leasing, an unsecured loan will serve a purpose similar to a subordinated loan in that it will be junior to the security protection of the lease obligations and secured loans. An unsecured loan by a sponsor can be later subordinated to a new senior loan from a third party if such a loan becomes necessary and feasible.

Unsecured loans to projects may include stock warrants or stock conversion rights to increase the upside potential of the loan to the sponsor lender or third party lender.

(b) Secured loans

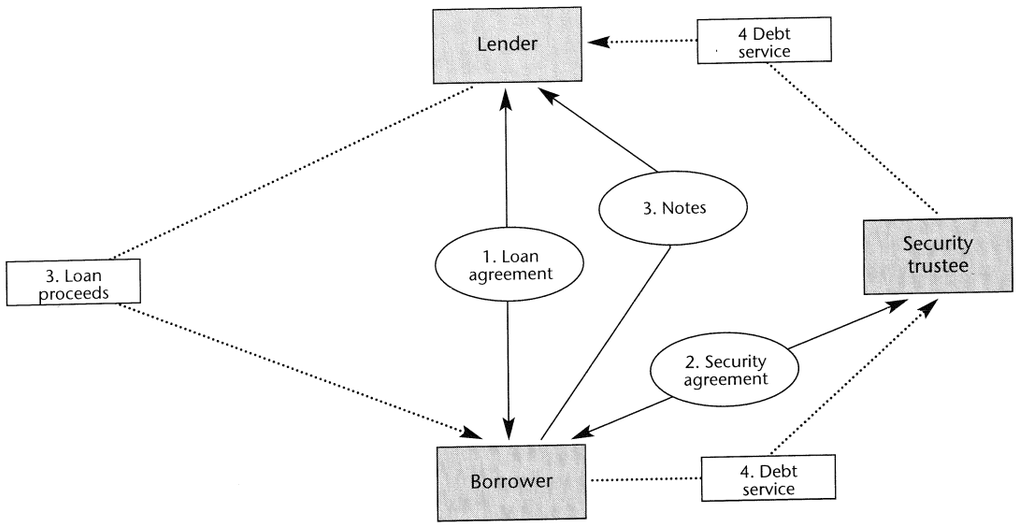
Secured loans are available to most projects where the assets securing the debt have value as collateral, which means that such assets are marketable and can readily be converted into cash (see Exhibit 9.2). Banks and particularly their asset-based lending groups are good sources for secured loans. Commercial finance companies are another good source. The collateral of real property, personal property, payments due under a take-or-pay contract, and assignment of contractual rights are all used as collateral under project financings.

In a fully secured loan, the value of the asset securing the debt equals or exceeds the amount borrowed. The lender relies primarily on the value of the collateral for repayment. However, the reputation and standing of the project managers and sponsors, and the probable success of the project, all enter into the lending decision. Lenders will not lend to a project or company where they expect to have to seize and sell the secured asset in order to collect their loan. The security interest is regarded by lenders as protection of loan repayment in the unlikely event the loan is not repaid in the ordinary course of business.

Because of the security interest, a secured loan is superior to unsecured debt, trade creditors and other unsecured creditors. In the event of financial difficulties, the secured creditor in control of key assets of a project is in a position to demand that its debt service, payments of interest and principal continue, even though unsecured creditors are paid nothing. Furthermore, the secured creditors can insist on payment at the same time that unsecured creditors may find themselves forced to advance additional funds to the borrower.

The superior rights of a secured lender enable projects to borrow on a secured basis where other sources

Exhibit 9.2: Secured debt obligation



Summary
1. A loan agreement is entered into between the borrower and the lender.
2. A security agreement is entered into between the borrower and a security trustee, and a security interest in certain assets is assigned to the security trustee.
3. The borrower signs and delivers notes to the lender. The lender delivers the loan proceeds to the borrower.
4. The borrower pays the debt service to the security trustee which, in turn, distributes the debt service to the lender.

are not available. However, the existence of secured loans, and the rights of secured creditors, make any borrowing from other lenders on an unsecured basis more difficult.

Security under a secured loan may consist of a single asset, a pool of assets, contractual rights, and a changing class of assets such as accounts receivable.

Sometimes a secured loan can be structured on a non-recourse basis whereby the lender will look solely to the security for repayment of the loan principal. A truly non-recourse loan secured by an asset may be carried off-balance sheet by the project company.

The enforceability of security interests requires a word of caution. Inexperienced lenders sometimes take for granted that a security agreement can be easily perfected and enforced if the borrower's financial circumstances begin to deteriorate. This is not always the case. Considerable difficulties may be encountered in perfecting security interests and actually seizing control of the assets subject to a security agreement. This is particularly true in the case of properties located in developing countries with underdeveloped legal systems. For this reason equipment leases are sometimes used instead of secured loans because the rights of a lessor are more easily enforced.

(c) Nature of security for senior debt

Where the holders of senior debt of a project hold a security interest in the key assets of the project, the security interest is evidenced by a first lien on some or all of the following:

- real estate;
- mineral rights;
- equipment;
- contracts for raw materials and services;
- easements;
- marketing contracts;
- stock shares representing ownership of the property;
- leases of equipment;
- leases of real estate; and
- licences, permits, and concession agreements needed to operate the project or facility.

The objective of a security interest is to permit the senior lenders to step in and take control of a project,

should it get into trouble. Investors may also be asked to pledge their equity shares.

Where a negative pledge is used in an unsecured loan to protect the right of lenders under such an agreement to later assert a senior security interest in the assets of the borrower, the negative pledge should extend to all of the above.

Real estate may be an exception to assets usually pledged as security for senior bank debt, because real estate can usually be financed for a much longer term. (A real estate loan is secured debt of a different nature.)

A security interest is only as good as the ability of the holder to enforce the transferability of title and effective control of the asset or property interest. Lenders should ascertain whether proposed collateral constitutes property on which a valid lien can be created, perfected, and enforced.

(d) Security agent for senior debt

Where a number of lenders are involved, a security trustee may be named to act on behalf of all of the secured lenders to hold the security interest in the assets, and to collect cash flow and distribute debt service to secured lenders in the order of their priority for payment. Any such trust arrangement should be consistent with any inter-creditor agreement. Typically, a security agent will act on instructions from a majority or two-thirds of the senior lenders as a group, with each senior lender having a vote proportionate to its outstanding loan.

(e) Secured loans other than senior debt

Secured loans other than senior debt may be used to finance specific equipment or properties of the project. These would include:

- mortgages on real estate;
- equipment loans on specific items of equipment:
  a. by suppliers,
  b. by third parties;
- leases of real estate; and
- leases of equipment.

Since the objective of senior lenders is to control the key assets of the project so that they can step in and operate the project if it gets into trouble, there are likely to be conflicts between senior lenders and lessors, or lenders secured by a particular asset. Typically the senior loan agreements will define the extent to which the project can enter into such transactions to finance equipment which will be outside the security pool of the senior lenders.

4. Concerns of senior lenders

Senior lenders to a project will usually have the following concerns:

1. The lenders expect the financing arranged at the outset to be sufficient to finance the project. They do not want new lenders coming in at a later date with new demands for security interests in new and past company assets.
2. Lenders expect the security ranking to be equal among senior lenders. In the event of a problem, they expect sharing in project assets to be on a pro rata basis. One senior lender cannot have an advantage over another.
3. Senior loan agreements should contain cross default clauses. The default on one loan agreement then triggers the default on all senior loan agreements.
4. Any prepayment of senior debt should be proportional to all the senior lenders in proportion to their loans to the project.
5. Experienced lenders know that, in the event of a problem, all the lenders may not agree on the correct course of action. Some lenders may have other loans to one of the project sponsors or, in the case of a project located overseas, to the host country. Some lenders may find it not to be politically feasible to demand payment from a particular project because of the political relationship between the country of the lender and the host country of the project. Voting rights under a security agreement, and default provisions, may take this factor into consideration. Experienced lenders do not expect to find themselves outvoted by politically motivated lenders.
6. Senior lenders want to be protected against the cash flow from sales being diverted from dedication to servicing debt.

5. Inter-creditor agreement

Any financing which involves a number of separate lenders to a single borrower requires an inter-creditor agreement. Parties to an inter-creditor agreement include lenders under different loan agreements, lenders with

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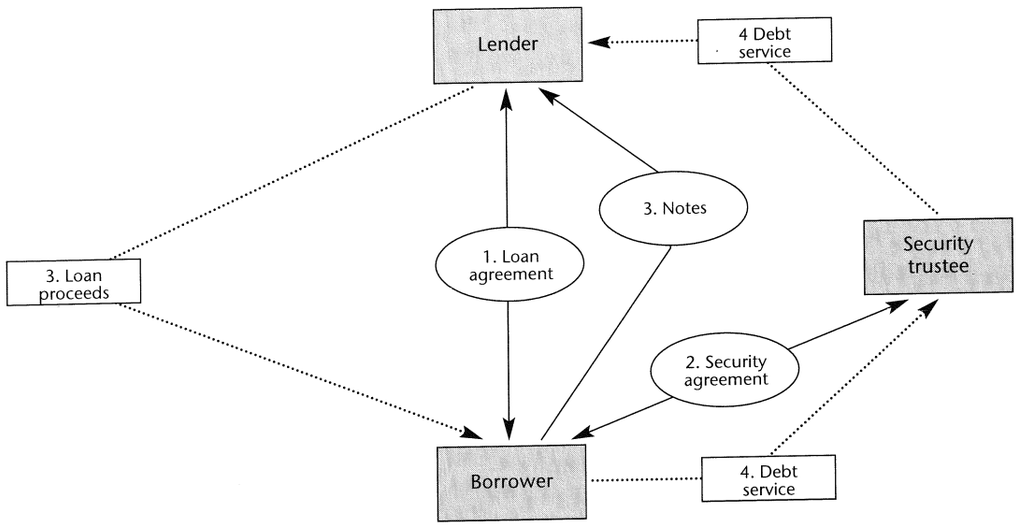

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loans of different maturities, and different classes of lenders, such as senior lenders and sub-ordinated lenders. The purpose of the inter-creditor agreement is to provide procedures, agreements and understandings:

- for coordinating priorities of loan repayment;
- for accelerating the maturity of loans;
- for establishing loss sharing, if any;
- for offset sharing; and
- for coordinating foreclosure of any collateral security for the benefit of all lenders.

The purpose of an inter-creditor agreement is to prevent disputes from arising between creditors which might jeopardise the interests of all the creditors. Where a loan begins to go bad, lenders try to protect their position in the best way possible, and to obtain some advantage over other creditors. The purpose of the inter-creditor agreement is to provide procedures to forestall this.

Project loans tend to be more complex than usual commercial loans. Events which trigger defaults are fairly restrictive in an effort to keep control over the project because of the higher than usual lending risks. Individual lenders declaring an event of default and accelerating their loans would set off a chain reaction of other lenders declaring similar defaults, and taking appropriate steps to protect their collateral interests in the project.[2] If this occurred in a precipitous manner, it would be harmful to all the lenders. The purpose of an inter-creditor agreement is to prevent this.

Under an inter-creditor agreement, typically no lender is permitted to take legal action outside this agreement. The agreement of at least half or two-thirds of the lenders, based on principal balances, is required in order to act. An agent bank or lender is appointed to act on behalf of all lenders to the project which are parties to the inter-creditor agreement.

For someone not familiar with the problems that can arise between creditors, an example may be helpful. Suppose a borrower in deep financial trouble has one-year bank loans, five-year notes, and 10-year debentures, all of which are senior debt. Suppose events of default have occurred and the borrower sells off a division for cash. Who gets the cash? Should it be applied to principal payments as they become due, which means the short-term debt gets paid out? or should long- and short-term debt share proportionately in the proceeds? Convincing arguments can be made each way.

An inter-creditor agreement should be established at an early date in a large project financing involving a number of creditors. Inter-creditor agreements become very difficult to negotiate after it is obvious that a problem exists.

An inter-creditor agreement is also advantageous to the project borrower. Should a financial problem arise, dealing with lenders through the agent bank or agent lender is more manageable for the borrower than trying to deal separately with individual lenders or classes of lenders. Nothing can be gained for a borrower from a quarrel among its lenders.[3]

6. The interest rate

In the public market, debt issues are given quality ratings by the rating agencies (such as Moody's and Standard & Poor's). Given market conditions, a company's credit rating determines the interest rate it must pay. Project companies, of course, rarely have rated debt. Consequently, private lenders ascribe their own credit ratings to companies in order to determine an appropriate interest rate. Although specific methodology differs from lender to lender, the credit analysis performed by private lenders and the rating agencies is similar. Accordingly, review of the credit analysis procedures used by the rating agencies provides a good example of the approach used by private lenders. (A discussion of the methodology used by the rating agencies to determine ratings is included in Chapter 8, and see Exhibit 8.1.)

In seeking financing, the project company must develop an idea of what constitutes an appropriate interest rate for its proposed financing. Since credit analysis is somewhat subjective, this is no easy undertaking especially for a project company which is dependent upon guarantees and undertakings by third parties.

The company tries to establish a range of reasonable interest rates for the proposed financing based upon published information for companies in the same industry. Of course, as part of its negotiating strategy, the company should initially propose a rate at the lower end of the range. The proposed rate can be stated in the financing memorandum or brought up at an appropriate time in the course of discussions with the lender. In either case, all pro forma data and forecasts should be developed using the proposed rate until the lender advises otherwise.

Lenders normally charge a per annum fee (commitment fee) of 2 per cent to 1 per cent on forward commitments. A forward commitment is a frequently used arrangement whereby the lender agrees to deliver funds at some future date, typically not in excess of one of two years. The borrower usually has the option of drawing down the funds before the specified date if required. Forward commitments are used by borrowers primarily to assure the future availability of funds. Since the interest rate generally is set at the commitment date, such an arrangement can be used to obtain a more favourable interest rate when rates are expected to increase. However, lenders are less accommodating with forward commitments when they feel rates will rise.

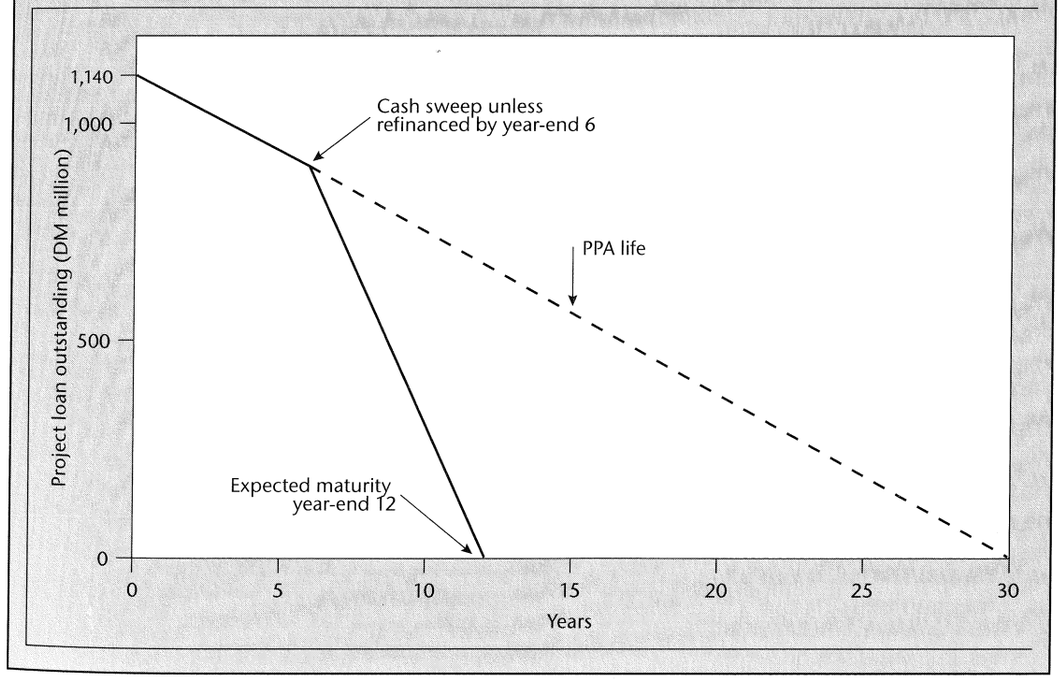
Case study: Pego – Use of a cash sweep

The Pego project involves the establishment of a special-purpose company, Tejo Energia, for the privatisation of two coal-fired power stations for Electricidad de Portugal. The structure adopts a cash sweep as a means to encourage refinancing of the initial bank-based structure.

The project financing for DM1.14 billion was established with a 30-year amortisation profile. Failure to refinance the deal by the end of year six (when an 80 per cent balloon would then be outstanding) meant that all surplus cashflow would thereafter be swept away from the company to prepay the loan in inverse order of maturity (the last scheduled repayments are repaid first). Such a cash sweep would be expected to retire the debt with a final 12-year maturity. In addition, the margin of 150bp above Libor would increase by 50bp per year during the sweep.

The idea is that the completed project would represent a different risk, one that could be attractive to the capital markets and especially bond investors. Over a six-year timespan, the capital markets, where timing can be all, should allow for a refinancing.

The banks themselves refinanced the deal two years after completion at a margin of 90bp along with an extension of the term by five years. Nevertheless the cash sweep aspect was retained. It is highly likely that the deal will be refinanced again along the 30-year repayment profile, something that would be very difficult to do if the structure had moved to a bond deal – notoriously hard to restructure.



Notes and references

1. Legal statutes may rank certain creditors, such as government tax agencies and employee claims for wages, ahead of senior creditors.
   Bankruptcy laws vary throughout the world. Some countries such as the United Kingdom are more protective of lenders than in the United States. Other countries are much less protective of lenders.
   China, for example, has a bankruptcy law adopted in 1986 but not used until the GITIC bankruptcy in 1999. The China bankruptcy law focuses on liquidating assets and lumps all creditors together putting them behind employees and most unsecured domestic claimants.
2. The one thing a lender hates more than a loan loss is a loan loss in which some other comparable lender gets paid. Lenders will act irrationally and contrary to their own interests to prevent such a result.
3. Loan agreements typically provide that legal fees in connection with enforcement of the terms of the agreement will be paid by the borrower. In the event of a dispute among the lenders with long drawn out negotiations between the lenders to determine their priorities or to negotiate an inter-creditor agreement, the legal fees can be atrocious. Since the law firms and their respective clients expect that the legal fees will be paid by a third party (the borrower), the law firms tend to operate without effective cost controls in running up huge hourly fees.

10 Sources of equity and debt

There is a wide range of funding sources available to a project. A project company may be capable of obtaining funding opportunities outside of its domestic financial market or the financial market of the host country.

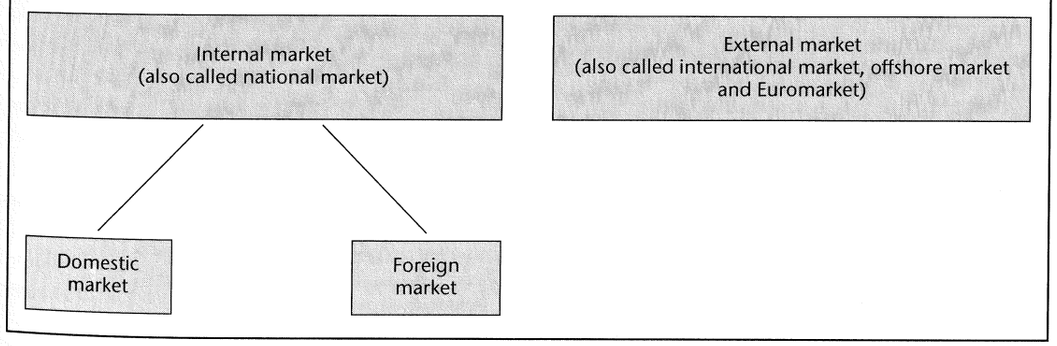
While there is no uniform system for classifying the global financial markets, Exhibit 10.1 provides a schematic presentation of one possible system. From the perspective of a given country, financial markets can be classified as either internal or external. The internal market is also called the national market. It can be divided into two parts: the domestic market and the foreign market. The domestic market is where issuers domiciled in the country issue securities and where those securities are subsequently traded.

The foreign market of a country is where the securities of issuers not domiciled in the country are sold and traded. The rules governing the issuance of foreign securities are those imposed by regulatory authorities where the security is issued. For example, securities issued by non-US corporations in the United States must comply with the regulations set forth in US securities law. A non-Japanese corporation that seeks to offer securities in Japan must comply with Japanese securities law and regulations imposed by the Japanese Ministry of Finance. Nicknames have been used to describe the various foreign markets. For example, the foreign market in the US is called the 'Yankee market'. The foreign market in Japan is nicknamed the 'Samurai market', and in the United Kingdom the 'Bulldog market'.

The external market, also called the international market, includes securities with the following distinguishing features: (1) at issuance they are offered simultaneously to investors in a number of countries, and (2) they are issued outside the jurisdiction of any single country. The external market is commonly referred to as the offshore market, or more popularly, the Euromarket (even though this market is not limited to Europe, it began there).[1]

The 'claim' or security instrument that a project company can issue may be either a fixed dollar amount or a varying, or residual, amount. In the former case,

Exhibit 10.1: Classification of global financial markets



the financial asset is referred to as a debt instrument. Loans and bonds are debt instruments. An equity claim (also called a residual claim) obligates the project company to pay the claimholder an amount based on earnings, if any, after holders of debt instruments have been paid. Common stock is an example of an equity claim. A partnership share is another example. Some financial assets fall into both categories. Preferred stock, for example, is an equity claim that entitles the investor to receive a fixed dollar amount. This payment is contingent, however, and is due only after payments to debt instrument holders are made. Another instrument is a convertible bond, which allows the investor to convert debt into equity under certain circumstances. Both debt and preferred stock that pays a fixed dollar amount are called fixed income instruments. Possible sources of debt and equity for project financing include:

1. International agencies;
2. Government export financing agencies and national interest lenders;
3. Host governments;
4. Commercial banks;
5. Institutional lenders;
6. Money market funds;
7. Commercial finance companies;
8. Leasing companies;
9. Investment management companies;
10. LBO funds;
11. Asset funds or income funds;
12. Wealthy individual investors;
13. Companies which supply a product or raw material;
14. Companies requiring the product or service produced by the project;
15. Contractors;
16. Trade creditors;
17. Vendor financing of equipment;
18. Sponsor loans and advances;
19. REITs; and
20. Savings and loan associations.

These possible sources for loans or equity capital can be divided into two groups of lenders and sponsors:

1. Commercial lenders:
   a. banks;
   b. institutional investors (local markets for equity and bonds):
      (i) insurance companies, and
      (ii) pension funds;
   c. commercial finance companies;
   d. leasing companies;
   e. savings and loan associations;
   f. individuals;
   g. investment management companies; and
   h. LBO funds, money market funds and asset funds.
2. Commercial sponsors:
   a. companies requiring the product or service;
   b. companies supplying a product or raw material to the project;
   c. international agencies:
      (i) the World Bank,
      (ii) European Bank for Reconstruction and Development (EBRD)
      (ii) area development banks;
   d. government export financing agencies and national interest lenders:
      (i) export-import banks, and
      (ii) other government agencies;
   e. host government:
      (i) government agencies, and
      (ii) a central bank;
   f. contractors;
   g. trade creditors; and
   h. vendor financing of equipment.

This chapter discusses each of these possible sources for loans or equity capital.

1. The World Bank and area development banks

The World Bank, EBRD, and area development banks provide debt, or a mixture of equity and debt, for project financing.

A World Bank loan, EBRD loan, or an area development bank loan have certain advantages:

1. The loans tend to be for longer terms than might otherwise be available.
2. The interest rates tend to be lower than would otherwise be available. Fixed interest rates may be possible.
3. Participation of the World Bank, EBRD, or an area development bank endorses the credit for other potential lenders.
4. A co-financing arrangement or a complementary financing arrangement may be possible, whereby commercial bank loans are linked with the World Bank, EBRD, or area development bank loans, with cross-default clauses.

The disadvantages of these loans are:

1. A lengthy approval process, which may delay the project for months or years.
2. The funds provided may be in currencies difficult to hedge, and create significant currency risks.

Some international agencies which act as lenders are listed below. Sometimes these agencies will provide guarantees to equity capital for a project.

- African Development Bank (ADB)
- Asian Development Bank (ADB)
- Commonwealth Development Corporation (CDC)
- Inter-American Development Bank (IDB)
- International Bank for Reconstruction and Development (IBRD) – the World Bank
- International Development Association (IDA)
- International Finance Corporation (IFC)
- European Investment Bank (EIB)

The World Bank is interested in encouraging loans for projects in developing countries from the private sector by providing seed capital and permitting co-financing and complementary financing of projects.

2. International Finance Corporation (IFC)

The IFC is a branch of the World Bank that specialises in the private sector. The IFC does not provide financing for projects that can access the private sector for funds. Rather it concentrates on raising funds for projects that would otherwise not be financeable. The IFC is the largest source of equity and debt financing for private sector project financing in developing countries.

IFC loan programs consist of co-financing through the use of so called 'A' and 'B' loans. The IFC makes 'A' loans for its own account. IFC investments are limited to 25 per cent of a project's cost. 'B' loans are made for the account of participating lenders including private sector lenders. 'B' loans are often syndicated to commercial banks, insurance company lenders and leasing companies. The IFC administers the 'B' loans which includes collections and disbursements to lenders.

The IFC 'B' loan participation appeals to some private lenders because of the perceived protection against country risk from association with IFC, exemption from bank regulation in many countries from country risk limits, and historic exclusion from rescheduling in the event of a general rescheduling of a country's debt.

3. European Bank for Reconstruction and Development (EBRD)

The European Bank for Reconstruction and Development was formed to promote privatisation in eastern Europe. EBRD can provide up to 35 per cent of the long-term capital requirements of a project in the form of debt or equity. EBRD provides co-financing similar to the IFC. EBRD lends for its own account and syndicates its loans to commercial banks as well as government agencies. EBRD generally expects project sponsors to make significant equity investments. EBRD is a prime source of financing for projects in eastern Europe.

4. Government export financing and national interest lenders

Export financing from government export agencies is generally available from two sources, or a combination of both:

1. An export-import bank; and
2. Foreign aid.

Foreign aid, in turn, comes in two forms:

1. From the private sector of the country where the government is providing the aid; and
2. From the sources from which the recipient purchases goods and services.

Nearly all such foreign aid must be used to purchase goods and services from the private sector of the country providing the financing.

Export financing has the following characteristics.

(a) Loans and guarantees

Export agencies provide support in the form of loans and guarantees, or in a combination of both. The US Export-Import Bank, for example, itself provides funding and guarantees. The export-import banks in some countries provide a guarantee of the financing, which is then used to secure a loan from the regular commercial banking sources of the country.

(b) Supplier credit

In a supplier credit, a loan is made to the supplier, and the supplier quotes financing terms to the purchaser. Supplier credits usually require the supplier to assume some portion of the risk of financing, although as a practical matter the supplier's profit margin may exceed the risk assumed.

(c) Buyer credit

In a buyer credit financing, the loan is made to the buyer instead of to the supplier.

(d) Typical terms

1. Five to 10 years.
2. Low interest rate compared to commercial sources.
3. Currency normally in the currency of the supplying country, but any other currency may be used.

(e) Fees

A fee of $^1/_2$ to 1 per cent per annum is typically required.

(f) Security

Security requirements include satisfactory corporate guarantees or mortgages. A guarantee from the central bank and/or a qualified commercial bank may be required.

(g) The Berne Union

The export agencies of most countries have entered into an agreement – the Berne Union – to control competition between export agencies over terms and interest rates.

(h) Advantages

Some of the advantages of export financing are:

1. A fixed rate of interest is often available;
2. A lower rate of interest than would otherwise be available from commercial sources;
3. A loan for a longer term than would be available from commercial sources; and
4. The quasi-government nature of the loan, which provides some protection against government expropriation or interference in the project.

(i) Disadvantages

Some of the disadvantages of export financing are:

1. Delays in procedures to obtain the approval of such loans;
2. The project may not generate the currency needed to repay the loan, thereby creating a currency exposure;
3. The equipment available from the countries supplying the credit may not be the best suited for the project;
4. The quality of services performed may not be as satisfactory as those available from other sources;
5. Additional equipment or services may be needed, which are not covered by the export financing, and such additional equipment or services may have to be purchased from the same source;
6. The equipment used may require expensive maintenance, parts, repairs and servicing, which as a practical matter will have to be provided by the same supplier.

(j) Example of export financing agencies

The following are examples of export financing agencies and national interest lenders.[2]

Australia	The Export Finance & Insurance Corporation (EFIC) is now part of the Australian Trade Commission (Austrade). EFIC is no longer a separate legal entity but retains its name, publishes separate accounts and maintains its underwriting reserves.
Austria	The Oesterreichische Kontrollbank (OeKB) is the principal institution responsible for providing export finance, refinancing, guarantees and insurance. Activities in these fields are governed by two laws and a decree of 1981.
Belgium	The Office National du Ducroire (OND), a state-guaranteed public agency, is Belgium's official insurer. OND is covered by a final state guarantee for both commercial and non-commercial risks which it insures.
Canada	The Export Development Corporation (EDC) of Canada is a crown corporation, established by the Export Development Act 1969, which provides insurance and guarantees for exporters and banks as well as direct financing for foreign buyers.
Denmark	Dansk Eksportfinansieringsfond (DEF) Eksportkreditradet (EKR), the Export Credit Council, is an autonomous body reporting to the Industry Ministry. It is concerned only with insurance and guarantees (including special guarantees for exports to the developing world).
Finland	Vientitakuulaitos (VTL), the Export Guarantee Board, is a government agency under the trade and industry ministry. It provides insurance and guarantees and is financially self-sufficient. Private banks cannot provide export credit cover.
France	Banque Française du Commerce Exterieur (BFCE) The Compagnie Française d'Assuranee pour le Commerce Exterieur (CoFACE) is a semi-public institution. It covers commercial risk on short-term transitions on its own behalf. For all other transitions, it acts on behalf of the government.
Germany	AusFuhrkredit-Gesellsehaft mbH (AKA) Kreditanstalt fur Wiederaufbau (KFW) Hermes Kreditversieherungs AG is a private company which works with Treuarbeit, a publicly held corporation, to provide export credit insurance on behalf of the federal government. Commercial and political risk are, in principle, inseparable.
Italy	Mediocredito Centrale, the Sezione speciale per l'Assicurazione del Credito all'Esportazione (SACE) is an autonomous section of the Istituto Nazionale delle Assicurazioni (INA), the state insurance company. It provides insurance and reinsurance for the private sector.
Japan	The International Trade Insurance Division (ITID) of the Ministry of International Trade and Industry (MITI) is the main Japanese insurer. But, the Export-Import Bank of Japan will also give guarantees for bank loans and buyer credits when ITID cannot.
Netherlands	De Nederlandsche Bank (DNB) Nederlandsche Credietverzekering Maatschappij (NCM) is a private company insuring only short term (up to one year) commercial risks on its own account. Other transactions are administered by NCM but reinsured with the Dutch government.
New Zealand	The Export Guarantee Office (EXGO) is a government agency under the wing of the State Insurance Office. It has no capital but functions under a government guarantee. Most of its business is short term and covers Pacific exports.
Norway	The Garanti-Instituttet for Eksportkredit (GIEK), the Guarantee Institute for Export Credits, is a public agency which reports to the Ministry of Trade and Shipping. For large credits GIEK operates a risk-sharing scheme.
Portugal	The Companhia de Seguro de Creditos (COSEC) provides domestic and export credit insurance as well as factoring and leasing. Decisions on spe-

cial risks are taken by the Comissao Nacional das Garantias de Creditos (CNGC), a government body.

Spain — The Compania Española de Seguros de Crédito a la Exportacion (CESCE) insures commercial risks on its own account and political risks on behalf of the Spanish government. These claims for political risks are paid by the Finance Ministry.

Sweden — AB Svenska Export Kredit (SEK) Exportkreditnamnden (EKN), the Swedish Export Credits Guarantee Board, is a government agency providing guarantees and insurance. It is an enthusiastic supporter of co-operation with other agencies and private sector insurers.

Switzerland — The Geschaftsstelle fuer die Exportrisikogarantie (ERG) provides insurance to support Swiss exports, particularly to the developing world. Private insurers also compete on a commercial basis. ERG cover is obligatory for mixed credits.

United Kingdom — The Export Credits Guarantee Department (ECGD) was established to assist British exporters by providing insurance cover against risk of buyer default.

United States — Export-Import Bank of the United States; Private Export Funding Corporation (PEFCO); and Overseas Private Investment Corporation (OPIC).

5. Host governments

Host governments will sometimes provide the following direct and indirect assistance:

- government equity investment by government investment companies;
- investment grants;
- government subsidised loans to support new enterprises in depressed areas;
- income tax concessions or real estate tax concessions (while these are not a direct infusion of capital, they have the same effect by reducing cash flow needed for operating expenses);
- concessions on royalties;
- subsidised energy costs;
- subsidised transportation;
- subsidised communications;
- subsidised employee services such as schools, hospitals, and health services; and
- local services, roads, water, sewers, and police protection.

6. Commercial banks

Commercial banks are the largest source for project loans. Commercial banks tend to limit their commitments to five to 10 years with floating interest rates based on Libor or US prime rate. From time to time loans for longer terms are available. Fixed interest rate loans for five to 10-year maturities or longer are sometimes available. Commercial bank loans for large projects are typically arranged as syndicated bank loans.

7. Institutional lenders

Institutional lenders include life insurance companies, pension plans, profit-sharing plans, and charitable foundations.

In the United States, the institutional debt markets have traditionally provided a substantial source of long-term fixed rate funds. Such institutions can make limited amounts of loans outside the United States. Life insurance companies subject to laws regulating insurance companies in the state of New York must limit foreign loans to 5 per cent of their assets.[3] However, this still leaves considerable capacity because of their size. This limit can be avoided by borrowing through a US subsidiary, backed by a letter of credit from a US commercial bank.

8. Money market funds

Money market funds are investment funds which concentrate their investments in short-term debt, such as

Case study: Shandong Power – The role of export finance agencies

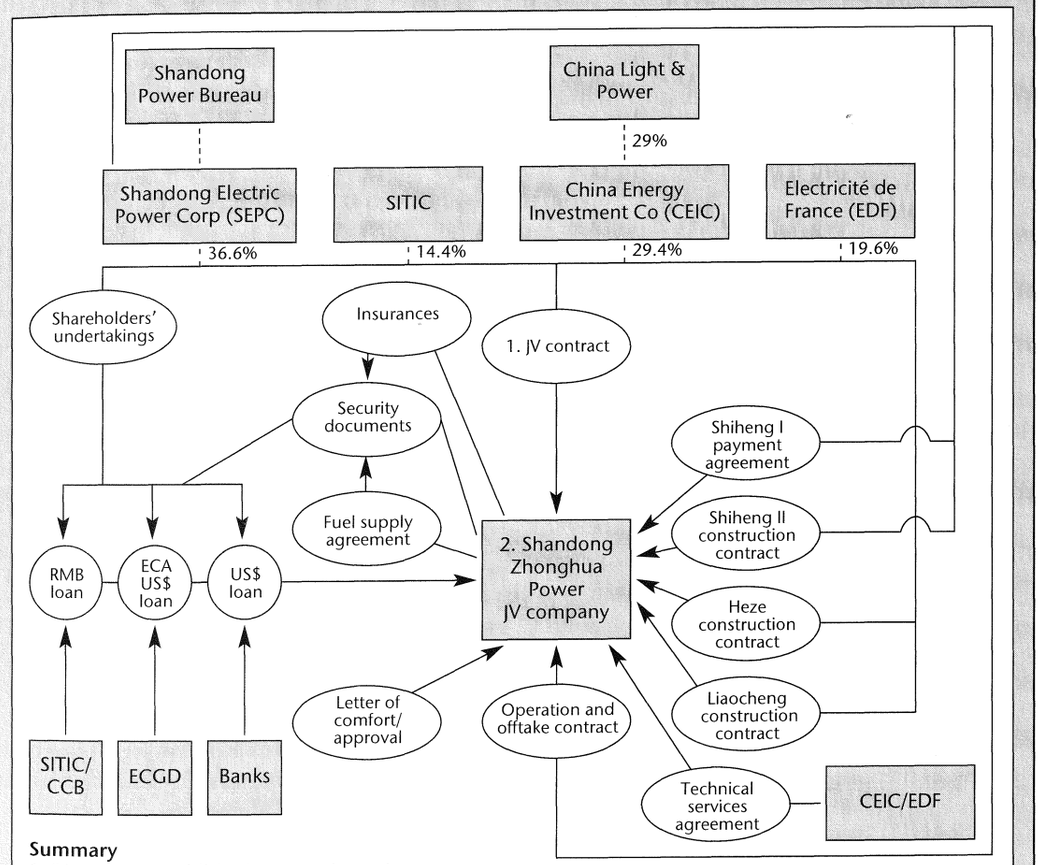
The project financing is based on combining the existing coal-fired 600MW Shiheng 1 power plant with three others for a combined total of 3,000MW. Electricité de France (EDF) along with China Light & Power (Hong Kong) play a major role in the project.

Of the project's total US$2.2 billion cost, some US$1.5 billion is provided by debt in three tranches:

Tranche A: US$350million 12-year Commercial Bank Loan
Tranche B: US$312 17½-year ECGD-guaranteed loan (100 per cent cover)
Tranche C: US$822 million equivalent in Renminbi

Pricing:
Tranche A: Libor +185bp pre-completion; Libor +175bp post-completion
Tranche B: Libor + 57.5bp
Tranche C: 8.01 per cent fixed

This structure (at the time the largest for an independent power project in Asia) shows how competitive each export-credit agency can be. In this case the ECGD cover is for political and commercial risks, 100 per cent.



Summary
1. JV contract established among the various owners.
2. SPV established for the power plant.

certificates of deposit, short-term notes and commercial paper.

9. Commercial finance companies

Large commercial finance companies are a potential source of funds for project financing. Compared to banks or insurance companies, finance companies do not have a depositor base of policy-holders as a source of funds. They must buy all their funds in the debt markets and relend at a spread. Consequently, funds from finance companies tend to be highly priced. Some large commercial banks now have commercial lending groups or companies as an adjunct to commercial lending activities.

10. Leasing companies

Leasing companies, which use tax benefits associated with equipment ownership, offer attractively priced leases for equipment (see Chapter 17). Independent leasing companies, and leasing companies owned by banks and finance companies, are an important source of loans and leases.

11. Investment management companies and venture capital providers

Investment management companies lend money as risk capital in circumstances where they can realise an equity participation through warrants, stock rights, conversions or similar rights. Some companies are owned by banks or insurance companies. Typically, they limit their investments to around US$5 million. Others are independently owned, and these include some risk capital investment funds which will invest amounts larger than US$5 million in certain situations.

12. LBO funds

In recent years there has been a tremendous amount of activity in leveraged buyouts in the United States. This has given rise to the formation of a great number of publicly and privately financed LBO funds to engage in such activities. These funds can be a source of equity capital for traditional project financings. In view of the number of such funds, their managements will be under pressure to put their funds to work. Consequently they may broaden their investment horizons to include traditional project financings. As similar LBO activity grows in the United Kingdom and Europe, similar funds and similar opportunities may occur there.

13. Asset funds or income funds

The reduction in tax benefits available to individuals in the United States resulting from changes in tax laws has given rise to investment banks promoting new types of non-tax oriented investments for their retail customer base. Assets funds or income funds have been a response to the need for new product. Such funds are formed for the purpose of providing a pre-tax return on investment. The funds may be formed to invest in particular types of assets (eg, computer equipment, medical equipment, etc.) or they may be formed for general investment in income producing property or equipment. Because of the large numbers of such funds, they are anxious to find investments and consequently present a potential source of funds for project financing.

14. Bond market

At one time, limited use of debt funding via the issuance of bonds was used by project companies or by countries to fund infrastructure projects. In recent years, the use of the bond market as a vehicle for obtaining debt funds has increased. The model structure for such financing is the revenue bond commonly employed in the United States by state and local governments and by their creations. Such bonds are issued for either project or enterprise financings where the bond issuers pledge to the bondholders the revenues generated by the operating projects financed. These structures are described in Chapter 19.

With the adoption of Rule 144A (discussed in the next chapter), greater use can be made of the the private placement market in the US to finance projects throughout the world using bonds. For example, Enron used the US private placement market to issue bonds (US$105 million) to finance the construction of its Subic Bay plant in the Philippines.

15. Wealthy individual investors

Private individual investors are an important source of funds in Europe for unregistered debt instruments. Eurobonds are attractive investments because they are unregistered, are available in small denominations and have obvious tax advantages.

Private individual investors in the United States are a difficult debt source for a project financing because public rather than private placements are required to tap this market. This involves SEC registration, and compliance with state registration laws. Private risk-oriented investors in the United States are more inclined to investment in tax shelter or equity-related securities than debt securities in an unknown project company.

Private individual investors have invested heavily in tax-oriented investments, such as limited partnerships to finance research and development, oil and gas exploration, and real estate investments. Private individual investors are also an important source of funds for industrial revenue bonds.

As traditional sources of long-term debt dry up, greater effort will be made to attract private individual investors to lend and invest in project financings.

16. Suppliers of raw materials

A supplier seeking a market for a product or a by-product which it produces is sometimes willing to subsidise construction, or guarantee debt of a facility which will use that product. This might, for example, be a canning plant supported by farmers in California, or a steel plant which would use natural gas in the Middle East. The list of possible suppliers varies with each project.

17. New product buyers or service users

A corporation requiring a product or a service may be willing to provide financial help in getting a project built. Generally this help will come in the form of a long-term take-and-pay contract, or a through-put contract. Take-or-pay contracts or through-put contracts are the equivalent of guarantees, and can be used to underwrite loans from other commercial sources.

Another form of financing which a company needing a product or raw material will sometimes provide is an advance of capital, which is to be repaid from future production. This might be repaid in kind, or by providing production at a bargain price until the advance and interest on the advance are recovered.

Ship operators often use long-term ship charters as a basis for financing construction of ships. Under such an arrangement, the chartering party needing the ship transportation service enters into a charter of sufficient length to enable the operator to finance the vessel.

18. Contractors

Contractors, while often enthusiastic about a proposed project financing, are rarely able to participate significantly in the long-term financing of a project. However, contractors can provide support in the form of fixed price contracts, which are the same as guarantees to build a project facility at a certain price. Contractors will, on occasion, agree to take a portion of their fees as an equity interest in a project.

Contractors can sometimes be of great help to their customers by providing advice on the financing of projects, having had considerable expertise in dealing with lenders, potential sponsors and various government agencies which may be sources of funds for projects. They may also be able to suggest structures and methods for project financing.

Contractors are very knowledgeable regarding infrastructure projects in developing countries.

19. Trade creditors

Trade creditors wishing to do business with a project company will extend short-term credit linked to the sale of goods and services.

20. Vendor financing of equipment

Many dealers and manufacturers have extensive financing programmes to encourage the sale of their machinery and equipment. Domestic dealers and manufacturers often compete with export financing provided by foreign competitors, and credit terms and criteria may, as a result, be somewhat relaxed. This type of financing has been increasingly available in recent years, and is an important source of funds for project financing. Long-term warranties of equipment reliability and performance from manufacturers are helpful in arranging financing from other sources.

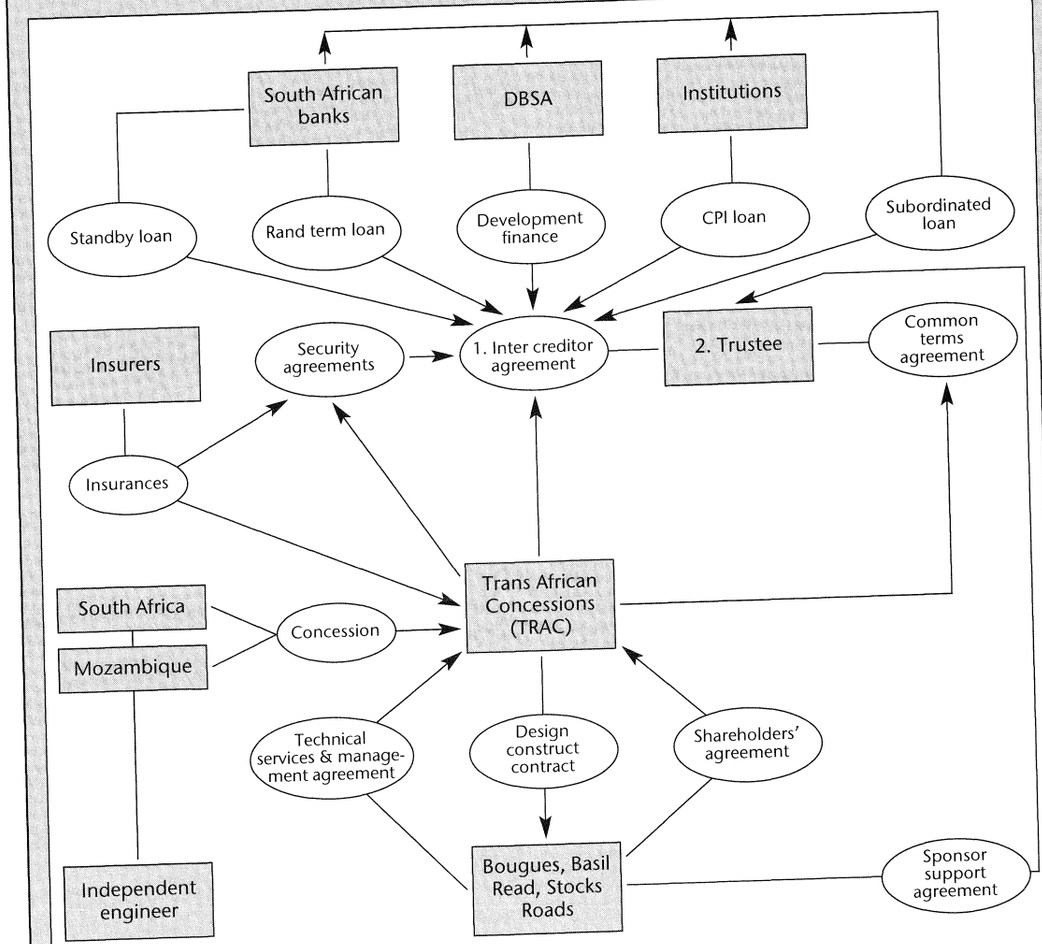
Case study: N4 Tollroad, South Africa-Mozambique – Contractors' support

The 440km N4 concession is granted for 30 years by two countries, South Africa and Mozambique. Some 390km needed upgrading with 50km as new road build. Traffic is approximately 90 per cent from the South African side. The route links Witbank, north-east of Johannesburg, to the Mozambican port of Maputo.

The winning bidder is a consortium called TRAC led by Bouygues. Besides contractors, it includes institutions, engineers, and black-empowerment groups.

The project financing is on an 80:20, debt:equity basis. Besides straight cash equity, the sponsors (overall 40 per cent owned by the contractors) provide standby equity.

The contractors entered a $3^1/_2$-year turnkey design-construct construction contract with delay liquidated damages of six months. This is combined with retentions and performance bonds provided by the contractors. An early completion bonus offsets these commitments.



Summary

1. A combination of a 15-year rand term loan/standby, a 20-year DBSA loan, and a 15-year CPI loan is meshed into the intercreditor agreement.
2. A security trust is necessary to protect the borrower from disparate actions by multiple creditors.

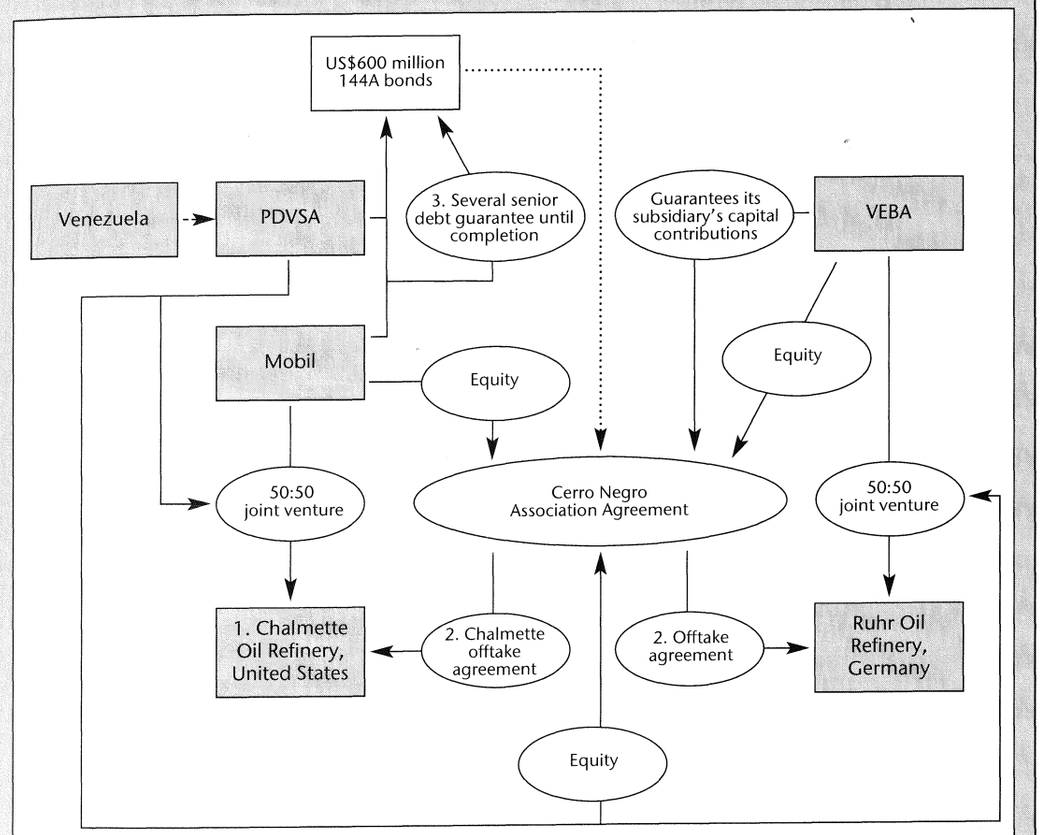
Case study: Cerro Negro – Support by sponsors/end-users

The US$600 million Cerro Negro project financing was done in the 144A private placement market in the US and had outright completion guarantees from sponsors Mobil and the Venezuelan state-owned oil giant, PDVSA. The inclusion of Mobil's oil refinery in Louisiana helped reduce the overall capital costs and boosted the equity resident in the transaction upfront.

This project financing came hard on the heels of similar Venezuelan 144A deals. These projects, when rated, all pierced the sovereign ceiling, that is they achieved a rating higher than the sovereign, Venezuela, on its own debt.

The project concept involves the extraction of a semi-crude oil product from Venezuelan extra-heavy crude oil which is partly processed. Initially, it is diluted by imported Nigerian condensate. Once up and running, the dilution is internally generated by the project's partial upgrading plant.

Offtake agreements specify that each of Mobil, PDVSA, and Veba will purchase all unsold semi-crude. The combination of exported oil (there is no foreign exchange risk on a US dollar issue) and US/German offtake contracts for 100% of the output from quality sponsors, together with their full completion guarantees, allowed a first step into the 144A market to fund this transaction on a project finance basis.



Summary

1. Mobil contributes its refinery at Chalmette, Louisiana, US, to the joint venture.
2. Mobil, state-owned PDVSA, and Germany's Veba enter into an offtake agreement.
3. Completion guarantee (several) from the main two bond issuers, Mobil and PDVSA.

21. Sponsor loans and advances

Direct loans by a sponsor to a project may not be a very satisfactory method of financing a project, since the loan is reflected in the balance sheet, and the subsequent borrowing capability of the sponsor. Most project financing tries to avoid this.

Nevertheless, in some circumstances a direct loan or advance by a sponsor is the only way in which the project can be financed. Such direct loans may also be necessary as a result of cost over-runs or other contingent liabilities which the sponsor has assumed. A loan is preferable to a capital contribution, since it is more easily repaid. If the project is unconsolidated, the project receives a tax deduction for the interest payments on a loan. On the other hand, the interest payments on the loan are taxable to the sponsor lender, whereas dividend-payments would be subject to the dividend received credit.

A direct loan to a project by a sponsor is also usually at a lower interest rate than might otherwise be available. Some sponsors prefer to lend directly to a project rather than to guarantee a loan, because they view the credit exposure as being the same, but prefer to earn interest on a loan where they already have the exposure.

Joint venture projects are often financed by loans or advances because of the different borrowing capabilities of the joint venturers and the inability of the joint venture to borrow on its own merits.

Subordinated loans by an industrial sponsor to a project are commonly used in lieu of capital contributions to provide a layer of capital in addition to net worth to support more senior borrowings and credit arrangements. Senior creditors will generally treat subordinated loans as equivalent to net worth for the purposes of analysing debt to net worth ratios and senior debt service ratios. The degree of subordination to various kinds of senior debt must be specifically spelled out to provide the protection sought by senior lenders. To the extent that such junior subordinated debt can be used to support borrowing by the project which is non-recourse to the sponsor or off-balance sheet to the sponsor, a project financing results.

Loans by a sponsor to a project through the sponsor's captive finance company achieve many of the objectives of a project financing. Advances are another form of loan by a sponsor.

22. Project collateralised bond and loan obligation pools

These structures known as CBOs and CLOs provide a format for securitising the cash flows from pools of project loans and equity investments. So far these funds or pools have been closed-end funds in which the loans and equity investments and cash flows were defined at the offset. However, open-ended funds may be possible in the future. Accepted debt ratings play an important role in establishing and securitising such funds.

23. Insurance provided by private insurance companies

Insurance against trade credit losses is available from a number of private insurance companies. Some private insurance companies offer political risk insurance during construction and during operation. American International Group (AIG) offers such insurance as well loss of leased equipment due to government action.

Notes and references

1. The classification we use is by no means universally accepted. Some market observers and compilers of statistical data on market activity refer to the external market as consisting of the foreign market and the Euromarket.
2. See *World Export Credit Guide 1998–1999,* Euromoney.
3. This includes all life insurance companies in the United States.

11

Instruments used in project financing

As project financing techniques have grown in recent years, so has the array of financial instruments grown to meet the needs of the artful project financier. However, the choice of financial instruments available to a borrower varies with the type of project financing involved.

In the idealistic view of project financing, the lenders or investors must be satisfied to look to the cash flows and assets of an under-capitalised project as the sole source of funds for repayment. The search for this idealistic form of project financing in which lenders will look only to the cash flows for repayment with little equity underneath them is elusive and a little like the quest for the Holy Grail. Many people have heard about it, believe in it, and are searching for it, but thus far, at least, no one has seen it.

As discussed in Chapter 1, a more realistic form of project financing is a transaction in which lenders and investors will look initially to the cash flows and assets of a project for repayment. Those cash flows and assets are then backed by indirect guarantees in the form of such devices as take-or-pay contracts, tolling contracts, put-or-pay contracts and/or a long-term operating contract coupled with proven underlying assets. These are not investment grade credits. However, banks, lessors and other lenders with the technical expertise to understand and appraise the risks involved can aid in structuring the undertakings of the interested parties so that taken together they constitute an equivalent to adequate guarantees. If satisfied with the arrangement, such banks, lessors and lenders will advance funds or provide standby credit facilities on that basis.

Another category of project financing with a much broader array of available financing methods is one which is off-balance sheet and without recourse to the sponsor while at the same time constituting a clear liability of one or more third parties who are interested in getting the project built for one reason or another, such as companies with a need for the product to be produced or the service to be provided. Obviously, projects with strong undertakings and guarantees by investment grade third parties have a much broader array of financial products available than a highly geared project based upon indirect, contingent and/or implied guarantees for credit support.

Past shortages of medium- and long-term capital for project financing and for conventional financing have resulted in a variety of debt instruments containing unusual features, either to attract investors or to deter risk. Many of these are private debt issues which may be arranged through a commercial bank or investment bank, and most can be adapted to project financing.

Some of the possible instruments and sources of funds for project financing are discussed below. Not all of these instruments have been used in project financing. However, they have features and characteristics which give them promise for the future where investors can be satisfied that equivalent to investment grade risks exist.

With proper structuring of the underlying credit risks, the artful project financier has a variety of methods and instruments from which to choose.

In addition to the instruments discussed in this chapter, there are derivative instruments that can be used

to modify the risk exposure or lower the funding cost. Derivative instruments are discussed in Chapters 23 and 24.

1. Commercial bank loans

Commercial banks remain the most popular and largest source of project financing because of the ability of banks to understand and appraise the credit risk exposures involved in unusual loan transactions. Many of the large international commercial banks employ staffs of engineers to assist in the structuring of project financings which involve mining or petroleum projects. They have staff equipment experts and real estate professionals to assist in asset-based financing. These banks also have experienced and professional loan officers with expertise as to the acceptable practices and risks of particular industries.

Bank loans may take the form of secured or unsecured loans. Commercial bank loans may involve a single lender, several lenders or be syndicated. They may be in the form of construction loans, term loans, bridge loans, mortgage loans or working capital loans. Commercial banks tend to limit their commitments to 5 to 10 years with floating interest rates based on Libor or the US prime rate. From time to time, loans for longer terms are available. Fixed interest rate loans for 5 to 10 year maturities or longer are sometimes available.

Equally important as loans are standby credit facilities provided by banks with the expertise to understand and appraise the credit risks of a financing. Such standby facilities are the key to accessing the private and public markets for project financing. This can be attractive business for banks if priced correctly.

Commercial bank loans and standby facilities for large projects are typically arranged on a syndicated basis by a group of banks.

Documentation for commercial bank loans consists of the loan agreement, promissory notes (in the United States), guarantees and security documents.

Some of the key and obvious points to be covered in a loan agreement include:

1. The amount which may be borrowed.
2. Commitment fees for unused amounts under the commitment.
3. The term of the loan and repayment schedule.
4. The interest rate on the outstanding balance.
5. The procedure for take-downs and conditions precedent for the take-down.
6. Representations and warranties of the borrower including:
   - use of proceeds;
   - financial conditions;
   - title to assets;
   - material litigation;
   - contingent liabilities;
   - establishment and organisation;
   - authority to enter into the loan agreement.
7. Legal opinions which will be required at the closing of the loan agreement, at the time of take-downs, and periodically during the loan agreement.
8. Affirmative covenants, such as:
   - compliance with laws;
   - payment of taxes;
   - maintenance of equipment and facilities;
   - obtaining requisite government approval;
   - maintenance of insurance;
   - furnishing periodic financial reports;
   - non-encumbrance of assets; and
   - limitations on mergers, dividends and sale of assets.
9. Financial convenants, such as:
   - limitations on indebtedness;
   - maintenance of financial ratios.
10. Responsibility for any withholding tax on interest.
11. Enforceability of the rights of the lender:
   - events of default and opportunities to cure a default;
   - remedies in case of default;
   - cross-default clauses; and
   - insurance proceeds.

2. Supplier financing and captive finance companies

Companies anxious to supply goods and equipment to a project are an excellent source of funds for project financing. Most manufacturers of large items of capital equipment have set up captive finance companies or units to assist in arranging financing for their products. Usually these captive financing companies are specifically designed to generate incremental sales by dealing with less than investment grade credits. Competition often forces such companies to offer very competitive rates and terms which are not otherwise available in the market-place.

Instruments used by suppliers will include secured and unsecured term loans and instalment loans and leases. While supplier financing is not itself an instrument, the service is so important that it requires mention as a separate category.

3. Export credit financing

Government export credit financing can be especially attractive for eligible projects. This type of loan or guarantee of commercial bank credit may be available for a longer term than traditional commercial bank loan funding. Further, the loan interest rate may be subsidised and be offered at a fixed interest rate.

Where potential suppliers of equipment and services from different countries are competing to supply a particular project, the bidding (in the form of export credit terms) can become quite spirited.

Export financing or guarantees may be available even though the goods or equipment contain foreign content parts. The US Eximbank, for example, will finance or guarantee up to 100 per cent of US content of capital goods or equipment where up to 50 per cent of the value of the finished product constitutes foreign content, provided final assembly is in the United States.

Commercial banks and investment banks with experience in project financing and export credit agency financing can be especially helpful to a project in selecting and negotiating favourable terms and conditions for such financing. Large suppliers and contractors can also be helpful in this regard.

4. Buyer credits supported by an export credit agency

In a buyer credit, an export credit agency provides guarantees to the buyer's commercial banks which then advance funds toward purchases of equipment to be financed. The funds are the same as a loan to the buyer and will give the buyer the advantage of a cash transaction in dealing with the various suppliers. This type of an arrangement is especially well suited for a project financing. The key document in a buyer credit arrangement is a loan agreement between the bank acting as the lender and buyer or the central bank in the buyer's country which is acting as the borrower. The contract price for the equipment includes the cost of the export credit agency premium payable by the exporting company.

5. National and international development bank loans

Long-term fixed rate loans at attractive rates may be available for certain projects from national and international development banks. The difficulty with arranging such loans for an eligible project is the lengthy approval process which may delay a project for months or years. Procedural requirements such as competitive

Case study: Meizhou Wan – Co-financing and complementary financing

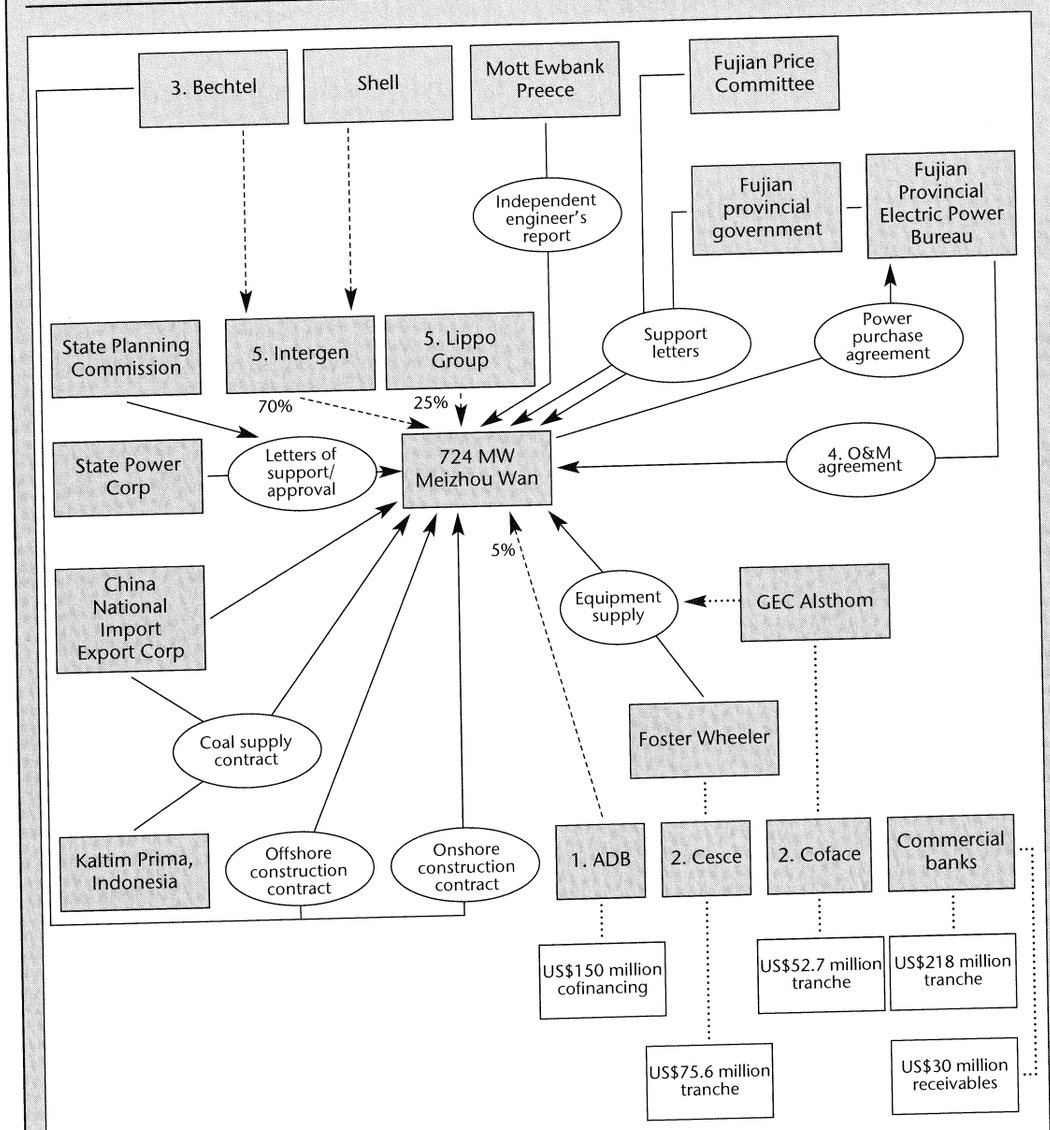
The Meizhou Wan project originated with the residential and commercial development of Tati city in Fujian, China. The power demands caused Lippo to look for an experienced operator/developer. The financing plan ultimately developed is a classic co-financing/complementary financing, the Asian Development Bank's (ADB's) first in China.

A co-financing means that the ADB loan is sub-participated out to commercial banks. The loan can be used for the purchase of goods and services from anywhere, including China.

The two export-credit tranches are for equipment purchases from Spain (boilers from Foster Wheeler) and France (GEC Alsthom's steam turbines, condensers, and transformers). These tranches attract 95–99 per cent political risk cover. These are then synchronised into a parallel/complementary package of project loans and a receivables facility.

In accordance with the approval format in many countries, the structure includes letters of comfort and support/approval from national and provincial authorities, including a very important one in this case, the committee which sets the power price in the province of Fujian. With such strong deal and political-risk structuring, banks are happy to project finance even during difficult market conditions.

Case study: Meizhou Wan *continued*



Summary

1. Asian Development Bank (ADB) enters a cofinancing for US$150million. ADB concurrently invests in 5% of the project's equity.
2. ECAs support equipment deliveries form Spain (Cesce) and France (Coface).
3. Owner/sponsor Bechtel enters two turnkey construction contracts for onshore and offshore aspects.
4. Under the 20-year operations and maintenance (O&M) agreement, Intergen supplies on-site support and supervision and would step in as operator in the event that the O&M contract with the Fujian Provincial Electric Power Bureau is terminated.
5. Pre-completion support from Intergen and Lippo includes a US$51 million letter of credit for a debt-service reserve (six months) plus US$80 million sponsor support for cost overruns and unapproved costs.

bids for construction contracts and equipment purchases are another drawback. Also, the funds provided may be in a currency difficult to hedge.

6. Co-financing and complimentary financing

Co-financing and complimentary financing is used in connection with international development bank loans, World Bank loans, IFC loans and EBRD loans. The idea is for the agency to provide seed money for the project and to intertwine its loan with loans from the private sector so that a default on the private sector loan will also constitute a default on the international agency loan. The theory of this arrangement is that the borrower and the host country for the project will be less inclined to permit the loan to default by reason of the World Bank or agency's involvement. The World Bank and EBRD encourage and promote co-financing arrangements.

7. Syndicated credit facility

A syndicated credit facility is one in which a number of banks undertake to provide a loan or other support facility to a customer on a pro rata basis under identical terms and conditions evidenced by a single credit agreement. These facilities are generally floating rate in nature, with or without amortisation, and the pricing will normally consist of a fixed spread over a short-term base rate (which base rate is adjusted periodically during the life of the loan), with commitment fees, agency fees, management fees, offsetting balances, security, etc., often included as well. Tenors may range from 1–12 years.

Syndicated credit facilities may be structured as conventional revolvers and club loans to multi-option or highly single-purpose facilities. They may consist of revolving or term bank lines, commercial paper liquidity (back-up) lines, standby L/Cs (for commercial paper, private placements, IRBs, Eurobonds, etc.), bankers' acceptances, receivable financings, etc. Pricing is generally based on prime, Libor, certificates of deposit, or bankers' acceptances, in varying combinations, for funding periods ranging from days to one, two, three, six or 12 months. Participants include all types of financial institutions, but are primarily major international banks. The lead or agent bank oversees the structure, pricing syndicate configuration, construction of a timetable, selling, documentation and closing of the transactions, as well as administering the facility until final maturity.

The general advantages of the syndicated loan market are:

1. Large amounts of debt can be raised. The syndicated loan market is the largest source of international capital.
2. Loans may be made in any of several currencies.
3. The number of participants can be substantial.
4. Banks participating in syndicated loans are sophisticated and able to understand and participate in complex credit risks presented by project financing.
5. Draw-downs can be flexible.
6. Prepayment is customarily permitted.

The major disadvantage of the syndicated loan market is that the interest rate is floating, and is usually based on Libor, which may be high cost relative to other market rates.

Syndicated loans are generally used by governments and government agencies. However, strong corporate credits, utilities and energy projects have used this market to raise funds.

Syndicated loans are usually non-negotiable and remain on the banks' books until maturity. However, the banks retain the right to assign participations to their branches or to other banks.

Syndicated loans are arranged by a manager or lead manager. Terms and conditions are negotiated by the manager. The manager could be a commercial bank providing loan funds, or either a merchant bank or a commercial bank which acts solely as the arranger of the loan.

Most syndicated loans are denominated in US dollars, but have also been denominated in other currencies including sterling, euros, Deutschmarks, Swiss francs, or Japanese yen.

Central banks often prefer loans in their country to be led by one of their domestic banks.

Syndicated loans are usually structured as term loans. The interest rate is floating and the lender ordinarily protects itself by a matching deposit in the London inter-bank market in the same amount and term, which is renewed each interest period. In the Far East, the local inter-bank rate would be used for setting the interest rate.

The manager in a syndicated loan transaction monitors a borrower's financial condition during the term of the loan. Such loans contain numerous convenants and default provisions. Most syndicated loans are unsecured but they may be protected by a negative pledge.

Syndication loans are usually amortised according to a fixed schedule, and repayment begins after a term of years known as a grace period, which is usually not longer than five or six years. Maturities are as long as 10 years, and sometimes longer. Syndicated loans can be repaid without penalty.

A major advantage of syndicated loans for borrowers is the large size of financing available, their flexibility, and the fact that they are relatively quick and cheap to arrange.

Syndicated loans are made to developing countries, whereas bond issues are normally restricted to industrialised nations. For many sovereign states, the syndicated loan market is one of the few international financing options available.

8. Production payment loans and advances

Production payment loans and advances are widely used for both off-balance sheet and on-balance sheet financing of oil and gas properties. They are also beginning to be used for coal and other minerals. In a pure production payment loan, the obligation is to be repaid from proceeds of oil or gas production. These loans are typically provided by banks and bank syndicated credits. The skill and reputation of the operator is an important factor in appraising the creditworthiness of the transaction. Production payment loans have been used extensively in financing development of the North Sea gas and oil fields, as well as in the United States.

9. Short-term financing vehicles

(a) Commercial paper

Commercial paper is widely used in the United States as a reliable source of short-term financing which can be rolled forward to provide long-term financing needs. Foreign credits or unknown project financing credits can use this market by using a back-up letter of credit or line of credit from a commercial bank or insurance company. The all-in cost of commercial paper can be attractive compared to other methods of financing.

Commercial paper and back-up credit facilities used in connection with commercial paper are discussed in Chapter 20.

(b) Short-term roll-over notes

Short-term roll-over notes similar to commercial paper are used (outside the United States) to finance part or all of the cost of project facilities. The attraction of using such short-term notes is the lower interest cost which may be available. While there is a demand from investors for such short-term notes, the market is very thin compared to the US commercial paper market. Such notes should only be used with back-up credit lines for long-term financings, and the projected interest cost of the notes should include fees for the back-up credit lines.

(c) Euro-commercial paper (ECP)

Euro-commercial paper had its beginnings as Euronotes with maturities of one week, one month, three months, six months or one year. Euronotes are negotiable bearer instruments, usually denominated in dollars but also denominated in sterling, euros and several other currencies. Euronotes are usually issued through note issuance facilities (NIFs) consisting of medium-term standby facilities provided by a group of banks. Distribution under a NIF takes place through a tender panel of syndicate banks who are invited to bid for each issue.

As the market for Euronotes matured, some issuers began to issue Euronotes without a standby facility, thus giving rise to Euro-commercial paper.

Euro-commercial paper consists of short-term obligations with maturities usually ranging from 78 to 183 days. Rates may be fixed, Libor-related, or in discount form. As in the United States, issuers use commercial banks or investment banks acting as dealers to place the securities with investors and to handle the substantial paperwork involved. The banks acting as dealers take the place of the tender panels used in Euronotes. A single agent may be appointed to coordinate issues.

Using Euro-commercial paper, an issuer decides day-by-day how much paper it wishes to issue, the maturity of the paper and the interest rate to be paid. The Euro-commercial paper is then sold to dealers who in turn place the paper with investors.

(d) CRUFs

Euro-commercial paper can only be issued by strong investment grade companies, unless collateralised and/or supported by guarantees such as a standby letter of credit.

The term CRUF stands for collateralised revolving underwriting facility. Originally these were used by banks seeking to lower their asset levels, but new kinds of collateral have begun to be used for CRUFs, such as receivables. The market for Euro-commercial paper has demonstrated by accepting collateral such as receivable that it is willing to accept other forms of collateral, and CRUFs probably will see increased use in the future.

(e) Japanese commercial paper

The Japanese commercial paper market is in its early stages of development. As of the date of this publication, regulations limit both the number of companies eligible to issue commercial paper and the companies to invest in commercial paper. The proliferation of foreign investment banking firms in Tokyo as well as the very large and powerful Japanese investment banking firms, will seek to develop this market. As in the case of US commercial paper and Euro-commercial paper, investors will be risk-averse so that guarantees or standby letters of credit will be required to make the paper investment grade.

10. Bond financing

As explained in the previous chapter, greater use is being made and contemplated for raising funds for a project via the bond market.

(a) Eurobond market

The Euromarket was described in the previous chapter. The distinguishing features of the securities in this market are that (1) they are underwritten by an international syndicate, (2) at issuance they are offered simultaneously to investors in a number of countries, (3) they are issued outside the jurisdiction of any single country, and (4) they are in unregistered form. The sector of the Euromarket in which bonds are traded is called the Eurobond market and the bonds traded are called Eurobonds.

The maturity of Eurobonds typically range from five to ten years, or even longer in certain markets. Interest is payable annually at a fixed rate or floating rate, and is paid free and clear of withholding taxes. Investors have call protection of three to four years, and some premium may be charged in the event of a call. Eurobonds contain few default clauses other than for non-payment of principal or interest. However, they do contain negative pledge clauses.

Eurobonds include zero coupon bonds, floating rate bonds, stock convertibles, bonds with warrants to purchase stock, and bonds with warrants to purchase more bonds at a set price.

Many international banks participate in the Eurobond market. Individual investors are attracted to Eurobond investments because of the obvious tax advantages.

Eurobond offerings are underwritten usually by a group of underwriters, with one or more managing underwriters. Fees to a bank, or investment bank for arranging a Eurobond transaction are around $1–1\frac{1}{4}$ per cent of face value plus a fee of $\frac{1}{2}–1$ per cent to the lead manager.

In pre-priced issues (also called bought deals) the underwriter guarantees a price and an interest rate to the seller in advance of the sale. The market risk is thus transferred to the underwriter (or lead manager) who in turn shares the risk (or attempts to do so) with members of a syndicate. Competition has forced underwriters to engage in this practice, which involves considerable risk. New entrants with no customer following have used the bought deal as a means of competing for business.

Eurobonds can be denominated in several major currencies. Eurobonds are referred to by the currency in which the issuer agrees to denominate the payments. For example, US dollar-denominated bonds are called Eurodollar bonds and Japanese yen-denominated bonds are called Euroyen bonds. The largest share of the Eurobond market is the Eurodollar bond, followed by Euroyen bonds and EuroDM bonds.[1] Eurobonds denominated in euros will soon have a large market share.

The advantages of borrowing in the Eurobond market are:

1. The potential for lower cost funding under certain market conditions, particularly with the use of swaps (as explained in Chapter 24).
2. Access to a large diversified group of individual lenders not otherwise available.
3. Rapid access to the market to take advantage of current market conditions.

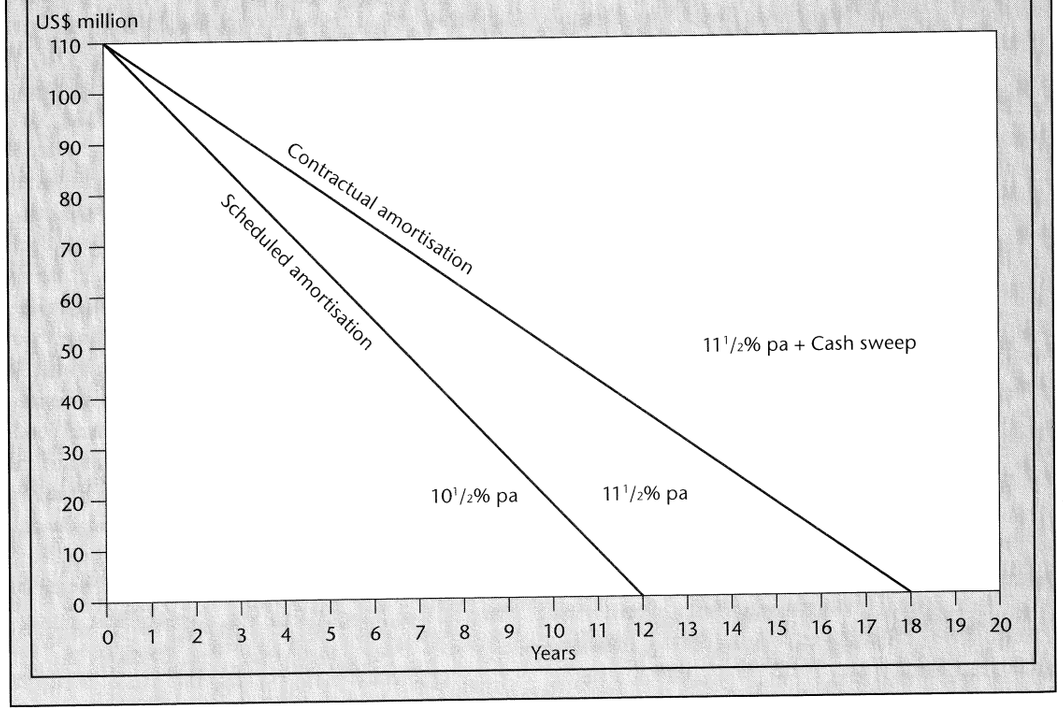
Case study: Tribasa – Combination Eurobond and 144A issue with cash sweep

The US$110 million bond project financing for the Tribasa toll road concessions in Mexico was undertaken as either a Eurobond (to attract non-US investors) or a 144A issue (for US investors) on exactly the same (pricing) terms. Since the two toll roads were already in operation, no completion risk attached to the transaction.

The structure nevertheless incorporates an innovative feature where bond amortisation follows either a contractual (18 year) or scheduled (12 year) amortisation profile. When the amortisation is within/below the scheduled profile, the fixed interest rate issue is priced at 10.5 per cent. Between the scheduled and contractual limits, the interest rate goes up one percentage point. For amortisation outside (slower than) the contractual rate, there is a cash sweep. In a cash sweep all cashflow surplus from operations is used to prepay the project finance bond in inverse order of maturity. Thus the bondholders have accepted full project-finance risk for their repayment.

After a 100 per cent devaluation of the Mexican peso, the tollway entered a period of break-even performance. The foreign-exchange structure had been minimal and could not compensate for this level of risk. The investors could only take comfort from the long-term nature of the deal. Non-bond toll road financings in Mexico all had to be assumed as sovereign debt to prevent a collapse of the financing process.

Tribasa cash sweep



4. No registration requirements, thus permitting projects to be financed which involve a number of international sponsors.
5. Loans may be made in any of several currencies.
6. The possibility of fixed rate financing.
7. More choice of maturities than in syndicated bank loans.

The disadvantages of borrowing in the Eurobond market are:

1. Funds available are more limited in the Eurobond market than in syndicated loans.
2. Draw-downs of funds are less flexible than in a syndicated loan.
3. Lenders are not able to understand complex credits, thus limiting the market to well-known creditors or guarantors.

(b) US bond market

A lengthy discussion of the public debt markets is beyond the scope of this chapter. However, access to the public debt markets in the United States requires compliance with the federal and state securities laws, which raises special problems for most project financing. While the potential exists for registration and rating of such debt for a project financing, access to public debt markets will be very difficult for most projects. Sponsors and guarantors with established credit may access the public debt markets.

In recent years in the United States, the introduction and acceptance of junk bonds (which by their nature are less than investment grade), has revolutionised the financing of leveraged buyouts. Such bonds are attractive to issuers because they have few covenants and often are not convertible or sold with stock warrants or options. While they pay higher interest, this is inexpensive where such bonds are used as a substitute for equity. They are often subordinate to senior debt. These types of bonds certainly have the potential for wide use in project financing.

Rule 415

Securities Act Rule 415, which was originally adopted by the Securities and Exchange Commission on February 24, 1982, expands the availability of shelf registration statements and the distribution techniques which may be covered thereby. Its provisions permit easier, quicker and more flexible access to the debt markets than in the past. (This used to be a major drawback of US debt offerings as compared to Eurobond offerings.)

Under Rule 415, a company is permitted to register the amount of debt and equity securities which it reasonably expects to sell within two years of the effective date of the registration statement. The securities can then be sold and distributed in any manner. The rule contains no limitation on its use for sale of debt securities.

If the prospectus included in the registration statement describes the security and plan of distribution in general terms, and identifies the potential managing underwriter(s), the details of the security being sold and the actual method of distribution can be described in a supplemented prospectus which is simply mailed to the SEC. A post-effective amendment to the registration statement will not have to be filed with, and declared effective by, the SEC unless there is a fundamental change in the information set forth in the registration statement, or a material change in the described plan of distribution.

A company can register debt and equity securities in advance and, when market conditions warrant, reach definitive agreement with the managing underwriter(s) as to the type and terms of securities to be offered. Terms can be negotiated within a matter of minutes, sales can be orally confirmed immediately, and the underwriters can have a prospectus to deliver to customers with written confirmations within a few hours.

Form S-3

The SEC has adopted registration form S-3, which relies almost entirely on incorporation by reference to Exchange Act reports, and contemplates a barebones (basic) prospectus.

Form S-3 will be available to any US company (or foreign company filing the same reports under the Exchange Act as a US company) which has not had a serious default under its long-term debt or preferred stock since the end of its last fiscal year, and which has been a reporting company for three years and has made a timely Exchange Act filing in the most recent 12 months. Form S-3 may be used: (i) for primary and secondary offerings of any security of a company which has (a) US$150 million in market value of voting stock held by non-affiliates, or (b) US$100 million in market value of such stock and an annual trading volume of at least three million shares; and (ii) for primary offerings of investment grade non-convertible debt and preferred stock. A firm commitment underwriting is not required as a condition of the use of Form S-3.

In the typical case, an issuer using Form S-3 for a shelf offering would file a registration statement containing a barebones prospectus. This would include a description of possible debt securities, or of the common stock which might be issued, as well as a description in general terms of the various possible methods of distribution. At the time of pricing, the basic

prospectus, supplemented with a wrap-around reflecting the actual terms and method of distribution (supplemented prospectus), would be sent to purchasers with the confirmations. The supplemented prospectus is mailed to the SEC but no action on the part of the SEC is required.

Yankee bonds

Foreign borrowers seeking to gain access to US capital markets organise and issue bond issues in the United States similar to US domestic issues. These bonds are called Yankee bonds and they often end up being sold in Europe.

Where foreign credit support is relied upon to support a project financing, the foreign credit must be of the highest quality. However, a less than high quality credit can be made marketable in the United States by obtaining letter of credit backing for the loan. Large commercial banks and some insurance companies can provide such letter of credit support to enable a borrower to gain access to the US private placement market. (See later chapters for a more detailed discussion of letters of credit and back-up lines of credit.)

(c) Private placement debt

Private placements differ from public offerings in that private placements do not require regulatory approval, do not require public disclosure, and are arranged with a limited number of institutional sophisticated investors.

The private placement market may be accessed through a commercial bank or investment bank.

The private placement market has several advantages:

1. Private placements do not require registration under the securities laws.
2. The borrower can retain absolute control of when it wishes to enter the market. That entry does not have to be at the end of a registration period, as with a public offering. Thus, the borrower can have its papers ready, and wait until market conditions are to its liking.
3. The interest is usually at a fixed rate. Pricing (and hence the coupon interest rates) of privately placed debt closely follows the market for publicly traded bonds. While public bonds are priced continuously in the secondary market throughout each trading day, the rates for new private placements are set within each institution by finance committees which usually meet once a week. Thus, movements in private rates typically lag behind public rates, although both are affected by general economic conditions. This lag can be used to advantage.
4. Buyers in the private placement market have the sophistication to understand a project company with a complicated credit or financing structure to explain.
5. A private placement is a good way to establish useful long-term investor relationships which a borrower can call on for future financings.
6. No public disclosure of sensitive information is required.
7. There are longer maturity alternatives available under a private placement.
8. The all-in cost of a private placement is not expensive. Both US and Euro public offerings involve substantial legal and printing expenses, whereas a private placement requires virtually no printing, and fewer legal expenses. In addition, the underwriters'/managers' spread on a public issue is greater than the fee to a private placement adviser.

A disadvantage of the private placements market is that interest rates may be higher than the public US market or the Eurodollar market for similar rated debt. Foreign borrowers in the United States will find the market-place for private placements somewhat limited. Only the larger institutional investors have the sophistication to analyse foreign credit arrangements, and their total investment in foreign loans is limited to 5 per cent of their assets. There are approximately 50 insurance companies and institutions in the United States who are buyers of private placements, and about 20 of these are regularly in the market.

Private placement funds are available outside the United States in Eurodollars, sterling, Deutschmarks, yen, guilders, Swiss and French francs.

Private placements are discussed in Chapter 12.

Rule 144A

In the United States, one restriction imposed on buyers of privately placed securities was that they could not be resold for two years after acquisition. Thus, there is no liquidity in the market for that time period. Buyers of privately placed securities must be compensated for the lack of liquidity which raises the cost to the issuer of such securities.

In April 1990, however, Securities Act Rule 144A became effective. This rule eliminated the two-year holding period by permitting large institutions to trade securities acquired in a private placement among themselves without having to register these securities with the SEC. Under Rule 144A, a large institution is defined as one holding at least US$100 million of the security.

Private placements are now classified as Rule 144A offerings or non-Rule 144A offerings. The latter are more commonly referred to as traditional private placements. Rule 144A offerings are underwritten by investment bankers.

Rule 144A encourages non-US corporations to issue securities in the US private placement market for two reasons. First, it attracts new large institutional investors into the market that were unwilling previously to buy private placements because of the requirement to hold the securities for two years. Second, foreign entities had been unwilling to raise funds in the US prior to establishment of Rule 144A because they had to register their securities and furnish the necessary disclosure set forth by US securities laws. Private placement requires less disclosure. Rule 144A also improves liquidity, reducing the cost of raising funds.

The distinction between public offerings and private placements has been reduced as a result of Rule 415 and Rule 144A.

(d) Industrial revenue bonds

Industrial revenue bonds (IRBs – also known as industrial development revenue bonds) are issued in connection with the development or purchase of industrial facilities. Since they are used in project financings in the United States, they are discussed in Chapter 19.

The variety of industrial revenue bonds available for use in the United States is limited. The main attraction to borrowers of IRBs is their attractive interest rates due to the fact the interest paid on the bonds is free from income tax. Income tax free IRBs are available for many types of small projects in which the total real estate investment is less than US$10 million. Their use may also result in a reduction or elimination of state real estate or property tax. True leases of equipment can be used to keep projects within statutory capital expenditure limits. Taxable IRBs can still be very attractive on large projects as a method of avoiding property tax. Industrial revenue bonds can be issued as either public or private placements.

(e) Bond structures

There are a wide range of bond structures. The more popular structures in the US and Eurobond markets are reviewed in the following sections.

Floating rate notes

A floating rate note (FRN) is a security with a coupon rate that changes based on some reference interest rate. Domestic markets of many countries permit the issuance of an FRN. In the Eurobond market there is a wide variety of floating rate bonds.

In the Eurobond market, almost all floating rate issues are denominated in US dollars. The coupon rate on a Eurodollar FRN is some stated spread over Libor, the bid on Libor (referred to as Libid), or the arithmetic average Libor and Libid (referred to as Limean). The size of the spread reflects the perceived credit risk of the issuer, spreads available in the syndicated loan market, and the liquidity of the issue. Typical reset periods for the coupon rate are either every six months or every quarter, with the rate tied to a six-month or three-month Libor, respectively. That is, the length of the reset period and the maturity of the index used to establish the rate for the period are matched.

Many issues have either a minimum coupon rate (or floor) that the coupon rate cannot fall below and a maximum coupon rate (or cap) that the coupon rate cannot rise above. An issue that has both a floor and a cap is said to be collared. Some issues grant the borrower the right to convert the floating coupon rate into a fixed coupon rate at some time. Some issues, referred to as drop-lock bonds, automatically change the floating coupon rate into a fixed coupon rate under certain circumstances.

A floating rate issue either has a stated maturity date, or it may be a perpetual, also called undated, issue (ie, with no stated maturity date). For floating rate issues that do mature, the term is usually more than 5 years, with the typical maturity being between 7 and 12 years. There are callable and putable FRNs; some issues are both callable and putable.

The typical FRN has a coupon rate that increases with Libor. The coupon rate of some issues moves in the reverse direction to Libor: if Libor increases (decreases) the coupon rate on the issue decreases (increases). Such FRN structures are called reverse floaters or inverse floaters and were first issued by Japanese corporations. For example, a reverse floater of Kawasaki Steel has a

coupon rate that floats based on the following formula: 15.00 per cent – 1.6 × six-month Libor. Thus, if six-month Libor at the reset date is 5 per cent, the coupon rate is 7 per cent (15 per cent – 1.6 × 5 per cent). If six-month Libor is higher, say, 8 per cent, the coupon rate is 2.2 per cent (15 per cent – 1.6 × 8 per cent). There is a floor on the coupon of zero. The risk that the issuer faces is that Libor will decline. Typically, however, the issuer will use the swap market (discussed in Chapter 24) to eliminate this exposure. The advantage to an investor is that the issue can be used as a hedge to stabilise the return on a portfolio when interest rates rise.

Zero coupon bonds

All bonds make periodic coupon payments, except for one type that makes none. These bonds, called zero coupon bonds, made their debut in the US bond market in the early 1980s. The holder of a zero coupon bond realises interest by buying the bond substantially below its principal value. Interest then is paid at the maturity date, with the exact amount being the difference between the principal value and the price paid for the bond.

As an example, suppose that a project company issues a five-year zero coupon bond in the Eurobond market with a maturity value of US$40 million and a yield of 7 per cent. The issuer would sell the bond for US$28,519,447. The difference between the US$40 million maturity value and the price at which the bonds are issued represents the accrued interest that the investor receives if the bond is held five years to the maturity date. It is US$11,480,553 in our example.

An advantage of a zero coupon bond to issuers is that interest may be deducted annually even though the issuer does not make a cash payment to bondholders. Using our hypothetical zero coupon Eurodollar bond, the annual accrued interest would be calculated as follows:

Year	*Accrued liability*	*Accrued interest*
1	US$30,515,808	US$1,996,361
2	32,651,915	2,136,107
3	34,937,549	2,285,634
4	37,383,178	2,445,628
5	40,000,000	2,616,822

The accrued liability of the issuer is equal to the accrued liability at the beginning of the year times 1.07. The difference between the accrued liability between two years is the accrued interest that may be deducted by the issuer even though it is not paid.

Investors find zero coupon bonds attractive during periods of declining interest rates because a zero coupon issue locks in a yield for the investor. Also, investors in some countries are granted favourable tax treatment for realised capital gains. The favourable tax treatment means a lower tax rate than applied to other income and, in some instances, may mean no tax at all on the capital gain. This favourable tax treatment is sometimes applied to the capital gain realised by buying a zero coupon bond and holding it until maturity. So an investor that holds our hypothetical zero- coupon Eurobond until it matures will be treated as realising a capital gain of US$11,480,553, not interest income of that amount. It should be noted that in the United States, the accrued interest is taxed annually.

Deferred coupon bonds

Deferred coupon bonds postpone the payment of interest to some date prior to maturity. For example, a Eurodollar US$40 million five-year deferred coupon bond with a coupon rate of 7 per cent may have the following structure. Rather than paying coupon interest of US$2.8 million per year for five years as with a Eurostraight bond, the coupon payments can be structured as follows: no coupon payments for years one, two and three; US$11.2 million (US$2.8 million times 4) in year 4; and US$2.8 million in year 5. The deferred coupon structure is tax motivated. Investors in some countries can purchase this bond and sell it before the first coupon payout – year four in our example. The market price just before the pay-out in year four will reflect the accrued interest. The capital gain realised by selling the issue prior to maturity is granted favourable tax treatment despite the fact that the capital gain represents accrued interest. Because of this tax advantage to the investor, an issuer can benefit through a lower coupon rate on the issue compared to a Eurostraight issue.

Finally, for some bond structures, the issuer pays a fixed coupon payment, but two tranches are created so that the principal payment at maturity is indexed to some financial or commodity benchmark. Examples are Euroyen bonds called bull and bear bonds. With these bonds, one bond tranche, called the bull tranche, has a maturity value that rises in value if the Nikkei Dow Index of stocks in Japan rises. The bear tranche has a maturity value that declines in value if the same index declines. The issuer of this type of bond is hedged against the movement of the index since the change in maturity value of one tranche has the exact change for the other tranche.

Convertible bonds

A convertible bond grants the bondholder the right to convert the bond to a predetermined number of shares of common stock of the issuer. The number of shares of common stock that the bondholder receives from exercising the option of a convertible bond is called the conversion ratio. The conversion privilege may be permitted for all or only some portion of the bond's life, and the conversion ratio may decline over time.

Convertible issues are callable by the issuer. This is a valuable feature for the issuer, because an important reason for using convertibles is that a firm seeking to raise additional capital would prefer to raise equity funds but deems the current market price of its stock too undervalued so that selling stock would dilute the equity of current stockholders. So it issues a convertible, setting the conversion ratio on the basis of a price it regards as acceptable. Once the market price reaches the conversion point the issuing entity wants to see the conversion occur in view of the risk that the price may decline again. It has, therefore, an interest in forcing conversion, even though this is not in the interest of the owners of the security because its price is likely to be adversely affected by the call.

If a convertible bond is used as part of a project financing, the conversion feature gives the lender upside potential in the project. The equity kicker encourages the lender to provide terms or take risks which it would not otherwise be inclined to take.

A special type of convertible was developed by Merrill Lynch. This is a zero coupon convertible note. The issue is callable and putable. However, the put feature makes it unattractive for project financing since the holder can force the project company to repay the issue at specified dates.

An exchangeable bond grants the security holder the right to exchange the security for the common stock of a firm other than the issuer of the security. For example, some Ford Motor Credit convertible bonds are exchangeable for the common stock of the parent company, Ford Motor Company.

Bonds with warrants

Warrants are sometimes issued as part of a bond offering. A warrant grants the warrant owner the right to enter into another financial transaction with the issuer. Most warrants are detachable from the host bond; that is, the bondholder may detach the warrant from the bond and sell it.

Several types of warrants have been issued as part of a Eurobond offering: equity warrants, debt warrants, currency warrants, and commodity warrants. An equity warrant permits the warrant owner to buy the issuer's common stock at a specified price. A debt warrant entitles the warrant owner to buy additional bonds from the issuer at the same price and yield as the host bond. The debt warrant owner will benefit if interest rates decline because a bond with a higher coupon can be purchased from the same issuer.

A currency warrant permits the warrant owner to exchange one currency for another at a set price (ie, a fixed exchange rate). This feature protects the bondholder against a depreciation of the currency in which the bond's cash flows are denominated.

A commodity warrant permits the warrant owner to buy a certain amount of some specific commodity at a fixed price. The typical commodities that have been used in the Eurobond market are gold and oil.

Dual-currency bonds

Some fixed rate coupon issues pay coupon interest in one currency and pay the principal in a different currency. Such issues are called dual-currency bonds. For example, the coupon payments can be made annually in Swiss francs while the principal can be paid at maturity in US dollars. There are three types of dual-currency bonds.

The first type is one in which the exchange rate at which the principal and coupon are repaid is fixed at the time of issue. The second type differs from the first in that the exchange rate is the rate that prevails at the time a cash flow is made (ie, at the spot exchange rate at the time a payment is made).

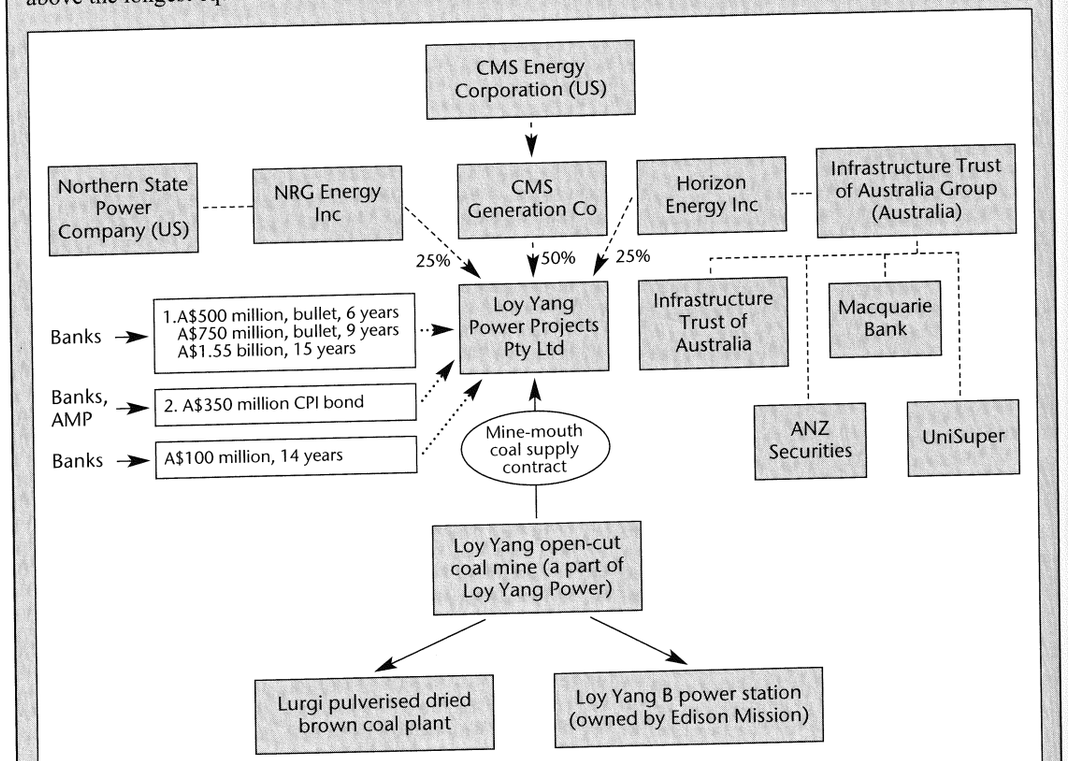
The third type offers either the investor or the issuer the choice of currency in which a cash flow can be denominated at the time the payment is made. These bonds are commonly referred to as currency option bonds. Effectively, this third type of dual-currency bond grants either the issuer or the bondholder an option to take advantage of a favourable exchange rate movement.

Case study: Loy Yang A – CPI-linked financing

The Loy Yang A transaction is the largest ever privatisation in Australia. The project is a 2,000-MW mine-mouth brown-coal power plant in Victoria. The mine has more than 70 years of reserves at current rates for both Loy Yang A and B (a separate project financing).

Two medium-term bullet facilities (A$1,250 million in total) suggest a refinancing (probably via the bond markets) before their final nine-year maturity. A 15-year amortising facility of A$1,500 million is the core bank facility. This is supplemented by A$350 million in 30-year CPI-linked debt.

Power pricing in Victoria is an open-market pool price, so there is no automatic indexation of the power price to CPI. Nevertheless, the 30-year term is double what the banks provided. The CPI pricing is 200bp above the longest equivalent Commonwealth of Australia CPI bond issue.



Summary
1. Banks arrange a series of project-finance facilities including bullet transactions. This assumes a refinancing later.
2. Banks and a large Australian life-insurance institution, AMP, fund a CPI bond.

Commodity notes and bonds

Commodity-linked notes and bonds allow the investor to share the risk in upside potential of future commodity prices with the issuer. Petrobonds, silver bonds, gold bonds and coal bonds have been issued.

In a commodity-linked note, investors are paid interest in currency but paid the principal amount at maturity based upon the then current value of the related commodity. A petrobond, for example, might carry a fixed interest rate coupon with a part of the face value of the bonds denominated in barrels of oil. A coal bond, for example, might carry a royalty payment per ton of coal mined, in addition to an interest coupon rate. There is a floor in the face value of the bonds. The interest coupon will be less than the oil company or coal company would otherwise have had to pay. If inflation increases, so does the value of the commodity and bond. If the price is lower at maturity, the investor receives full face value. In that case, the issuer obtains money at a lower cost than if it had done a conventional bond financing.

Another variation of commodity notes which is used to lower debt costs, is to issue along with debt, warrants to purchase some amount of the commodity at a set price at some point in the future. The warrants can be separated from the debt for secondary trading.

The US Emerging Issues Task Force of the FASB has indicated that issuers of debt, where the principal is linked to a commodity, should recognise gain or loss on a continuing basis as the price of the commodity changes.

CPI bonds

Bonds indexed to the Consumer Price Index (CPI) have proved popular for project financings reliant on revenues escalating by CPI, such as hospitals, prisons, tollroads, gas pipelines, and water distribution systems. This type of funding is relatively new in the United States but is well-accepted in other countries and is particularly attractive to life insurance and superannuation/pension funds.

There are two variations of CPI bond funding. In the first, the coupon only is indexed to the CPI. In the second, and more common type, the principal is also indexed to the CPI. Naturally both varieties attract low interest rates in real terms. A key attraction is that longer term funding is usually available in this market, compared with bank term loans.

11. Medium-term notes

A medium-term note (MTN) is a debt instrument with the unique characteristic that notes are offered continuously to investors by an agent of the issuer. Investors can select from several maturity ranges: nine months to one year, more than one year to 18 months, more than 18 months to two years, and so on up to 30 years. In the United States, medium-term notes are registered with the Securities and Exchange Commission under Rule 415 (the shelf registration rule) which gives a corporation the maximum flexibility for issuing securities on a continuous basis.

The label 'medium-term note' to describe this corporate debt instrument is misleading. Traditionally, the term 'note' or 'medium-term' was used to refer to debt issues with a maturity greater than one year but less than 15 years. Certainly this is not a characteristic of MTNs since they have been sold with maturities from nine months to 30 years, and even longer. For example, in July 1993, Walt Disney Corporation issued a security with a 100-year maturity off its medium-term note shelf registration.

The purpose of the MTN was to fill the funding gap between commercial paper and long-term bonds. It is for this reason that they are referred to as 'medium term'.

Borrowers have flexibility in designing MTNs to satisfy their own needs. They can issue fixed or floating rate debt. The coupon payments can be denominated in US dollars or in a foreign currency.

A project company that has a choice between a bond or MTN offering should consider the following two factors in deciding which to use as a financing instrument. The most obvious is the cost of the funds raised after consideration of registration and distribution costs. The second is the flexibility afforded to the issuer in structuring the offering. The tremendous growth in the MTN market is evidence of the relative advantage of MTNs with respect to cost and flexibility for some offerings. However, the fact that there are borrowers that raise funds by issuing both bonds and MTNs is evidence that there is no absolute advantage in all instances and market environments.

Medium-term notes differ from bonds in the manner in which they are distributed to investors when they are initially sold. Although some investment grade corporate bond issues are sold on a best-efforts basis, typically they are underwritten by investment bankers. MTNs have traditionally been distributed on a best-efforts basis by either an investment banking firm or other broker/dealers acting as agents. Another difference between bonds and MTNs when they are offered is that MTNs are usually sold in relatively small amounts on a continuous or an intermittent basis while corporate bonds are sold in large, discrete offerings.

In the United States, a borrower that wants to set up an MTN programme will file a shelf registration with the SEC for the offering of securities. While the SEC registration for MTN offerings are between US$100 million and US$1 billion, once the total is sold, the issuer can file another shelf registration. The registration will include a list of the investment banking firms, usually two to four, that the borrower has arranged to act as agents to distribute the MTNs.

The issuer then posts rates over a range of maturities: for example, nine months to one year, one year to eighteen months, eighteen months to two years, and annually thereafter. Usually, an issuer will post rates as a spread over a Treasury security of comparable maturity. For example, in the two to three year maturity range, the offering rate is 35 basis points over the two-year Treasury. Rates will not be posted for maturity ranges that the issuer does not desire to sell. The minimum size that an investor can purchase of an MTN offering typically ranges from US$1 million to US$25 million.

The rate offering schedule can be changed at any time by the issuer either in response to changing market conditions or because the issuer has raised the desired amount of funds at a given maturity. In the latter case, the issuer can either not post a rate for that maturity range or lower the rate.

At one time the typical MTN was a fixed rate debenture that was non-callable. It is common today for issuers of MTNs to couple their offerings with transactions in the derivative markets (options, futures/forwards, swaps, caps and floors) so as to create debt obligations with more interesting risk/return features than are available in the bond market. Specifically, an issue can be floating rate over all or part of the life of the security and the coupon reset formula can be based on a benchmark interest rate, equity index or individual stock price, a foreign exchange rate, or a commodity index.

MTNs created when the issuer simultaneously transacts in the derivative markets are called structured notes. The most common derivative instrument used in creating structured notes is a swap.

By using the derivative markets in combination with an offering, borrowers are able to create investment vehicles that are more customised for institutional investors to satisfy their investment objectives, but who are forbidden from using swaps for hedging. Moreover, it allows institutional investors who are restricted to investing in investment grade debt issues the opportunity to participate in other asset classes to make a market play. For example, an investor who buys an MTN with a coupon rate tied to the performance of the S&P 500 is participating in the equity market without owning common stock. If the coupon rate is tied to a foreign stock index, the investor is participating in the equity market of a foreign country without owning foreign common stock. In exchange for creating a structured note product, borrowers can reduce their funding costs by as much as 10 to 15 basis points.

Examples of structured notes are step-up notes, range notes, and inverse floaters (discussed earlier). Step-up notes are fixed income instruments with a coupon rate that is increased (ie, 'stepped up') at designated times and is callable. When the coupon rate is increased only once over the security's life, it is said to be a single step-up callable note. A multiple step-up callable note is a step-up callable note whose coupon is increased more than one time over the life of the security. A range note is a security that pays the reference rate with no spread if the reference rate is within a band. If the reference rate falls outside of the band (lower or upper), the coupon rate is zero.

12. Asset-backed securities

Asset-backed securities are notes or bonds collateralised by a pool of assets. The process of creating securities backed by assets is referred to as asset securitisation.

In the United States, the most common assets backing an asset-backed security are automobile receivables and credit card receivables. However, other types of assets have been securitised in the US and other countries.

One motivation for segregating assets and using them as collateral for a security offering is that it can result in lower funding costs. This is because investors look to the credit quality of the underlying pool of assets rather than the credit quality of the issuer of the asset-backed securities. The following two examples illustrate this. The first asset-backed security was issued by Sperry Lease Financial Corporation and was backed by lease receivables. Because the issue was structured so that the cash flow from the underlying leases would be sufficient to satisfy the interest and principal payments, the security received a triple-A rating. At the time, Sperry Lease Financial Corporation had a lower credit rating.

Apart from offering opportunities for project financing, asset-backed securities have the potential to increase the ability of bank lenders to provide project financing. However, it is unlikely that an individual bank will be able to securitise a project finance loan. While commercial loans have been securitised in the US, typically the loans are somewhat homogeneous. This is not likely to be the case for the project finance loans held by an individual bank. In contrast, the IFC has securitised its Latin American and Asian loans.

The US Eximbank has used the securitisation mechanism to support sales in both US dollar and non-dollar currencies. For example, in 1994 the Eximbank used securitisation to support the Alitalia's purchase of US manufactured aircraft. The asset backing the transaction is Alitalia's revenues. The deal was for Lire350 billion (US$175 million) with a final maturity of 12 years and repayment in 47 equal quarterly instalments. The payments are guaranteed by a special purpose fund, US Guaranteed Finance Corporation. The guarantee is effectively the guarantee of the US government.[2]

13. Leases

Tax-oriented true leases and non-tax oriented finance leases constitute an excellent source of both on-balance sheet and off-balance sheet financing, and are discussed separately in Chapter 14.

In a tax-oriented lease, the lessor claims and retains the tax benefits associated with equipment ownership and passes most of those tax benefits to the lessee in the form of reduced rental payments. Since project companies do not typically generate sufficient earnings to cause income tax liability during their formative years, tax-oriented leasing offers the opportunity to indirectly obtain tax benefits associated with equipment ownership, which would not be available if the equipment was purchased.

Tax leases are often structured in the United States as leveraged leases in which the equity investor furnishes a portion of the funds (20 to 25 per cent) and lenders provide the balance of the funds (75 to 80 per cent) needed to acquire the asset being leased. The lender's security interest in the leased asset is senior to the equity. However, the equity holder enhances its tax benefits by claiming tax deductions and tax credits, if applicable, upon the entire cost of the asset.

Tax-oriented leasing is pretty much confined to a leasing company's domestic market since tax authorities tend to frown on exporting tax benefits. However, this is not always the case, particularly where the lease is used to promote an export.

14. Preferred stock

Preferred stock is a class of stock, not a debt instrument, but it shares characteristics of both common stock and debt. Like the holder of common stock, the preferred stockholder is entitled to dividends. Unlike those on common stock, however, dividends are a specified percentage of par or face value. The percentage is called the dividend rate; it need not be fixed, but may float over the life of the issue.

Failure to make preferred stock dividend payments cannot force the issuer into bankruptcy. Should the issuer not make the preferred stock dividend payment, usually made quarterly, one of two things can happen, depending on the terms of the issue. The dividend payment can accrue until it is fully paid. Preferred stock with this feature is called cumulative preferred stock. If a dividend payment is missed and the security holder must forgo the payment, the preferred stock is said to be non-cumulative preferred stock. Failure to make dividend payments may result in imposition of certain restrictions on management. For example, if dividend payments are in arrears, preferred stockholders might be granted voting rights.

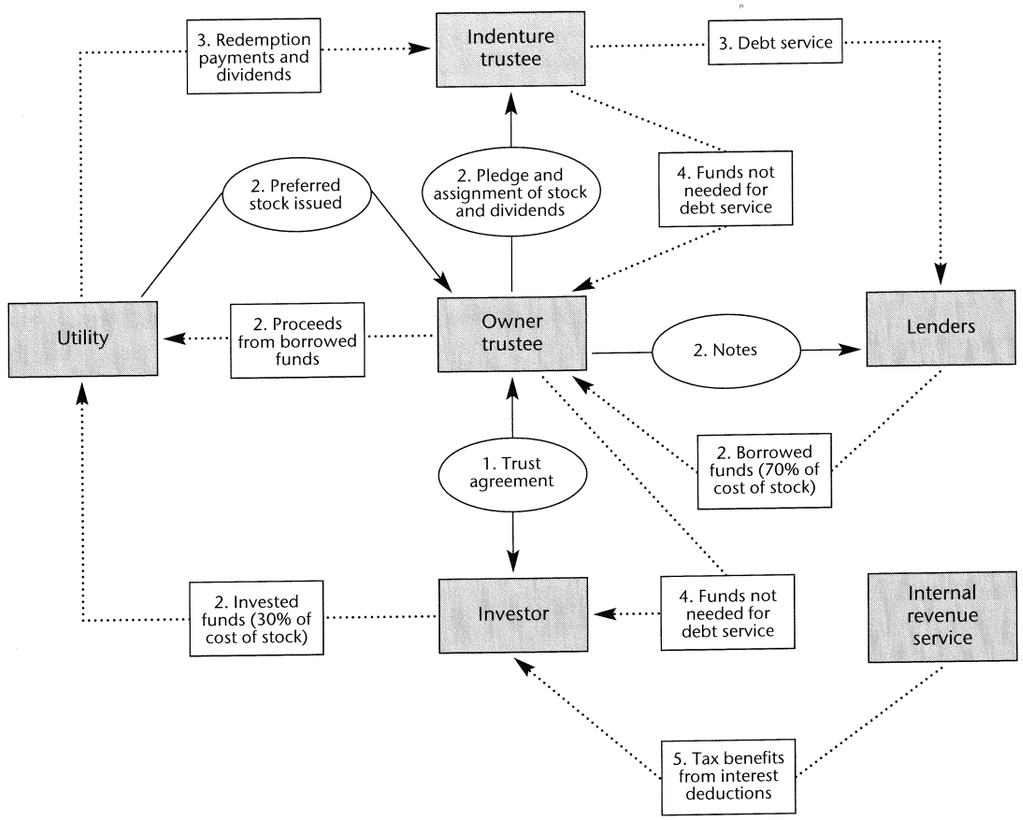
Preferred stock has some important similarities with debt, particularly in the case of cumulative preferred stock: (1) the returns to preferred stockholders promised by the issuer are fixed, and (2) preferred stockholders have priority over common stockholders with respect to dividend payments and distribution of assets in the case of bankruptcy. (The position of non-cumulative preferred stock is considerably weaker.) It is because of this second feature that preferred stock is called a senior security. It is senior to common stock. On a balance sheet, preferred stock is classified as equity.

Almost all preferred stock has a sinking fund provision, and some preferred stock is convertible into common stock. Preferred stock may be issued without a maturity date. This is called perpetual preferred stock.

As with bonds, preferred stock is rated. The four nationally recognised commercial rating companies that rate bonds also rate preferred stock (Duff & Phelps, Inc., Fitch Investors Service, Inc., Moody's Investors Service, Inc., and Standard & Poor's Corporation).

Unlike debt, in the US payments made to preferred stockholders are treated as a distribution of earnings. This means that they are not tax-deductible to the corporation under the current tax code. Interest payments

Exhibit 11.1: Leveraged preferred stock



Summary

1. The investor establishes an owner trust and arranges a purchase of preferred stock from the utility.
2. The trust borrows 70 per cent of the cost of the stock on a non-recourse basis from lenders at a higher interest rate than the equivalent rate on the stock. These proceeds, plus 30 per cent of the cost provided by the investor, are paid to the utility to purchase the stock which is immediately pledged to the indenture trustee along with dividends.
3. Redemptions and dividends on the stock, which are sufficient to service debt, are paid to the indenture trustee and used for that purpose.
4. Funds not needed to service debt or pay trustee fees are returned to the investor.
5. The investor claims tax deductions for interest expense on the leveraged debt and any funds borrowed to make its investment.

are tax-deductible, not dividend payments. While this raises the after-tax cost of funds if a corporation issues preferred stock rather than borrowing, there is a factor that reduces the cost differential: a provision in the tax code exempts 70 per cent of qualified dividends from federal income taxation if the recipient is a qualified corporation. There are two implications of this tax treatment of preferred stock dividends. First, the major buyers of preferred stock are corporations seeking tax-advantaged investments. Second, the cost of preferred stock issuance is lower than it would be in the absence of the tax provision because the tax benefits are passed through to the issuer by the willingness of buyers to accept a lower dividend rate.

The different types of preferred stock are described below.

(a) Adjustable-rate preferred stock

The dividend rate on an adjustable-rate preferred stock (ARPS) is fixed quarterly and based on a predetermined spread from the highest of three points on the Treasury yield curve. The predetermined spread is

called the dividend reset spread. The three points on the yield curve (called the benchmark rate) to which the dividend reset spread is either added or subtracted is the highest of (1) the three-month Treasury bill rate, (2) the two-year constant maturity rate, or (3) a 10-year or 30-year constant maturity rate. The motivation for linking the dividend rate to the highest of the three points on the Treasury yield curve is to provide the investor with protection against unfavourable shifts in the yield curve.

Most ARPS are perpetual, with a floor and ceiling imposed on the dividend rate of most issues. Because most ARPS are not putable, however, ARPS can trade below par if after issuance the spread demanded by the market to reflect the issuer's credit risk is greater than the dividend reset spread.

(b) Auction and remarketed preferred stock

The popularity of ARPS declined when instruments began to trade below their par value – because the dividend reset rate is determined at the time of issuance, not by market forces. In 1984, a new type of preferred stock, auction preferred stock (APS), was designed to overcome this problem, particularly for corporate treasurers who sought tax-advantaged short-term instruments in which to invest excess funds. The dividend rate on APS is set periodically, as with ARPS, but the dividend rate is established through an auction process. Participants in the auction consist of current holders and potential buyers. The dividend rate that participants are willing to accept reflects current market conditions.

In the case of remarketed preferred stock (RP), the dividend rate is determined periodically by a remarketing agent who resets the dividend rate so that any preferred stock can be tendered at par and be resold (remarketed) at the original offering price. An investor has the choice of dividend resets every seven days or every 49 days.

(c) Convertible exchangeable preferred stock

As the name indicates, this instrument combines the features of convertible preferred stock and exchangeable preferred stock. Preferred stock is usually issued by US companies which cannot currently use the income tax deduction that is allowed for interest payments on debt. Convertible exchangeables are ideal for loss project corporations on the verge of becoming profitable, and therefore, taxpayers. When the company turns a profit, at its discretion, it can exchange the preferred for convertible debt, which the investor can, in turn, convert to common stock if the investor believes the common stock would be a better investment.

(d) Leveraged preferred stock

A utility has the following immediate financial objectives: raising cash for a project, increasing its own capital base, and paying as low a cost as possible for new capital or borrowings.

An investor interested in purchasing the utility's securities establishes an owner trust to purchase preferred stock to be issued by the utility. The stock pays interest at the rate of $7\frac{1}{2}$ per cent per annum and is to be redeemed over 15 years. 70 per cent of the funds used to purchase the stock are borrowed by the trust from long-term lenders at 9 per cent interest, which is the rate the utility would have to pay for debt with similar maturities if it borrowed directly. The dividend and redemption payments to be received from the preferred stock are sufficient to service the debt of the trust. The stock and all dividend redemptions and distributions to be received by the trust as a stockholder are assigned to a security trustee to be held as security for debt service.

The debt of the trust incurred to purchase the preferred stock is without recourse to the corporate investor which establishes and owns the trust.

The 30 per cent balance of the purchase price of the stock is provided by the corporate investor. Although the debt incurred by the trust is non-recourse to the investor, income tax deductions for interest expense incurred by the trust are nevertheless claimed by the investor. Dividends received by the trust are subject to the dividend-received credit and effectively taxed at 6.9 per cent for federal income tax purposes (assuming a 46 per cent corporate tax rate).

Because of the tax benefits from interest deductions and the effective low rate of income tax on dividends, the corporate investor can profitably invest in preferred stock on a leveraged basis, even though the preferred stock pays a significantly lower dividend rate than the interest rate on the leveraged debt used to finance 70 per cent of the purchase price. From the standpoint of the utility, however, tax deductions are available for interest on debt but are not available from dividends on the stock.[3]

Variation
A sponsor making a capital contribution to its less than 50 per cent owned project company: here the debt rate of the subsidiary and its ability to borrow might be enhanced by take-or-pay contracts from the sponsors. A 'business purpose' requirement might be easier to meet for a sponsor than for a third party investor in a utility.

Balance sheet
The debt of the trust will probably be off-balance sheet for the investor. The preferred stock is reflected as capital on the balance sheet of the utility or project company. Dividends are shown below the net income line.

Tax treatment
Deductions are claimed by the investor for interest expense incurred by the trust on the leveraged debt. Dividend-received credit should be claimed on taxable dividends received by the trust. (A tax ruling should be sought verifying these points and the business purpose for the trust.) Thus, the investor receives deductions for interest against a 46 per cent tax bracket and pays an effective interest rate of 6.9 per cent on dividends.

The utility can deduct interest expense for tax purposes but cannot deduct dividends for tax purposes. If the utility cannot benefit from additional tax deductions, it may prefer the lower coupon rate on the preferred issue.

Advantages
1. The utility or the project company increases its capital base.
2. The out-of-pocket dividend cost to the utility or project is less than the interest cost of a loan with similar maturities.
3. The dividends received by the investor are taxed at a lesser rate than interest.

Disadvantages
1. Tax status is unclear until a ruling is obtained.
2. The utility does not receive a tax deduction for dividends, whereas it does receive a tax deduction for interest payments.

Compliance with Securities Acts

Care must be taken, when arranging a financing transaction in the United States, to comply with federal and state securities regulations. The Securities Act of 1933 makes it unlawful to sell or offer to sell or solicit offers to buy securities, unless either a registration statement is in effect with respect to the securities or an exemption from registration exists.

Bank loans, private placements, commercial paper and foreign issues do not ordinarily present a problem. However, the term 'security' is broadly defined by the Securities Act to include many types of debt instruments and participations as well as shares of stock in corporate entities. An exemption from registration exists under Section 4(2) of the Securities Act for 'transactions by an issuer not involving any public offering.' Because of the greater expense, time and effort involved in registration, borrowers usually seek to structure their offerings within the scope of this exemption. Rule 146, while not exclusive, offers a safe harbour exemption if the following are met:

1. The investor and/or his representative must be reasonably believed to have the requisite combination of knowledge or experience in financial affairs, and/or an ability to bear the economic risk of the investments.
2. The investor must have access to, or be furnished with, the type of information which would be included in a registration, generally in the form of an offering circular similar to a registration prospectus.
3. There must be a reasonable belief that the investment will not be sold to more than 35 purchasers.
4. The issuer must take steps to ensure that the investors do not make a non-exempt public distribution of the securities.
5. No general solicitation or advertising is used in connection with the sale of the investment.

(e) Preferred stock with a dividend holiday

Preferred stock with a dividend holiday refers to stock on which the issuer need not pay dividends for a specified period after issuance. This of course helps the issuer's cash flow in the early days of the project.

(f) Cross-border preferred stock

A cross-border preferred stock is structured so as to qualify as debt in the issuer's country (thus being eligible for interest deductions for tax purposes) and as preferred stock in the purchaser's country, thus being eligible for dividend-received credit.

For a time, this type of security worked between the United States and Australia, for example. However, the Australian tax authorities have more recently taken a dim view of such a security.

Nevertheless, by scrutinising tax treaties and tax practices, similar securities are sometimes available.

15. Master limited partnerships and PIGs

In the past, one of the most attractive investments for individuals seeking to shelter income tax liability in the United States was a real estate limited partnership which permitted an individual investor to claim depreciation deductions against income generated from other sources, including salaries and dividends. The US tax law passed in 1986 limits the use of passive losses, which would include those generated by the formerly popular limited partnerships, to be offset against only passive income. Consequently, a significant market exists in the United States for instruments which are passive income generators, called PIGs.

Master limited partnerships have been formed as devices to generate passive income. Such master limited partnerships are often, in effect, project financing entities. Under a master limited partnership a corporation might spin off certain assets into a new partnership entity which would then sell units in the partnership to investors seeking a PIG. The units in some instances are listed on a stock exchange and traded as if they were corporate shares. In many instances, the corporation spinning off the assets or forming the partnership manages the assets of the limited partnership for a fee. Some examples of PIGs would include a group of restaurants or fast food locations, hotels, or a gas transmission pipeline. Although PIGs have been popular with investors, the US Treasury may seek to curb a characterisation of income from master limited partnerships qualifying as passive income.

16. Research and development limited partnership

An R&D limited partnership in the United States is one that finances corporate research and development, claims R&D tax deductions, and shares in the revenues, if any, of the products developed and sold.

17. Single property schemes (SPSs)

Single property schemes involve the sale by owners in the United Kingdom of interests in those properties to investors. The interests purchased are usually equity interests and benefit from any capital appreciation in the property. The certificates evidencing the equity interests are called property income certificates (PINCs) or single property ownership certificates (SPOTs).

An SPS offers a source of funds for project financing by attracting smaller investors into projects involving real estate.

18. Equity funding via depositary receipts

When a corporation issues equity outside of its domestic market and the equity issue is subsequently traded in the foreign market, it is typically in the form of an international depositary receipt (IDR). Banks issue IDRs as evidence of ownership of the underlying stock of a foreign corporation that the bank holds in trust. Each IDR may represent ownership of one or more shares of common stock of a corporation. The advantage of the IDR structure is that the corporation does not have to comply with all the regulatory issuing requirements of the foreign country where the stock is to be traded. IDRs are typically sponsored by the issuing corporation. That is, the issuing corporation works with a bank to offer its common stock in a foreign country via the sale of IDRs.

As an example, consider the United States version of the IDR, the American depositary receipt (ADR). The success of the ADR structure resulted in the rise of IDRs throughout the world. ADRs are denominated in US dollars and pay dividends in them. The holder of an ADR does not have voting or pre-emptive rights.

ADRs can arise in one of two ways. First, one or more banks or security firms can assemble a large block of the shares of a foreign corporation and issue ADRs without the participation of that foreign corporation. More typically, the foreign corporation that seeks to have its stock traded in the United States sponsors the ADRs. In these instances, only one depositary bank issues them. A sponsored ADR is commonly referred to as an American depositary share (ADS). Periodic financial reports are provided in

English to the holder of an ADS. ADSs can either be traded on one of the two major organised exchanges (the New York Stock Exchange and the American Stock Exchange), traded in the over-the-counter market, or privately placed with institutional investors. The non-sponsored ADR is typically traded in the over-the-counter market.

In the British Telecom initial public offering, the offering in the United States was an ADS (since it was sponsored by British Telecom) and listed on the New York Stock Exchange. Each ADS represented 10 shares of British Telecom.

19. Islamic lending

Various forms of Islamic lending have been extended for project financings including leasing[4], repurchase agreements, discount purchase/sell back, and joint operating arrangements. Interest is forbidden to be paid to Islamic lenders. The main thrust is towards participation in the profit or capital of the enterprise to be project financed.

20. Credit enhancement

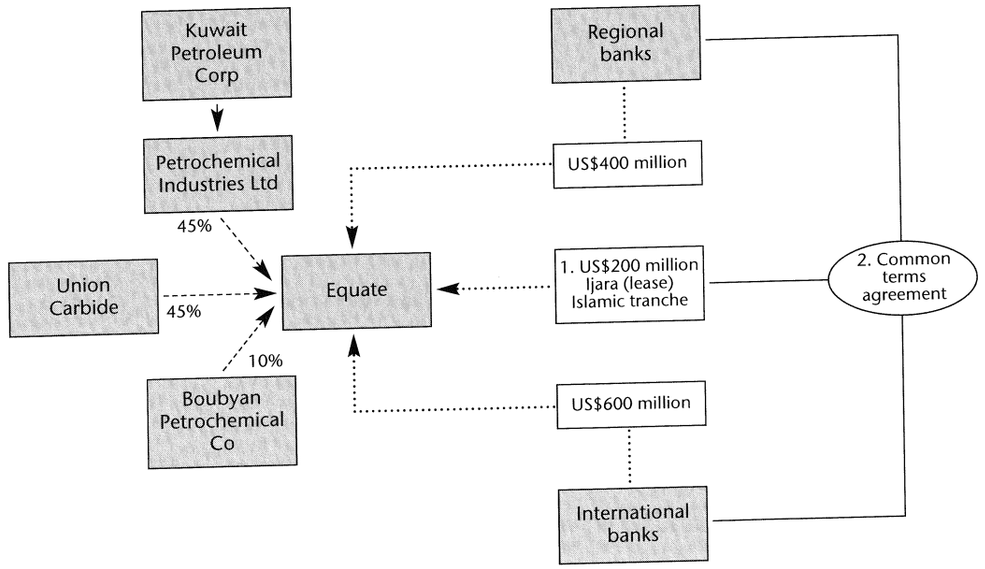
Structures which use the balance sheet of special funds, insurance companies, or banks have been developed either to stand behind the completion risk attached to a project or to backstop the project-finance loan repayments in their entirety. Usually this form of credit enhancement allows the guarantor or wrap party to charge a higher fee for accepting the risk(s).

Case study: Equate – Islamic lease

The US$2 billion Equate petrochemical plant was a major step for Kuwait following the Gulf War. The plant has three modules to produce the bulk chemicals ethylene, polyethylene, and ethylene glycol.

Initially conceived as a classic export-credit backed deal, the possibilities of an Islamic tranche quickly took shape as a substitute for US Exim. Unlike the pre-manufacturing Istisna structure used for a part of Pakistan's Hubco project finance, the Ijara style of floating-rate leasing was selected as the best fit to the other Libor-based floating-rate finance facilities. A local share offering was also concluded.

Bulk petrochemical prices slumped pre-completion, triggering sponsor support. The project's heavy initial losses caused the sponsors to recapitalise the borrower with an injection of US$710 million additional equity. This satisfied completion and the project was refinanced at a lower margin.



Summary

1. Part of the project is identified as suited to be sold and leased back under an Ijara Islamic tranche.
2. Special Islamic-lending considerations concerning ownership, management and profit payments have to be meshed into the intercreditor and common terms/security agreements.

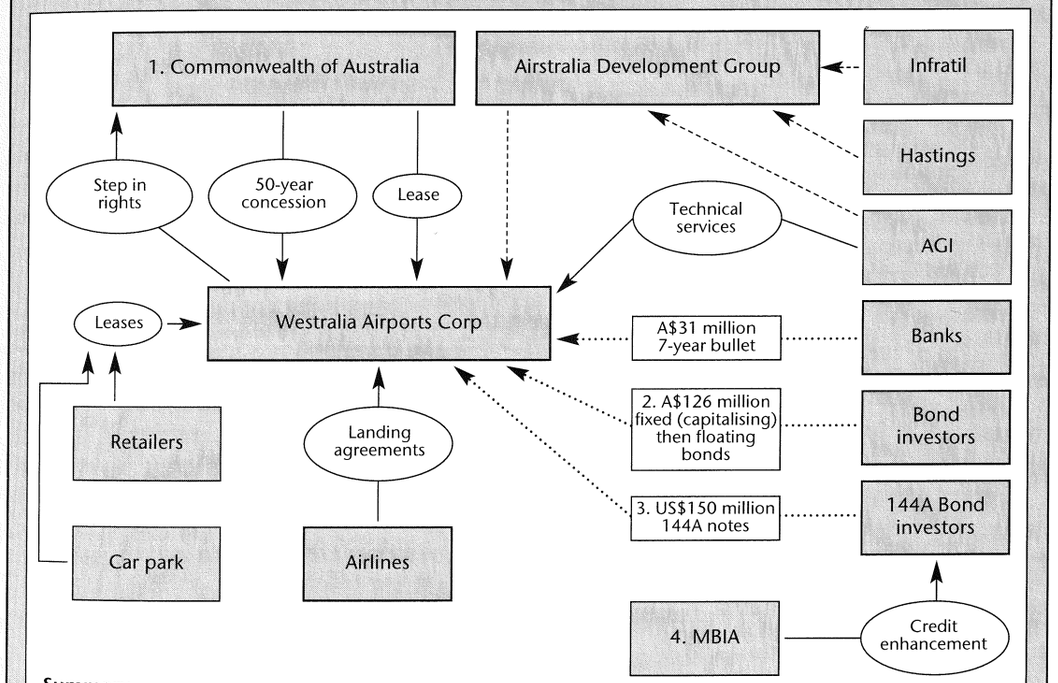
21. Conclusion

The foregoing is, of course, only a sampling of the broad spectrum of financial instruments available for use in structuring project financings. The key to using these products in project financing is financial engineering to assemble and arrange various undertakings

Case study: Perth International Airport – Credit enhancement

As part of a national privatisation effort, the Australian Commonwealth government offers a 50-year lease (concession) for the Perth International Airport for tender. The Airstralia Development Group's special-purpose company offered a price of A$635 million resulting in a funding requirement of A$734 million, which includes reserve accounts, interest capitalisation, and development costs. The 50-year lease is extendable for a further 49-year period.

The Australian dollar bond has a fixed interest rate of 4 per cent per annum for the first nine years (with some interest deferral/capitalised) with the bond repaid over the last 11 years on a floating-rate basis. Banks initially funded the privatisation under a seven-year term loan. This was partly refinanced by a US$150 million 144A private placement in the US, also credit enhanced as to debt-service repayments under a financial guarantee of the issue by MBIA. Accordingly, the 144A bonds carry a triple A rating, rather than the underlying project-finance airport-traffic risk rated BBB/Baa1 by Moody's/Standard and Poor's.



Summary

1. The Australian federal government privatises the international terminal at Perth Airport, Western Australia, under a 50-year concession.
2. Project-finance lenders enter a seven-year, A$293 million loan.
3. A pari passu 20-year bond is issued.
4. MBIA issues a financial guarantee for debt-service repayments.

and guarantees by parties and sponsors interested and motivated to get the project financed. If imaginative financial engineering can convert a project financing into the equivalent of an investment grade credit, an ever growing variety of financial products is available for use in project financing.

Notes and references

1. Hung Q. Tran and Patrick Paradiso, 'Eurocapital Markets,' Chapter 16, *The Handbook of Fixed Income Securities*, Frank J. Fabozzi and T. Dessa Fabozzi, eds. (Burr Ridge, IL: BusinessOne-Irwin, 1994), p. 335.
2. 'US Eximbank Launches its First Non-Dollar Securitization,' *Project & Trade Finance* (October 1994), p. 20.
3. Dean Witter pioneered the leveraged preferred concept in issues for Niagara Mohawk and Southern California Edison.
4. See page 189, Islamic leases.

12

Term loans and private placements

As noted at the beginning of this book in the definition of 'project finance', a project financing contemplates an extension of credit in which lenders will be willing to look initially to the cash flows of the project as the source of funds from which the loan will be repaid. Obviously this arrangement contemplates a loan which must be repaid over a term of years. The complexities of project financing and lack of operating history or performance pretty much foreclose the public markets from providing such debt financing. Consequently the main source of term project financing has been in the form of privately placed loans to banks, insurance companies and other institutional investors.

1. Commercial bank loans

Commercial bank loans are the most important source of senior debt for project financing. They may take the form of secured or unsecured loans. Commercial bank loans may involve a single lender, several lenders or be syndicated. They may be in the form of construction loans, term loans or working capital loans.

Documentation for commercial bank loans consists of the loan agreement, promissory notes (in the United States), guarantees and security documents.

Some of the key and obvious points to be covered in a loan agreement include:

1. The amount which may be borrowed.
2. Commitment fees for unused amounts under the commitment.
3. The term of the loan and repayment schedule.
4. The interest rate on the outstanding balance.
5. Procedure for take-downs and conditions precedent for the take-down.
6. Representations and warranties of the borrower including:
   - use of proceeds;
   - financial conditions;
   - title to assets;
   - material litigation;
   - contingent liabilities;
   - establishment and organisation; and
   - authority to enter into the loan agreement.
7. Legal opinions which will be required at the closing of the loan agreement, at the time of take-downs, and periodically during the loan agreement.
8. Affirmative covenants, such as:
   - compliance with laws;
   - payment of taxes;
   - maintenance of equipment and facilities;
   - obtaining requisite government approval;
   - maintenance of insurance;
   - furnishing periodic financial reports;
   - non-encumbrance of assets; and
   - limitations on mergers, dividends, and sale of assets.
9. Financial covenants, such as:
   - limitations on indebtedness;
   - maintenance of financial ratios.
10. Responsibility for any withholding tax on interest.
11. Enforceability of the rights of the lender:
    - events of default and opportunities to cure a default;

- remedies in case of default;
- cross-default clauses; and
- procedure for capture of the cash flow.

(a) Term bank loans

Commercial banks have been the traditional providers of unsecured short-term business working capital loans, made either under a line of credit or on a transaction basis. other financial institutions and the public capital markets have been regarded as the primary source for intermediate and long-term business financing.

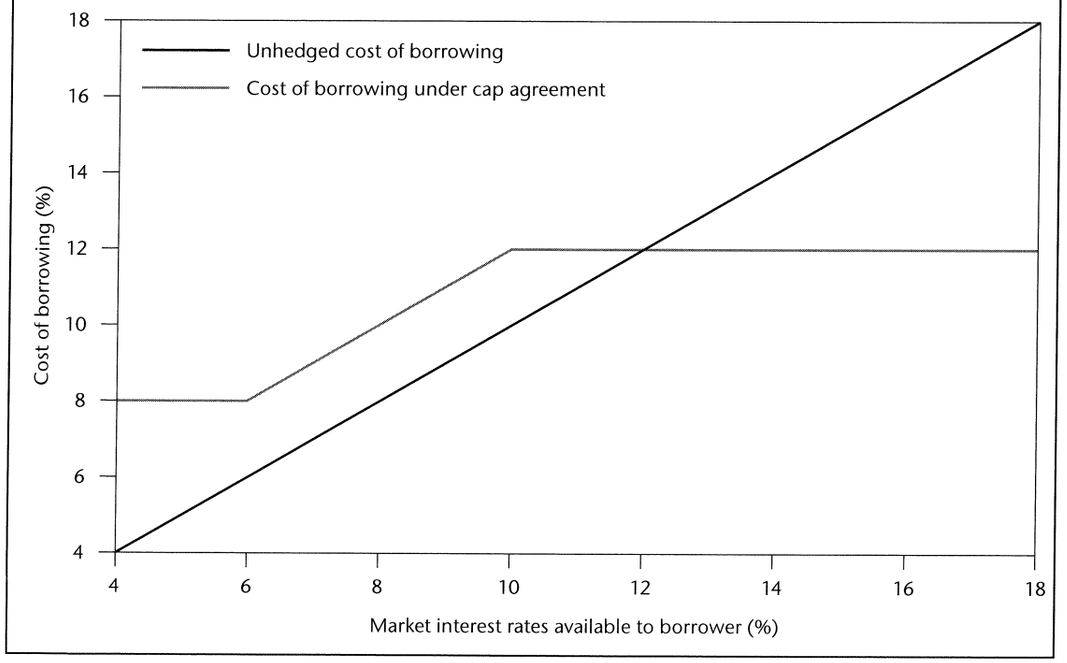
Loans to acquire the permanent operating assets of a project company which are intended for long-term use cannot be repaid in the traditional manner of unsecured short-term loans. Rather, it is necessary to repay the financing of these assets over time from the profits and cash flow generated by their use.

Acquisition of machinery and equipment for a project company provides either a revenue stream or a reduction in operating costs, thereby producing a flow of cash with which to repay the loan over a period of time. Term lending to finance the acquisition of such assets is merely an extension of the historic commercial banking self-liquidating loan concept over a longer period of time than the seasonal expansion and contraction of trading assets that are associated with traditional bank lending activities.

Project companies typically do not enjoy broad private or public markets for their long-term bonds or debentures. The national and international public capital markets are not usually a viable source of financing for them, although as noted in previous chapters, there is likely to be increased use of bond financing. Consequently project companies must look to other financial sources for intermediate and long-term financing. Their primary suppliers of resources and financial services have historically been commercial banks familiar with project finance.

Commercial banks have become sources of term loans with maturities of two to ten years or longer for project financing. The loans may be floating or fixed rate. Commercial banks can prudently make floating rate loans for longer terms than fixed rate loans because the rate earned will fluctuate with the cost of funds from traditional funding sources.

Exhibit 12.1: Borrowing cost under a loan agreement with an interest cap agreement of 12 per cent



With a floating rate loan, the borrower takes the risk that the borrowing rate can rise significantly and, as a result, potentially lead to financial difficulties. Provision can be included in a loan agreement to hedge the risk that the borrowing rate will rise above a predetermined rate – the cap rate. The inclusion of a cap in the loan agreement is basically an option granted by the bank to the borrower. As a result, it increases the interest rate risk to the bank. The borrower pays for this through a higher spread to the benchmark rate. To reduce the borrowing spread, the borrower can agree to have a floor included in the loan agreement. The floor agreement specifies that if the borrowing rate falls below a predetermined level, the borrower agrees to pay the floor rate. The inclusion of a cap and a floor in a loan agreement results in a collar for the interest rate. Exhibits 12.1, 12.2, 12.3 and 12.4 show the borrowing cost with a cap and a collar.

The typical term loan is repaid in instalments so as to match the projected revenue stream. Such instalments may be paid monthly, quarterly, semi-annually, or even annually. The repayment schedule for a term loan to a project company may include a recapture clause, which provides that some percentage of earnings or cash flow above an agreed-upon base level will be applied annually as extra principal payments in the inverse order of scheduled maturity. This protects the lender against windfall profits being dissipated prior to the scheduled term loan payments.

(b) Revolving bank loans

Revolving credit agreements (sometimes called revolvers) resemble term loans since they are made for a period of years. However, they differ from term loans in that principal payments are not usually required during the life of the facility. The borrower may borrow, repay, and reborrow so that the balance outstanding under a revolving credit agreement fluctuates up and down in accordance with the borrower's needs.

Revolving credit agreements were originally designed to finance trading assets over a period of years. A revolving credit that is regularly renewed and extended prior to its maturity so that it never becomes a current liability is known as an evergreen revolving credit.

Since revolving credit agreements mature beyond one year, revolving credits are carried as long-term

Exhibit 12.2: Borrowing cost under a loan agreement with a capped interest rate of 12 per cent

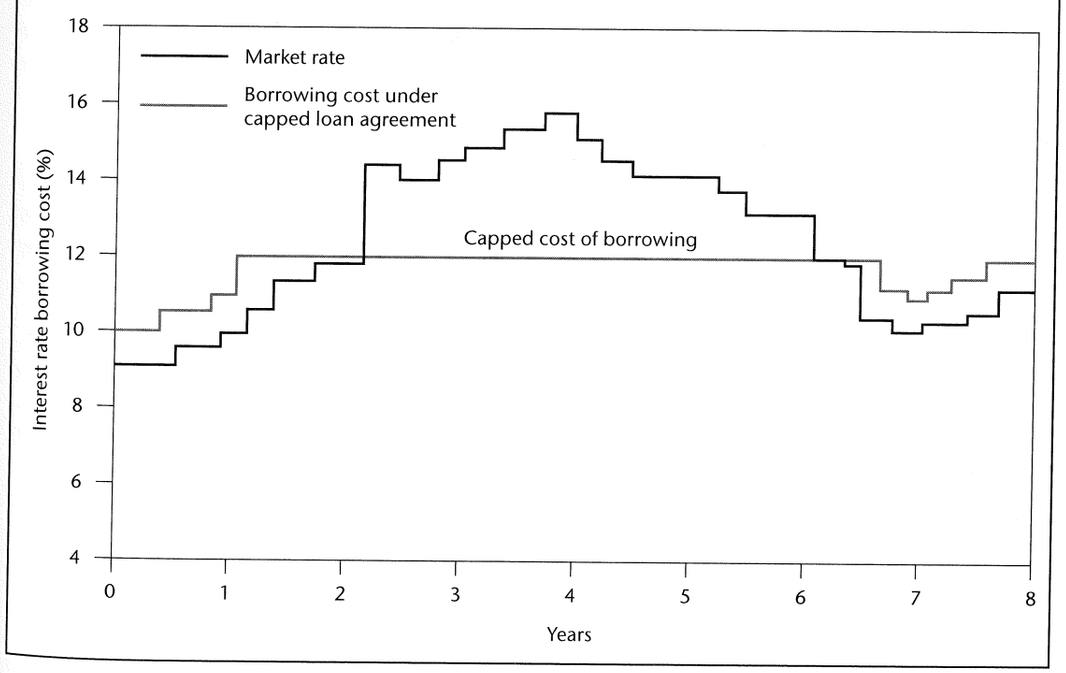
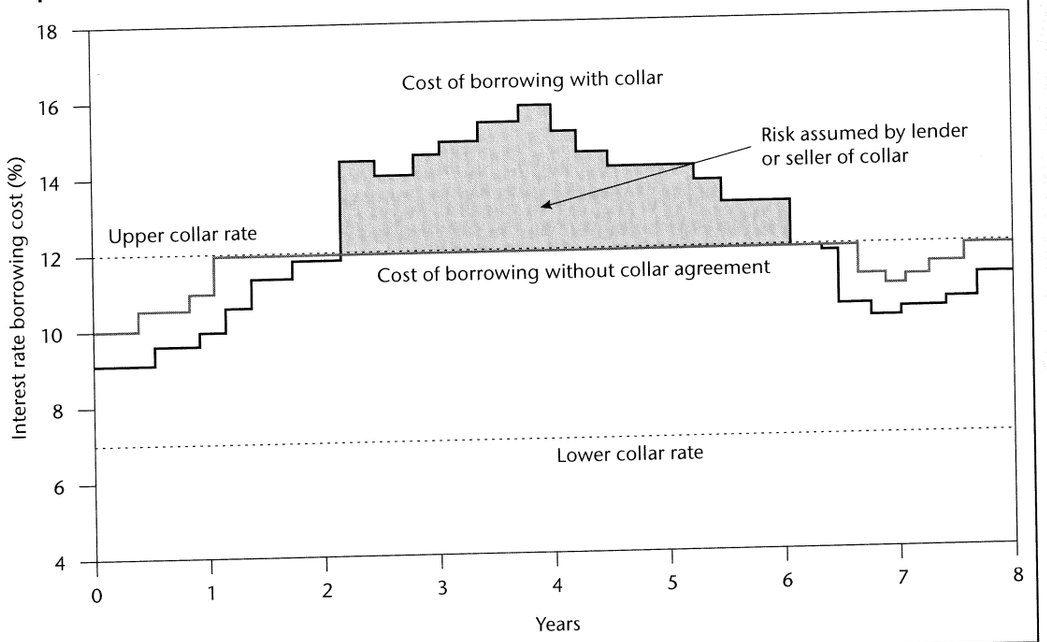


Exhibit 12.3: Borrowing cost under a loan agreement with a collared interest rate of 12 per cent



liabilities on the borrower's balance sheet. Consequently, revolvers may serve to enhance working capital.

However, revolving credit agreements can also be used for the acquisition of fixed assets under an arrangement whereby the loan is converted to a term loan when the project to be financed is completed and the amount to be funded over time is determinable.

Revolving credit agreements and term loans are sometimes used together under an arrangement whereby the revolving credit agreement contains a right of the borrower to convert the outstanding balance to an amortising term loan. This right is usually irrevocable to the borrower as long as he is in compliance with the terms of the governing agreement.

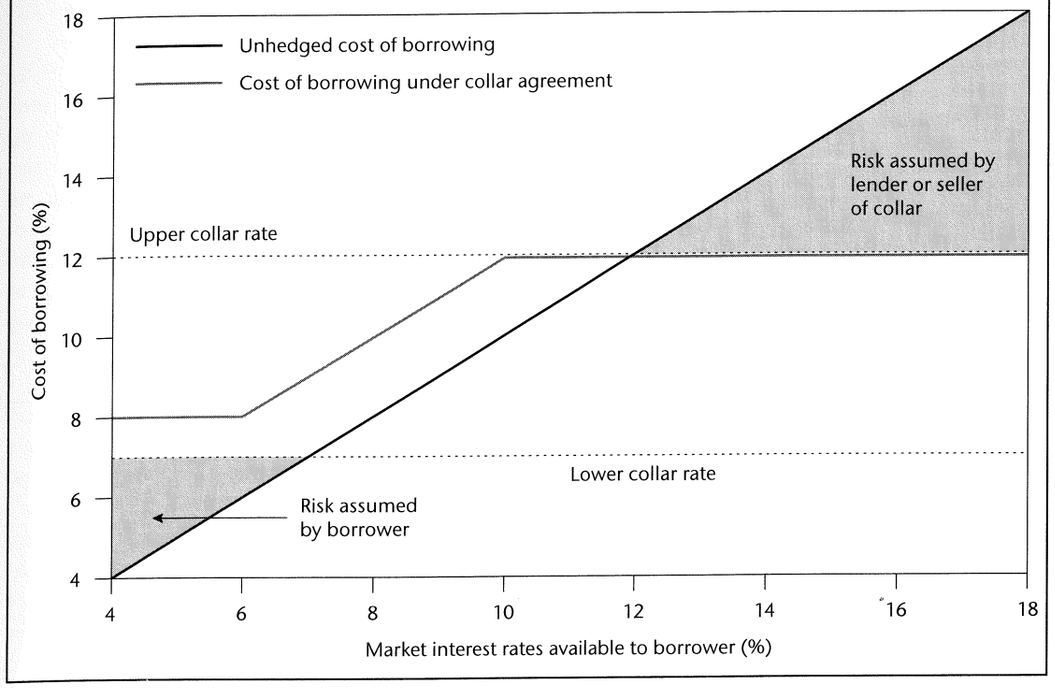
Term or revolving credits may be either unsecured or secured by the pledge of specific assets. A blanket lien may be taken on all assets to secure term or revolving credit debt. As in any other type of secured loan, the collateral may be used in the event of default to provide a secondary source of repayment or to limit the total credit available to the borrower from other sources. Sometimes the limitation on leverage may be accomplished by a negative pledge whereby the borrower agrees not to pledge its assets to any other lender. From the standpoint of the lender, a negative pledge serves the purpose of limiting the borrower's overall leverage, but does not provide any direct secondary protection for repayment.

(c) Syndicated bank and Eurodollar loans

Large international bank loans are made by syndicates of international commercial banks. The general advantages of the syndicated loan market are:

1. Large amounts of debt can be raised. The syndicated loan market is the largest source of international capital.
2. Loans may be made in any of several currencies.
3. The number of participants can be substantial.
4. Banks participating in syndicated loans are sophisticated and able to understand and participate in complex credit risks presented by project financing.
5. Draw-downs can be flexible.
6. Prepayment is customarily permitted.

Exhibit 12.4: Borrowing cost under an interest rate collar agreement



The major disadvantage of the syndicated loan market is that the interest rate is floating, and is usually based on Libor, which may be high cost relative to other market rates.

Syndicated loans are generally used by governments and government agencies. However, strong corporate credits, utilities and energy projects have used this market to raise funds.

Syndicated loans are usually non-negotiable and remain on the banks' books until maturity. However, the banks retain the right to assign participations to their branches or to other banks.

Syndicated loans are arranged by a manager or lead manager. Terms and conditions are negotiated by the manager. The manager could be a commercial bank providing loan funds, or either a merchant bank or a commercial bank which acts solely as the arranger of the loan.

Most syndicated loans are denominated in US dollars, but have also been denominated in other currencies including sterling, euros, Deutschmarks, Swiss francs and Japanese yen.

Central banks often prefer loans in their country to be led by one of their domestic banks.

Syndicated loans are usually structured as term loans. The interest rate is floating and the lender ordinarily protects itself by a matching deposit in the London inter-bank market in the same amount and term, which is renewed each interest period. In the Far East, the local inter-bank rate would be used for setting the interest rate.

The manager in a syndicated loan transaction monitors a borrower's financial condition during the term of the loan. Such loans contain numerous covenants and default provisions. Most syndicated loans are unsecured but they may be protected by a negative pledge.

Syndication loans are usually amortised according to a fixed schedule, and repayment begins after a term of years known as a grace period, which is usually not longer than five or six years. Maturates are as long as 10 years, and sometimes longer. Syndicated loans can be repaid without penalty.

A major advantage of syndicated loans for borrowers is the large size of financing available, their flexibility, and the fact that they are relatively quick and cheap to arrange.

Syndicated loans are made to developing countries, whereas bond issues are normally restricted to industrialised nations. For many sovereign states, the syndicated loan market is one of the few international financing options available.

(d) Syndicated credit facility

A syndicated credit facility is one in which a number of banks undertake to provide a loan or other support facility to a customer on a pro rata basis under identical terms and conditions evidenced by a single credit agreement. These facilities are generally floating rate in nature, with or without amortisation, and the pricing will normally consist of a fixed spread over a short-term base rate (which base rate is adjusted periodically during the life of the loan), with commitment fees, agency fees, management fees, offsetting balances, security, etc., often included as well. Tenors may range from one to 12 years.

Syndicated credit facilities may be structured as conventional revolvers and club loans to multi-option or highly single-purpose facilities. They may consist of revolving or term bank lines, commercial paper liquidity (back-up) lines, standby L/Cs (for commercial paper, private placements, IRBs, Eurobonds, etc.), bankers' acceptances, receivables financings, etc. Pricing is generally based on prime, Libor, certificates of deposit, or bankers' acceptances, in varying combinations, for funding periods ranging from days to one, two, three, six or 12 months. Participants include all types of financial institutions, but are primarily US money centre banks, regionals, and major international banks. The lead or agent bank oversees the structure, pricing syndicate configuration, construction of a timetable, selling, documentation and closing of the transactions, as well as administering the facility until final maturity.

2. Private placements

A private placement is the direct sale of a debt or an equity security by a corporation to one or more sophisticated investors.[1] Usually the term private placement contemplates such investors as life insurance companies, pension funds, and other financial institutions. However, a private placement may be arranged with a bank in the same way as a term loan.

A private placement in the United States is exempt from registration with the Securities and Exchange Commission provided it conforms to certain SEC guidelines. The term private placements usually refers to placements of long-term debt instruments. This discussion of private placements will be concerned primarily with debt private placements in the United States which consist of unsecured senior notes with fixed interest rates and final maturities of roughly five to 15 years.

The private placement market in the United States is an important source of long-term debt financing for corporations. It is particularly important for project companies which do not have access to the public debt market because of their size and lack of operating history. The private placement market may be the only source of long-term debt financing for some project companies.

The following text describes the market and provides guidelines for arranging private debt financing. It discusses private placement loan agreements and interest rates from both the borrower's and lender's viewpoints. Private placements differ from public offerings in that private placements do not require regulatory approval, do not require public disclosure, and are arranged with a limited number of sophisticated institutional investors.

The private placement market may be accessed through a commercial bank or investment bank.

The private placement market has several advantages:

1. Private placements do not require registration under securities law.
2. The borrower can retain absolute control of when it wishes to enter the market. That entry does not have to be at the end of a registration period, as with a public offering. Thus, the borrower can have its papers ready, and wait until market conditions are to its liking.
3. The interest is usually at a fixed rate. Pricing (and hence the coupon interest rates) of privately placed debt closely follows the market for publicly traded bonds. While public bonds are priced continuously in the secondary market throughout each trading day, the rates for new private placements are set within each institution by finance committees which usually meet once a week. Thus, movements in private rates typically lag behind public rates, although both are affected by general economic conditions. This lag can be used to advantage.

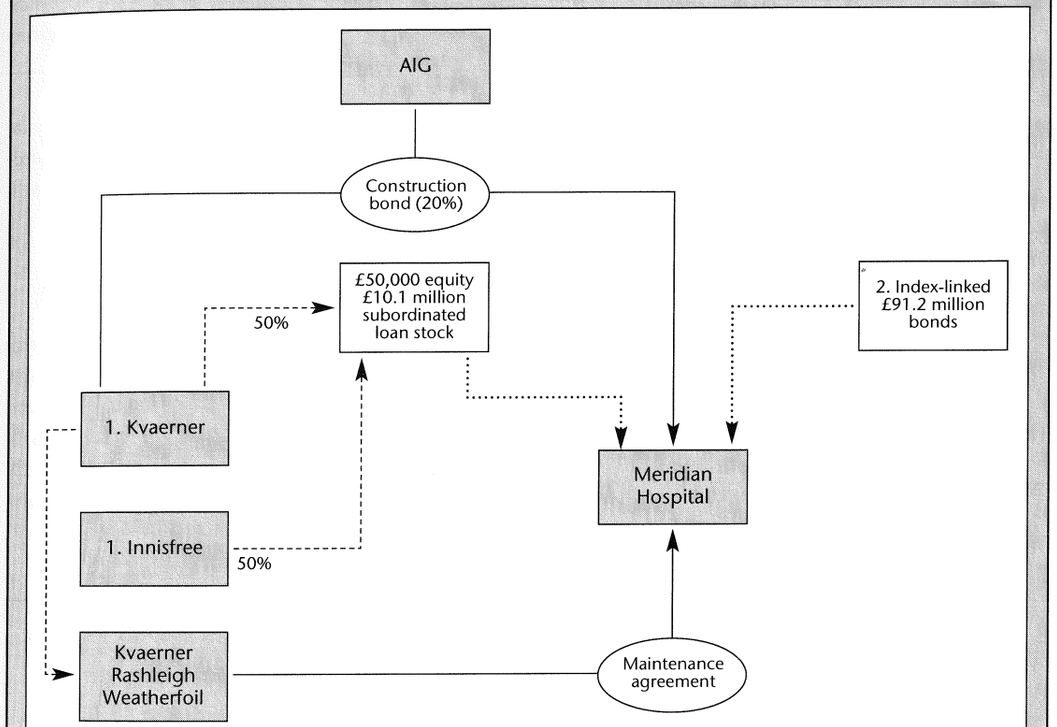
Case study: Greenwich Hospital – Private placements

Under the UK's Private Finance Initiative, public facilities are moulded into financeable enterprises with sufficient support to attract private sector project finance. Because of the selection and sifting process for projects and the transparent manner in which bidding is conducted, banks became comfortable with public sector risk.

The Greenwich hospital was granted a 60-year concession, although there is a review of the concession at years 30 and 45. Management contracts cover the full operatorship of the hospital facilities.

The hospital is constructed by Kvaerner under a turnkey contract with delay liquidated damages (LDs) of £13 million (22 months of debt service) with a cap on LDs of 50 per cent of the construction contract price. In turn, Kvaerner has taken out a 20 per cent construction bond with AIG, an insurance specialist.

The RPI component is a natural hedge against the hospital's revenues which escalate according to an RPI-based formula. Pension funds are the main investors in the Greenwich hospital transaction.



Summary

1. Kvaerner (a contractor/developer) and Innisfree (a specialist fund for UK PFI projects) invest via subordinated loan stock in the Meridian hospital.
2. Meridian attracts a 30-year bond issue indexed to the UK Retail Price Index (RPI) plus 160 bp.

4. Buyers in the private placement market have the sophistication to understand a project company with a complicated credit or financing structure to explain.
5. A private placement is a good way to establish useful long-term investor relationships which a borrower can call on for future financings.
6. No public disclosure of sensitive information is required.
7. There are longer maturity alternatives available under a private placement.
8. The all-in cost of a private placement is not expensive. Both US and Euro public offerings involve substantial legal and printing expenses,

whereas a private placement requires virtually no printing, and fewer legal expenses. In addition, the underwriters'/managers' spread on a public issue is greater than the fee to a private placement adviser.

A disadvantage of the private placements market is that interest rates may be higher than the public US market or the Eurodollar market for similar rated debt. Part of the spread reflects the lack of liquidity in a traditional private placement. However, with Rule 144A, in the United States the liquidity premium that issuers have had to pay for a private placement has decreased. Foreign borrowers in the United States will find the market-place for private placements somewhat limited. Only the larger institutional investors have the sophistication to analyse foreign credit arrangements, and their total investment in foreign loans is limited to 5 per cent of their assets. There are approximately 50 insurance companies and institutions in the United States who are buyers of private placements, and about 20 of these are in the market regularly.

Private placement funds are available outside the United States in Eurodollars, sterling, euros, Deutschmarks, yen, guilders, Swiss and French francs.

(a) Legal considerations

Section 4(2) of the United States Securities Act of 1933 exempts private placements of securities from registration with the Securities and Exchange Commission. However, although Section 4(2) does not provide definitive rules as to what constitutes a private placement, the Securities and Exchange Commission in 1974 adopted Rule 146 which provides specific guidelines to assure a sale of securities is exempt under Section 4(2). A brief summary of Rule 146 is as follows:

1. The investor(s) must be solicited only through direct communication. General advertising of the offering is prohibited. Exhibit 12.5 is a sample legend for a private placement.
2. The issuer or his representative (agent) must have reasonable grounds to believe that each investor has knowledge of, and experience in, financial and business matters, and is capable of evaluating the risks of the investment. In short, the investor must be sophisticated.
3. The investor(s) must be in a position to obtain, or be given by the issuer, the type of information contained in a registration statement. In addition, the issuer must give the investor the opportunity to verify information provided by direct contact with management or other sources.
4. With certain important exceptions, there can be no more than 35 purchasers of the securities being offered in any six-month period. The number of parties to which the offering can be shown is not limited, subject to the restrictions on advertising mentioned above.
5. The issuer must make a reasonable effort to ensure that the purchasers are not buying the securities for redistribution.

State laws must also be complied with for a private placement. Generally, however, meeting the requirements of Rule 146 will also result in compliance with state laws.

(b) Investors in private placements in the United States

The 50 largest US life insurance companies are a principal source of private long-term debt for corporations. As a matter of fact, a substantial portion of all of their investments in debt securities are private placements. In recent years, they have accounted for approximately 90 per cent of the volume of privately placed debt. For most small and medium-sized borrowers, these 50 life insurance companies constitute the private debt market.

Exhibit 12.5: Sample legend for private placement

The sale of securities herein described is intended as a private placement and, therefore, will not be registered with the Securities and Exchange Commission. Accordingly, resale of these securities, if purchased, is restricted.

This memorandum was prepared by the management of XYZ Project Company. In addition to company information, it contains data from various trade and statistical sources deemed reliable. Some of the information contained herein has not been publicly disclosed. Thus, the memorandum is strictly confidential. It is intended solely for use by the party to whom it is transmitted. Other use or reproduction of the memorandum is prohibited without the written consent of XYZ Project Company.

(c) Investment criteria of investors

Although the investment policies of life insurance companies vary, their investment criteria may be broken into four areas:

1. *Amount.* Most life insurance companies prefer investments of around US$5 million. Some of the bigger companies prefer larger amounts because of the resulting economies. Many will consider amounts between US$1 million and US$2 million but few of them are interested in lending less than US$1 million. In the case of large issues, most of these lenders will act as lead lender when they are not interested in providing the full amount of a proposed financing. The lead lender may offer to assist the borrower in finding sources for the remaining portion of the financing and normally acts as spokesman for the lending group.
2. *Credit risk.* While most private issues are not rated, the borrower's creditworthiness is expressed in terms of a debt rating as in the public market. Typically, life insurance companies lend to the equivalent of Baa credits. However, some will only consider loans involving stronger credits (medium to strong Baa and A credits). On the other hand, other investors desire to maximise yield by lending a portion of their available funds to strong Ba and weak Baa credits. They will consider project financing but are risk-averse.
3. *Maturities.* Most life insurance companies prefer final maturities in the seven to 15 year range. Most will consider maturities in the two to seven year range as well, and some will consider maturities beyond 15 years.
4. *Industry.* Most lenders are open-minded about the industry of the borrower. However, for a variety of reasons, most have one or more industries they tend to avoid. On the other hand, many have developed expertise in lending to certain industries.

The investment criteria of life insurance companies will vary with developments in the economy and capital market. Weaker credits will be avoided when capital markets are tight and interest rates high.

In addition to large insurance companies, there are several other sources of private long-term debt:

1. Japanese leasing companies have been active investors in private issues. Generally they prefer credits to be equivalent to a strong Baa credit, but they will take lesser credits where equipment such as aircraft or railroad rolling stock is involved.
2. Several large Japanese life insurance companies have established offices in New York and London to originate investments. Generally the Japanese life insurance firms are risk-averse and limit their investments to strong single-A credits or better. They prefer terms of seven to 10 years but will go to 15 years.
3. Smaller insurance companies do not have specialised staffs and normally participate in placements being led by large life insurance companies. They are primarily interested in making small investments in higher quality issues.
4. While the investment objectives of bond funds differ, most are permitted to invest in private issues to some extent. For a variety of reasons, most are not significant participants in the private market, but there are some funds formed primarily to invest in private placements. A majority of these are managed by large life insurance companies and their investment interests are essentially the same as those of the sponsor.
5. Roughly 90 per cent of private pension funds are corporate, with non-profit organisations and multi-employer plans accounting for the remainder. Public pension funds consist of state and local employee retirement funds. Private and public pension funds are managed by bank trust departments, investment advisory firms, or are self-managed. Typically, they limit their participation to higher quality issues. State laws often prohibit public pension funds from investing in less than A credits. In general, pension funds are not a significant source of funds for private issuers or for project financing.
6. Casualty insurance companies, foundations, savings banks, fraternal organisations, and university/college endowment funds are other sources of private debt financing. However, even taken together, they are not a significant source of capital for private placements. Like private and public pension funds, they typically participate in higher quality issues.

(d) The use of agents or advisers

The term agent in a private placement context refers to investment advisers and brokers who assist borrowers, for a fee, in privately placing debt securities. Investment banks and capital markets groups of large commercial banks act in this capacity. Accountants, consultants and lawyers also sometimes act as agents.

The fees agents charge for their services vary, but they are generally in the following ranges for a Baa credit:

Size of issue	*Fee as percentage of principal*
US$5,000,000–US$25,000.000	$\frac{7}{8}$ to $\frac{1}{2}$%
US$25,000,000–US$50,000, 000	$\frac{3}{4}$ to 1%
over US$50,000,000	$\frac{3}{8}$ to $\frac{3}{4}$%

Fees for a private placement in connection with a more difficult financing such as a project financing might be considerably higher in view of the difficulty of the particular assignment. Although these fees are generally contingent on completion of a successful financing, agents expect in many situations to receive retainer fees in any event to cover the time and out-of-pocket expenses required to prepare the financing memorandum.

3. Description of a typical term loan or private placement agreement

The more important elements of bank term loans and private placements are discussed in detail in this section. The discussion is not intended to be exhaustive. Rather its purpose is to familiarise and provide a general understanding of typical terms and covenants in bank term loans and institutional private placement agreements.

Term loan agreements and private placement loan agreements differ as to substance depending on the lender and borrower involved. Usually the provisions of a loan agreement many be grouped into six categories.

a. *Loan terms and closing the loan.* These provisions describe the loan and the conditions and requirements which must be satisfied in order to close.
b. *Financial covenants.* The required payments and circumstances for optional repayment of the loan are outlined.
c. *Affirmative covenants.* These clauses outline the on-going responsibilities of the borrower beyond the timely payment of principal and interest.
d. *Protective covenants.* These provisions place limitations on the actions and operations of the borrower designed to protect the lender.
e. *Default and remedies.* These provisions describe when the agreement will be in default and the remedies that are available to the lender.
f. *Boilerplate.* These are fairly routine provisions primarily designed to protect the lender and establish procedures for administration of the loan.

The specific provisions within each of these categories are discussed in detail below.

(a) Loan terms and closing the loan

These provisions concern three main areas: a description of the promissory notes, the terms of the agreement to transact the loan, and the date and place of closing as well as the conditions that must be met for a closing.

(i) The notes(s)

The borrower authorises the note(s) and specifies the form, usually contained in an attached exhibit. Further, the date, currency, principal amount, interest rate, and the timing and amount of required repayments are outlined.

(ii) Making the loan

The borrower and the lender agree to transact the loan, usually at 100 per cent of the face value. The date, time and place of closing are specified. The amount and payment of the commitment fee, if any, are stated. The method for payment of the loan proceeds to the borrower is set forth.

(iii) Conditions of closing

In order to be assured that everything is in order at the closing, the lender makes a commitment to lend contingent upon the fulfilment of a number of conditions:

(a) Instruments and proceedings. The documents are to be executed to the satisfaction of the lender.
(b) Representations and warranties by the borrower. The borrower assures the lender that no problems exist towards the closing of the loan. Typical representations and warranties made by the borrower will include the following:
- The borrowing corporation is in good standing in its own state and as a foreign corporation in all states where it does business, and is legally authorised to conduct its present business.
- The borrower has correctly provided all recent historical consolidated financial statements.
- The borrower has filed all required tax returns
- The borrower has good title or a valid lease to all its properties and is subject to no mortgage, lien or other security interest except as permitted by the loan agreement.
- There is currently no material litigation against the borrower, except as specified.
- Closing the loan will not cause an event of default to occur under any other agreement to which the borrower is a party.
- No material adverse change has occurred in the borrower's business or prospects since the date of the most recent financial statement.
- The borrower is not a party to any burdensome agreement that would have a material adverse effect on the borrower.
- The approval of the loan is not required by any governmental body.

(c) Representation and warranties of the lender. The lender represents that the note is being purchased for investment and not with a view toward resale. (This provision is to ensure that the financing is exempt from the registration requirements of the Securities Act of 1933.)
(d) Opinion of special counsel. The lender's special counsel must render a favourable opinion as to the good standing of the borrower, the validity of the transaction, the exemption of the financing from various federal statutes that apply to public offerings, the validity of the opinion of the house counsel for the borrower, and any other representations the lender may reasonably require.
(e) Opinion of company counsel. The borrower's house counsel may be required to render an opinion on a number of matters, including the following:
- The good standing of the borrower.
- The validity of the transaction and the validity of the necessary corporate approvals.
- The exemption of the transaction from federal securities laws.
- The good standing of the borrower as a foreign corporation in any states in which it is active.
- The good standing of each subsidiary and clear title by the borrower to stock of subsidiaries.
- That the loan agreement will not cause breach of any other agreement.
- That government approval of the transaction is not necessary (as in the case of regulated industries under some circumstances).
- The clear title to all property involved in the transaction.
- The borrower's notes will not be subordinate to other senior debt.
- The absence of material litigation, except as may be disclosed.

(f) Application of proceeds. The lender may specify and the borrower may agree to the specific use of proceeds as a condition of closing. This is common when the proceeds will be used to repay existing debt.
(g) Accountants' opinion. An opinion regarding validity of the borrower's financial statements, and a certificate confirming the reasonableness of its provision for income taxes.

(b) Financial covenants

The financial covenants describe how the loan will be repaid under normal circumstances or may be prepaid under special circumstances. The borrower argues for flexibility and the lender seeks to protect its yield in any accommodation. These provisions generally fall into five categories.

(i) Required payments

These provisions outline the repayment schedule for the loan. The repayment of the loan may be arranged in a variety of ways. Level amortisation of principal, or of interest and principal is one approach. An agreement may not require repayments for the first few years (two to three years) of the loan, sometimes called a blind spot. After a possible blind spot, the agreement may require equal or gradually increasing payments over the remaining life of the loan. There may be a balloon payment at final maturity, although typically such a payment will not constitute a significant portion of the principal amount of the loan (perhaps 10 per cent–15 per cent). Accelerated prepayments may be required if the earnings of the borrower exceed a certain level.

Lenders' viewpoint: The attitude of most lenders towards the structure of required prepayments can best be described as flexible. Within the bounds of their investment policies, they are generally willing to consider any repayment schedule which appears appropriate for, and can be justified by, the borrower. Their main concern is to assure that the borrower's projected cash flow will be sufficient to meet principal and interest payments when due.

Borrower's viewpoint: A borrower should propose a payment schedule which is consistent with its projected cash flows and be able to justify its position to the lender. Accordingly, careful preparation and review of forecasts is essential to negotiating the repayment schedule.

(ii) Optional prepayments without penalty (doubling-up)

Most loan agreements allow the borrower to make additional prepayments without penalty at principal due dates. Thus, the timing of optional prepayments is governed by the basic repayment schedule. In general, optional prepayments are allowed in an amount up to the next required payment – hence doubling-up. The principal payment may be credited against the last payment due. Further, most agreements establish a dollar limitation on these optional prepayments.

Lenders' viewpoint: During periods of high interest rates, lenders prefer to exclude or minimise this option by requiring a prepayment fee. Their intent, of course, is to prevent reductions in the average lives of high-yielding loans. On the other hand, provision may be made for unlimited doubling-up when interest rates are relatively low.

Borrower's viewpoint: This option is important to the borrower during periods of high interest rates because it gives the borrower the option to reduce the average life of a high cost loan. Accordingly, the borrower should negotiate as liberal a provision as possible.

(iii) Restriction on refinancing

This clause, sometimes called the no financial refunding clause, prohibits the borrower from retiring the loan during a specific period, typically five to ten years, with funds borrowed elsewhere.

Lenders' viewpoint: When interest rates are low, lenders may not be particularly concerned with this provision. However, when interest rates are high, lenders attempt to lengthen the period (ten years or more) during which financial refunding is prohibited in order to lock in high-yielding loans. This is not unreasonable since the lender may, in turn, arrange long-term funding to finance the loan.

Borrower's viewpoint: Of course, when a company is borrowing during a period of high interest rates, it would like to have the option of refinancing the loan with lower cost funds at a future date. Accordingly, the borrower should attempt to minimise the length of time financial refunding is prohibited or the penalty payments for refunding.

(iv) Optional prepayment under certain circumstances

This provision, called the divorce clause, allows the borrower to prepay the entire principal amount without penalty (or, in some cases, with a penalty) if the lender is unwilling to allow the borrower to take some action otherwise prohibited by the loan agreement. It is not universal and, when used, normally pertains to the protective covenant restricting long-term debt. Typically, the company is allowed to prepay the loan if the lender is unwilling to approve additional long-term debt and a bona fide commitment has been received from another lender.

Lenders' viewpoint: Lenders usually will want to exclude this type of provision. They argue that protective covenants are mutually binding and that there is no reason to allow prepayment simply because the borrower cannot live within the terms of the agreement. Furthermore, they argue that modifications to loan agreements are common and can be obtained if reasonable.

Borrower's viewpoint: While it is true that modifications to loan agreements are commonplace and, if reasonable, usually approved, the fact still remains that the lender can refuse. Accordingly, borrowers argue that loan agreements should contain a provision allowing prepayment, preferably without penalty, if the lender is unwilling to allow additional long-term debt. The borrower may wish to negotiate other unusual clauses which will permit repayment, such as a merger of the company. The borrower argues, if you are going to be reasonable in making modifications then you should be willing to spell out certain circumstances in which modification is agreeable.

(v) Optional prepayments with penalty

This clause allows the borrower to prepay the loan, in whole or part, with a penalty. Usually, the initial penalty is the interest rate times the amount of principal being prepaid. The penalty normally increases by an equal amount annually, reaching zero at the beginning of the year the loan matures. For example, a typical penalty schedule for an 11 per cent 15-year loan might be as follows:

Year	*Percentage of principal*
1	110.00
2	110.21
3	109.43
4	108.64
5	107.86
6	107.07
7	106.29
8	105.50
9	104.71
10	103.93
11	103.14
12	102.35
13	101.57
14	100.79
15	100.00

When there is a blind spot, the option and penalty schedule may begin in the year of the first required prepayment. Sometimes, prepayments are prohibited for a certain initial period, say five years. This is called a no-call period. If there is a no-call period, the penalty schedule may take effect and begin decreasing at the termination of this period. It is also important to note that the clause prohibiting financial refunding usually governs the borrower's use of this provision. Therefore, during the period financial refunding is prohibited, optional prepayments with penalty can only be made with excess funds.

The definition of excess funds varies. Excess funds might be defined as being excess when a borrower has no other debt obligations, has no plans to borrow in the foreseeable future and will not be in violation of any protective covenant in the loan agreement upon making the optional prepayment. This is a fairly standard provision and should not concern the borrower unless the penalty scheduled unfavourably differs from the norms outlined above, or the lender is proposing a more restrictive definition of excess funds.

Lenders feel borrowers place too much emphasis on the prepayment convenience in light of the fact that infrequent use is made of the options they provide. However, borrowers understandably have some difficulty in accepting that point of view. Borrowers seek flexibility in all aspects of loan agreements.

(c) Affirmative covenants

Affirmative covenants are promises by the borrower to perform certain actions. Examples of affirmative covenants are summarised briefly below.

(i) Financial statements and information

The borrower agrees to provide the lender with all releases to shareholders, quarterly and annual consolidated and consolidating income statements and balance sheets, an annual certification by an officer that the company is not in violation of the agreement's protective covenants and an annual certification by the auditors reviewing the officer's certificate and discussing any default which may have occurred during the period. Prompt reporting of an event of default is also required.

(ii) Books of record and account

The borrower agrees to keep full and accurate accounting records and to make proper provisions for depreciation of its properties.

(iii) Right to inspect properties and books

The borrower agrees to give the lender reasonable access to inspect its properties and to examine its books and records.

(iv) Payment of taxes
The borrower retains the right to contest any tax assessment in good faith as long as it provides for adequate reserves in its financial records.

(v) Maintenance of properties
The borrower agrees to maintain its operating assets in good and workable condition.

(vi) Compliance with laws
Compliance by the borrower with all laws and regulations with reasonable rights to contest such laws or regulations.

(vii) Insurance
The borrower is required to carry adequate fire, casualty, business interruption and public liability insurance, as well as legally required workmen's compensation insurance. Either annually or upon request, the borrower must report all insurance in force to the lender.

(viii) Permitted business (character of business)
The borrower agrees to remain in its present line(s) of business. Divestiture or diversification into other lines of business is frequently limited to a small percentage of net sales, net tangible assets, or some other variable.

(ix) Covenant to secure note equally with other lenders
Called the equal and rateable clause, this provides that the lender will be secured at least equally with all other lenders, present and future, unless he specifically waives his claim. Exception is made for prior and statutory liens.

(d) Protective covenants

The protective or negative covenants are among the most important provisions in the loan agreement. These clauses are designed to protect the lender and limit the actions and operations of the borrower. Broadly speaking, lenders view protective covenants as a means of monitoring the financial health of borrowers. Lenders regard them as an early warning system rather than a means of restricting the borrower. However, this is of small comfort to borrowers. Protective covenants are restrictions, and the borrower must give considerable thought to their present and future implications. This requires careful review of the borrower's plans and financial forecasts.

Many borrowers feel there is a relationship between interest rate and protective covenants. In other words, it is felt that lenders will make concessions on rate if the borrower agrees to more restrictive covenants and vice versa.

As a general rule, this is not the case. Most lenders do not consider the two as being interrelated. This stems from the lender's view of protective covenants as a means of monitoring a loan. The interest rate compensates them for the risk they assume. Protective covenants do not significantly diminish this risk. Rather, they help assure it will not increase.

Protective covenants must be tailored to a project company's particular needs. While highly restrictive covenants are counterproductive for both parties, it is the borrower's responsibility to ensure that the covenants are not unnecessarily restrictive. As mentioned earlier, the borrower should outline his thinking regarding the need for or desirability of major protective covenants as part of the financing memorandum when originally approaching the lender. The borrower should propose a form of words if the issue is unavoidable. Although the lender may disagree with the language proposed by the borrower for protective covenants, it provides a basis for discussion. Of course, market conditions will influence lenders' views concerning protective covenants to a limited degree. Lenders tend to be more receptive to less restrictive covenants when there is a surplus of funds in the market and show less flexibility when the market is tight. In general, however, lenders are sympathetic to a borrower's demonstrated needs for flexibility within reason.

Typical major protective covenants found in loan agreements are discussed in the following sections.

(i) Minimum working capital requirement
Loan agreements usually establish a minimum dollar amount of working capital. Depending on the needs of the project company, the required dollar amount of working capital may increase at specific points in the future. Sometimes, however, minimum working capital may be some percentage of another variable such as long-term debt, net tangible assets or revenues. The restriction pertaining to working capital may be coupled with a minimum current ratio requirement.

Lenders' viewpoint: Lenders use this clause to assure that the borrower maintains an adequate level of liquidity – ie, that current liabilities do not increase disproportionately to current assets, threatening the project company's ability to meet current obligations. The different types of requirements are often combined to provide a greater degree of protection.

Borrower's viewpoint: It is important that this requirement allows sufficient room for forecast error and potential adverse developments experienced by project companies from time to time. The minimum dollar amount of working capital is the most favourable type of requirement for a project company which is growing and, therefore, increasing its working capital. However, the lender may seek periodic increases in the requirement.

(ii) Limitation on short-term debt
Short-term indebtedness may be limited in any of a number of ways. Typically, it is limited to a stated dollar amount. Provision may be made for periodic increases in the specified amount. Sometimes, allowable short-term debt is based on a formula relating it to the level of some variable such as current assets or accounts receivable. Less frequently, there is no limitation.

Most agreements require that the borrower pay off completely (or down to a stated amount) short-term debt for a specified period, typically 30–60 days, each year. This is called a clean-up. The company may be allowed to miss one or more clean-ups non-consecutively. Agreements usually require that accounts payable be kept current during the clean-up period. Under some agreements, short-term debt which is not cleaned up within a given year is defined as long-term debt. This short-term debt does not have to be cleaned up as long as the borrower is not in violation of the covenant restricting long-term debt. Such short-term debt continues to be defined as long-term debt until it is cleaned up.

Lenders' viewpoint: This clause is closely related to the working capital provision in that both are intended to monitor liquidity. Lenders require this provision in order to ensure the borrower does not borrow on a short-term basis in order to fund long-term requirements. In other words, lenders want a company to use short-term debt for short-term needs. Use of short-term debt to meet long-term financing requirements can lead to liquidity problems.

Borrower's viewpoint: The borrower must be sure this limitation does not prevent it from financing legitimate short-term needs. Like the provision for working capital, this clause should provide sufficient room for forecast error and normal adverse developments which would create an above-average need for short-term debt. Because most companies expect to grow to some extent, allowable short-term debt should be permitted to increase as the company grows.

(iii) Limitation on long-term debt
Lenders sometimes refer to long-term debt as funded debt. In addition to senior and subordinated debt, funded debt normally is defined to include mortgage debt, bank revolving credits and capitalised leases. Take-or-pay contracts, operating leases or contingent liabilities such as guarantees may also be included. Typically, funded debt is limited either to a dollar amount or the limitation takes the form of a running formula expressed as a percentage of consolidated net worth, consolidated net tangible assets, or cash flow. In using such formulae, a wide variety of possibilities exists, such as inclusion of different ratios for senior and subordinated debt. In many agreements, these ratios are combined with a minimum pro forma interest or fixed charge coverage test which must be satisfied in order to incur additional funded debt. Sometimes, especially in the case of smaller companies where pro forma funded debt will be relatively high, additional funded debt is simply prohibited.

Lenders' viewpoint: Broadly stated, the higher the percentage of funded debt in a company's total long-term capitalisation, (that is, long-term debt plus equity), the greater its financial and overall risk. The limit lenders place on long-term indebtedness depends on their view as to what constitutes an appropriate level of risk for the borrower. Since the appropriate level of funded debt for a particular company depends on its industry, earnings performance, size and sever-

al other factors, it is impossible to generalise. An interest or fixed charge coverage test is often used because it is widely accepted as the principal determinant of a company's ability to carry long-term debt.

Borrower's viewpoint: Any limitation on funded debt is a very significant restriction for a project company. A borrower should attempt to negotiate the most liberal provision possible, consistent with future financing requirements as demonstrated by its forecast in order to provide for future financial flexibility. A formula which allows funded debt to increase as a project company grows is the most favourable type of restriction. However, lenders will prohibit additional funded debt entirely in some instances, particularly where the lenders have a major stake in the success of the company.

(iv) Restriction on lease obligations

This covenant normally pertains to non-cancellable, long-term equipment or real estate leases with a remaining term (to include renewal options) in excess of two to five years. Such leases may be restricted in a number of ways. A most common type of limitation is to limit annual rentals to a specified dollar amount. Alternatively, the capitalised amount of such leases may be limited to some percentage of consolidated net worth or consolidated net tangible assets or included under the restriction on funded debt. Many times leases are included in the minimum fixed charge coverage test relating to funded debt. In some cases, short-term operating leases with a term of less than two or three years and those involving certain types of assets (data processing equipment, office equipment, automobiles, trucks, office space, etc.) are not restricted. Lenders give more attention to leases in cases where leases play a significant financing role in a borrower's operation.

Lenders' viewpoint: Long-term, non-cancellable equipment and/or real estate leases are a form of mortgage debt financing and regarded as such by lenders. Such leases obligate a company to make fixed periodic payments *pari passu* with senior debt. Consequently, lenders restrict such leases for the same reason they restrict funded debt: to limit total financial risk (leverage or gearing) to an acceptable and prudent level.

Borrower's viewpoint: Where a borrower such as most project companies cannot use tax benefits currently, tax-oriented equipment leasing provides an attractive low cost form of financing. A borrower should attempt to negotiate a provision which provides flexibility, as in the case of funded debt, where a running formula is the most favourable type of restriction for the borrower. However, the borrower should keep in mind the close connection between this provision and the one pertaining to funded debt as viewed by lenders.

(v) Restricted dividend payments, other stock payments, and the repurchase of stock

Usually, restricted payments are limited to a stated percentage of aggregate consolidated net earnings after a specified date, normally the most recent year-end. The percentage may range from zero to 100 per cent, depending on the particular circumstances of the project company.

In the case of private or closely held companies, a limitation is often placed on the total compensation of stockholder/employees since increasing such compensation can be used as a means of otherwise circumventing this protective covenant. Many times, this covenant has a clause which stipulates that the borrower must maintain some minimum net worth which is stated as a dollar amount or as a percentage of another variable such as consolidated net tangible assets or long-term capitalisation. Such a clause closely relates to the covenant restricting funded debt and their provisions should be consistent.

Lenders' viewpoint: The net worth of a company provides a cushion to the lender in the event of unforeseen adverse developments. While a company may incur future operating losses which will reduce its net worth and diminish its financial strength, the lender explicitly considers this risk in making a loan. This covenant is designed principally to prevent a borrower from undertaking financial transactions which would reduce its net worth below a level acceptable to the lender. Of course, from the lender's standpoint, the limitations on restricted payments, funded debt, and working capital are closely related.

Borrower's viewpoint: As a practical matter, the limitation lenders placed on dividends is not restrictive for a project company. The borrower should, nevertheless, attempt to negotiate a covenant which provides ample flexibility. His main concern should be to assure that the limitation is consistent with any planned financial transactions which would have a negative impact on earnings or net worth (such as the repurchase of stock or a write-off).

(vi) Restrictions on supply and purchase contracts (take-or-pay agreements)

Take-or-pay agreements oblige a company to pay for product or services purchased from a supplier at regular intervals over a period of time regardless of whether the goods or services are in fact received. Of course, such agreements are contingent liabilities. These types of agreements are not uncommon in project financing and in many instances are beneficial to the borrower by providing an assured source of supply of needed raw material or service at a predictable price.

Lenders' viewpoint: The obligation is a contingent obligation if payment must be made under a take-or-pay contract even though the product is not provided. If such contracts are necessary, they should be disclosed at the time the loan agreement is made.

Borrower's viewpoint: Opportunities may be presented to assure a source of supply or service by entering into such contracts. Flexibility is required.

(vii) Limitation on guarantees and contingent liabilities

This provision usually limits guarantees and other contingent liabilities of the company either absolutely or to a certain dollar amount. The allowable dollar amount may be stated as a percentage of some variable such as net tangible assets. Exceptions are usually made for guarantees and other contingent liabilities in existence at the time of the agreement and those which arise in the normal course of business.

Lenders' viewpoint: A guarantee places a contingent senior obligation on the company which may result in a cash drain at an inopportune time. Consequently, guarantees need to be limited for the same reason other senior indebtedness needs to be limited.

Borrower's viewpoint: Existing commitments should be preserved and enough room left in the dollar limitation to cover planned transactions.

(viii) Limitation on sale and lease-back transactions

Sale and lease-back transitions are usually prohibited or only permitted to a modest ceiling. If agreements do not specifically restrict sale and lease-back transactions they are usually limited by the protective covenant pertaining to sale of assets, long-term debt or lease obligations.

Lenders' viewpoint: The lender is losing potential collateral and the borrower is, in effect, creating debt. It is reasonable for lenders to forbid major transitions of this type.

Borrower's viewpoint: The borrower may wish to preserve some flexibility to do small sale and lease-backs. The borrower may argue for a dollar limitation subject to the restrictions on lease obligations and the sale of assets.

(ix) Limitations on mortgages, liens and other encumbrances

Any impairment of free and clear title to the company's assets constitutes a lien. This provision is designed to prevent the borrower from incurring liens on its assets. Existing liens and liens arising out of the ordinary course of business are excepted, as are tax liens and other governmental liens, performance deposits and bonds, zoning restrictions, easements, mechanic's liens, etc. The pledging of receivables, inventory or other current assets as security in exchange for credit accommodations is generally prohibited. Normally, purchase money mortgages are a negotiated exception to the restriction on liens. The limitation on purchase

money mortgages is typically stated as a dollar amount or percentage of net tangible assets.

Lenders' viewpoint: Liens on a company's real or personal property can seriously impair the lender's credit position since the value of any asset subject to a lien will be impaired in the event the borrower has difficulty repaying the loan.

Borrower's viewpoint: This is a fairly standard covenant except with respect to purchase money mortgages. Purchase money mortgages often can be a very favourable financing alternative. The limitation should provide flexibility after consideration of planned transactions.

(x) Other protective covenants

Other protective covenants include clauses that are designed to protect the Lender by placing limitations on the actions and operations of the borrower with respect to:

- investments;
- issuance of shares or indebtedness by restricted subsidiaries;
- company's consolidation, merger or disposition of property as an entirety;
- subsidiaries' consolidation, merger or disposition of property as an entirety;
- acquisitions by the company and subsidiaries;
- sale, lease or other disposition by the company or any subsidiary of any substantial part of its assets;
- transactions with shareholders, controlling persons, and affiliates.

(e) Default and remedies

This section describes conditions whereby the agreement goes into default and the remedies available to the lender when default occurs. Five events of default are typically enumerated:

1. default on the payment of principal;
2. default on the payment of interest;
3. default in observing the protective covenants;
4. default in any other covenant, agreement or section of the agreement; and
5. a collection of other contingencies.

These breaches of the loan agreement do not all trigger default in the same way. For instance, no grace period is provided for if a company fails to make a principal payment; the company is in default the day after the payment is missed. However, a grace period of between five and 15 days commonly is allowed in the case of interest payments.

On the other hand, breaches of the protective covenants, like failure to make principal repayments, result in immediate default.

Other breaches are not enforced unless the lenders serve written notice to the company demanding that the breach be cured. If the problem is not resolved in 30 days, default occurs.

Acceleration of maturity means the entire principal amount outstanding, together with accrued interest, is due and payable immediately. The optional prepayment penalty specified elsewhere in the agreement may be required in addition to the principal and accrued interest, provided applicable state law permits.

The first three events of default are clear as stated. The fourth default is a catch-all that provides a method to enforce the affirmative covenants and miscellaneous provisions of the agreement. The fifth and last event of default is a collection of different events that do not necessarily breach any explicit provisions found elsewhere in the agreement, including the following:

1. The borrower or any subsidiary admits in writing its inability to pay debts generally as they become due.
2. The borrower or any subsidiary makes an assignment for the benefit of creditors, or consents to the appointment of a receiver for itself or of the whole or substantial part of its assets.
3. The borrower or any subsidiary consents to bankruptcy, has a petition in bankruptcy filed against it or is adjudicated a bankrupt.
4. The borrower or any subsidiary files a petition or seeks reorganisation or arrangement under the federal bankruptcy laws or any other applicable law.
5. The cross-default clause triggered when a default occurs under any other credit agreement of the borrower or any of its subsidiaries. This provision establishes the most stringent restrictions of any of the borrower's loan agreements as the governing restrictions, and prevents one creditor from acting on a default before other creditors can make their claims.
6. An adverse judgment (if the judgment or the cumulative sum of such judgments is greater than some specified dollar sum) is not paid, stayed or appealed within a reasonable period of time.
7. Any material representation or warranty made by the company in the loan agreement or associated documents is false or incorrect in any material respect.
8. A court orders the dissolution of the company, or the split-up or divestiture of a substantial part of the borrower's assets.

(f) Boilerplate

These provisions establish definitions and procedures for administering the loan. They include:

(i) Modification of the agreement

The provision for amending or waiving portions of the agreement after the closing is reasonably standard and provides that the lender may waive any provision and the borrower may rely on that waiver as long as it is in writing. All rights and provisions not explicitly waived, however, remain in effect. Where more than one lender is involved, provisions may be amended or waived with the consent of some percentage of the notes, between 50 per cent and 100 per cent, and typically $66^{2}/_{3}$ per cent. Changes in some provisions may require approval by every lender, namely:

a. The amount or due date of repayments of principal.
b. The amount and due date of interest payments.
c. The proportion of noteholders required to amend or waive any provision of the loan agreement.

While the loan agreement should be drafted with foresight, nobody has perfect foresight. Unforeseen developments often precipitate the need to modify the agreement. In general, lenders fully expect that the need for modifications will arise and realise that the majority of modification requests are attributable to positive developments. In short, they regard modifications as an important part of administering a loan and most have procedures to assure expeditious decisions on requests.

A large majority of modification requests are approved. In most cases, modifications are approved without a demand for a quid pro quo (eg, an increase in the interest rate). While their viewpoints differ, in general, lenders only require a quid pro quo in cases where the modification is necessitated by a deterioration in the borrower's financial condition or the lender will otherwise be exposed to increased risk.

Lenders are interested in maintaining good relations with borrowers. Reasonable and expeditious handling of requested modifications strengthens the lender's relationship with the borrower.

(ii) Definitions

This is a particularly important section of the agreement. It defines all the significant terms used elsewhere in the agreement such as current assets, net tangible assets, funded debt, fixed charges and net income. Most of these terms are used in establishing protective covenants. Of course, in order to negotiate the protective covenants, the borrower must have a thorough understanding of the definitions of these terms.

(iii) Expenses of the financing

Normally the agreement provides that the borrower will pay all reasonable expenses of the transaction, including the fee for the lender's special counsel and any printing costs. As noted earlier,without supervision, attorneys will sometimes drag out negotiations and run up fees they know their clients will not have to pay. Emphasis that legal fees are to be 'reasonable' is important.

Notes and references

1. See Harry Lund, Robert Sibert & Phillip Chamberlain (eds), *Private Placements,* Euromoney 1984.

13

Equipment leases in the United States

1. Leases of capital equipment in the United States

The use of a lease to finance most of the equipment and facilities of a project may convert the financing into a project financing since many of the objectives of a project financing can be achieved by using a lease.

Apart from the use of leasing to achieve a project financing of capital equipment, leases may be used with numerous project financing structures. Consequently, knowledge of leasing is essential to understanding the potential of many kinds of project financing.

Leasing of buildings and real estate is a different subject than equipment leasing. However, the structures and principles used in recent years to finance capital equipment can often be used in financing real estate portions of projects.

Although much of this chapter is devoted to equipment leasing in the United States, persons interested in projects located outside the United States may find some of the information useful, since in the past, leasing ideas, techniques and structures developed in the United States have subsequently found application in other parts of the world.

Euromoney publishes an excellent treatise, *Leasing Finance*, 3rd ed., 1997, that focuses on leasing in the United Kingdom and Europe, that is edited by Chris Boobyer with contributions by many prominent leasing experts in the London market. Euromoney also publishes annual *World Leasing Yearbooks* with current information on equipment leasing in many countries.

(a) Types of equipment leases

The Internal Revenue Code distinguishes between three general categories of equipment leases, which are as follows:

1. Non-tax-oriented leases, called leases intended as security, conditional sale leases, hire-purchase leases, or money-over-money leases.
2. Tax-oriented true leases, which in turn fall into two subcategories:
   a. Single-investor leases (also called direct leases) in which the lessor is at risk for the entire amount of the funds used to purchase the leased equipment.
   b. Leveraged leases (discussed further in Chapter 14), in which at the outset of the transaction the lessor provides a portion of the funds needed to purchase the leased equipment, and borrows the balance of the funds on a non-recourse basis.
3. TRAC leases containing terminal rental adjustment clauses.

A major characteristic differentiating these three types of leases is the type of purchase options available to the lessee. In a true lease the lease term is for less than the economic life of the leased equipment and the lessee has only a fair market value purchase option at the end of the lease term. Hence the lessor is considered to be the true owner of the leased equipment. In a conditional sale lease, the lessee either has a nominal fixed-price purchase option or the lease automatically passes title to the lessee at the end of the lease. TRAC leases are a special category of leases

for over the road vehicles that retain the characteristics of a true lease even though they contain the equivalent of fixed-price purchase options for the lessee and a put option for the lessor.

A fourth type of lease are synthetic leases discussed in Chapter 15. Synthetic leases are off balance sheet leases for the lessee in which the lessee retains tax benefits associated with ownership.

(b) Identity of lessors

There are three categories of lessors involved in project financing:

1. Third party leasing companies offering true leases and conditional sale leases to projects.
2. Vendors interested in selling equipment to the project which provide lease financing as an inducement to completion of a sale.
3. Sponsors or parties interested in the completion of a project, and providing leases as a means of moving capital into the project.

2. The non-tax-oriented lease or conditional sale lease

Instalment financing for equipment is sometimes accomplished through an instrument called a conditional sale lease.

A non-tax-oriented lease (or conditional sale lease) usually either gives the lessee a bargain purchase option or renewal option not based on fair market value at the time of exercise or requires the lessee to purchase the equipment for a fixed price at the conclusion of the lease. This type of transaction is regarded by the IRS as a conditional sale or a secured loan, not a true lease. Such a transaction, therefore, transfers all the tax effects of ownership to the lessee and does not generate the lowered lease payments associated with true leases in which the lessor claims the tax benefits.

Generally, the lessee in a non-tax-oriented lease is considered to have legal title as well as being considered the owner for tax purposes. However, this is not always the case since the test for a true lease for legal purposes has been held by some courts to be more liberal than the test for a true lease for tax purposes. For example, conditional sale leases for tax purposes include leases for a term that is more than 80 per cent of the original useful life of the leased property, or leases in which the estimated fair market value of the leased property at the end of the lease term is less than 20 per cent of the original cost. In some instances the lessor under such circumstances might be considered to be the owner for legal purposes.[1]

The lessee under a conditional sale lease treats the property as owned, depreciates the property for tax purposes, and deducts the interest portion of rental payments for tax purposes. The lessor under a conditional sale lease treats the transaction as a loan and cannot offer the low lease rates associated with a true lease since the lessor does not retain the ownership tax benefits of depreciation.[2]

Equipment financing offered by vendors is often in the form of a conditional sale lease.

Most leasing done outside the United States is structured in a manner which is similar to a conditional sale lease, although the tax implications may not be the same.

3. The US tax-oriented true lease

The purchase, ownership and use of capital equipment involves the following cash flows:

1. The operating cash flows consisting of the cash flows the equipment will generate.
2. The cash flows associated with tax ownership consisting of MACRS tax deductions for depreciation. (In rare instances, investment tax credit or energy tax credits may also be available.)
3. The financing cash flows of interest and principal payments and tax deductions for interest expense.

Tax-oriented leases, called true leases, repackage those cash flows and redistribute them to parties able to most efficiently use them so as to create value for the lessee and the lessor.

Substantial cost savings in project financing of facilities and equipment located in the United States may be achieved through the use of a tax-oriented true lease in which the lessor claims and retains the tax benefits of ownership consisting of MACRS tax depreciation deductions, and passes through to the lessee most of such tax benefits in the form of reduced rentals. This type of lease is called a true lease for tax purposes. The lessor claims depreciation deductions and the lessee deducts the full lease payment as an expense.

The lessor in a true lease owns the leased equipment at the end of the lease term, subject to a fair market value purchase option of the lessee.

The intent of the parties as evidenced by the facts is the key test for determining whether a transaction constitutes a true lease, on the one hand, or a conditional sale or loan, on the other. As indicated previously, a purchase option based on fair market value rather than a nominal purchase option is a strong indication of intent to create a lease rather than a conditional sale or lease. The test is whether the interest of the lessor in the leased property is a proprietory interest with attributes of ownership rather than a mere creditor's security interest in the leased property.

A lease generally qualifies as a true lease if all the following criteria are met:

1. At the start of the lease, the fair market value of the leased property projected for the end of the lease term equals or exceeds 20 per cent of the original cost of the leased property (excluding front-end fees, inflation, and any cost to the lessor for removal).
2. At the start of the lease, the leased property is projected to retain at the end of the initial term a useful life that (a) exceeds 20 per cent of the original estimated useful life of the equipment and (b) is at least one year.
3. The lessee does not have a right to purchase or release the leased property at a price that is less than its then fair market value.
4. The lessor does not have a right to cause the lessee to purchase the leased property at a fixed price.
5. At all times during the lease term, the lessor has a minimum unconditional 'at risk' investment equal to at least 20 per cent of the cost of the leased property.
6. The lessor can show that the transaction was entered into for profit, apart from tax benefits resulting from the transaction.
7. The lessee does not furnish any part of the purchase price of the leased property and has not loaned or guaranteed any indebtedness created in connection with the acquisition of the leased property by the lessor.

Additional criteria and guidelines for true leases are described in Revenue Ruling 55-540 and Revenue Procedures 75-21, 75-28, and 76-30, which are discussed in detail later in this chapter.

(a) How true leasing works

The lessee first makes a decision about its equipment needs. The lessee determines the manufacturer or contractor. Any special features or design specifications desired, the terms of warranties, guarantees, delivery, installation, and services are further specified by the lessee at the outset. The lessee also negotiates the price.

After the equipment and terms are specified, the lessee enters into a lease agreement with the lessor.

The lessee negotiates with the lessor the term of the lease, the rental, capitalised costs, whether sales tax, delivery and installation charges should be included in the lease, and other optional considerations.

After the lease is signed, the lessee assigns its purchase rights under the sales contract to the lessor, who then buys the equipment exactly as specified by the lessee. When the property is delivered, tested and formally accepted by the lessee, the lessor pays for the equipment, and the lease goes into effect. Rentals are net to the lessors. Taxes, service, insurance and maintenance are the responsibility of the lessee.

(b) Principal advantage is low cost

The principal advantage of using a true lease to finance an equipment acquisition for a project is the economic benefit which comes from the indirect realisation of tax benefits which would be otherwise lost. If the project is unable to generate a sufficient tax liability to use fully the accelerated depreciation deductions, the cost of owning new equipment will effectively be higher. Under these conditions leasing is a less costly alternative, as the lessor uses the tax benefits from the acquisition, and passes on most of these benefits to the lessee project through lower lease rentals.

(c) Rationalisation of the loss of residual

The lower cost of leasing realised by a project lessee throughout the lease term in a true lease must be weighed against the loss of the leased asset's residual value at the end of the lease term. Using a discounted cash flow method of analysis to evaluate the tax and timing effects, the present value of the residual value loss is diminished relative to the accrued cash flow benefits, as its realisation is postponed until some future period. In an absolute sense, the give-up of residual

value is of small significance as long as the lease term constitutes a substantial portion of the economic life of the asset, and renewal options permit continuity of control for its economic life.

4. Internal Revenue code requirements for a true lease

The Internal Revenue Service rulings distinguish between transactions which are true leases and transactions which are conditional sales. Revenue Ruling 55-540 (1955-2 Cum. Bull.39) states:

> 'Whether an agreement, which in form is a lease, is in substance a conditional sales contract depends upon the intent of the parties as evidenced by the provisions of the agreement, read in light of the facts and circumstances existing at the time the agreement was executed. In ascertaining such intent no single test, nor special combination of tests, is absolutely determinative. No general rule, applicable in all cases, can be laid down. *Each case must be decided in the light of its particular facts* [emphasis added].'

Although Revenue Ruling 55-540 has been largely superseded and refined by Revenue Procedure 75-21 et seq., from an historical standpoint six factors outlined in Revenue Ruling 55-540, which indicate a transaction is a conditional sale rather than a true lease, should be noted:

(a) Portions of the periodic payments are specifically applicable to an equity interest in the leased asset to be acquired by the lessee.
(b) The lessee will acquire title to the leased asset upon payment of a stated amount of rentals which the lessee is required to make under the contract.
(c) The total amount which the lessee is required to pay for a relatively short period of use of the leased asset constitutes an inordinately large proportion of the total sum required to be paid to secure transfer of title.
(d) The agreed rental payments materially exceed the current fair rental value. This may be indicative that the lease payments include an element other than compensation for the current use of property.
(e) The leased property may be acquired under a purchase option at a price which is nominal in relation to the fair market value of the property at the time when the option may be exercised, as determined at the time of entering into the original agreement, or which is a relatively small amount when compared with the total payments which are required to be made.
(f) Some portion of the periodic payment is specifically designated as interest or is otherwise recognisable as the equivalent of interest.

The above were the only official Internal Revenue criteria for determining whether a transaction was a true lease until 1975, when the Internal Revenue Service issued guidelines in Revenue Procedure 75-21 for obtaining favourable private Revenue rulings on leveraged true lease transactions. While these guidelines are defined as applicable to ruling requests for leveraged leases and are stricter than substantive law relating to true lease requirements, many tax counsel are of the opinion that the Internal Revenue Service will use these guidelines on audit in determining whether either a leveraged lease or a direct lease qualifies as a true lease. Indeed, true leases are sometimes referred to as guideline leases.

The guidelines contained in Revenue Procedure 75-21 for qualifying a leveraged lease transaction as a true lease are summarised below.

(a) 20 per cent minimum at-risk investment

The lessor is required to make or to be unconditionally obligated to make a 20 per cent minimum at-risk equity investment at the beginning of the lease when the equipment is placed in service and is required to maintain a minimum at-risk equity investment throughout the lease term. The lessor's investment can be provided with funds borrowed on a recourse basis as well as with the lessor's own funds.

The lessor's minimum 20 per cent at-risk investment required under Revenue Procedure 75-21 will be satisfied if the excess of (a) the rents required to be made by the lessee to or on behalf of the lessor over (b) the cumulative disbursements required to be made by or for the lessor in connection with the ownership of the property (debt service), but not including the initial equity investment, is never greater than the sum of the excess, if any, of the lessor's initial equity investment over the 20 per cent minimum investment and the cumulative pro rata portion of the projected profit from the transaction, excluding tax benefits. Generally, compliance with the 20 per cent minimum investment requirement is not a problem since optimum debt to equity ratios usually result in equity in the range of 20 to 25 per cent.

It should be noted that some tax counsel are of the opinion that as little as a 15 per cent investment is sufficient based on historic precedent.

The lessor must not be entitled to a return of any portion of its investment through any arrangement with the lessee or any member of the lessee group.[3] This requirement prohibits 'unwind' agreements if the transaction is closed and some event that is a condition of the agreement and is to be satisfied after closing does not take place. The condition might, for example, relate to the productive capacity of a facility, the obtaining of an environmental permit, or even the obtaining of a tax ruling. It makes no difference that the event is beyond the control of the lessor. Prior to Revenue Procedure 75-21, unwind agreements were commonly used.

The lessor in such a situation can protect itself from performance failures by means of construction bonds, holdbacks, or rental adjustments tied to performance. Bonds or political risk insurance may be available to protect against a failure to obtain environmental permits. The lessor may have a right to recover its investment from a person not a member of the lessee group, such as the contractor or the manufacturer of the facility or equipment.

(b) 20 per cent residual value

A reasonable estimate of the expected fair market value of the leased equipment at the end of the lease term must be equal to at least 20 per cent of the original cost of the equipment without taking into account inflation or deflation during the lease term and net of the lessor's cost of removal and delivery of possession of the leased equipment at termination. However, the lease may require the lessee to dismantle and transport the equipment to some location.

(c) 20 per cent remaining useful life

A reasonable estimate of the remaining useful life of the leased equipment at the end of the lease term must be at least one year or at least 20 per cent of the originally estimated useful life of the leased equipment, whichever is longer. The useful life of equipment means the period of time during which the equipment can be useful to either the lessee or a third party; useful life is not limited to the period of time during which the equipment is useful to the lessee.

(d) Lease term includes renewal periods

The lease term for purposes of the foregoing tests of residual value and remaining useful life includes all fixed and optional renewal periods, except renewal periods that are at the option of the lessee at fair market value rental.

(e) No purchase option except at fair market value

Neither the lessee nor any member of the lessee group may have any contractual right to purchase the property from the lessor at a price less than the fair market value at the time that such right may be exercised. Fixed-price purchase options are prohibited by Revenue Procedure 75-21[4] even if they are based on an estimate of the expected fair market value at the time such purchase options may be exercised, although purchase options based on the higher of a fixed-price or the fair market value at the time of exercise are permitted.

As a practical matter most tax counsel have no difficulty giving favourable opinions that a leveraged lease qualifies as a true lease even though the lease contains a fixed-price purchase option which is based on a reasonable estimate of fair market value at the conclusion of the lease, taking estimated currency inflation factors into account. There is case law to support this. The estimate of fair market value should be supported by an independent appraisal. Also, favourable letter rulings have been issued for non-leveraged leases containing fixed-price purchase options that were based on an estimated fair market value.[5]

(f) Lessor put prohibited

The lessor must not have any contractual right to require the lessee or any party to purchase the property at any price, including the fair market value except under default or casualty loss provisions. The lessor must not have any right to abandon the property but, as noted earlier, may require the lessee to dismantle and transport the equipment to some location at the lessee's expense. The lessee cannot be economically compelled to purchase the leased asset because of difficulty in removal or contractual obligation to a third party of which the lessor is aware.

The prohibition against puts apparently does not prohibit residual value insurance running to the benefit of the lessor.

(g) Lessee may not provide any part of cost of leased equipment

The lessee or any related party may not provide any part of the original cost of the leased equipment. The lessee is also prohibited from paying any part of the cost of improvements or additions to the leased equipment, other than severable improvements, which are defined to be improvements to leased equipment that are owned by a member of the lessee group and are readily removable without causing material damage to the leased equipment. All other improvements are considered to be non-severable improvements.

Expenses related to the transaction, such as legal expenses of the equity participants and lenders, debt placement fees, and printing expense, are regarded as part of the cost of the leased equipment and must be capitalised and financed as part of the lease and not paid directly by the lessee.

If material non-severable improvements to the equipment are made and paid for by the lessee during the lease term. The Internal Revenue Service may require that the lessor agree to recognise the cost of any such improvements as taxable income. Revenue Procedure 79-48 sets out instances where the IRS will not require the lessor to take such non-severable improvements into income. Revenue Procedure 79-48 provides that the lessee or a member of the lessee group may pay for a non-severable improvement under the following circumstances:

1. The improvement is not needed to complete the equipment for its intended use by the lessee.
2. The lessee or members of the lessee group do not acquire an equity interest in the leased equipment as a result of paying for the improvement.
3. The improvement does not cause the equipment to become limited-use property.

In addition, at least one of the following conditions must be met:

1. The improvement must be required by certain governmental standards.
2. The improvement must not substantially increase the capacity or productivity of the leased property or modify the leased property so that it can be employed for a materially different use.
3. The cost of the improvement is less than 10 per cent of the original cost of the leased property (adjusted for inflation).

The requirements of Revenue Procedure 79-48 prohibiting the lessee from paying for the cost of improvements are contrary to established precedents, and tax counsel may be willing to provide opinions to the contrary where a ruling is not sought.

(h) Lessee may not lend or guarantee indebtedness

All members of the lessee group are prohibited from lending the lessor any of the funds necessary to acquire the leased equipment or from guaranteeing any indebtedness (including the leveraged debt) created in connection with the acquisition by the lessor of the leased equipment.

On the other hand, members of the lessee group are permitted to guarantee the lessee's obligations to pay rent, to maintain the leased equipment, to pay insurance premiums, and to meet other conventional obligations of a net lease. This seems inconsistent, since guaranteeing the lessee's lease obligations is the equivalent of guaranteeing the leveraged debt, except in certain bankruptcy situations.

The guidelines as published appear to permit third party guarantees of the debt and of the lessee's lease obligations. These guarantees may be in the form of letters of credit, residual insurance guarantees, and government agency guarantees, although the IRS has been reluctant to rule on guarantees of these kinds.

The IRS has ruled favourably where government guarantees were involved or where letters of credit were issued for the lessor's account and for the lenders' benefit and gave the issuer no rights against the lessee.[6]

(i) Lessor must have profit motive

The lessor must represent and demonstrate that it expects to receive a profit from the transaction apart from any tax benefits but including the residual value of the equipment. The profit test is intended to prove that the lease transaction will produce at least a modest profit for the lessor apart from the tax benefits. The profit test is satisfied if the aggregate rents and payments required by the lessee over the lease term plus the anticipated residual value at the end of the lease term exceed the total disbursements that the lessor must make to finance the purchase of the leased equipment and its equity investment in the leased equipment, including any costs directly incurred to finance such equity investment.[7] The costs of general borrowings used to finance the lessor's equity investment are not included.

(j) Transaction must generate positive cash flow of lessor

The lessor must represent and demonstrate that its aggregate cash receipts under the lease will exceed its aggregate cash disbursements during the lease by a reasonable minimum amount. The Internal Revenue Service has informally indicated that this test will be satisfied by an average annual return of 2 per cent on the equity investment. Disbursements include any costs incurred to directly finance the lessor's equity investment.

(k) Uneven rents limited or prohibited

While uneven rent will not affect the status of the lease as a true lease, if the rent for any year is more than 10 per cent above or below the average rental level, a ruling must be requested as to whether any of the uneven rent is prepaid or deferred rent. If the test is not satisfied and rent is in effect prepaid, the prepaid rent is not currently deductible by the lessee, and if rent is deferred, the deferred rent is currently includable in the lessor's income.[8]

(l) Revenue Procedure 75-28

Revenue Procedure 75-28 elaborated on the application of the guidelines set forth in Revenue Procedure 75-21 and on the information required to be filed in connection with applications to the IRS for rulings. It is specifically mentioned here because it should be consulted if the reader contemplates applying for a ruling.

(m) Limited-use property; Revenue Procedure 76-30

In order to obtain an advance ruling in a leveraged lease transaction, it is necessary to establish to the satisfaction of the IRS that 'the use of the property at the end of the lease term by the lessor or some other person, other than a member of the lessee group, who could lease or purchase the property from the lessor, is commercially feasible on the basis of present knowledge and generally accepted engineering standards.' In other words, the leased property must not be limited-use property valuable only to the lessee. Examples of limited-use property include custom-made pollution control equipment, smokestacks, and non-movable equipment with no access for supplies of feed stock, raw material, energy, or fuel or no casements or means of egress for production.

Revenue Procedure 76-30 amplified Revenue Procedures 75-21 and 75-28 on the definition of limited, use property. Six examples of different kinds of equipment that either does or does not constitute limited, use property are contained in Revenue procedure 76-30. Because of the importance and complexity of this issue, these examples are reproduced below in their entirety.

> '(1) X builds a masonry smokestack attached to a masonry warehouse building owned by Y, and leases the smokestack to Y for use as an addition to the heating system of the warehouse. The lease term is 15 years; the smokestack has a useful life of 25 years; and the warehouse has a remaining useful life of 25 years.
>
> It would not be commercially feasible to disassemble the smokestack at the end of the lease term and reconstruct it at a new location. The smokestack is considered to be limited-use property.
>
> (2) X builds a complete chemical production facility on land owned by Y and leases the facility to Y, a manufacturer of chemicals. The lease term is 24 years, and the facility has a useful life of 30 years. The land is leased to X pursuant to a ground lease for a term of 30 years.
>
> The technical know-how and trade secrets Y possesses are necessary elements in the commercial operation of the facility. At the time the lease is entered into, no person who is not a member of the lessee group possesses the technical know-how and trade secrets necessary for the commercial operation of the facility.
>
> The taxpayers submit to the Service the written opinion of a qualified expert stating it is probable that by the expiration of the lease term of the facility third parties who are potential purchasers or lessees of the facility will have

independently developed such know-how and trade secrets.

The facility is considered to be limited-use property. In reaching this conclusion, the Service will not take into account such expert opinion because such opinions are too speculative for advance ruling purposes.

(3) The facts are the same as in the example set forth in subsection (2) except X has an option, exercisable at the end of the lease term of the facility, to purchase from Y the know-how and trade secrets necessary for the commercial operation of the facility, and it would be commercially feasible at the end of such lease term for X to exercise the option and operate the facility itself. The facility is not considered to be limited-use property.

(4) The facts are the same as in the example set forth in subsection (2) except it would be commercially feasible for the lessor at the end of the lease term to make certain structural modifications of the facility that would make the facility capable of being used by persons not possessing any special technical know-how or trade secrets.

Furthermore, if such modifications were made, it would be commercially feasible, at the end of the lease term, for a person who is not a member of the lessee group to purchase or lease the facility from X. The facility is not considered to be limited-use property.

(5) X builds an electrical generating plant on land owned by Y and leases the plant to Y. The lease term is 40 years, and the plant has an estimated useful life of 50 years. The land is leased to X pursuant to a ground lease for a term of 50 years. The plant is adjacent to a fuel source that it is estimated will last for at lease 50 years.

Access to this fuel source is necessary for the commercial operation of the plant, and Y has recently obtained the contractual right to acquire all fuel produced from the source for 50 years. Y will use the plant to produce and generate electrical power for sale to a city located 50 miles away. The plant is synchronised into a power grid that makes the sale of electrical power to a number of potential markets commercially feasible.

It would not be commercially feasible to disassemble the plant and reconstruct it at a new location. The electrical generating plant is considered to be limited-use property because access to this fuel source held exclusively by Y is necessary for the commercial operation of the plant.

(6) The facts are the same as in the example set forth in subsection (5) except X has an option, exercisable at the end of the lease term of the plant, to acquire from Y the contractual right to acquire all fuel produced from the fuel source for the 10-year period commencing at the end of such lease term.

It would be commercially feasible at the end of such lease term for X to exercise this option. Furthermore, it would be commercially feasible, at the end of such lease term, for a person who is not a member of the lessee group to purchase the contractual right to the fuel from X for an amount equal to the option price and purchase or lease the plant from X. The plant is not considered to be limited-use property.'

(n) Sharing residuals with brokers

Another issue that has arisen in the application of Revenue Procedure 75-21 in obtaining advance rulings from the IRS relates to the treatment of residual sharing agreements with brokers.

The IRS now seems willing to rule that residual sharing agreements with lease brokers that are applicable only to amounts in excess of 20 per cent of the original cost of the equipment will not affect the status of the transaction as a lease so long as the broker gets no more than a portion of the residual above the 20 per cent floor.

(o) Methods used to minimise residual value risk by lessees

Although Revenue Procedure 75-21 indicates that a Revenue Ruling will not be given if a lease contains a fixed-price purchase option, as discussed previously, many tax counsel are of the opinion that a fixed-price purchase option that reflects the expected fair market value at the conclusion of the lease is permissible under case law. Since under another provision of Revenue Procedure 75-21 supported by case law the minimum expected residual value permissible is 20 per cent of the original cost without regard to inflation, the minimum fixed-price purchase option available is at a price which is equal to at least 20 per cent of original cost plus an inflation factor for the term of the lease. As a practical matter, fixed-price purchase options under this approach are rarely less than 40 per cent of the original cost of the leased equipment.

In view of the fact true leases cannot contain fixed price purchase options (except as discussed above), lessees and lessors have attempted to minimise risk to the lessee in a number of ways which sometimes skirt the edges of Revenue Procedure 75-21. Some of these methods (which should be reviewed with tax counsel before use) are as follows:

1. A fixed rate renewal option at 50 per cent of the original base period rental rate, so long as the sum of the base term and renewal term does not exceed the useful life requirement or the 20 per cent residual value requirement.
2. Evergreen renewal options, which involve renewals based on new appraisals of estimated remaining useful life at the end of each renewal period.
3. Insurance coverage from a third party that the value of the residual will not exceed a certain amount.
4. Arbitration clauses to arrive at fair market value.
5. Right of first refusal on sale of residual running to the benefit of the lessee. A variation of this couples a right of first refusal to the lessee with the right to not have the equipment sold to certain named parties such as competitors. These kind of provisions discourage third party bidders. They may also raise legal and tax problems and should be reviewed based on the facts in a particular case.
6. Negotiation of provisions regarding removal expenses and place of delivery can put a burden on the lessor which will lower the value of the equipment to the lessor.

Obviously the 20 per cent residual requirement and 80 per cent useful life requirement and other requirements of Revenue Procedure 75-21 must usually be met. Nevertheless, the bargaining position of the lessee can be improved in many situations.

(p) Three-month window

The Internal Revenue Code provides that within three months of the time a taxpayer places equipment in service,[9] the taxpayer can arrange a sale and lease-back of the property on a basis whereby the lessor can treat the property as new property for federal income tax purposes and consequently can claim MACRS depreciation on the leased equipment as if it were new equipment.

Prior to this change in the law, equipment was not considered new and was not eligible for the ITC unless the lessor clearly owned it at the time it was originally placed in service. Consequently, lessees and lessors had to be especially careful to see that equipment was not placed in service by the lessee or anyone else before the lessor acquired title. This resulted in inefficiencies and needless administration expense for lessees and lessors. One method used to prove compliance was to create a record of a purchase order assignment and invoices naming the lessor as purchaser. The three-month window remedied some of the administrative problems, but it also raised sales and use tax questions as well as legal lien problems, discussed later in this chapter.

The three-month window as amended by the Deficit Reduction Act does not permit warehousing a lease transaction by a broker for resale or assignment to another lessor within three months.

With the repeal of ITC, the importance of the three-month window has declined, but it may still be useful in certain situations involving MACRS.

(q) sale and lease-back transactions

Any sale and lease-back transactions of used property under state law, including transactions under the three-month window provision described above, should be concerned with liability for state sales or use tax. Three potential taxable transactions occur: the initial purchase by the user; the sale to the lessor; and the lease-back to the user. Many states take the position that lease rentals are taxable on a sale and lease-back transaction even though the lessee paid a sales tax on the original purchase.

Sale and lease-back transactions must be approached cautiously in any event. Careful title lien searches should be made. State statutes should be researched to assure compliance with usury laws and bulk sales laws. The lessee's loan agreements should be checked to make sure that sale and lease-backs are not prohibited or do not result in the violation of ratio restrictions. While sale and lease-backs are very legitimate commercial transactions, they are sometimes used by companies as last-resort financing, so credit analysis should be especially stringent in such cases.

(r) Practicality of obtaining a ruling

One of the effects of Revenue Procedure 75-21 has been to sharply reduce the number of requests for Revenue Rulings. The voluminous data required for ruling requests has discouraged structures that do not meet the strict requirements of Revenue Procedure 75-21. Furthermore, if the requirements of 75-21 are clearly met, there is little point in obtaining a ruling. If the requirements of 75-21 are not met, an unfavourable ruling flags the transaction for tax audit. Under these circumstances, lessors and lessees now usually rely on the opinion of tax counsel when entering into an equipment lease transaction that is not in strict conformity with Revenue Procedure 75-21.

(s) Congressional endorsement of revenue procedures

The legislative history contained in the congressional reports relating to the Economic Recovery Tax Act of 1981, the Tax Equity and Fiscal Responsibility Act of 1982, and the Deficit Reduction Act of 1984 reviews Revenue Procedures 75-21, 75-28, and 76-30 in some detail. It can be argued that this discussion shows that Congress was on notice and understood those guidelines. It can further be argued that the failure of Congress to change them amounted to an endorsement of the guidelines. Certainly, the Internal Revenue Service is inclined to take that view and will be encouraged to use Revenue Procedure 75-21, 75-28, and 76-30 as audit guidelines, even though they have not been particularly successful when specific guidelines have been challenged in the courts.

(t) Boot transactions

In boot transactions, the lessor pays a fair market value for new property to be leased that is higher than the lessee is obligated to pay or would be able to include in its tax basis. Typically, the lessor purchases from the lessee the lessee's right to acquire the equipment for a price (ie, the boot). The lessee pockets this amount as profit. The lessor's tax basis is the total purchase price of the equipment plus the amount paid to the lessee. The lessor claims MACRS on this tax basis. The rents paid by the lessee are calculated on the basis of the total cost to the lessor of acquiring the leased equipment, including, of course, the boot.

Boot transactions arise where for inflationary or other reasons the fair market value of equipment at the time of delivery is significantly higher than the contract price that the lessee is obligated to pay. Boot transactions have occurred in recent years in the case of commercial aircraft, executive aircraft, and satellites.

A major risk in a boot transaction is whether the lessor's tax basis is correct. This depends on whether the lessor's tax basis reflects the actual fair market value of the property at the time of its acquisition by the lessor. The lessor's basis should be supported by independent appraisals of qualified appraisers.[10] If any question exists, the lessor should seek indemnification of the price from the lessee.

(u) Uneven rent under Section 467 of the Deficit Reduction Act of 1984

Prior to the Deficit Reduction Act of 1984, the IRS permitted uneven rents if the annual rent for any year was no more than 10 per cent above or below the average annual rents for the initial period and, during the remainder of the lease term, was no more than the highest annual rent for any year during the initial period of the lease term and no less than one-half of the average annual rent during that period. However, Section 467 of the Internal Revenue Code, added by the Deficit Reduction Act of 1984, has raised serious questions regarding the permissibility of uneven rents, and these questions require clarification by IRS regulation. Under Section 467, it appears that a cash basis lessor cannot have uneven rents unless the IRS issues regulations clarifying (or modifying) the language of Section 467. The IRS is focused on Section 476, and advice of tax counsel should be sought where this issue arises.

If the rentals are too high in the early years and too low in the later years, the excess rentals constitute prepaid rent, so that the lessee will be required to defer its deduction for excess rentals in the early years until later years, while the lessor may be required to recognise the full rental payments in the early years. On the other hand, if the rentals are low in the early years and high in the later years, the excess rentals in later years may constitute deferred rent, so that the lessee may receive higher rental deductions in the early years, while the lessor may be required to recognise rental income on a level basis, resulting in reduced tax losses in the early years.

Rental adjustments that are based on fluctuations in the interest rate charged on debt will not cause an uneven rent problem, and rentals that fluctuate in proportion to some recognised interest rate index should present no problem.

Uneven rents generally do not affect the true lease status of a transaction unless such rents prevent satisfying other requirements for a true lease.

In view of the uncertainties regarding uneven rents, a closer look at Section 467 is appropriate.

A lessor or lessee that is party to a 'Section 467 rental agreement' must report rental income or deductions using the accrual method of accounting.

A Section 467 rental agreement includes a lease of equipment in which either:

1. some amount allocable to the use of property during a year is to be paid after the close of the calendar year in which such use occurs; or
2. the rent payments increase over the lease term under the lease agreement.

In other words, where rents increase the lessor must report rental income and deductions using the accrual method of accounting.

So long as no tax-avoidance motive is deemed to exist, the modified accrual method is used to reallocate rents. Under this method the amount of rent accruing during any taxable year is determined by:

1. allocating rents in accordance with the lease agreement; and
2. taking into account on a present value basis any rent to be paid after the close of the taxable year.

At this time, in the absence of regulations, it is not clear how expenses related to rent required to be accrued will be treated by a cash basis taxpayer. The open question is whether such expenses may be claimed when they are paid or when they are accrued.

A Section 467 rental agreement can also be a 'disqualified leaseback or disqualified long-term agreement'. In such case a special method of accrual of rents, called 'normalisation', is prescribed. A disqualified leaseback or long-term agreement is defined as an agreement in which the principal purpose of increasing rents is the avoidance of tax and in which the property is leased to either:

1. a person who had an interest in the property within the past two years; or
2. for a term in excess of 75 per cent of the specified statutory recovery period (that is, the applicable ACB period) for such property.

The Internal Revenue Code provides that tax avoidance will not result where:

1. rents increase by reference to some economic or interest rate index beyond the control of the parties;
2. rents are based on a percentage of the lessor receipts (common in real estate leases to retail stores);
3. there are changes in the amounts paid to third parties (floating interest rate debt in a leveraged lease, insurance charges, or property taxes, for example); and
4. there are reasonable rent holidays. (This apparently refers to interim rents.)

The 'normalisation method' of accrual is the amount that, if paid at the conclusion of each lease rental period, would result in a stream of rental payments whose present value, discounted at 110 per cent of the applicable federal rate – under Section 1274(d) – would equal all payments due under the lease. The excess of rents allocated to periods in which they were not paid is taxed as imputed interest income.

At this writing, the Internal Revenue Service has not issued regulations clarifying Section 467. Numerous questions remain to be resolved, including questions involving interim rents.

(v) Tax indemnities

Lease agreements generally provide for an indemnity against the possible loss by the lessor of the income tax benefits the lessor expects to receive. This is true even though a tax ruling is obtained.

From the lessor's standpoint, the lease rate contemplates that the lessor will be able to claim certain tax benefits, and the lease rate should be adjusted upward or a cash settlement made if such tax benefits are not available. The lessor regards its risk as a lending risk, not as a speculative risk on the availability of tax benefits. In the event the tax benefits are unavailable and the lease rate is adjusted accordingly, the lessor regards the lessee as being no worse off than the lessee would have been if the lessee had borrowed instead of leased.

The tax events against which equity participants seek protection include the following:

1. Loss of true lease status.
2. Disallowance of MACRS deductions because of method, recovery period, basis, or change in the law.
3. Recapture of MACRS deductions.
4. Disallowance or recapture of investment tax credit, if applicable.
5. Change in the federal income tax rate.
6. Inclusion in taxable income of the lessor of any item other than rent, including indemnity payments and insurance payments.
7. Disallowance of the lessor's tax basis, particularly where it is based on fair market value in a boot transaction that is above the lessee's original contracted price for the equipment.
8. Changes in the law affecting the availability to the lessor of MACRS deductions, or interest deductions.

The lessee, on the other hand, may regard the lease rate as including some risk factor for changes in tax consequences to the lessor. Usually the lessee wishes to assume responsibility only for its own acts or omissions that may affect the tax benefits available to the lessor. However, since the lessor passes a substantial part of the tax benefits to the lessee and the lessee receives a substantial reduction from the cost of conventional long-term debt financing, the lessee must usually provide some additional degree of tax indemnification.

Needless to say, negotiations over tax indemnities can become lengthy and difficult, in proportion to the risk of adverse tax consequences that either the lessee or the lessor perceives to be present in the transaction.

As a practical matter, smaller leases contain broad tax indemnities protecting the lessor in the boilerplate language, which lessees often do not challenge. Disputes and lengthy negotiations occur in connection with larger leases, and in the final analysis may become pricing issues.

Where the lessor does suffer a loss as a result of some event covered by the tax indemnities provisions, the method for computing the indemnity payment is spelled out in the lease agreement. While a variety of methods are used to compute the indemnity payment due under various circumstances, the objective is always to pay the equity participants amounts sufficient to compensate them for loss of the expected tax benefits. This includes a gross up computation so that the equity participants are paid amounts sufficient to pay additional income tax that may be due by reason of the indemnity payment. The lessee is entitled to a repayment from the equity participant for subsequent refunds or for any recovery of tax benefits arising from the initial loss.

Sometimes a lessee will seek the right to contest the loss of tax benefits. The equity participant rarely gives such a right to the lessee but may be willing to permit the lessee the right to approve any settlements and may be willing to litigate the issue at the lessee's request. In such event, the equity participant retains the right to determine the court, since the choice of forum may affect the contesting of other tax issues unrelated to the leasing transaction. The cost of such litigation may be paid by either the lessee of the lessor or may be shared by both.

(w) Wrap leases

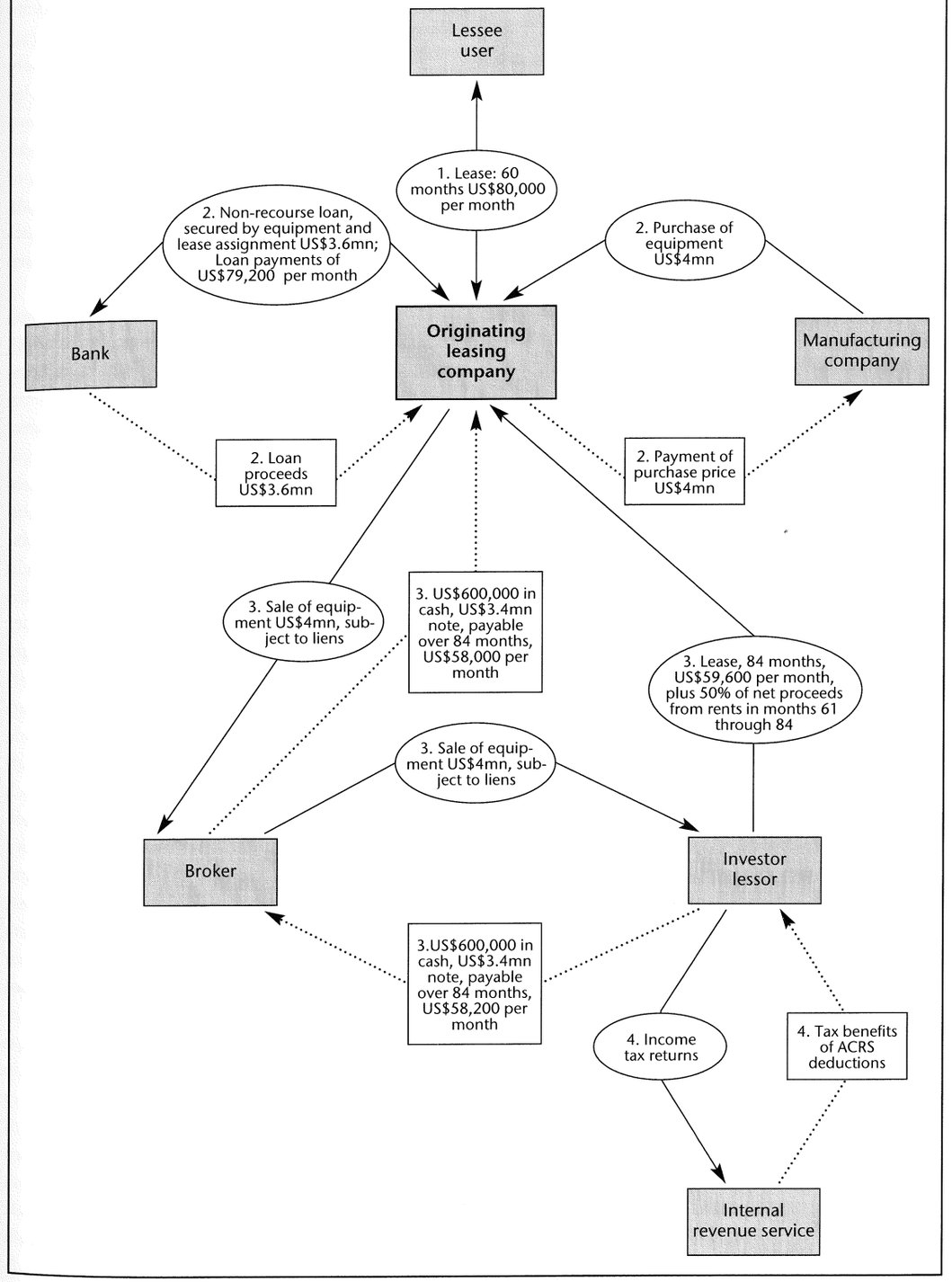
Wrap leases are sometimes used by brokers and leasing companies to finance equipment purchases. They are controversial because the Internal Revenue Service takes the position that some wrap lease structures lack economic substance and do not qualify as true leases.

Exhibit 13.1 illustrates a typical wrap lease structure used for equipment such as an IBM computer, although the same structure could be used for a much larger financing. The steps in structuring a wrap lease identified in the exhibit are as follows:

1. The originating leasing company enters into a lease agreement to lease equipment costing US$4 million to a lessee/user (project company) for a term of 60 months at a rent of US$80,000 per month. The lessor assumes that the equipment will generate lease rentals for 84 months and have a 15 per cent residual after 84 months.
2. The originating leasing company finances the US$4 million purchase price by arranging a 60-month bank loan of US$3.6 million secured by the equipment and an assignment of the lease and the lease payments; the loan payments would be US$79,200 per month.

   At this point, the transaction is a simple lease transaction in which the lessor has financed most of the cost of the equipment with a loan secured by the equipment and lease. The wrap lease results from the addition of the next step.

Exhibit 13.1: Wrap lease



3. A broker locates an investor/lessor with tax shelter objectives. The broker then purchases the equipment from the originating leasing company for US$4 million, subject to liens, and pays the purchase price with US$600,000 in cash and US$3.4 million in a note payable over 84 months in monthly instalments of US$58,000. Simultaneously, the broker sells the equipment, subject to liens, to the investor/lessor for US$4 million payable US$600,000 in cash with the balance payable over 84 months in instalments of US$58,200 per month. And also simultaneously, the originating leasing company enters as lessee into a lease with the investor/lessor for 84 months at a rent of US$59,600 per month, plus 50 per cent of the net proceeds from lease rentals realised from subleases in months 61 through 84, plus the residual value of the equipment.
4. The investor/lessor treats the transaction as a true lease and claims ACRS (tax depreciation) deductions, providing additional cash flow sufficient in the first year to cover the US$600,000 cash payment.

After rights of offset, the net effect is that the originating company has sold its US$400,000 equity for US$600,000. The broker is compensated by the difference between the loan payments paid to the originating leasing company and the loan payments received from the investor. The investor/lessor realises a positive cash flow measured by the difference between the lease payments received and the monthly payments paid the broker. The investor/lessor also realises a one-half share of the rents in months 61 through 84, the residual value net of selling expenses and tax benefits. The originating lessor stands to gain a one-half share of the rents during months 61 through 84 plus fees for remarketing the equipment when it is no longer rented.

In a competitive situation, the driving force for the ultimate pricing of rents under the lease to the lessee user is the price that the wrap lessor charges the originating lease company.

The problem with wrap leases is that the Internal Revenue Service may not recognise that the lessor investor has enough of the benefits and burdens of ownership in a given transaction to be considered the owner and lessor of the lease property.[11] Wrap leases are particularly vulnerable to Internal Revenue requirements for useful life and residual values.

(x) Special rules for individual lessors and closely held corporations

This discussion has been concerned with corporate lessors that are not closely held.

The tax rules applicable to individuals and closely held corporations are different from the general rules applicable to corporations. Individual lessors may have special problems relating to the amount of investment interest that they can deduct under Section 163(d) of the Internal Revenue Code. They may also have tax preference problems resulting from MACRS deductions that would result in imposition of an alternative minimum tax.

The applicability of at-risk limitations under Section 465 of the Code is also an important consideration. Under Section 465 of the Code, individuals and certain closely held corporations cannot deduct losses in excess of the amount that they have at risk with respect to a particular lease transaction.

The net effect of the at-risk limitations on a lessor is that in order to gain the full benefit of the anticipated tax consequences of a leveraged lease transaction, the individual lessor or the closely held corporate lessor is required to assume personal liability for some or all of the leveraged debt. In other words, the economics of non-recourse leverage are simply not available.

The at-risk limitations generally apply to any corporation of which 50 per cent or more of the stock is owned directly or indirectly by five or fewer individuals, after taking into account certain attribution rules.[12]

Furthermore, Section 469 of the Internal Revenue Code, added by the Tax Reform Act of 1986, provides that losses from an active business such as equipment leasing in which the individual is a passive participant can only be deducted against income from such activities in the case of an individual taxpayer, and against such income and active business activities for a closely held non-service corporation.

The net result of these limitations is to make equipment leasing unattractive for most individual investors.

Future outlook

The tax laws applicable to equipment leasing are dynamic. Significant changes occur from time to time as a result of legislation, regulations, and rulings. Tax counsel have become more aggressive in recent years in part because investment tax credit is no longer available and the risks of an unfavourable tax audit smaller. The reader is therefore cautioned to check the current status of the tax laws before proceeding with a large equipment leasing transaction.[13]

5. TRAC leases

The name TRAC lease is derived from the fact that such a lease contains a terminal rental adjustment clause. Properly structured, a TRAC lease can be used to provide a lessee with true tax-oriented lease rates even though the lease contains a TRAC.

(a) Equipment eligible for TRAC leases

TRAC leases can be used to finance motor vehicles used in a trade or business. While the statute is not entirely clear on the subject, the term motor vehicles most likely includes only motor vehicles licensed for highway use. Under this definition, such motor vehicles as trucks, truck tractor and trailer gigs, automobiles, and buses are eligible for TRAC leases. On the other hand, such vehicles as farm tractors, construction equipment, and forklifts probably are not eligible for TRAC leases.

(b) Terminal rental adjustment clause defined

A terminal rental adjustment clause permits or requires an upward or downward adjustment of rent to make up any difference between the projected value and the actual value of a leased motor vehicle upon the sale or disposition of the vehicle.

(c) How a TRAC lease works

At the time a typical TRAC lease is signed, the lessee and lessor agree on a monthly rental and a table of projected residual values for the leased motor vehicles at various agreed dates on which the lease may be terminated. When the lessee terminates the lease, the value of the terminated motor vehicles is determined either by an arm's-length resale to a third party, by agreement between the lessee and the lessor, or by an independent appraisal. If the value at termination is less than the agreed projected value, the lessee pays the lessor the difference. If the value of the equipment at termination is more than the agreed projected value, the lessee may keep all or part of the difference, depending on the terms of the lease agreement.

TRAC leases are sometimes called open-end leases because the liability of the lessee at the end of the lease is open-ended. However, as noted above, the lessee has upside potential if the leased equipment is worth more than the projected residual value.

(d) Except for TRAC clause, a TRAC lease must qualify as a true lease

A TRAC lease must meet the usual Internal Revenue Service requirements for a true lease. The projected termination value cannot be less than 20 per cent of the acquisition cost.

(e) Other IRS requirements

A TRAC lease cannot be structured as a leveraged lease.

Also, in order to qualify under the Internal Revenue Code, a separate written statement separately signed by the lessee must be included in the lease agreement. The statement (1) must contain the lessee's certification (under penalty of perjury) that it intends more than 50 per cent of the use of the leased vehicles to be in a trade or business of the lessee, (2) must clearly specify that the lessee has been advised that it will not be treated as the owner of the lease vehicle for federal income tax purposes, and (3) must not be known by the lessor to be false.

(f) Advantage of TRAC leases

TRAC leases provide lessees of vehicles with the benefits of true lease rental rates while at the same time protecting lessees against the loss of potential

Exhibit 13.2: Simplified method of calculating FAS 13 capital lease test number four

1. Select as a rate the lower of:	
a. Lessor's 'interest rate implicit in the lease'	
b. Lessee's incremental borrowing rate'	_____%
2. Using the rate from (1) above, calculate the present value of minimum lease payments	US$_____
3. Fair value (cost) of leased property	US$_____
4. Tax credit retained by lessor	US$_____
5. Difference [(3)-(4)]	US$_____
6. 90% of difference [90% of 5]	US$_____

If (2) is greater than or equal to (6), then the lease meets this test and is to be classified as a capital lease.

upside residual value. TRAC leases also encourage lessors to take substantial residual values into consideration in pricing rents since lessors are protected against downside risk by the terminal rental adjustment clause. TRAC leases consequently provide lessees with a very attractive cost for the use of leased over-the-road vehicles.

6. Accounting for leases – on-balance sheet or off-balance sheet

(a) FAS 13

The Financial Accounting Standards Board has issued a statement on 'Accounting for Leases', known as FAS 13. This comprehensive report should be consulted in determining the correct classification of leases for financial accounting purposes.

(b) Lessee accounting

From the lessee's perspective, a lease is classified as either a capital lease or an operating lease. This distinction is critical: operating leases are off-balance sheet and capital leases are on-balance sheet.

The present value (but not more than the value of the leased asset) of the original unpaid rentals of a capital lease is reported as an asset and as a liability on the balance sheet of the lessee. The transaction is treated the same as an acquisition of an asset through the use of a loan. Book income is reduced by depreciation and the interest portion of the lease payments. The present value of the lease obligation may be treated as debt for loan covenant and ratio purposes.

On the other hand, an operating lease is not reported as an asset or liability in the balance sheet; only the rental payments are charged to expense in the period incurred. Since lease payments in the early years of a lease are less than the sum of book depreciation and the interest portion of the lease payments, an operating lease will less adversely impact current earnings than will a capital lease.

A lease is classified and accounted for as a capital lease by a lessee if it meets any one of the following criteria:

1. The lease transfers ownership of the property to the lessee by the end of the lease term;
2. The lease contains an option to purchase the property at a bargain price;
3. The lease term is equal to 75 per cent or more of the estimated economic life of the property (this requirement is applicable only to new property; different rules pertain for used property); or
4. The present value of the rentals and the other minimum lease payments are equal to 90 per cent or more of the fair market value of the leased property, less any related investment tax credit retained by the lessor.

All other leases are classified and accounted for as operating leases.

(c) Operating leases

The classification of a lease as an operating lease for a lessee is usually important since this classification permits such a lease not to be capitalised and shown as the equivalent of debt on the lessee's balance sheet for financial accounting purposes. As a practical matter, lessees have been very successful in obtaining the concurrence of their auditors in classifying carefully structured long-term leases as operating leases. However, significant operating leases are generally disclosed in footnotes to the balance sheet as fixed charges.

Operating leases can provide an important source of capital for project financing. Operating leases are typically for a fraction of the life of the asset. The name is derived from the fact that the term was originally used to describe a lease in which a piece of equipment was furnished along with an operator on a lease service arrangement, as, for example, with a piece of construction equipment or a ship or aeroplane.

Operating leases are not usually thought of as financial obligations. However, they can be used as a substitute for capital investment. Since under FAS 13, operating leases for less than 75 per cent of the useful life of an asset are not required to be capitalised as equivalent to debt on the balance sheet of the lessee, operating leases constitute an important source of off-balance sheet financing. However, operating leases are shown in footnotes as fixed charges.

Loan agreements often contain covenants limiting the amounts of finance leases which a borrower can enter into without the consent of the lender. However, operating leases are often not subject to such limitations. Lenders should consider the nature of the operations of the project company and the need to restrict

Exhibit 13.3: Lease classification under FAS 13 from the standpoint of the lessor

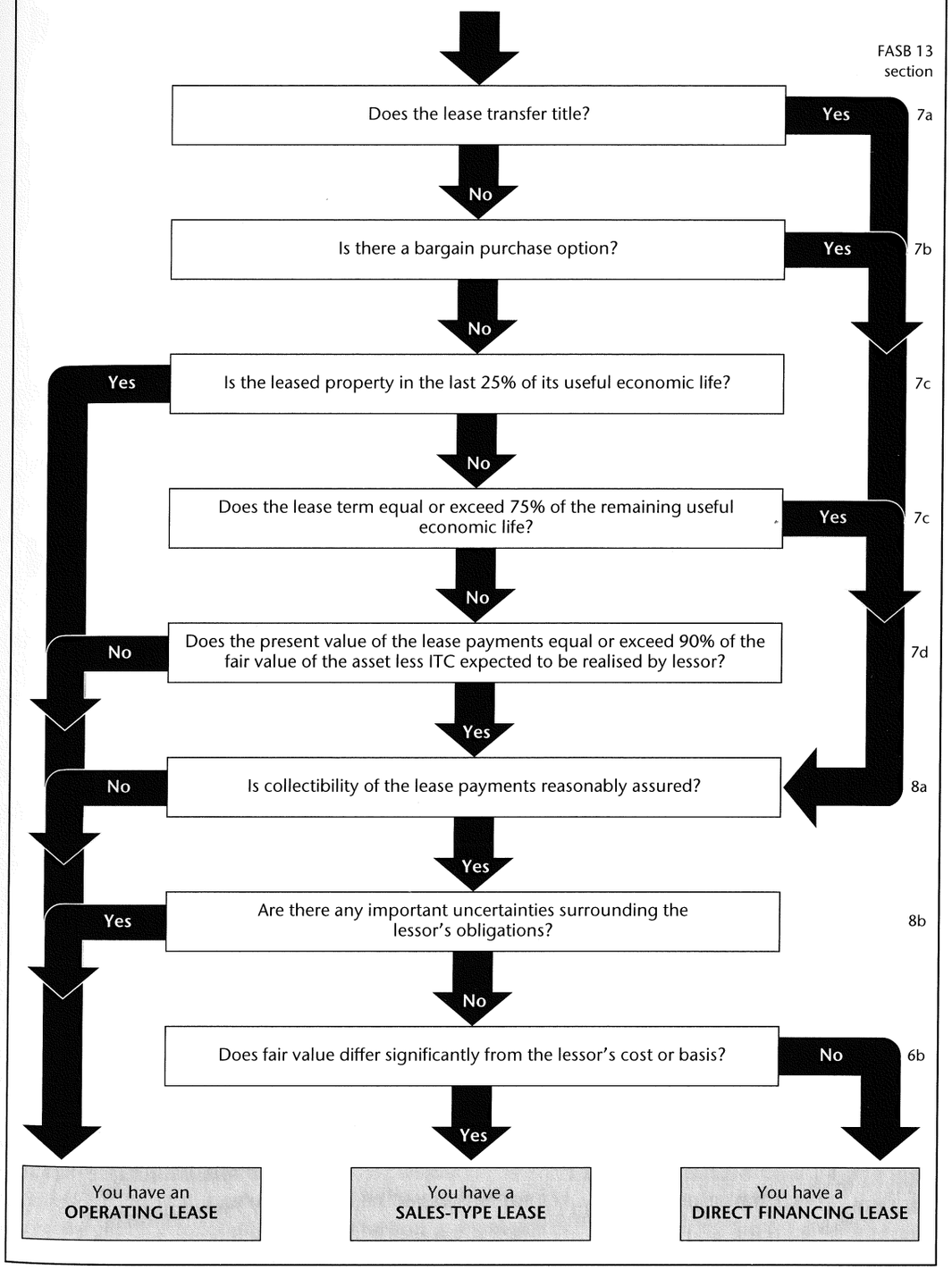
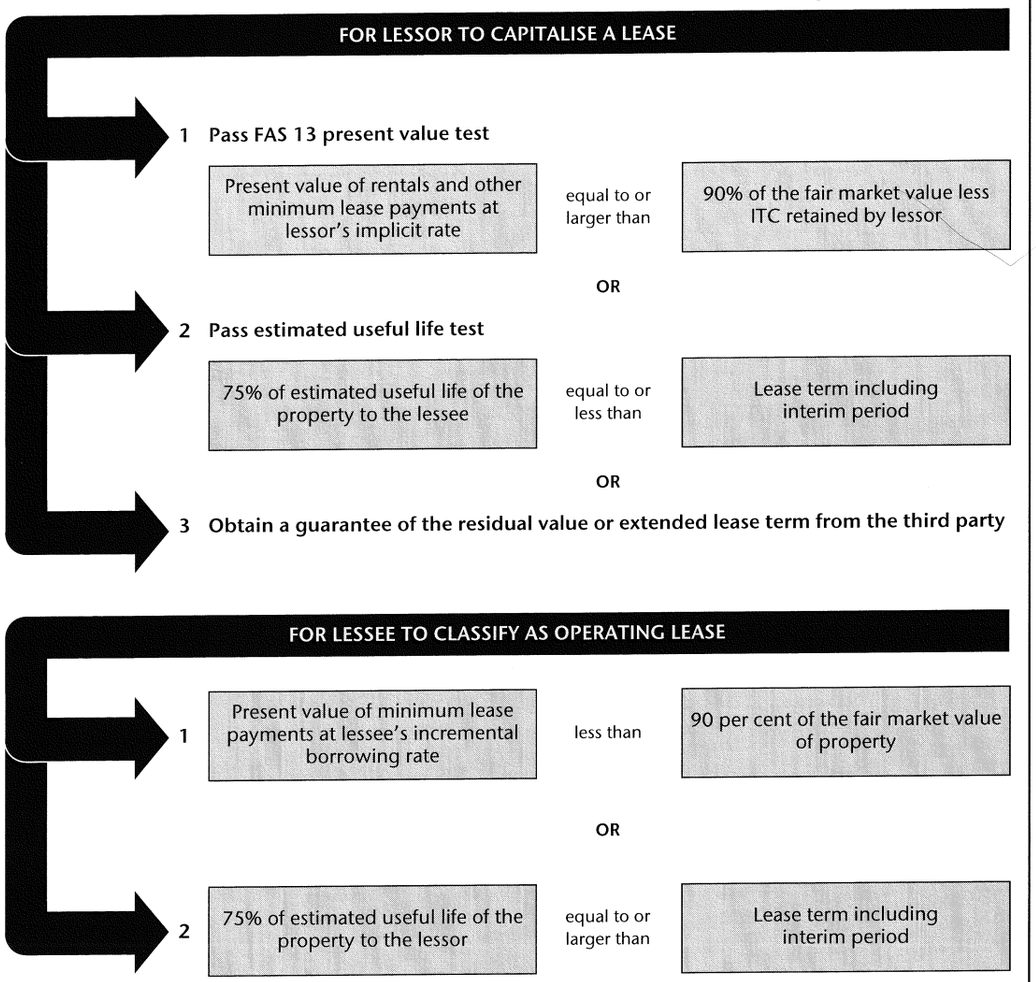


Exhibit 13.4: Lease accounting for lessor and lessees



Note: Lessor and lessee may assume different useful lives

both operating leases and finance leases if such transactions are expected to be significant.

Some appreciation for the amount of operating leases which might be entered into by a project company is apparent if one considers the operating leases of companies engaged in similar kinds of business. An oil company, for example, typically will lease hundreds of millions of dollars of equipment by operating leases which may not show up on their financial statements – eg, Oil tankers, offshore rigs, platforms, equipment on platforms, supply boats, helicopters, construction equipment, truck fleets, tank cars, and tank storage, computers, copying machines and other office equipment – except in a footnote to the balance sheet as a fixed charge.

(d) Lessor accounting

On a lessor's books, leases are classified as direct financing leases or sale-type leases (if manufacturing or dealer profits are involved), provided the lease meets any one of the four criteria for capital leases described above, plus two additional criteria:

1. collectability of the minimum lease payments is reasonably predictable; and
2. no important uncertainties surround the amount of unreimbursable costs yet to be incurred by the lessor under the lease.

For convenience, lessors often refer to direct financing leases or sale-type leases as capital leases. It is important to understand that the term direct financing lease is an accounting term used in FAS 13, and is not the same as a finance lease under the tax laws.

Generally, the lessor recognises income from a capital lease by amortising unearned income over the lease term so as to produce a constant periodic return on the net lease investment.

Leveraged leases are capital leases (direct financing leases) which have the following additional characteristics:

1. three parties (lessor, lessee, long-term lender);
2. long-term debt non-recourse to the lessor; and
3. lessor investment which typically declines during the early years of the lease and rises during the later years of the lease.

A lease which does not meet the criteria for a capital lease (that is, a direct financing lease or a sale-type lease) must be accounted for by a lessor as an operating lease.

Accounting for a lease as an operating lease is generally not acceptable to a lessor engaged in the business of long-term leasing because of the deferral of income which results.

Where it is important to the lessee to have the lease treated as an operating lease for accounting purposes, it is equally important for the lessee to realise that the lessor would normally desire to account for the transaction as a capital lease.

(e) Conflict between the lessee and lessor as to classification of a lease

Thus, in a situation where the lessee wants to keep a lease off its balance sheet and/or out of its income statement except as rental expense, a potential conflict exists as to classification of the lease with the lessor who will, in nearly all cases, want to record the lease as a capital lease.

There is, however, no requirement that a lease classified as an operating lease for the lessee must also be classified as an operating lease for the lessor. On July 14, 1978, the FASB stated that 'The board believes that the nature of the lease transaction should govern its classification and that the substance of the transaction can be perceived differently by the parties to the lease agreement.'

Thus, it is possible to structure a lease which will qualify as an operating lease for the lessee and as a capital lease for the lessor. For example, a lessor and lessee may report the same lease as a capital lease and an operating lease, respectively, by using different interest rates in determining the present value of minimum lease payments: the lessor uses the rate of interest implicit in the lease and the lessee uses its incremental borrowing rate. The lessee's higher discount rate results in present value of rentals less than the 90 per cent FASB test while the lessor's lower implicit cost results in precinct value greater than the 90 per cent precinct value test. A lease which is clearly an operating lease can be changed to a capital lease on the books of the lessor without affecting the classification as an operating lease on the books of the lessee through the lessor entering into a contractual arrangement with an independent third party for a guarantee for the residual value or extended lease term. (However, the Internal Revenue guidelines for leveraged lease rulings prohibit certain guarantees in obtaining a ruling on a true lease.) Furthermore, the lessor and lessee may arrive at different classifications because they reach different conclusions on judgmental issues such as the estimated economic life, lease terms, bargain purchase options, etc. The latter is the most common reason for disparity in treatment of leases by lessees and lessors. Finally, substantial lessors may be able to avoid conflict on the grounds of immateriality in their total financial picture.

(f) True leases

The requirements for a true lease are more liberal than the financial accounting requirements for classifying a lease as an operating lease. While nearly all operating leases are true leases, only some capital leases qualify as true leases.

(g) Leases between related parties

Leases between related parties are classified in the same way as for similar leases between unrelated par-

ties, except in cases where it is clear that the terms of the transaction have been significantly affected by the fact that the lessee and lessor are related. In cases which fall within the scope of the exception, the classification and accounting must be modified to recognise the economic substance of the transaction. Related parties include a parent and its subsidiaries, an owner company and its joint ventures (corporate or otherwise) and partnerships, and an investor and its investors. Significant influence may be exercised through guarantees of indebtedness, extension of credit, or through ownership of warrants, debt obligations or securities.

(h) Accounting treatment of leases outside the United States

The FAS 13 accounting rules for leases have not received widespread acceptance outside the United States, except in the case of international companies which use US auditing firms and regularly seek access to the US debt markets. Leases tend to be treated as off-balance sheet in many countries for many reasons, even though long terms and nominal renewal options or purchase options are involved. Footnote disclosure of leases also tends to be fairly limited outside the United States. The trend, however, is to require more disclosure.

7. Advantages of a lease by a sponsoring party to its project

A sponsor of a project can assume the role of lessor in a direct lease or a leveraged lease to provide financing to the project. Advantages of such an arrangement to an unrelated sponsor are:

(a) Shift of tax benefits

A lease can be used to shift tax benefits of depreciation and interest deductions from the project company to the sponsoring company. This is particularly important if the project is not expected to be profitable during the early years of operation.

(b) Non-recourse debt to sponsor lessor

If the lease is structured as a leveraged lease, the debt portion of the lease is non-recourse to the sponsor lessor. Only the equity portion of the lease, as little as 20 per cent, need be provided by the sponsor lessor for tax purposes. The debt must be supported by a take-or-pay contract, through-put contract or some other credit support acceptable to the leveraged debt purchasers.

(c) Substantially off-balance sheet for the sponsor lessor

The debt portion of the leveraged lease, up to 80 per cent of cost, is non-recourse and off-balance sheet for the lessor.

(d) Ownership through a trust

Ownership of the project property by a trust which, in turn, leases the property to the project lessee, avoids unnecessary qualification to do business in a particular state or jurisdiction by the sponsor or sponsors.

(e) Joint ownership without a formal partnership

Joint ownership can be achieved through a trust which, as lessor, leases the facility to the project. Sponsoring parties provide the equity investment for a leveraged lease and file partnership tax returns. Thus, the advantages of partnership tax status are gained without the necessity of a formal partnership agreement and partnership liability exposure.

(f) Ownership tax benefits and credit support do not have to be in the same proportions

Through a lease supported by a take-or-pay contract, the ownership and tax benefits on the one hand may be held by one group while the take-or-pay contract and/or control of the project may be held by the same group but in different proportions. Thus, tax benefits can be shifted within the group.

(g) Undivided interest can be leased

Where a joint project is owned as a tenancy in common, and some of the owners can use tax benefits and some cannot use tax benefits, the owners unable to currently use the tax benefits can lease their undivided interests under a tax-oriented lease.

Examples of leases by sponsors to projects are discussed and illustrated later in this chapter.

8. Advantages of using a lease from a leasing company to finance a project

There are many reasons why leasing from a third party leasing company is attractive as a source of financing.

However, each company's situation is different. Factors favouring leasing in one case may not be applicable in another case. Any one of the following advantages may be significant enough to cause leasing to be the most attractive financing alternative in a given situation.

(a) Low cost and inability of lessee to make efficient use of tax benefits

The most important factor favouring leasing in the United States is its low cost. This is especially true where for one reason or another a lessee cannot take advantage of tax benefits such as depreciation which may be available. In such situations a lessor able to use tax benefits can purchase the equipment, claim the tax benefits, lease the equipment to the lessee and pass through most of the tax benefits to the lessee in the form of low lease rates.

Special purpose corporations or nominee companies commonly used to operate project financings which do not generate much taxable income are ideal candidates for lease financing from a leasing company or sponsor.

A joint venture in which some of the parties to the joint venture are not in a tax-paying position is also an excellent candidate for lease financing from a leasing company.

(b) May avoid alternative minimum tax

A lease from a third party may be less expensive than ownership or a lease by a sponsor unable to efficiently use tax benefits due to being subject to the alternative minimum tax.

(c) Foreign tax credit

A lease may be used to avoid worldwide interest expense thus increasing the foreign tax credit available.

(d) Cash flow improved

Compared to a loan, lease payments can provide a lessee with more favourable cash flows during the first years of use of the leased equipment. Furthermore, the overall cash flows on a present value basis are often more attractive in a lease.

(e) Joint venture

Leasing is ideal for joint venture partnerships in which tax benefits are not available to one or more of the joint ventures because of the way in which the joint venture is structured or because of the particular tax situation of one or more of the joint venture partners. In such cases, the lessor uses the tax benefits which would otherwise be lost and passes those benefits through to the joint ventures in the form of lower lease payments.

(f) Project financing structures

Leasing works well for project financings structured through subsidiaries not consolidated for tax purposes and consequently not usually in a position to claim and use tax benefits from equipment acquisitions. Lease payments can be timed to coincide with through-put, burn, and usage payments. Leases can be supported by properly structured take-or-pay or through-put contracts.

(g) Off-balance sheet construction financing

Some projects can be structured so that the lessor will take title to the equipment throughout construction with interest expense capitalised into the lease when the equipment is completed and delivery accepted by the lessee.

(h) On- or off-balance sheet

A lease can be structured so as to be on- or off-balance sheet for financial accounting purposes, in accordance with the accounting objectives of the lessee and other cost trade-offs the lessee is willing to make to achieve such objectives.

(i) Impact on book earnings

During the early years of a lease, rentals under a properly structured lease will usually have less impact on book earnings than depreciation and interest payments associated with the purchase of the same equipment.

(j) Loan covenants

Depending upon language and intent of covenants in existing loan and note agreements, a lease may provide a method of financing when other types of financing are not permitted under such restrictions.

(k) Fixed rate lease payments

A predetermined fixed rent payment schedule permits a lessee to predict future equipment financing costs and cash needs more accurately than if the equipment is owned outright. In addition, by leasing major equipment items, a lessee knows the exact amount of future payments and avoids the risks inherent in fluctuations in the cost of funds.

(l) Lease rental payments are made from pre-tax rather than after-tax earnings

A lessee under an operating lease may be able to amortise the cost of equipment faster through tax deductible rentals than through depreciation and after-tax cash flow.

(m) Hedge against inflation

Future rents for equipment acquired through a lease based on today's price will be paid in inflated dollars. A lessor can borrow long to protect itself from inflationary trends and provide this protection to a lessee in the form of long-term level lease payments.

(n) Payments co-ordinated with cash flow

Within certain limits, payment schedules can be designed to coincide with earnings generated from equipment use, with seasonal activity patterns, or with projected business growth. Because the timing of lease payments can be arranged to track normal business cycles, leasing offers a flexibility that may not be available with other financing methods.

(o) Long terms

Because lease terms can be structured for much of the useful life of equipment, a lease contract often carries well beyond normally available loan terms. Lessors can offer longer terms because of longer-term borrowing to fund activities and faster return of capital from cash flow generated by tax benefits.

(p) Convenience

Leasing is often more convenient than alternative means of financing. Documentation can often be simpler and more flexible than other sources of capital such as debt placement and equity.

(q) No public disclosure

Public disclosure of financial information and confidential trade information is not required for a lease transaction, but is required in a prospectus for a public offering of debt or equity, and is sometimes required in a private offering prospectus.

(r) Level payments

Level payments permit matching rental expense to cash generated from revenue-producing equipment.

(s) 100 per cent financing

Leasing provides 100 per cent financing (which may include shipping and installation charges), while a typical equipment loan requires an initial down payment.

(t) Earnings from retained capital

A lease may ultimately cost more than a purchase in terms of total dollars in cases where the lessee can currently use tax benefits of ownership. However, a lease permits retention of capital which can be used elsewhere in the lessee's business. Additional earnings can be generated from this retained capital making the overall cost of leasing more attractive.

(u) Costs of acquisition can be amortised

Most costs incurred in acquiring equipment can be structured into the lease and amortised over the life of the lease. These costs include delivery charges, interest charges on advance payments, sales or use taxes and installation costs. Such charges are usually not financed under alternative methods of equipment financing.

(v) Budget limitations

Acquisition of equipment not contemplated in a capital expenditure budget can sometimes be accomplished through use of a lease with lease payments structured so as to be classified as an operating expense.

(w) Industrial revenue bond limits

Where the costs of plant and equipment expected to be financed by industrial revenue bonds exceed statutory limits, equipment can often be acquired through a lease to keep the remainder of the project within bond limits.

(x) Open-end first mortgage restriction

An open-end first mortgage restriction (which precludes purchase of additional equipment unless it is included under the mortgage) can sometimes be avoided by acquiring the use of such equipment under a lease. Some public utilities have such open-end first mortgage restrictions.

(y) Preserves depletion allowance

Depletion deductions are limited to 50 per cent of taxable income. Therefore, depreciation and interest deductions (in excess of rent) limit the ability of a lessee to claim depletion in some situations.

(z) No dilution of ownership

Dilution of ownership of a company from issuance of equity or convertible securities can be avoided through the use of a lease for needed equipment.

(aa) Improves return on assets

A company which places emphasis on ROA (return on assets) will find operating leases attractive and off-balance sheet structures utilising leases attractive.

(bb) Permits better use of foreign tax credit and ITC carry-forwards

Where a lessee is in a foreign tax credit carry-forward position or an ITC carry-forward position, lease rentals rather than depreciation and interest expense will have less adverse impact on claiming tax benefits from such carry-forwards.

(cc) Interest capitalised during construction

Where a lessee is required to expend interest expense on a construction loan during construction, this can be avoided by an agreement to lease the equipment upon completion on a basis whereby the lessor takes title to the property during construction and capitalises construction interest into the cost of the equipment

(dd) Superior collateral for lenders

A lease in a developing country may be the best way for a lender to insure its collateral lien in the equipment being financed.

9. Disadvantages of leasing from a leasing company

On the other hand, there are disadvantages from a lessee's standpoint in financing equipment through a lease from a third party leasing company.

(a) Residuals

Loss of residual value in a true lease upon termination of the lease agreement may be a serious disadvantage of leasing, especially if the particular asset involved has considerable useful life when the lease expires.

(b) Overall cost

The overall cost of leasing is higher than purchasing when tax benefits can be currently claimed by the lessee.

(c) Tax timing

The tax deductions available from depreciation may be valuable to the prospective lessee if the lessee can use them. In such cases the lessee may be much better off borrowing rather than leasing. On the other hand, if the lessee or project cannot use tax benefits, that may tilt the scale to leasing.

(d) Prestige of ownership

Some companies prefer to own their property.

(e) Flexibility

Certainty of ownership gives the user complete flexibility in the use of the equipment, its servicing, maintenance, insurance and disposition. Leasing does not give such flexibility in all cases.

(f) Fixed obligation

A long-term lease creates a senior fixed obligation against the project. If a project leases, it must be concerned with its cash and financial planning to pay off that debt. It must design other financing around that senior debt obligation.

(g) Rating services

The rating services will capitalise long-term leases (which may be operating leases under FAS 13) for purposes of ratio and interest coverage analysis.

(h) Not as attractive for equipment located outside the United States

Accelerated tax depreciation deductions are not available for a US lessor on equipment located outside the United States, which naturally affects the lease rate available from a US tax-oriented leasing company.

Notes and references

1. True lease status for legal purposes is determined by state courts, and there is no uniformity in state court decisions on this subject. Generally, the state courts will treat the lessee as legal owner if the lessee has a purchase option of 10 per cent or less at the end of the lease term, and treat the lessor as legal owner if the lessee has a purchase option at the end of the lease term of 20 per cent or more. Cases involving leases with purchase options between 10 and 20 per cent sometimes hold the lessor to be legal owner and sometimes hold the lessee to be legal owner.

Notes and references *continued*

2. The accounting rules do not track the tax rules and leases can be structured which provide off-balance sheet treatment to the lessee even though the transaction is not a true lease for tax purposes. See Chapter 15 on synthetic leases.
3. The 'lessee group' includes the lessee, any shareholder of the lessee, or any related party. See Section 318 of the IRC.
4. However, as discussed later in this chapter, most tax counsel are of the opinion that Revenue Procedure 75-21 does not correctly reflect the case law with regard to prohibiting all fixed-price purchase options, and fixed-price purchase options at estimated residual values are common.
5. See Letter Rulings 8120024 and 8130087.
6. See Letter Rulings 8024066 and 8006023.
7. As a practical matter, the lessor can always satisfy the profit test by using an aggressive (but not ridiculous) residual assumption.
8. Section 467 of the Internal Revenue Code, which was added by the Deficit Reduction Act of 1984, requires level rents under some circumstances. Current IRS regulations should be consulted to ascertain any changes in this portion of Revenue Procedure 75-21. The IRS is revisiting the subject of uneven rents and advice of tax counsel is appropriate where this issue arises.
9. Care must be taken in ascertaining the date equipment is deemed to be placed in service. For example, equipment delivered, ready, and available for use by the lessee may be considered to have been placed in service even though it is not used.
10. In the event of challenge by the IRS and litigation on this issue, the IRS is at a disadvantage where the taxpayer has a contemporaneous appraisal from a reputable appraiser and the IRS has only a hindsight opinion or appraisal. However, in one recent situation involving a large boot payment on a lease of a satellite, the IRS learned of the transaction at the time it was consummated and employed an independent appraiser to obtain a contemporaneous appraisal of its own.
11. See National Office Technical Memorandums LTR 8118010, dated January 23, 1981, and LTR 8219005, dated January 23, 1982. Also see Rice's *Toyota World v. Commissioner* (1983), 81 T.C. No. 16.
12. A closely held corporation is not subject to at risk limitations if it is 'actively engaged in equipment leasing,' that is, if 50 per cent or more of its gross receipts are attributable to equipment leasing activities.
13. The Practising Law Institute has published a number of books on equipment leasing and leveraged leasing over the years, containing current updates of the laws affecting leasing. *Leasing-Leveraged Leasing 1999* edited by Ian Strank and Arnold G. Gough is the most recent in this series and is an excellent treatise on legal and tax aspects of equipment leasing in the United States.

14

Leveraged leases

This chapter is concerned with true leases in which the lessor leverages its 15 per cent to 30 per cent investment with non-recourse debt for the balance of the purchase price of the leased equipment.

As noted in Chapter 13, in a 'true lease' the lessor is considered for federal income tax purposes to be the true owner of the leased equipment and, thus, entitled to tax benefits such as depreciation deductions and any tax credits associated with the ownership of the leased equipment. The residual value of the equipment at the end of the lease belongs to the lessor, subject to whatever purchase option the lessee can negotiate.

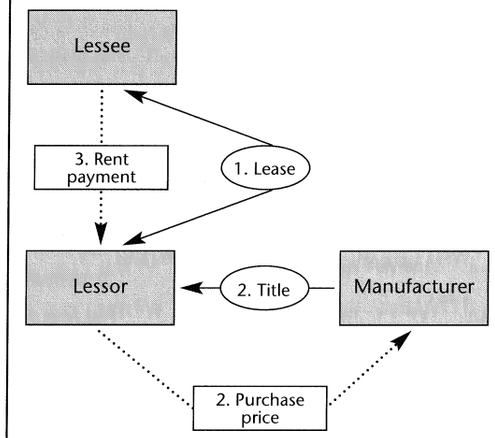
The leveraged form of a true lease is the ultimate form of lease financing. The most attractive feature of a leveraged lease from the standpoint of a lessee is its low cost as compared to that of alternative methods of financing. Leveraged leasing also satisfies a need for lease financing of especially large capital equipment projects with economic lives of up to 25 or more years, although leveraged leases are also used where the life of the equipment is considerably shorter. The leveraged lease can be a most advantageous financing device when used for the right kinds of projects and structured correctly.

Single-investor non-leveraged leases are simple two-party transactions involving a lessee and a lessor. In single-investor leases (sometimes called non-leveraged leases or direct leases), the lessor provides all of the funds necessary to purchase the leased asset from its own resources. While the lessor may borrow some or all of these funds, it does so on a full-recourse basis to its lenders and it is at risk for all of the capital employed.

A leveraged lease is conceptually similar to a single-investor lease. The lessee selects the equipment and negotiates the lease in a similar manner. Also similar are the terms for rentals, options, and responsibility for taxes, insurance, and maintenance. However, a leveraged lease is appreciably more complex in size, documentation, legal involvement, and, most importantly, the number of parties involved and the unique advantages that each party gains.

True leveraged leases are generally offered only by corporations acting as lessors. This is because in a leveraged lease the tax benefits available to individual lessors are much more limited than those available to a corporation.

Exhibit 14.1: Non-leveraged lease (direct lease)



Summary
1. A lessor enters into a lease agreement with a lessee.
2. The lessor pays the purchase price for the leased equipment and takes title to the equipment.
3. The lease begins and the lessee commences rental payments to the lessor.

This chapter is devoted to true leveraged leases offered by corporations in the United States. However, the principals of leveraged leasing in the United States can be applied in other countries with similar tax structures. Also leveraged conditional sales type leases are possible and discussed in Chapter 15.

The lessor in a leveraged lease becomes the owner of the leased equipment by providing only a percentage (typically about 20 per cent) of the capital necessary to purchase the equipment. The remainder of the capital (typically about 80 per cent) is borrowed from institutional investors on a non-recourse basis to the lessor. This loan is secured by a first lien on the equipment, an assignment of the lease, and an assignment of the lease rental payments.[1]

The cost of the nonrecourse borrowing is a function of the credit standing of the lessee.

The lease rate varies with the debt rate and with the risk of the transaction including any residual value the lessor hopes to achieve.

The lessor in a leveraged lease can claim all of the tax benefits incidental to ownership of the leased asset and the residual value even through the lessor provides only 20 per cent of the capital needed to purchase the equipment. This ability to claim the tax benefits attributable to the entire cost of the leased equipment and the residual value while providing and being at risk for only a portion of the cost of the leased equipment is the leverage in a leveraged lease. This leverage enables the lessor in a leveraged lease to offer the lessee much lower lease rates than the lessor could provide under a direct lease.

The legal expenses and closing costs associated with leveraged leases are larger than those for single-investor non-leveraged leases and usually confine the use of leveraged leases to financing relatively large capital equipment acquisitions. However, leveraged leases are also used for smaller lease transactions that are repetitive in nature and use standardised documentation so as to hold down legal and closing costs.

Several parties may be involved in a leveraged lease. Small direct or single-investor non-leveraged leases are basically two-party transactions with a lessee and a lessor. However, leveraged leases by their nature involve a minimum of three parties: a lessee, a lessor, and a non-recourse lender. Indeed, leveraged leases are sometimes called three-party transactions.

Several owners and lenders may be involved in a leveraged lease. An owner trustee is named to hold title to the equipment and represent the owners or equity participants, and an indenture trustee may be named to hold the security interest or mortgage on the property for the benefit of the lenders or loan participants. Sometimes a single trustee is appointed to perform both of these functions.

In order to understand true leveraged leasing, it is necessary to review the rights, obligations, functions, and characteristics of the various parties that may be involved; the structure of a leveraged lease; the cash flows; and the debt arrangements possible.

1. Parties to a leveraged lease

(a) The lessee

The lessee selects the equipment to be leased, negotiates the price and warranties, and hires the use of the equipment by entering into a lease agreement. The lessee accepts, uses, operates, and receives all revenue from the equipment. The lessee makes rental payments. The credit standing of the lessee supports the rent obligation, the credit exposure of the lenders of leveraged debt, and the credit exposure of the equity participants.

(b) Equity participants

The equity participants provide the equity contributions (typically about 20 per cent of the purchase price) needed to purchase the leased equipment. They receive the rental payments remaining after the payment of debt service and any trustee fees. They claim the tax benefits incidental to the ownership of the leased equipment, consisting of MACRS (tax depreciation) deductions, and deductions for interest used to fund their investment. The equity participants are sometimes referred to as the lessors. Actually, in most cases, they are the beneficial owners by way of an owner trust that is the lessor. Equity participants in a leveraged lease are also sometimes referred to as equity investors, owner participants, or trustors.

(c) Loan participants or lenders

The loan participants or lenders are typically banks, insurance companies, trusts, pension funds, and foundations. The funds provided by the loan participants, together with the equity contributions, make up the full purchase price of the asset to be leased. The loan participants provide the balance of the purchase price not covered by the equity investment, typically about

80 per cent of the purchase price. This loan is on a non-recourse basis to the equity participants. As noted earlier, this loan is secured by a first lien on the leased equipment, an assignment of the lease, and an assignment of rents under the lease. Principal and interest payments that are due the loan participants (or lenders) from the indenture trustee are paid by the lessee to the indenture trustee, which then pays the loan participants. The loan participations may have different maturities to satisfy the appetites of different lenders.

(d) Owner trustee

The owner trustee represents the equity participants, acts as the lessor, and executes the lease and all of the basic documents that the lessor would normally sign in a lease. The owner trustee records and holds title to the leased asset for the benefit of the equity participants, subject to a mortgage to the indenture trustee. The owner trustee issues trust certificates to the equity holders evidencing their beneficial interest as owners of the assets of the trust, issues bonds or notes to loan participants evidencing the leveraged debt, grants to the indenture trustee the security interests that secure repayment of the bonds (ie, in the lease, the lease rentals and a first mortgage on the leased asset), receives distributions from the indenture trustee, distributes earnings to the equity participants, and receives and distributes any information or notices regarding the transaction that are required to be provided to the parties. The owner trustee has little discretionary power beyond that specifically granted in the trust agreement and has no affirmative duties.

The owner participants indemnify the owner trustee against costs and liabilities arising out of the transaction, except for wilful misconduct or negligence. From the standpoint of the equity participants, additional practical reasons often cited for having an owner trustee are as follows:

1. An owner trust is a simple and convenient way to hold title to the equipment where there are two or more equity participants.
2. The lessee and loan participants have the practical convenience of dealing with one entity where there is an owner trustee.
3. The existence of the owner trustee helps justify keeping the non-recourse leveraged debt off the balance sheet of the equity investor.
4. Equity participants may avoid the need to qualify to do business in the state in which the equipment is located.
5. Loan participants (lenders) want an owner trustee in order to prevent a trustee in bankruptcy for an equity participant from disavowing the lease or delaying payments due under the lease.
6. The owner trustee may provide the equity participant with a shield against tort liability.
7. Under the Internal Revenue Code, the owner participants share rateably in the tax benefits. The tax advantages of a partnership are gained without the need for a formal partnership agreement.
8. Some types of equipment such as aircraft must be held by US owned corporations. Consequently, a foreign-owned corporation must use a US trustee to act as a lessor.

These reasons have various degrees of merit. It can be argued in some instances listed above that an owner trustee is unnecessary. Where a leveraged lease has a single equity investor, the parties may conclude that an owner trustee is not needed and that the equity investor may act as the lessor. However, the modest cost of an owner trustee as compared with the apparent and possible benefits usually justifies the use of an owner trustee in a leveraged lease unless the transaction is extremely simple and straightforward.

(e) Indenture trustee

The indenture trustee (sometimes called the security trustee) is appointed by and represents the lenders or loan participants. The owner trustee and the indenture trustee enter into a trust indenture whereby the owner trustee assigns to the indenture trustee, for the benefit of the loan participants and as security for the leveraged debt and any other obligations, all of the owner trustee's interest as lessor in:

1. The equipment to be leased.
2. The lease agreement.
3. The lessor's rights to receive rents (including all payments) owed by the lessee (subject to such exceptions as the lessor and lessee agree to).
4. The lessor's rights to receive any payments under any guarantee agreements (subject to the same exceptions as the payments due the lessor).

5. The lessor's rights under any ancillary facility support agreements such as easements, service contracts, supply contracts, and sales contracts.

The indenture agreement sets forth the form of the notes or loan agreements, the events of defaults, and the instructions and priorities for distributions of funds to the loan participants and other parties.

The indenture trustee receives funds from the loan participants (lenders) and the equity participants when the transaction is about to close, pays the manufacturer or contractor the purchase price of the equipment to be leased, and records and holds the senior security interest in the leased equipment, the lease, and the rents for the benefit of the loan participants. The indenture trustee collects rents and other sums due under the lease from the lessee. Upon the receipt of rental payments, the indenture trustee pays debt payments of principal and interest due on the leveraged debt to the loan participants and distributes revenues not needed for debt service to the owner trustee. In the event of default, the indenture trustee can foreclose on the leased equipment and take other appropriate actions to protect the security interests of the loan participants.

(f) Single trustee acting as both an indenture trustee and an owner trustee

A single trustee may assume the duties of both an owner trustee and an indenture trustee in a leveraged lease. Where a single trustee is used, the trustee is referred to as the owner trustee. Those who favour using a single trustee in a leveraged lease transaction argue that such an arrangement is simpler and reduces the costs of the transaction.

Although the use of a single trustee in a leveraged lease has become an increasingly common arrangement, serious conflicts of interest may arise between the equity participants and the loan participants in the event of a default by the lessee. Such potential conflicts make the use of a single trustee unattractive if there is any question regarding the lessee's credit. In the event the lessee defaults, the trustee is faced with conflicting choices. For example, if the trustee repossesses and sells the equipment quickly for cash at a price that is only sufficient to return the loan participants' debt balance, the equity participants are left with nothing. On the other hand, if a higher price can be obtained by selling the leased equipment using an instalment sale, the equity participants might recover part or all of their investment. In the instalment sale alternative, however, the loan participants are subject to additional risk, so that the use of an instalment sale to achieve the objectives of the equity participants might result in a breach of the fiduciary duties of the trustee to the loan participants. A possible solution is to permit the trustee to resign one or both of the trusteeships in the event of a default. However, this begs the questions since a successor trusteeship under such circumstances would be difficult to arrange and the loan participants or the equity participants, or both, would be left in a difficult position to pursue their respective claims.

(g) Manufacturer or contractor

The manufacturer or contractor manufactures or constructs the equipment to be leased. The manufacturer or contractor (or supplier) receives the purchase price upon acceptance of the equipment by the lessee and delivers the equipment to the lessee at the beginning of the lease. The warranties of the manufacturer, contractor, or supplier as to the quality, capabilities, and efficiency of the leased equipment are important to the lessee, the equity participants, and the loan participants.

(h) Packager or broker

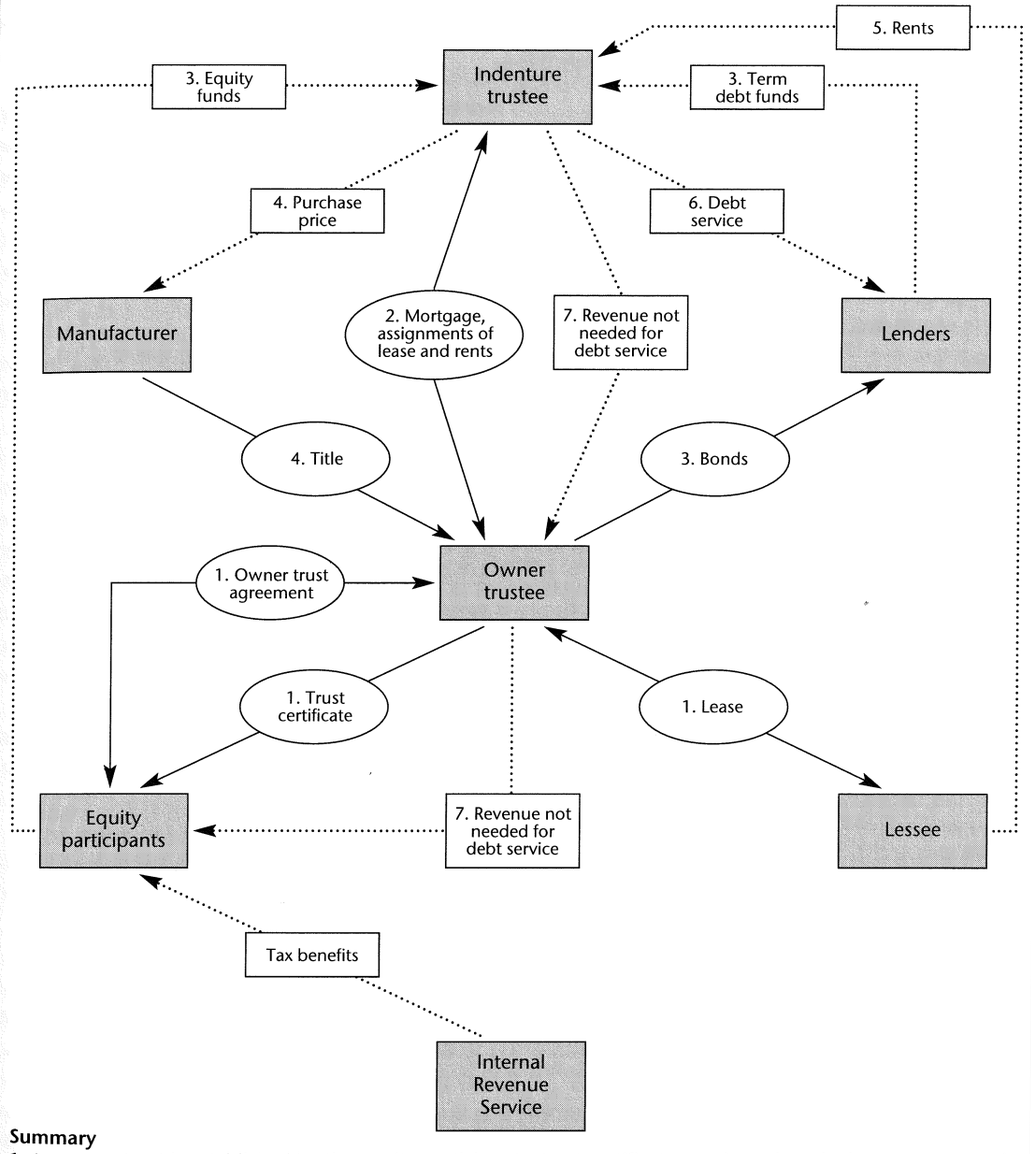
The packager or broker is the leasing company arranging the transaction. In many instances, the packager is purely a broker and not an investor. From the standpoint of the lessee, it may be desirable that the packager also be an equity participant. The packager may, in fact, be the sole equity participant.

(i) Guarantor

A guarantor may be present in some leveraged lease transactions. Although a member of the lessee group may not guarantee the leveraged debt under Internal Revenue rules, a member of the lessee group may guarantee the lessee's obligation to pay rent.

A party unrelated to the lessee may guarantee either rents or debt. Such a guarantor might be a third party such as a bank under a letter of credit agreement, an insurer of residual value, or a government guarantor. Where rents are guaranteed by a third party, a controversy may arise under Revenue Procedure 75-21 that relates to whether the lessor is at risk for an amount equal to 20 per cent of the cost of the equipment.[2] It can be strongly argued that such a guarantee is mere-

Exhibit 14.2: Typical leveraged lease



Summary

1. An owner trust is established by the equity participants; trust certificates are issued, and a lease agreement is signed by the owner trustee as lessor and the lessee.
2. A security agreement is signed by the owner trustee and the indenture trustee; a mortgage is granted on the leased asset, and the lease and rentals are assigned as security to the indenture trustee.
3. Notes or bonds are issued by the owner trustee to the lenders; term debt funds are paid by the lenders to the indenture trustee; equity funds are paid by the equity participants to the indenture trustee.
4. The purchase price is paid and title is assigned to the owner trustee, subject to the mortgage.
5. The lease commences; rents are paid by the lessee to the indenture trustee.
6. Debt service is paid by the indenture trustee to the lenders.
7. Revenue not required for debt service or trustees' fees is paid to the owner trustee and, in turn, to the equity participants.

ly the equivalent of a second credit exposure and does not alter the fact that the lessor is at risk.

(j) Structure of a leveraged lease

A leveraged lease transaction is usually structured as follows where a broker or a third party leasing company arranges the transaction.

The leasing company arranging the lease, the packager, enters into a commitment letter with the prospective lessee (obtains a mandate) that outlines the terms for the lease of the equipment, including the timing and amount of rental payments. Since the exact rental payment cannot be determined until the debt has been sold and the equipment delivered, rents are agreed upon based on certain variables, including assumed debt rates and the delivery dates of the equipment to be leased.

After the commitment letter has been signed, the packager prepares a summary of terms for the proposed lease and contacts potential equity participants to arrange for firm commitments to invest equity in the proposed lease, to the extent that the packager does not intend to provide the total amount of the required equity funds from its own resources. Contacts with potential equity sources may be fairly informal or may be accomplished through a bidding process. Typical equity participants include banks, independent finance companies, captive finance companies and corporate investors that have tax liability to shelter and funds to invest and understand the economics of tax-oriented leasing. The packager may also arrange the debt either directly or in conjunction with the capital markets group of a bank or an investment banker selected by the lessee or the lessor. If the equipment is not to be delivered and the lease is not to commence for a considerable period of time, the debt arrangements may be deferred until close to the date of delivery.

The packager may agree at the outset to bid firm or underwrite the transaction on the mandated terms and may then syndicate its bid to potential equity participants. However, the lessee may prefer to use a bidding procedure without an underwritten price on the theory that more favourable terms can be arranged using this approach.

In some instances, the lessee may prefer to prepare its own bid request and solicit bids directly from potential lessors without using a packager or broker to underwrite or arrange the transaction. This might be the case, for example, where the lessee has considerable experience in leveraged leasing and the transaction is repetitious of previous leases of similar equipment that the lessee has leased, such as computers or computer systems.

If an owner trustee is to be used, a bank or trust company mutually agreeable to the equity participants and the lessee is selected to act as owner trustee. If an indenture trustee is to be used, another bank or trust company acceptable to the loan participants is selected to act as indenture trustee. As discussed previously, a single trustee may act as both owner trustee and indenture trustee.

Exhibit 14.2 illustrates the parties, cash flows, and agreements among the parties in a simple leveraged lease.

If the leveraged lease is arranged by sponsors of a project who want to be the equity participants, the structure and procedures are essentially the same as those for a leveraged lease by a third party equity participant. In such circumstances, the sponsors are the equity investors. If some of the sponsors can use tax benefits and some cannot, the equity participants may include a combination of sponsors and one or more third party leasing companies. This arrangement is more complex, but the structure and procedures are essentially the same as those for a leveraged lease by a third party equity participant.

2. Closing a leveraged lease transaction

(a) Participation agreement

The key document in a leveraged lease transaction is the participation agreement (sometimes called the financing agreement). This document is, in effect, a script for closing the transaction.

When the parties to a leveraged lease transaction are identified, all of them except the indenture trustee enter into a participation agreement that spells out in detail the various undertakings, obligations, mechanics, timing, conditions precedent, and responsibilities of the parties with respect to providing funds and purchasing, leasing, and securing or mortgaging the equipment to be leased. More specifically, the equity participants agree to provide their investment or equity contribution; the loan participants agree to make their loans; the owner trustee agrees to purchase and lease the equipment; and the lessee agrees to lease the equipment. The substance of the required opinions of counsel is described in the participation agreement, and the representations of the parties are detailed. Tax indemnities and other general indemnities are often set forth in the participation agreement rather than the lease agreement. The form of agreements to be signed, the opinions to be given, and the representations to be made are usually attached as exhibits to the participation agreement.

(b) Key documents

The key documents in a leveraged lease transaction that are in addition to the participation agreement are the lease agreement, the owner trust agreement, and the indenture trust agreement.

The lease agreement is between the lessee and owner trustee. The lease is for a term of years and may contain renewal options and fair market value purchase options. Rents and all payments due under the lease are net to the lessor, and the lessee waives defences and offsets to rents under a hell or high water clause.

The owner trust agreement creates the owner trust and sets forth the relationships between the owner trustee and the equity participants that it represents. The owner trust agreement spells out the duties of the trustee, the documents the trustee is to execute, the distribution to be made of funds it receives from equity participants, lenders, and the lessee. The owner trustee has little or no authority to take discretionary or independent action.

The owner trust grants a lien or security interest on the leased equipment and assigns the lease agreement, any ancillary facility support agreements and right to receive rents under the lease to the indenture trustee (which may also be the owner trustee). It spells out the obligations of the indenture trustee to the lenders.

(c) Indemnities

Lessee indemnities fall into three general categories:

1. A general indemnity protects all of the other parties to the transaction from any claims of third parties arising from the lease or the use of the leased equipment.
2. A general tax indemnity protects all of the other parties to the transaction from all federal, state, or local taxes arising out of or in connection with the transaction except from certain income tax or income-related taxes.
3. Special tax indemnities by the lessee protect the owner participants from the loss of expected income tax benefits as a result of the acts and omissions of the lessee and certain other events.

The coverage of the special tax indemnities beyond the acts and omissions of the lessee is a matter of significant negotiation between the lessee and lessor.

(d) Closing the lease

When the transaction is about to close, the equity participants pay the amount of their equity investments to the indenture trustee. As noted earlier, this investment must be at least 20 per cent of the cost of the equipment to qualify as a true lease for federal tax purposes. Usually the equity participants' investment will be in the range of 20 to 25 per cent of the acquisition cost of the leased equipment, including the expenses incurred in connection with the acquisition of the equipment and the closing of the lease transaction, such as legal costs, printing expense, and brokers' fees. The loan participants pay the balance of the acquisition cost of the leased equipment to the indenture trustee. The owner trustee simultaneously issues equity participation certificates to the equity participants and promissory notes, bonds, or debt certificates to the loan participants. The debt evidenced by the notes, bonds, or debt certificates is without recourse to either the owner trustee or the equity participants.

In the meantime, a lease agreement for the equipment has been signed by the owner trustee (as lessor) and the lessee. The indenture trustee has recorded a security interest or mortgage on the equipment to be leased. The owner trustee assigns the lease agreement and the right to receive rents under the lease to the indenture trustee as security for the benefit of the loan participants under a security agreement between the owner trustee and the indenture trustee. The loan participants agree to look exclusively to lease rentals for repayment or, in the event of default by the lessee, to their security interest in the lease, the rentals, and their mortgage or security interest in the leased equipment.[3]

In most lease transactions, the lessee has already contracted to purchase the equipment at the time that the lessee seeks to arrange the lease financing. Where these circumstances exist, the lessee assigns the pur-

chase contract or the construction agreement to the owner trustee (as lessor). This assignment conveys to the owner trustee all of the lessee's rights, title, and interest to receive delivery, to be transferred title, and to be protected by warranties. The lessee also obtains the consent of the manufacturer or contractor to the foregoing assignment.[4]

At the closing of the purchase of the equipment, the lessee signifies its acceptance of the equipment by signing an acceptance certificate. The indenture trustee pays the purchase price for the equipment to the manufacturer, contractor, or any construction lenders and also pays any expenses (legal fees, printing fees, brokerage fees, etc.) being financed as part of the transaction. The indenture trustee uses funds collected from the loan participants and the equity participants for that purpose. Title is then conveyed to the owner trustee, subject to the previously recorded security agreement and mortgage. The equipment is then delivered to the lessee, and the lease commences.

3. Cash flows during the lease

The equity participants receive cash flow from three sources: rents after the payment of debt service and trustee fees, tax benefits, and proceeds from the sale of the equipment at the conclusion of the lease.

The lessee pays periodic rents to the indenture trustee, which uses such funds to pay currently due principal and interest payments to the loan participants and to pay trustee fees for its services. The balance of the rental payments is paid to the owner trustee. After the payment of any trustee fees due the owner trustee and any administrative or other expenses, the owner trustee pays the remainder of the rental payments to the equity participants.

The equity participants also realise cash flow from tax benefits as quickly as they can claim such benefits on their quarterly tax estimates and tax returns.

The leveraged debt is usually amortised over a period of time identical to the lease term, with payments of principal and interest due on or shortly after the due date of the rental payments. These payments may be monthly, quarterly, semi-annual, or annual. Where 'optimised debt' structures are used for competitive reasons, the rental payments approximately equal the debt service payments plus deferred income tax. This has the effect of reducing the leveraged debt payments in the later years of the lease. Rental payments are usually level but (subject to Internal Revenue Service limitations) may vary upward or downward (sawtooth rents) to achieve a maximum yield for the lessor. Also, debt payments may be concluded entirely before the lease term ends in order to generate additional cash for the lessor.

When the lease terminates, the equipment is returned to the owner trustee, who sells or releases the property at the direction of the owner participants.

The lease agreement usually requires the lessee to furnish the owner trustee and the indenture trustee with financial statements, evidence of insurance, and other similar information. The trustees distribute this information to all parties to the transaction.

4. Income tax treatment of an owner trust acting as a lessor

(a) Single equity participant grantor trust

Where a single equity participant is the equity investor in a leveraged lease, an owner trust is not necessary, but nevertheless may be desirable for one or more of the reasons discussed earlier in this chapter. An owner trust for the benefit of a single equity participant will generally be treated as a grantor trust for tax purposes, since all items of income, gain, loss, deductions, and credits relating to the property held by the owner trustee will flow through to the equity participant. The tax consequences to the equity participant under a grantor trust are generally the same as they would be if the equity participant owned the leased property directly.

(b) Owner trust for two or more equity participants

An owner trust established for the benefit of two or more equity participants is taxed as a partnership for federal income tax purposes. The owner trust is not taxable as a corporation so long as the trust agreement has both of the following provisions:

1. Each of the equity participants is prohibited from transferring its interest in the owner trust without the consent of the other equity participants.
2. The owner trustee cannot take any action except as provided in the trust agreement or as specifically instructed by the equity participants.

These provisions prevent the owner trust from possessing two of the four criteria of the Internal Revenue Service for a corporation – namely free transferability of ownership and centralised management. If the trust were taxed as a corporation, the equity participants (with less than 80 per cent control) would not be entitled to claim tax benefits attributable to the transaction on their income tax returns.

When the owner trust is treated as a partnership for federal income tax purposes, each equity participant (partner) takes into account its separate proportional distributive share of the partnership's income, gain, loss, tax deductions and tax credits. The owner trust (partnership) makes tax elections that determine the tax benefits available to the equity participants. The owner trust (partnership) may have a taxable year different from the taxable year of one or all of the equity participants. If the partnership's taxable year in the year in which property is placed in service is less than 12 months, the first-year MACRS deduction will be proportionately reduced.

Ownership of leased property by equity participants as tenants in common has been used as a device to avoid the adverse consequences of either a short taxable year or equity investors having different tax years. Tenancies in common can be structured as partnerships for tax purposes. From a legal and tax standpoint, however, the documentation of a leveraged lease with equity participants as tenants in common is generally more complex than that of an owner trust.

Other entities that are used to hold title to leased equipment under a leveraged lease include general partnerships, limited partnerships, and contractual joint ventures, all of which can be structured to file partnership tax returns.

5. Debt for leveraged leases

Debt for leveraged leases is available from a variety of sources. The lead equity source or packager may arrange the debt. Sometimes the lessee may prefer to have the debt arranged by its commercial bank, the capital markets group of its commercial bank, or its investment bank. Most leveraged lease debt is raised in the private placement market at little or no premium over what the lessee would expect to pay directly for such debt in the public debt market. Debt may be arranged in tranches with different maturities to attract investors with preferences for certain maturities. The sources include:

- insurance companies;
- pension plans;
- profit-sharing plans;
- commercial banks;
- finance companies;
- savings banks;
- domestic leasing companies;
- foreign banks;
- foreign leasing companies;
- foreign investors;
- institutional investors; and
- investment funds.

Other less frequently used instruments and sources of debt which may be useful in special circumstances include the following:

Commercial paper investors

Commercial paper has sometimes been used for leveraged debt for short (five to seven years) leveraged leases. The major risks in using commercial paper are the floating interest rates and the inability to roll over the commercial paper. Such debt may require a back-up line of credit. Interest rate risk can be hedged to some extent by using interest rate futures or interest rate swaps.

Public debt markets

It is possible, but not very practical, to use the public debt markets for leveraged debt. Public debt is expensive since it must be registered under the Securities Act unless it is guaranteed by an agency of the United States. Also, the lessee will have a difficult time in amending the lease where public debt is used.

Government financing

If government financing is available, such financing can sometimes be used as leveraged debt.

Industrial revenue bonds

Industrial revenue bonds, including bonds in which interest is tax free, can often be used as leveraged debt.

Supplier financing

Supplier financing can be an excellent source of leveraged debt (shipyard financing for a ship, for example).

Export-Import Bank financing offers such opportunities. One difficulty in using this source is matching the debt maturities to the lease maturities. Where the lease is for a longer term than that of the supplier financing, wraparound debt is difficult to arrange, particularly since the security interest of such debt must usually be subordinate to the supplier financing.

Multicurrency financing

Where the lessee generates more than one currency from the sale of its product or service, it may prefer the leveraged debt to be in one or more matching currencies. Debt and rents can be arranged to satisfy this need. Currency swaps can be used to hedge the foreign exchange risk of foreign currency debt.

Eurodollar and Eurobond markets

The attractive interest rates available in the Eurodollar and Eurobond markets will probably bring these markets into use in the future. Floating rate notes (FRNs) with interest rate hedges or futures may also be used.

Bridge financing

If interest rates on fixed long-term debt are, in the opinion of the lessee, unusually high, the lessee may arrange bridge financing on a floating interest rate basis with a view to refinancing term debt at a more favourable fixed interest rate at a later time. The floating debt might, for example, have a term of 15 years identical to the lease term, float at one over Libor (London interbank offered rate) for five years, three over in the sixth year, four over in the seventh year, and so on. Such an arrangement enables the lessee to arrange financing with a commercial bank, which feels assured under these circumstances that it will be taken out (have its loan paid off) at the end of five years.

6. Facility leases

Leveraged leases have been used increasingly in recent years to finance the use of equipment that is impractical to move, such as electric generating plants, mining equipment, refineries, and chemical facilities. The equipment's lack of portability does not make it limited-use property for tax purposes so long as the facility is reasonably expected to have a fair market value equal to 20 per cent of its original cost at the conclusion of the lease. The 20 per cent useful life tests of Revenue Procedure 75-21 are met if at the conclusion of the lease the facility can continue to be used at its original location for a period of time equal to 20 per cent or more of the base lease term plus any fixed rate renewal terms.

(a) Facility support agreements

A series of facility support agreements are needed in order to provide the lessor with rights to the leased equipment upon the conclusion of the original lease.

The lessor will want either to own the land on which the facility is located or to have a leasehold interest in the land that is at least 20 per cent longer than the base lease term and any fixed rate renewal lease terms available to the lessee. The lessor will also want easement and access rights to the property on which the facility is located. If supply contracts for raw material, fuel, or energy are necessary for successful operation of the facility, these must be assigned by the lessee to the lessor at the conclusion off the initial lease. Rights-of-way for power lines, rail lines, pipelines, and roads may be necessary, as may access rights to adjoining port, rail, or pipeline facilities. The leased equipment facility may be part of a large complex of similar facilities in some cases, and in such a case the lessor should have rights to service, fuel, energy, and so forth, shared in common with the other facilities owned by the lessee or other parties.

Exhibit 14.4 is a diagram of a leveraged lease of an electric coal-fired generating facility that illustrates the parties, the cash flows, and the agreements involved in a facility lease transaction in which the owner trustee takes title during construction. This transaction contemplates the assignment of the facility support agreements.

In this example, the purpose of the facility support agreements between the lessee and the owner trustee is to provide the owner trustee with access to all properties and things necessary or desirable to allow the owner trustee (acting on behalf of the equity participants) to operate the electric generating facility as an independent commercial electric generating unit and to sell electricity generated by the facility into a grid. The agreements stipulate that maintenance services, fuel supply, power transmission and/or distribution, and other things are to be provided by the lessee (for which the lessee will be reimbursed), while a third party is operating the facility on behalf of the lessor or on lease from the lessor. Without facility support

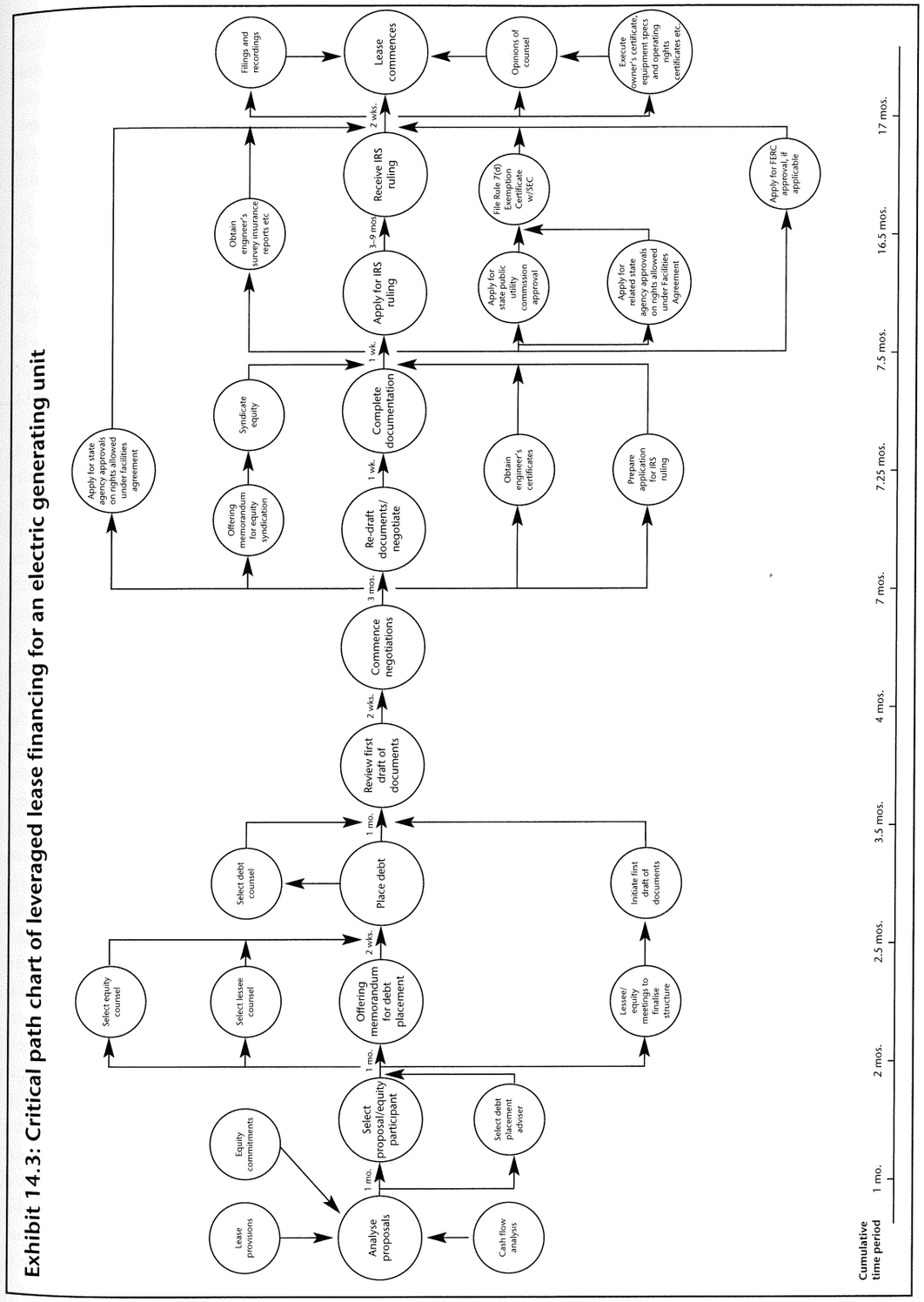


Exhibit 14.3: Critical path chart of leveraged lease financing for an electric generating unit

agreements, the assets of the project have little value as collateral. The facility support agreements are assigned to the indenture trustee as support for the leveraged debt. They remain in effect throughout the interim lease term, the base lease term, and any renewal lease terms, and for at least long enough thereafter to meet the useful life tests of the Internal Revenue Service. Another purpose of the facility support agreements is to ensure that the facility will have value to someone other than the lessee at the end of the lease so as to satisfy the true lease requirements of the Internal Revenue Service.

For example, the mere ownership of the facility by the owner trustee, without the underlying supply contracts for coal to be used as fuel for the facility, might seriously undermine the value of the facility for collateral security purposes and residual value purposes. To protect the interests of the equity participants and the loan participants, it is necessary for the lessee to assign to the owner trustee any coal supply contracts that might be advantageous or valuable to it. The owner trustee, in turn, assigns its interest in such contracts to the indenture trustee for the benefit of the loan participants.

The supplier to the facility must consent to the assignment, and the form of consent is usually included as part of the coal supply agreement.

(b) Construction contract assignment

The participation agreement and the lease agreement (as in Exhibit 14.4) may contemplate that the title to the property to be leased will be transferred to the owner trustee (lessor) while the facility is still in the early stages of construction. In this situation, the construction contract is assigned by the lessee to the owner trustee and construction financing is arranged as described later in this chapter.

Although the facility will usually be constructed by a third party contractor, the utility may wish to supervise the performance of the construction contract with the third party contractor. In this situation, a construction supervision agreement is entered into between the lessee and the owner trustee. The purpose of this agreement is to arrange for and require the owner trustee to use the services of the utility in the capacity of construction supervisor to oversee the construction testing, delivery, and acceptance of the facility.

While it is possible to arrange a facility lease in a fairly short time, the financial planning for a large facility is complex and may involve a typical lead time extending over several months. Exhibit 14.3 is a flowchart for a facility leveraged lease transaction showing the decisions that will be made and the events that will take place from the inception to the completion of such a transaction.

7. Construction financing

In the usual leveraged lease transaction, the equity participants pay in their equity funds simultaneously with the receipt of leveraged debt funds from the loan participants at the closing, when the leased equipment is accepted by the lessee and the lease begins.

However, where the construction period extends over a considerable time, the contractor may require progress payments during construction. In such a situation, the parties may agree that the owner trust will take title to the facility during construction, so that the lease involves an interim lease term during construction that precedes the base lease term. Where this type of arrangement is made, a separate interim loan (construction loan) agreement is entered into by the lessee, the owner trustee, and the construction lenders, who are usually not also to be loan participants during the base term lease. The lessor's equity investment and short-term construction loan financing is used until the completion of construction, acceptance by the lessee, draw-down of the long-term financing (leveraged debt), and commencement of the base lease term. The lessee pays interim rents to the owner trustee in an amount sufficient to cover interest on the construction loan and an adequate yield to the equity participants. In the alternative, construction loan interest may be capitalised into the cost of the facility and included in the total cost of the facility which is to be financed by the lease.

Construction financing is usually provided by commercial banks. Such financing is secured by an assignment of interim rents and by the lessee's obligation to pay off the principal of the loan if the long-term lenders fail to provide the financing or if the facility is not constructed or completed by a certain date. In such a situation, the equity participants will also look to the lessee's guarantee to recover their investments plus an adequate yield. All of the lessee's guarantees of construction loans are eliminated on or before completion and acceptance of the leased equipment and commencement of the base term of the lease. Eliminating lessee guarantees of the owner trust debt obligations is necessary in order to comply with the Internal Revenue guidelines set forth in Revenue Procedure 75-21.

8. Credit exposure of equity participants

As noted earlier, equity participants realise their yields from the following sources:

1. The interest rate spread between their yield on investment and their cost of funds.
2. Tax benefits from investment tax credit and MACRS (tax depreciation) deductions.
3. The residual value of the equipment at the conclusion of the lease.

Although equity participants sometimes like to view their credit exposure as being limited to their original equity investment, most of which may be recovered in the first few years of the lease term of a leveraged lease, this is not the case if a 'forgiveness' of the leveraged debt occurs in the later years of the lease. In such a situation, the lessor may be deemed to realise taxable income from the forgiveness. A forgiveness might occur, for example, where the lessee defaults and the indenture trustee (on behalf of the loan participants) repossesses and sells the equipment for less than the outstanding principal of the leveraged debt.

For these reasons, leveraged leases are available only to lessees that present no apparent credit risk. Lenders and equity sources must be confident regarding the lessee's ability to meet all of its obligations under the lease, both for rental payments and for maintenance of the leased equipment.

9. Points of contention between lenders and equity participants

Since the indenture trustee has an assignment of the rental payments, an assignment of the lease, and a first lien on the equipment, and since the lien position of the equity participants is junior to that of the loan participants unless otherwise provided, points of contention can arise between the equity participants and the lenders as each group seeks to protect its respective interest in the transaction.

(a) Indenture defaults which are not lease defaults

The equity participants must be sure that any event of indenture default that does not constitute a lease default is controlled by the equity participants or by the owner trustee acting on their behalf. In the absence of such protection, the equity participants could find themselves in default under the indenture and lose their interest in the equipment even though the lessee might continue to possess and use the equipment.

(b) Control of sale of leased property in the event of default

The equity participants in a leveraged lease should have some protection against the sale of the leased property to satisfy lenders in the event of a default by the lessee. Since the loan participants have a first lien on the leased property, they are interested in selling the property at a price that approximates their exposure, whereas the equity participants want to follow a strategy for realising the maximum amount obtainable from a continuation of the lease, a release of the leased equipment, or a sale of the leased equipment. Also, if tax benefits have not vested, the equity participants will suffer a further loss if the leased equipment is sold to a third party.

(c) Cure rights of equity participants

The equity participants will want to negotiate the right to cure defaults of the lessee so as to prevent the indenture trustee (on behalf of the loan participants) from foreclosing and selling the leased property at a fire-sale price. The lenders, on the other hand, may resist this approach because it limits their ability to seize the equipment at an opportune time for resale, and because the value of the equipment may deteriorate in the hands of a lessee that is in financial difficulties and unable to properly maintain the equipment. This conflict can usually be resolved by permitting the equity participants to take action to prevent or cure a default on a basis whereby the equity participants have the right to purchase the notes evidencing the leveraged debt as they come due or the right to make up a certain number of consecutive rental payments to cover some or all future debt payments.

(d) 'Fish or cut bait' provisions

Another point of contention may arise where a technical default occurs that may be impractical or impossible to remedy and the indenture trustee begins to withhold payments otherwise due the equity participants in order to build an unofficial security deposit for the lenders. In order to provide equity participants with protection against such an occurrence, 'fish or cut bait' provisions are negotiated that require the indenture trustee under such circumstances either to accelerate the entire loan within some time limit or to pay the equity participants.

(e) Tax indemnity payments

Tax indemnity payments that may be due the equity participants are another possible area of disagreement. Since tax payments and indemnifications by the lessee against their loss are the lifeblood of the equity participants' yields and return on their investments, the equity participants argue that they should receive any tax indemnity payment to which they are entitled ahead of the lenders. Loan participants, of course, argue that their claim against the lessee and the leased equipment arising out of the leveraged debt is ahead of any claim of the equity participants. The trend has been for equity participants to prevail on this issue. The equity participants' rights to tax indemnity payments are carved out of the lessee's obligations assigned to the loan participants.

Payments by the lessee under general indemnities and liability insurance proceeds are also frequently carved out for the benefit of the equity participants.

In arranging a leveraged lease the equity participants and the lessee should have a clear understanding with the loan participants on these points at the time of arranging, pricing, and obtaining a commitment for the leveraged debt so as to avoid misunderstandings at a later date, particularly where interest rates may have moved upward between the time of commitment and the time of closing.

I0. Indemnification for future changes in tax law

Where a company requiring equipment intends to use a true lease to finance its equipment acquisitions, the lessee and lessor must agree as to which of them will bear the burden of future tax changes. In the past this issue was not much of a problem because historically corporate tax rate changes were very rare and, when they occurred, had been around 2 per cent.

However, in view of the extraordinary reductions in corporate tax rates included in the Tax Reform Act of 1986 (from 46 per cent in 1986 to 39.95 per cent in 1987 to 34 per cent in 1988), the risk of future tax rate increases has assumed new dimensions that lessees and lessors simply cannot ignore.

The tax benefits available to a lessor usually consist of accelerated depreciation deductions. During the early years of a lease, tax deductions attributable to accelerated depreciation equal all or part of taxable rental income. This results in deferral of taxable income attributable to the lease rentals until the later years of the lease when depreciation deductions decline or are exhausted. If in the early years of a lease the tax rate rises above that assumed by the lessor for pricing, the lessor's cash flows and yield will rise during the years in which the lessor claims depreciation deductions. On the other hand, if the tax rate is higher than assumed by the lessor for pricing during the years in which the rental income exceeds the depreciation deductions, the lessor's cash flow and yield will decline or even disappear.

Lessors generally take the position that they should be held harmless by the lessee in the event of any tax law changes or tax rate changes adversely affecting their contemplated yield or cash flow. Lessors argue that the lessee is no worse off under such an indemnification than the lessee would have been had the lessee purchased the leased equipment and directly claimed tax benefits associated with equipment ownership. Lessees, on the other hand, generally take the position that after delivery of the leased equipment, lessors should assume the risk of loss of tax benefits for any reason except as a result of acts or omissions of the lessee.

The problem facing both lessees and lessors is how to engage in equipment leasing and protect themselves in view of the future tax rate uncertainties. A significant tax rate change can have disastrous consequences for a lessor, and the possibility of such a change is very real.

Initial questions facing lessors and lessees include the following:

1. What is the definition of the tax covered by the indemnity?
2. What is the risk of tax rate change that is to be covered?
3. What event or events will trigger a tax indemnity?
4. For what period of time will tax indemnities apply? For the entire lease, or for a limited number of months or years?
5. How will the loss (or gain) resulting from indemnified tax rate risks be computed?
6. How will the indemnified party be compensated?
7. Under what circumstances can the lessee or lessor terminate the lease?

(a) Definition of the tax to be covered by the tax rate change indemnity

This discussion is directed at tax indemnities that relate to changes in the regular US federal corporate income tax rate, since that is the rate with which lessees and lessors will be most concerned.

Other corporate income and excise taxes may affect the lessors' yield and cash flow, and lessors may seek indemnity protection against changes in those tax rates. These other corporate income tax and excise taxes include the following:

1. State or city income tax.
2. The federal alternative minimum tax.
3. Federal income or excise surtax based on the regular federal income tax or the alternative minimum tax such as the so-called superfund tax.

The definition of the tax which is to be covered by a tax rate change indemnity should, consequently, be precise.

Lessees inclined to provide some degree of protection to lessors with regard to the regular federal corporate tax rate are generally going to be reluctant to provide further protection for various other potential corporate taxes based upon income.

A lessor that may be subject to the alternative minimum tax is going to be hard-pressed to convince a lessee to provide indemnity protection against such an occurrence. Competition from lessors with no risk of being subject to alternative minimum tax will force most lessors to assume that risk. In any event, a corporation's liability for alternative minimum tax may take several years to determine, which makes such an indemnity very impractical to administer.

(b) The risk of tax rate change to be covered by an indemnity

An early question to be addressed is to define what risk of tax rate change is to be covered by the tax indemnity. These, of course, range from none to the entire risk of change. However, there are methods of limiting or sharing the risk that the parties may wish to consider. These may be expressed in terms of the number of months or years in which the indemnity is to be in effect. The limits may also be expressed in terms of dollar caps or limits on the compensation to the indemnified party. A lessee providing an indemnity will also want a two-way-street clause which will provide the lessee with the benefits of tax rate changes that improve the lessor's cash flow or yield.

(c) Dimensions of the problem; the triggers

The trigger for activation of a tax indemnity covering a change in the corporate tax rate will usually be related to one or more of the following events:

1. A defined amount of percentage change such as, for example, from 34 per cent to 36 per cent or higher.
2. The cumulative effect of the tax rate change measured by some stated amount of yield or cash flow.
3. The cumulative effect of the tax rate change and any other tax law changes measured by some stated amount of yield or cash flow.

It is often impractical, uneconomical and not in either party's best interests to trigger indemnity clauses for small changes in the tax rate or tax law that have a relatively minor effect on yield or cash flow, particularly in the case of smaller leases.

(d) Time limits on tax indemnity

Some of the various possibilities for defining the time limits during which tax indemnities or lease rate adjustments will apply include any changes in tax rates that become effective and/or are actually enacted into law by Congress, on or before:

1. The date the lease commences (this traditionally has been the lessee's risk with right of cancellation of the lease).
2. Some date in the future between the lease commencement date and the date the base lease term terminates.
3. The date the base lease term terminates.
4. Some date in the future after the termination of the base lease term.

One possibility for compromise in an otherwise satisfactory lease arrangement is presented by the lessee assuming the risk of tax rate change for a period of time that is somewhat less than the entire lease term and also gaining the benefits of a tax rate change during the same time period that would otherwise improve the lessor's yield or cash flow.

(e) Basic remedies for an indemnified party

In the event a tax indemnity is triggered, the parties have two basic remedies:

1. They may continue the lease with a lump sum payment and/or certain adjustments to rents or term; or
2. They may terminate the lease on some agreed basis which will usually involve a payment or payments by the lessee to the lessor (burdensome buyout price).

Usually the lessee will want the right to terminate the lease if certain events occur, such as the rent adjustments, etc., being above a certain level if the lease is continued. The lessor will usually wish to have a right to avoid the buyout by waiving some (or all) of the tax indemnity rental adjustments. (This right may be needed in any event to avoid conflict with Revenue Procedure 75-21, 1975-1 C.B. 715.)

(f) Computation of the loss or benefit

Lessees will seek the benefit of any windfall to the lessor resulting from a tax rate change. This benefit may take the form of future decreased rents.

Lessors will seek to gear any adjustment to which they are entitled as a result of a tax rate change so as to preserve both their cash flow and yield (a double-barrelled indemnity).

Lessees will usually prefer indemnities to the lessor limited to maintaining the lessor's yield. The computation of any loss or benefit to a lessor's yield as a result of tax legislation may be somewhat sensitive for lessors since they may not care to disclose how they arrived at their yield. However, since lease yield timeshare plans are available to everyone, a defined formula of input to serve as a basis for yield maintenance offers one avenue for agreement. Typically the lessor might compute the adjustment, submit it to the lessee for approval, and the two parties either agree or then sort out any differences. Another approach is to use an independent third party such as a CPA firm to compute the appropriate adjustment where the parties are unable to agree.

A further question the parties must face is whether the lessor after-tax yield is to be preserved under the old law or the new law. Another question is what will constitute the target yield under the new tax law or under a matrix of new tax rates.

Lessors may be more concerned with maintaining a certain cash flow than maintaining a certain yield.

The so-called double-barrelled indemnity mentioned earlier whereby the lessor maintains both a certain yield and cash flow has not been unusual in the past.

There is also the question of recovery of lessee and lessor costs in originally entering into the transaction. Usually each party will bear its own costs.

(g) Specific remedies of the indemnified party

The remedies available to the indemnified party or to the party subject to liability for an indemnity payment include the following:

1. Cancellation of the lease with each party bearing its expense.
2. Cancellation of the lease with some stated amount of dollar compensation by one party to the other party to the lease.
3. Adjustment of the lease rentals over the term of the lease.
4. Adjustment of the lease rentals over some shorter period than the entire term of the lease (resulting in high/low rentals, for example).
5. Extension of the term of the lease with the same rents or higher rents.
6. Payment of a lump sum.

The parties might predetermine a rental adjustment or a term adjustment by a matrix formula in the lease documentation. So-called unwind provisions to terminate the lease if certain events occur run counter to IRS true-lease guidelines. Tax lawyers will have to rationalise their way around such guidelines in the light of the special circumstances involved. So-called burdensome buyouts may be unacceptable to lessees if unduly burdensome.

(h) Leveraged debt provisions should contemplate possible tax indemnity

Lessors and lessees should be careful in arranging debt for leveraged leases to obtain the agreement of debt participants in the event of a tax indemnity event to either early prepay the debt or terminate the lease while leaving the debt in place. Failure to obtain such consent will undermine the tax indemnity remedies and options of the lessee. Obviously, this type of consent should be obtained at the outset of lease negotiations and included in the debt participant's commitment letter. Such a provision cannot be left until late in the lease negotiations as a routine request.

(i) Risk of future rate change is significant

The risk of a change in the future corporate tax rate that will adversely affect the yields and cash flows of lessors is significant.

Lessors and lessees must consequently be concerned with the new dimensions of this risk in future lease documentation. Lessors must be satisfied that a proposed lease transaction makes economic sense on a worst case basis. In the final analysis, adjustments in the original lease rate pricing may be the key to resolving negotiation disputes regarding who will bear the risk of future corporate tax rate changes.

11. Leveraged leases with individual investors

Leveraged leases of equipment can be structured with individual investors acting as equity participants. Usually these are structured as partnerships. The income tax requirements and consequences for individual equity participants in a leveraged lease are very different from those for corporations. At-risk rules prevent effective leveraging. Interest deductions and depreciation deductions are severely limited by income tax preference limitations. In any event, a discussion of leveraged leases by individuals acting as lessors is beyond the scope of this chapter.

12. Summary

Although the total volume of documentation involved in a leveraged lease is formidable, the individual documents are straightforward and not particularly complex. Consequently, leveraged leasing is a practical financing alternative for lessees that are willing to take the time to understand and negotiate such a transaction. In the right situations the rewards for such an exercise are extremely attractive financing costs.

Leveraged leases can also be attractive tax-oriented investments for corporations. However, such leases are not passive investments. Professional expertise and technical skill are needed in pricing, negotiating, closing, and administering leveraged lease transactions. For the lessor, the leverage in a leveraged lease is like a two-edged sword: both the benefits and the risks are magnified by leverage.

13. Example of a leveraged lease of an electric generating facility by a utility

This example contemplates the sale and true lease-back by a utility of a coal-fired electric generating facility which is under construction, with long-term financing under a leveraged lease. Exhibit 14.4 illustrates the major agreements and cash flows involved in this transaction.

There are a number of key agreements.

(a) Participation agreement

The participation agreement is the key driving agreement in this leveraged lease. It is between the lessee, the owner participants (sometimes called equity participants), the indenture trustee and the owner trustee.

This agreement outlines the proposed transaction and the undertakings and obligations of the various parties to the agreement.

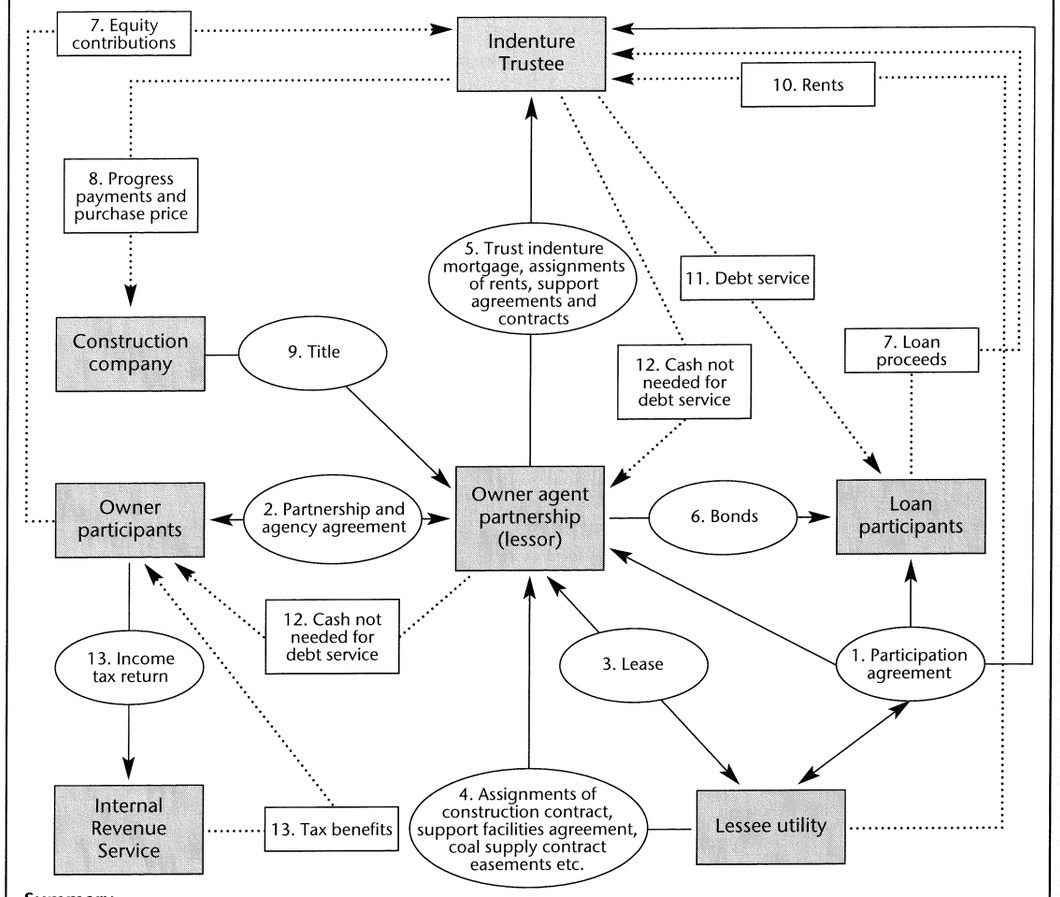
(b) Partnership and agency agreement

This agreement is between the owner participants and the owner agent. It spells out the duties and responsibilities of the owner agent and the obligations of the owner participants. (The owner participants are sometimes called equity participants and the owner agent is sometimes called owner trustee.)

(c) Support facilities agreement

The purpose of the support facilities agreement between the lessee and the owner agent lessor is to provide the lessor (owner agent) with access to all properties and things necessary or desirable to allow the lessor to operate the electric generating facility as an independent commercial electric generating unit. The facilities agreement provides for maintenance services, fuel supply, power transmission and/or distribution, and other things to be provided by the lessee (for which

Exhibit 14.4: Leveraged lease of an electric generating facility



Summary

1. A participation agreement is entered into between the owner agent, the lessee, the loan participants and the indenture trustee. This agreement constitutes the master agreement for the leveraged lease and spells out the general rights and obligations of the parties.
2. A partnership and agency agreement is entered into between the owner participants and a bank or trust company acting as the owner agent and lessor.
3. A lease agreement is entered into between the partnership and the lessee.
4. The lessee assigns to the partnership its interest in the construction contract, support facilities agreements, coal supply contracts, easements, etc.
5. The owner agent, on behalf of the partnership, enters into a trust indenture and mortgage with the indenture trustee and assigns to the indenture trustee all rents and other payments to be received under the lease, the construction contract for the facility to be leased, the support facilities' agreements, coal supply contracts, easements, etc., all as security for bonds (leveraged debt) which are to be sold by the owner agent.
6. Bonds are issued to the bondholders.
7. Loan proceeds and equity contributions are paid to the indenture trustee.
8. Purchase price is paid to the construction company.
9. Title to the leased facility is conveyed by the construction company to the partnership.
10. The lease commences and rental payments commence to be paid by the lessee to the indenture trustee.
11. The indenture trustee services the debt to the loan participants.
12. Cash not needed for debt services is distributed to the owner participants.
13. In the meantime, the owner participants file income tax returns and receive tax benefits associated with equipment ownership.

the lessee would be reimbursed), for such period as the lessor may choose, while a third party is operating the facility on behalf of the lessor or on lease from the lessor. Without a support facilities agreement, the assets of the project have little value as collateral.

The facilities agreement is assigned to the bondholders as support for the debt. It remains in effect throughout the interim term, the basic term, and any renewal terms, and for at least 10 years thereafter.

Since this transaction is to be structured as a true lease, another purpose of the facilities agreement is to ensure that the facility will have value to someone other than the lessee at the end of the lease so as to satisfy the true lease requirements of the Internal Revenue Service.

A common facilities agreement provides for the joint use of certain facilities by the lessee and the lessor (owner agent) during such a period when both parties would be using such facilities as a result of the support facilities agreement.

(d) Trust indenture and mortgage

The trust indenture and mortgage is between the owner agent (on behalf of the partnership) and the indenture trustee. It spells out the duties and responsibilities of the indenture trustee and the rights, obligations, and duties and remedies of the owner agent.

Among other things, the trust indenture and mortgage sets forth the form of bonds to be issued to evidence the leveraged debt, and assigns to the indenture trustee for the benefit of bondholders and as security for payment of the bonds, a first lien on the leased assets, easements, support agreements, rents, and any payments received under the lease.

(e) Lease agreement

The lease agreement is between the utility as lessee and the owner agent on behalf of the partnership, as lessor. The lease is a net true lease in which the lessee is responsible for maintenance and repair of the facility in a manner consistent with the original performance specifications and sound engineering practices. All expenses of operations, fees, taxes (other than the lessor's income tax) are for the account of the lessee. The lessee assumes liability for, and indemnifies all parties to, the transaction from and against any and all liens, encumbrances, obligations, losses, damages and penalties in respect of the leased facility and the acquisition, financing, use and operation thereof.

(f) Construction supervision agreement

The construction supervision agreement is between the utility lessee and the partnership. The participation agreement contemplates that the title to the property to be leased will be transferred to the owner agent (lessor) while the plant is still in early stages of construction. Although the facility is being constructed by a third party contractor, the utility has been and wishes to continue to supervise the performance of a construction contract with the third party contractor.

Therefore, the purpose of this agreement is for the partnership to use services of the utility in its capacity as construction supervisor to oversee the construction testing, delivery and acceptance of the facility.

(g) Coal supply agreement

The mere ownership of the facility by the lessor, without the underlying supply contracts for coal to be used as fuel in the facility, might seriously undermine the value of the facility for security purposes and residual value purposes. To protect the interests of the partnership (as lessor) and bondholders, it is necessary for the lessee to assign any coal supply contracts which might be advantageous or valuable to the partnership as lessor. The partnership, in turn, assigns its interest in such contracts to the indenture trustee for the benefit of the bondholders.

The supplier must consent to this arrangement, and a form of consent is usually included as part of the coal supply agreement.

(h) Construction contract assignment

The participation agreement and the lease agreement contemplate that the partnership (lessor) will take possession of the facility during the early stages of construction. The construction contract must be assigned by the utility lessee to the partnership.

14. Examples of leases by sponsors to projects

(a) Leveraged true lease financed by non-recourse debt and supported by a take-or-pay contract

One or more parties desire to construct a project to obtain a needed supply or service and desire to do so on a basis whereby they can retain the tax benefits of

ownership of the project and, at the same time, finance the project off-balance sheet to the greatest extent possible. The sponsors form an independent company to operate the project and enter into a long-term take-or-pay contract with the project company. The sponsors then enter into a leveraged true lease with the project company for equipment needed by the project company. The purchase price of the equipment under the lease is financed 80 per cent by leveraged debt which is non-recourse to the sponsors. The sponsors' costs are segregated for rate purposes. The sponsors claim and retain investment tax credit, depreciation, and interest deductions as equity participants in the leveraged lease. They file a partnership tax return as equity participants. The credit is the equity investment in the project, and the value of the take-or-pay contract. The debt rate on the non-recourse debt of the leveraged lease will reflect the credit of the obligors under the take-or-pay contract and the value of the property as security.

Sponsor's balance sheet

The leverage debt would not be reflected on the respective sponsor equity participants' balance sheets because the debt is non-recourse. Debt or capital leases of the project company are not shown on the sponsors' balance sheets because the respective sponsors do not control the project company. A take-or-pay contract is treated as a long-term contract for services or supplies and constitutes an indirect obligation or commitment. It is disclosed under the commitments and contingent liabilities section of the footnotes to the balance sheet. Loan covenants are usually not affected by the non-recourse debt and ordinarily would not be affected by a take-or-pay contract.

Advantages

1. The advantages of a partnership are obtained for tax and accounting purposes without having to assume joint and several partnership contractual liabilities for the major debt of the project.
2. Off-balance sheet and outside loan covenants as to the portion of capital contributed by other sponsors of the project.
3. The economies of a large-scale operation may be achieved by combining and concentrating the financial resources and technical skills of several sponsors.
4. An essential facility is built without any one sponsor participant being required to pay the entire cost of the project.
5. The borrowing cost may be lower as a result of combining the project with other sponsors.
6. The sponsors can end up with control of the key assets of the project at the end of the true lease.

Disadvantage

1. Lack of absolute control over the facility.

(b) Example of a leveraged true lease by joint venturers and a third party leasing company

A leveraged true lease is used to finance a corporate joint venture project on a basis whereby one party's share is owned by a third party leasing company, and the two other joint ventures to the project each participate directly along with a third party leasing company in a leveraged lease to finance a project.

A utility, a tyre company, and a chemical company agree to construct and operate a co-generation facility in which the utility will use electricity produced by the project, the tyre company will use steam and some electricity produced by the project, and the chemical company will use steam produced by the project company. All three parties are willing to enter into a take-or-pay contract, for a term of 20 years on a basis whereby they will be obligated to make certain minimum payments even though no deliveries of electricity or steam are made.

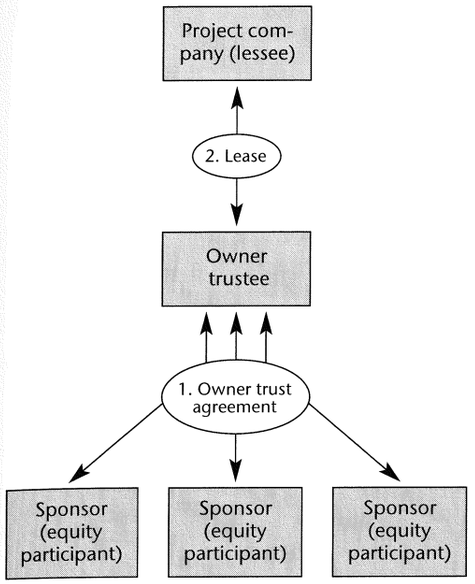
The utility company is named as manager of the project and is paid a fee for its services as manager of the project. A separate corporation is formed to operate the co-generation facility. Each of the three co-venturers owns one-third of the joint venture company.

The co-generation facility joint venture company enters into a leveraged true lease agreement for the facility in which a third party leasing company, the tyre company, and the chemical company are equal lessor equity participants. Take-or-pay contracts from the utility, the tyre company and the chemical company are assigned as security for payment of debt and lease payments.

Rate base

Costs are segregated for electricity purchased by the utility. A portion of the capitalised lease might be included in the utility's rate base.

Exhibit 14.5: Lease to a project company by sponsors



Summary

1. Sponsors of a project enter into an owner trust agreement for the purpose of entering into a lease to their project company. The sponsors contribute capital to the owner trustee to purchase the asset to be leased, pursuant to the terms of the owner trust agreement.
2. The owner trustee purchases the asset and enters into a lease agreement with the project lessee on a tax-oriented basis whereby the lessor can claim the tax benefits which are, in turn, claimed by the sponsors who file partnership income tax returns.

Income tax

The tyre company and the chemical company as Lessors can claim depreciation deductions, interest deductions, and any ITC which may be available. The third party leasing company receives similar tax benefits, most of which are passed through to the lessee in the form of a low lease rate. The chemical company, the tyre company and the third party leasing company file a partnership income tax return as equity participants under the lease.

The agreement between the parties must be drawn so as to enable the third party leasing company to satisfy the Internal Revenue Service that the transaction constitutes a true lease with respect to residual value.

Debt rate

The debt rate on the non-recourse debt of the leveraged lease will reflect the credit of the obligors under the take-or-pay contracts and the value of the facility as security.

Balance sheet

The leveraged debt will not be reflected on the balance sheet of the chemical company, the tyre company or the third party leasing company because the debt is non-recourse. The lease will be a capital lease on the books of the project company. However, this would not be shown on the books of the chemical company, tyre company or utility because none of those sponsors control the project company. The take-or-pay contracts are treated as long-term contracts for services or supplies and constitute an indirect obligation or commitment. Take-or-pay contracts are disclosed under the commitments and contingent liability section of the footnotes to the balance sheet.

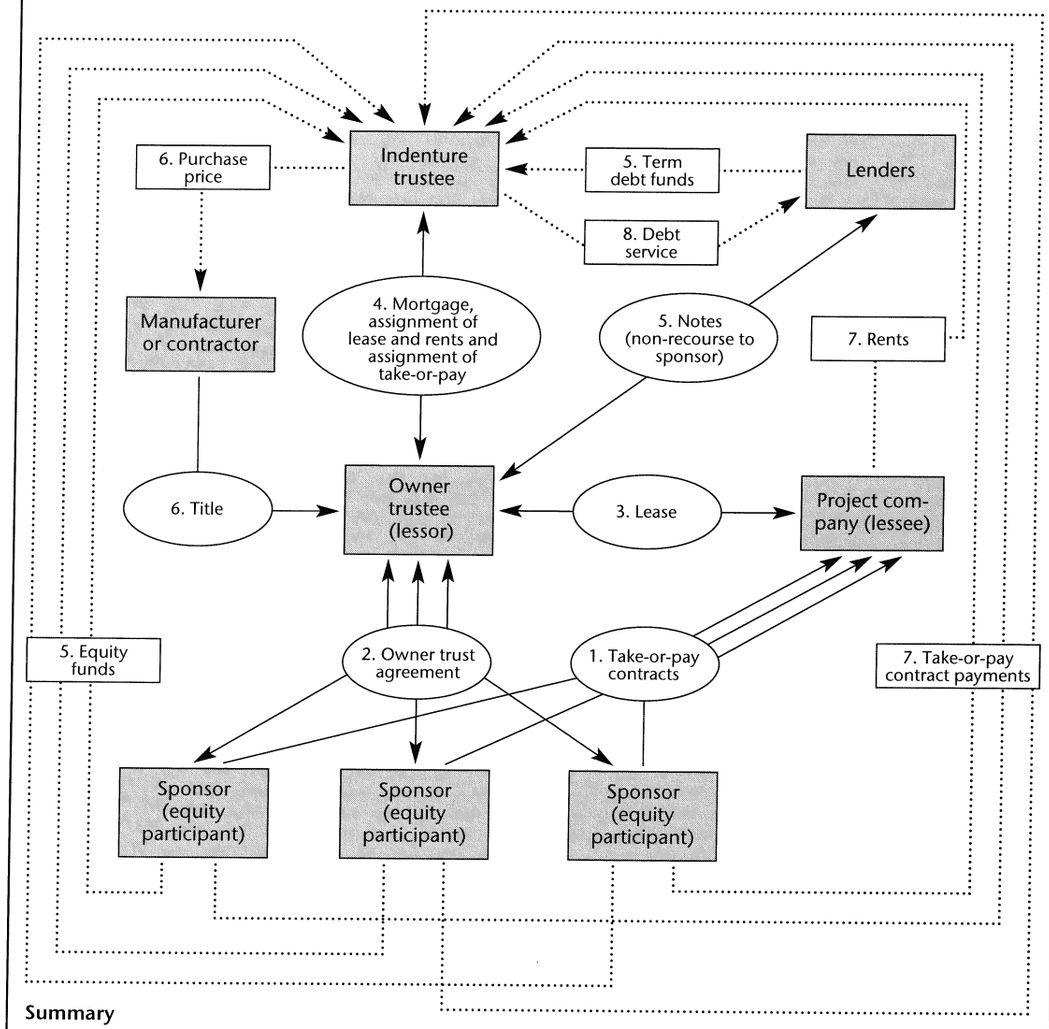
Sponsors' loan covenants

Loan covenants are usually not affected by the non-recourse debt and ordinarily would not be affected by a take-or-pay contract.

Advantages

1. Two of the three sponsors end up with control of the key asset of the project at the end of the true lease with the third sponsor.
2. The utility gets the benefit of low financing costs through the use of a leveraged lease.
3. The different tax objectives of the parties are resolved through use of the lease.
4. The utility can realise its share of the profits of the project in the form of management fees. (The stated federal government policy is to encourage co-generation facilities to be managed by local utilities whenever possible.)
5. The advantages of a partnership are obtained for tax and accounting purposes without having to assume joint and several partnership contractual liabilities for the major debt of the project.
6. The economies of a large-scale operation may be achieved by combining and concentrating the financial resources and technical skills of several sponsors.

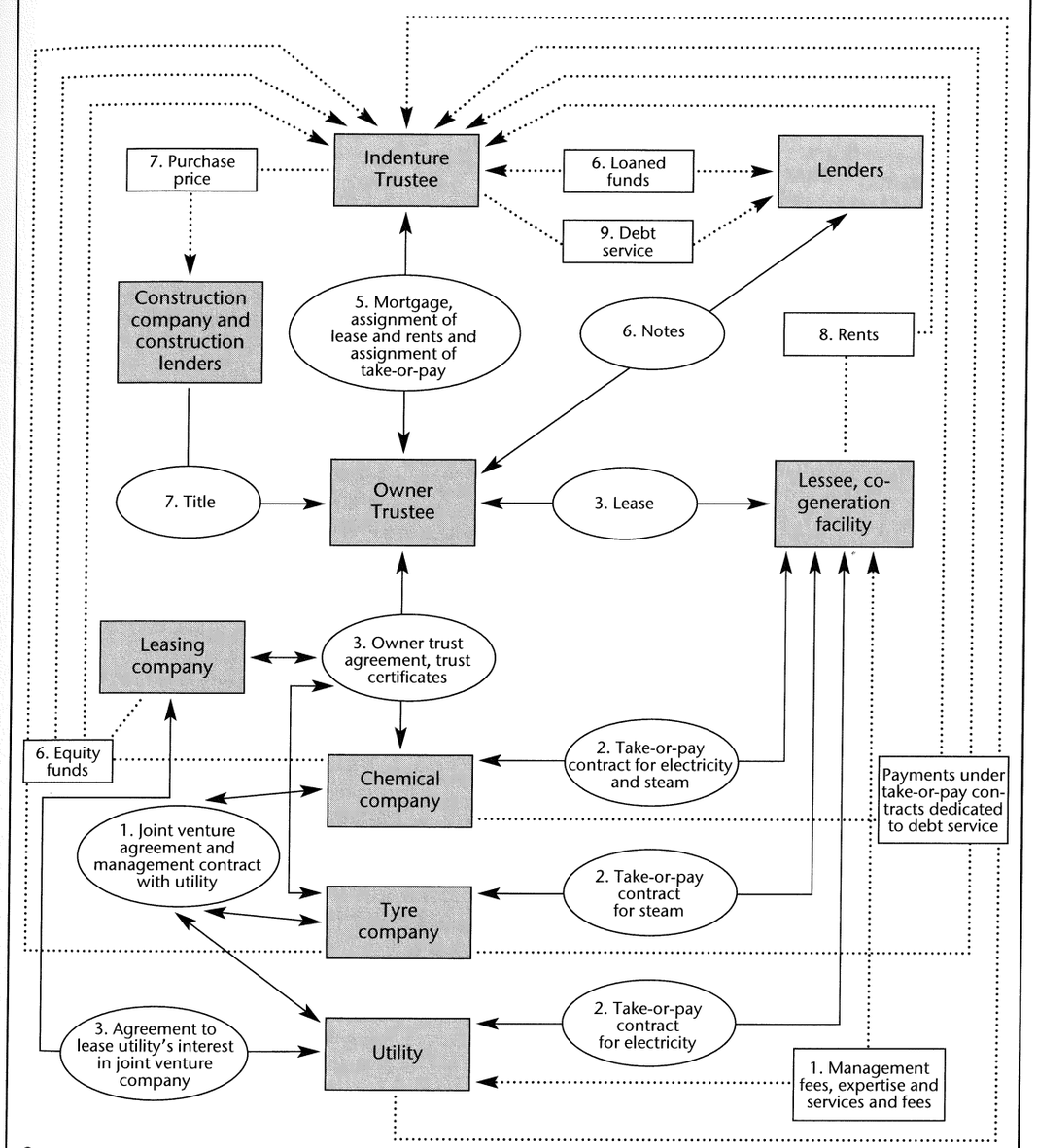
Exhibit 14.6: Leveraged lease to project company by sponsors financed by non-recourse debt and supported by a take-or-pay contract



Summary

1. Three sponsors of a project company, none of which controls the project company or has a majority ownership, enter into long-term take-or-pay contracts for the product to be produced by the project company.
2. Sponsors enter into an owner trust agreement and name an owner trustee for the purpose of entering into a leveraged lease of equipment to the project company.
3. The owner trustee enters into a lease agreement to lease the project facility to the project company.
4. The owner trustee enters into a security agreement for the benefit of leveraged lease debt holders with an indenture trustee which includes a mortgage, an assignment of lease and rents, and an assignment of take-or-pay contracts.
5. Notes are issued to the lenders who, in turn, pay the loan proceeds to the indenture trustee. The equity participants pay equity funds to the indenture trustee.
6. The indenture trustee pays the purchase price to the manufacturer which, in turn, conveys title to the owner trustee, subject to the mortgage.
7. The lease commences and take-or-pay contract payments and rentals are paid directly to the indenture trustee.
8. The indenture trustee services the debt; the indenture trustee deducts trustee's fees and distributes any remaining cash flow to the owner trustee which, in turn, distributes to the equity participants (lines not shown).

Exhibit 14.7: Lease of a utility's share of a co-generation project with joint venturers and a third party leasing company as equity participants in a leveraged lease



Summary

1. A chemical company, a tyre company, and a utility enter into a joint venture agreement to establish a co-generation facility in which the utility company is given a management contract to manage the facility.
2. The chemical company enters into a take-or-pay contract with the joint venture facility for electricity and steam; the tyre company enters into a take-or-pay contract with the joint venture company for steam; and the utility enters into a take-or-pay contract with the joint venture company for electricity.
3. The chemical company, tyre company and utility agree to finance the co-generation facility through use of a leveraged lease in which the chemical company and tyre company will participate as equity participants and in which

Exhibit 14.7: Lease of a utility's share of a co-generation project with joint venturers and a third party leasing company as equity participants in a leveraged lease *continued*

a third party leasing company will participate as an equity participant with regard to the utility's share, pursuant to an agreement with the utility; the leasing company, the chemical company, and the tyre company establish an owner trust to act as lessor.

4. The owner trustee enters into a lease with the joint venture; the take-or-pay contracts are assigned as security for rents.
5. The owner trustee establishes an indenture trust and assigns the mortgage on the joint venture facility together with an assignment of the lease, the rents under the lease, and the take-or-pay contracts, to the indenture trustee to be held for the benefit of the lenders.
6. The owner trustee issues notes to lenders who, in turn, pay the loan funds to the indenture trustee; in the meantime, the leasing company, the chemical company, and the tyre company make equity contributions to the indenture trustee.
7. The indenture trustee pays the purchase price for the facility and title is conveyed to the owner trustee.
8. The lease commences, and rents and proceeds of the take-or-pay contracts are delivered to the indenture trustee.
9. The indenture trustee repays the debt to the lenders and distributes any rentals not needed to service debt to the owner trustee which, in turn, pays such amounts to the equity participants.

7. An essential facility is built without any one sponsor being required to pay the entire cost or bear the entire risk of the project.

Disadvantages

1. Lack of absolute control over the facility by any one party.
2. Reluctance of industrial companies to become joint ventures with a public utility.

15. Other examples of uses of leases to achieve project financing objectives

(a) Sale lease-back of equipment or real estate

The owner of equipment, a facility or real estate sells the property to a third party which immediately leases the property back to the owner, thus raising capital for other needs or projects. Where an owned project is sold and leased back on a true lease, a project financing results. A typical project includes a building, a parcel of real estate, a facility or capital equipment.

Income tax

The seller may realise capital gain on the sale. However, the transaction may result in some depreciation recapture. Rents will be deductible if the transaction results in a true lease.

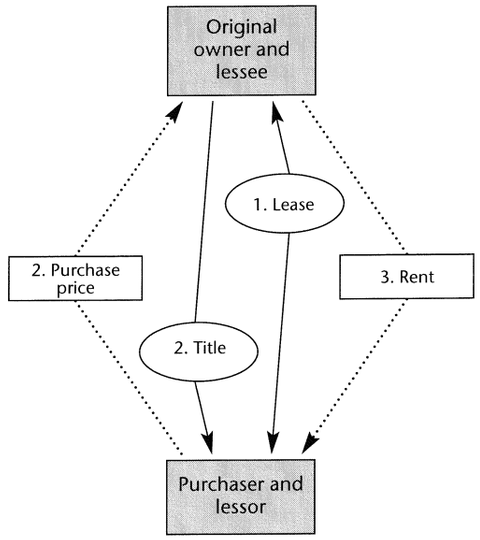
Debt rate

The lease rate is a function of the credit of the lessee and the value of the leased property.

Balance sheet

The lease is treated as a capital lease or operating lease, depending on its characteristics. Any profit on the sale is deferred and amortised in proportion to the amortisation of the leased asset if a capital lease,

Exhibit 14.8: Sale and lease-back



Summary

1. A lease agreement is entered into between the lessee and the lessor.
2. The lessor purchases the property to be leased from the lessee (owner) and the lessee (owner) conveys title to the lessor.
3. The lease commences, and the lessee pays the rents to the lessor.

or in proportion to rental payments over the period of time the property is expected to be leased if an operating lease. When fair market value of the property at the time of the transaction is less than its undepreciated cost, a loss is immediately recognised for the difference.

For a lease of land to be classified as a capital lease, the lease must transfer ownership of the property to the lessee by the end of the lease term or the lease must contain an option to purchase at a bargain price.

Advantages

1. Capital raised for project needs.
2. An owned project can be converted to a project financing recorded as a capital lease on the balance sheet or as an operating lease in the footnotes.
3. Rental deductions may be more advantageous than depreciation deductions.

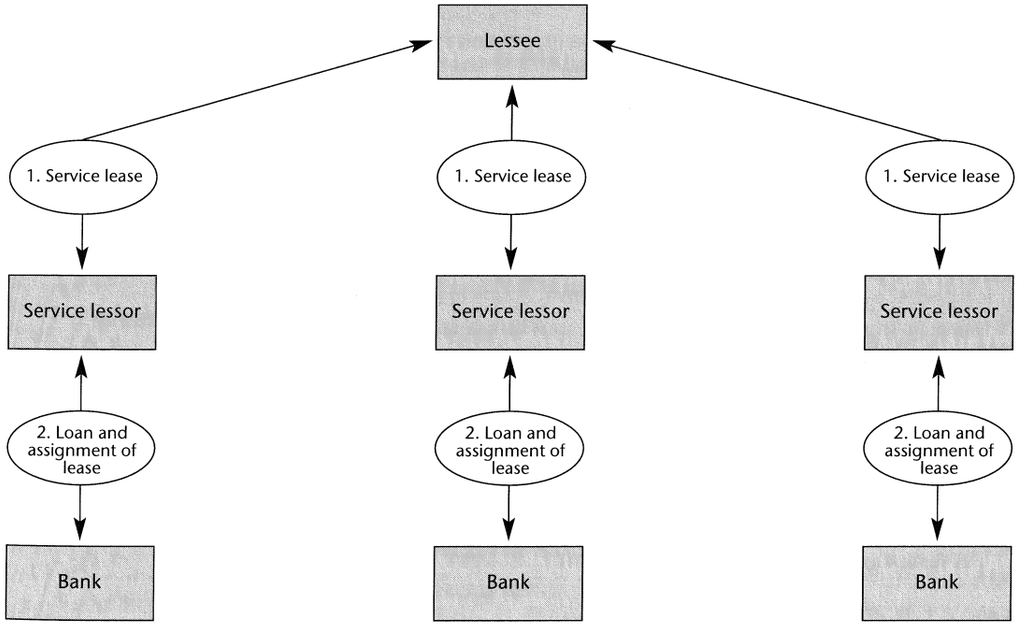
Disadvantages

1. Loss of ownership and residual.
2. Cost may be high, especially considering the loss of residual. This is not an easy transaction for a lessor since great care is required on the lessor's part to perfect its title. Limited accelerated depreciation and tax benefits are available to a lessor on used equipment or real estate, making lease rates less attractive than for new equipment.

(b) Service leases to avoid investment in equipment and facilities

A company with a strong credit rating, as lessee, leases or contracts for services such as transportation or short-term use of equipment or facilities needed in connection with construction or production. Such lease contracts have certain minimum termination rights. The lessors may discount the contracts at banks on the basis of the unconditional obligation of the lessee to pay, subject to the banks' confidence in the lessor to perform sufficiently well to prevent cancellation. The lessee avoids large capital expenditures it would otherwise have to incur to purchase facilities and equipment to

Exhibit 14.9: Services leases



Summary

1. A lessee with excellent credit enters into a variety of service leases with a number of lessors.
2. Banks and other lenders lend to the service lessors on the strength of the credit of the lessee, the credit of the lessor, the expectation that the leases will continue because of the good reputation of the lessor, and an assignment of the leases.

provide the needed services. A typical project would include maintenance leases of trucks and construction equipment, services or facilities in connection with development of wells or mines, or construction of pipelines, or construction of plants. Other examples include service leases for transportation, logistics, camps, supply service, and data processing equipment.

Income tax
Rents are deductible by lessee.

Debt rate
The costs of the financial aspects of a service lease are determined by the credit of the lessor.

Balance sheet of sponsor lessee
If such leases are shown at all, they are shown as operating leases in a footnote, rather than on the balance sheet.

Loan covenants of sponsor (lessee)
Short-term operating leases are usually not restricted by loan covenants.

Advantages
1. Financing is off-balance sheet.
2. Outside of loan covenants restricting debt or leases.
3. Capital is preserved for other uses which otherwise would have to be used for providing the needed facilities.

Disadvantage
1. Somewhat higher borrowing cost.

(c) Real estate leases

A financial institution, leasing company or sponsoring party purchases real estate and leases the property to a project. A typical project would include buildings, mines, vacant land, or improved real estate, factories and facilities and a combination of equipment and real estate.

Income tax
The lease may be structured as a true lease in which the lessor claims any income tax benefits and retains the residual. Rents paid under a true lease may be deducted by the lessee. In the alternative, the lease may be structured with a purchase option with tax benefits going to the lessee.

Leverage
Real estate leases may be highly debt leveraged, with and without recourse. The amount of debt available and the interest rate on such debt are dependent upon the credit support provided by any assigned take-or-pay contracts, the lessor (if with recourse) and the value of the collateral.

Lease rate
In a true lease the tax benefits available to the lessor reduce the lessor's net cost of money and the lease rate. Speculation on residual value by the lessor also may reduce the lease rate. Leverage magnifies the value of the tax benefits and residual to the lessor. Under current bankruptcy laws, the claim of a real estate landlord is generally limited to one to three years rent without acceleration where the lease is not affirmed. Thus, a real estate lessor does not have a claim as a general creditor for all rentals. This risk is reflected in the lease rate.

Balance sheet
A long-term real estate lease will generally be shown as an asset and liability on the balance sheet. There are variations, and mining and mineral leases are discussed separately.

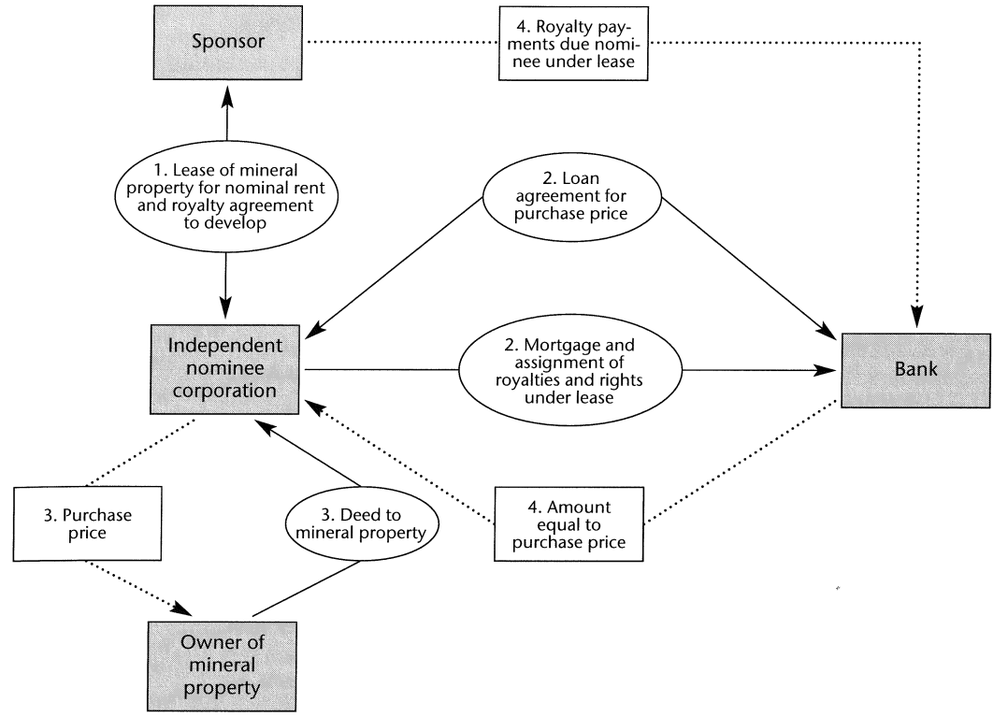
Advantages
1. Renewal options are used to protect residual use of the property.
2. High leverage can make the lease rate attractive even if only buildings (rather than equipment) are leased.
3. Capital is preserved for other uses.
4. Tax deductions for rent may be superior to tax deductions for depreciation.

Disadvantages
1. Loss of residual.
2. Obligation must be disclosed on the balance sheet.
3. Cost may be high, considering loss of residual and limited tax benefits.

(d) Acquiring a mineral property using a lease from a nominee corporation

A sponsor desires to acquire mineral ore and finance such purchase over a period of years. A bank is willing to lend against certain mineral property on a non-recourse basis if the property is to be developed. A nominee company with little capital borrows the purchase

Exhibit 14.10: Acquisition of mineral property by lease from nominee corporation



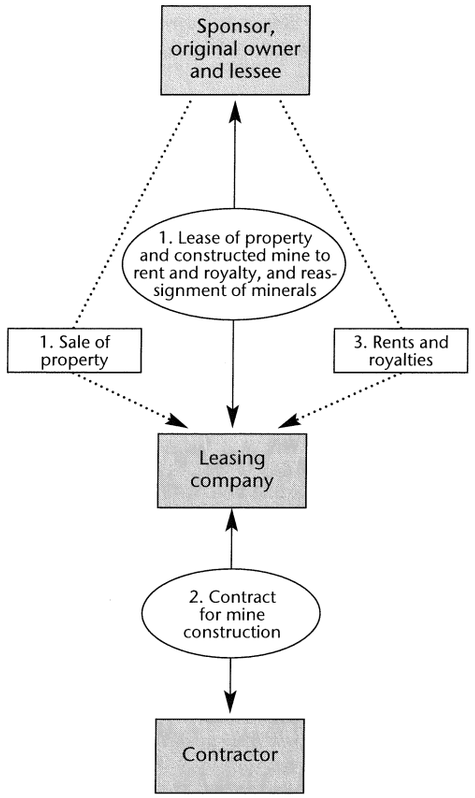
Summary
1. Sponsor enters into a lease of a mineral property for royalties and a nominal rent; the sponsor agrees to develop the property which the nominee corporation is to acquire.
2. The nominee corporation enters into a loan agreement with a bank to finance the purchase of the property and secures its loan by a deed of trust and mortgage on the property and an assignment of its royalties under the lease.
3. The bank pays the loan proceeds to the nominee corporation, which purchases and acquires the deed to the mineral property.
4. The sponsor develops the property pursuant to its agreement, and pursuant to the assignment, pays royalty payments directly to the bank which are sufficient to service the debt.

price from a bank, purchases the property, and leases the property to the sponsor for a nominal consideration plus a royalty with the understanding that the sponsor will develop the property. The purchaser mortgages the property to the bank and assigns the royalty and its rights under its agreement with the sponsor to the bank. The royalty is an exact amount per ton mined with a minimum payment required each year in the form of advance royalties if a minimum tonnage is not produced. (Advance royalties may later be recovered from overages in later years.) The initial term of the lease continues in force until the principal, interest, taxes and a spread to the nominee company are recovered. The lease continues in force until the principal, interest, taxes and a spread to the nominee company are recovered. The lease contains renewal options at nominal rents. The sponsor may terminate the lease by paying a termination value slightly in excess of the present value of the unpaid cumulative royalties and rents due the nominee company. A typical project would be a coal mine.

Income tax
The lessee has the option of deferring or expending minimum royalties payments.

Borrowing cost
This is a function of the bank's appraisal of the risk of the property paying off, plus the spread to the nomi-

Exhibit 14.11: Use of lease to finance sale and lease-back and development of mine



Summary
1. The owner of property enters into a sale and lease-back agreement with a leasing company whereby certain property is to be sold to the leasing company and leased back to the seller after completion of construction of a mine for rents and royalties.
2. The leasing company acquires title to the property and finances the construction of a mine.
3. The lease commences and the lessee pays rents and royalties to the leasing company.

nee company. The collateral consists of the property, the assignment of the royalty contract, and the ability of the operator to perform.

Advantages
1. The financing is off-balance sheet.
2. The loan is non-recourse to the sponsor.
3. The borrowing may be outside the sponsor's loan covenant restrictions against debt.
4. The arrangement is possibly outside loan covenant restrictions against leases, especially in view of the nominal rent and royalty payment.
5. Capital is preserved for other uses.
6. Credit sources are preserved for other uses.

Disadvantage
1. Higher borrowing cost.

(e) Financing development of a mine through a tax-oriented lease

A sponsor owns a property it wishes to develop as a coal mine. A sponsor's tax picture is such that it cannot claim the benefits of tax depreciation, interest or depletion. (1) The leasing company purchases the property from the sponsor; (2) the leasing company pays for the construction of the mine; (3) the completed mine is leased to the sponsor at a lease rate which takes the tax benefits into consideration; (4) minerals are reassigned to the sponsor subject to a royalty. Under such a lease the lessor will expect to recover its investment, cost of money and profit over the term of the lease. Renewal options at fair rental value may be included. A fixed purchase option is not available to the sponsor because the lease is tax-oriented. A typical project might be a coal mine or other mineral production project.

Borrowing cost

The rate will reflect the credit of the sponsor, the value of the collateral and the tax benefits claimed by the lessor. The rate will be less than the sponsor's regular debt rate because the lessor claims the tax benefits.

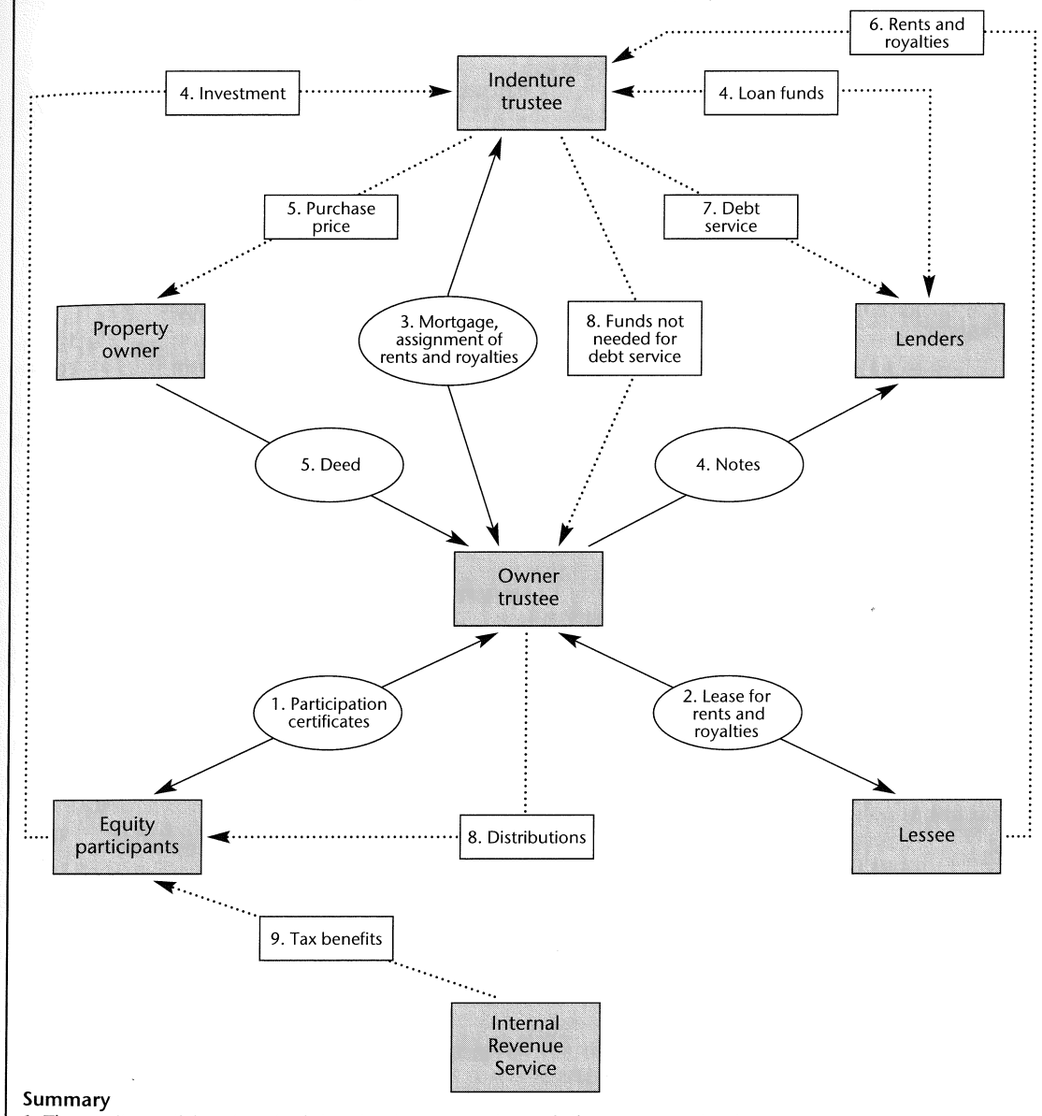
Tax considerations

Lessor can claim tax benefits and pass such benefits to the lessee in the form of lower lease rates. Tax-oriented leasing is also attractive to companies which are strong credits, pay taxes, and are in a position to claim depletion on other properties. This is because depletion is limited to 50 per cent of otherwise taxable income. Consequently, additional depreciation deductions reduce the ability to claim depletion more than rental payments.

Balance sheet

The obligation will usually show as a capital lease on the balance sheet.

Exhibit 14.12: Use of leveraged lease to finance development of a mine



Summary
1. The equity participants enter into a trust agreement appointing an owner trustee.
2. The owner trustee enters into a lease agreement with the lessee in consideration of rents and royalties to be paid under the lease.
3. An indenture trustee is appointed, and the owner trustee assigns to the indenture trustee a mortgage plus an assignment of rents and royalties to be due under the lease agreement.
4. Notes are issued by the owner trustee to the lenders and the loan proceeds are paid to the indenture trustee, the equity participants pay their investment funds to the indenture trustee.
5. The indenture pays the purchase price of the property and title is conveyed to the owner trustee subject to the mortgage.
6. The lease commences and the rents and royalties are paid by the lessee to the indenture trustee.
7. The indenture trustee pays service to the lenders.
8. Funds not needed for debt service are paid to the owner trustee and the equity participants.
9. In the meantime, the equity participants have claimed tax benefits from the Internal Revenue Service.

Loan covenant
Subject to restrictions against leases or disposition of assets.

Variation – leveraged lease
A leveraged lease can be used to finance the development of a mine. See Exhibit 14.12 and earlier discussion of tax-oriented real estate leases.

Advantages to sponsor
1. Tax-oriented lease provides low-cost financing of mine development.
2. Outside covenants against loans. (However, may violate a restriction against lease or sale of asset.)
3. Capital is preserved for other uses.

Disadvantages to sponsor
1. Lack of absolute control over the facility.
2. The lease must be shown on the balance sheet.

Notes and references

1. The IRS guidelines require a minimum investment of 20 per cent of cost as criteria for a favourable revenue ruling. Revenue Procedure 75–21. However, some tax counsel will provide opinions that as little as an investment of 15 per cent of original cost is sufficient for true lease status, based on historic precedents.
2. Revenue Procedure 75-21 is discussed in Chapter 13.
3 If the parties elect to use a single trustee, rather than both an indenture trustee and an owner trustee, the single trustee performs the functions, outlined above, of both the indenture trustee and the owner trustee.
4. However, neither the owner trustee nor the owner participants assume the lessee's liabilities to the manufacturer or the contractor.

Non-tax-oriented leveraged leases and synthetic leases

1. Non tax oriented leveraged leases

It is possible to have a leveraged lease which is not a true lease. In such a lease a variety of security instruments are used to build the total financing necessary to purchase the asset or equipment to be financed. For example, debt, secured by a senior first secured interest may be used to finance 60 or 70 per cent of the cost of the equipment. Subordinated debt (to senior debt used in the financing) may then be used to finance the remainder of the cost of the equipment.

Taking the transaction a step further, where residual value risk is assumed by lenders, there may be three tiers of lenders in the transaction with a third tier of lenders depending wholly or in part upon the realisation of residual value for repayment.

The lenders in a three tier transaction might be as follows:

1. Senior secured lenders, with a first security interest in the asset and perhaps the general credit of the lessee.
2. Lenders with a security interest in the financed asset, which is subordinated to secured lenders. (In effect, a 'second mortgage'.) This second mortgage may be supported by the general credit of the lessee or it may depend upon the cash flows of the transaction.
3. Lenders which look solely to the residual value of the equipment at the end of the lease as the source of funds available to repay their principal and accrued interest. Except for the residual value at the end of the lease, such lenders are junior to the subordinated lenders and senior lenders.

In large transactions, each tier of loans may be syndicated or securitised. A trustee may be used to hold title, act as a collection agent, and act as a disbursement agent.

The interest rate for each tier of financing varies with the perceived risk of the loan and security. There may, of course, be further tiers of lenders or securities supporting the transaction if that is desirable.

Non-tax-oriented leveraged leases may be structured to be on or off-balance sheet for the lessee.

Synthetic leases described below are similar but permit the lessee to retain tax benefits of ownership such as tax depreciation.

These types of leases can be used for very large transactions such as sale and leasebacks of aircraft pools, equipment inventories, as well as single discrete assets.

These leases may also be used in developing countries when a lease is superior to a first mortgage to protect the property rights of the lender or lessor. A trustee will act as the 'lessor' in such transactions.

2. Synthetic leases

One of the attractions of a true lease of equipment for lessees is the off-balance sheet treatment of the lease obligation. One of the drawbacks of a true lease of equipment for many lessees (and particularly those able to utilise tax benefits associated with equipment ownership) is the possible loss to be experienced when the true lease terminates and the equipment may have to be acquired from the lessor.

The synthetic lease was developed to meet this need by providing the lessee with off-balance sheet treatment of the lease obligation while at the same time protecting the lessee's cost of acquiring the residual value of the leased equipment at the termination of the lease. Tax benefits of equipment ownership are claimed by the lessee in a synthetic lease. The rental in a synthetic lease is approximately equivalent to the lessee's debt rate for comparable maturities.

Synthetic leases are off-balance sheet leases in which the lessee retains tax benefits associated with ownership. Such synthetic leases are structured using a lease agreement between the user or owner of equipment or real estate as the 'lessee' and an investor as the 'lessor' in a manner which satisfies the requirements for an operating lease defined in Financial Accounting Standards Board No. 13 and related accounting rules. Such synthetic leases are attractive to businesses which are substantial users of capital equipment. Synthetic leases may also be attractive to companies requiring real estate to provide services such as supermarkets, food service businesses, and other chains which are seeking medium-term financing to expand their businesses either by acquiring new sites or locations or are interested in acquiring existing leased locations. However, stricter accounting rules apply for synthetic leases of real estate as compared to synthetic leases of equipment.

(a) FAS 13 and synthetic leases

FAS 13 and related accounting standards apply a set of mechanical criteria to the determination of whether a lease should be characterised as an operating lease or a capitalised lease. In order to be treated as an operating lease, a synthetic lease financing must be structured to avoid each of the following factors:

- An automatic transfer of title to the leased asset to the lessee at the end of the lease term;
- A bargain purchase option;
- A lease term which extends for 75 per cent or more of the useful life of the leased property; and
- Lease payments (including any residual guarantee), the present value of which aggregate 90 per cent or more of the fair value of the leased property as of the beginning of the lease term when discounted at the lessee's borrowing rate.

The first three requirements are fairly easy to satisfy in the documentation for a synthetic lease:

- The lease will not provide for the automatic transfer of title upon the expiration of the term of the lease.
- There will be no bargain option, because the lessee will be obligated to purchase the property (or in the case of the sale to a third party will 'guarantee' obligations) at a price which an appraisal will have determined equals the expected fair value of the property at the end of the lease term. (However, as a practical matter all parties to the transaction expect the lessee to exercise the purchase option.)
- The short terms selected for these transactions (usually, in bank-offered deals, three to seven years) will ensure that the lease term will not exceed 75 per cent of the property's useful life.

The fourth criterion for a synthetic lease, off-balance sheet financing, is satisfied through the provisions described above which permit the lessee to cause the property to be sold to a third party, in which case the lessee will be liable for no more than 90 per cent of the fair market value of the property at the inception of the transaction. While this option on the part of the lessee is critical to the accounting treatment, and may create some issues in the transaction documentation, the parties enter into synthetic lease transactions with the expectation that the lessee will never exercise this option and, as in the case of any other financing, the cash flows from the lease will pay in full the amount advanced by the lessor.

(b) Benefits of synthetic lease transactions

Synthetic lease transactions offer a number of tax, accounting, financial and other benefits. The benefits of off-balance sheet treatment of synthetic leases result from differences between FASB requirements and tax rules relating to the characterisation of leases. The lessee can retain the tax benefits and operating control associated with ownership of the leased asset and debt, yet will not have to book the lease obligation as a liability or the leased property as an asset (or take depreciation thereon) for accounting purposes.

(c) Forms of synthetic lease transactions

Synthetic lease transactions can take several forms. They can be either leveraged or single investor leases. No matter what form the synthetic lease transaction takes, however, the involvement of the lessee's accountant in approving the structure of the transaction is critical in order to comply with accounting rules.

(i) Simple structures

In its simplest form, a single investor synthetic lease involves the acquisition of equipment by an investor (such as a leasing company), which then leases the equipment to the user lessee for a specified term (usually three to seven years), which is less than 75 per cent of the economic life of the asset. Since the synthetic lessee controls the residual value, the synthetic lessee is not particularly sensitive to the term of the synthetic lease.

The rental payments amortise principal and interest on the acquisition cost advanced by the synthetic lessor to an amount equal to the expected fair value of the equipment at the end of the lease term. (The rental payments may be the equivalent of interest-only payments based on the acquisition cost and other costs advanced by the lessor. The rental payments may be based on Libor or comparable index.)

The lease will typically include, in addition to the terms standard for a triple net lease, certain financial covenants which are typical for a corporate financing.

In order to comply with the accounting rules at the end of the lease term, the lessee has the obligation either to purchase the property at a fixed price determined at the inception of the lease (equal to the principal advanced by the lessor in connection with acquisition of the property plus accrued interest) or to cause the property to be sold to a third party for a price equal to its fair market value. As a practical matter, the purchase option is set at a price necessary to payoff debt and equity. The lessee receives the benefit of any increase in the value of the property in excess of the principal advanced by the lessor.

The lease may also provide the lessee with an option to purchase the leased equipment during the lease term for an amount equal to the unamortised principal balance plus interest and a premium (for early termination).

If, in the case of a third-party sale at the end of the lease, the price paid by the third party is less than the amount originally advanced by the lessor, the lessee 'guarantees' to pay to the lessor the difference between the two (sometimes called 'contingent rent'), but in order to comply with the accounting rules described above, the amount payable by the lessee cannot exceed a specific percentage of the amount originally advanced by the lessor (not more than 90 per cent, and usually is underwritten in the 81 per cent–90 per cent range). Accordingly, in the case of a sale to a third party, the lessor will bear a loss to the extent the value of the property drops below the amount 'guaranteed' by the lessee. The lessee is entitled to receive any sales proceeds in excess of the amount guaranteed.

Lenders to synthetic leases regard the transactions as equivalent to a five to seven year loans with little amortisation.

(ii) Complex transaction

In large more complex forms of a synthetic lease transaction, a special-purpose entity such as a trust may be formed to take title to the property and 'lease' it to the user under the terms of a synthetic lease as described above. In such transactions, multiple investors may be involved because of the size of the transaction or because the arranging lessor seeks to generate fee income by syndicating the transaction.

To finance the amount necessary to fund the acquisition of the property or other funding obligations of the lessor, the special-purpose entity can issue notes secured by a mortgage or deed of trust on the property and an assignment of the lease to one or more classes of debt holders, and equity instruments to a class of equity holders. Special tax and accounting rules come into play if a special-purpose entity is used.

In a typical multiple investor transaction, the terms of the lease will be essentially the same as in a single investor synthetic lease as described above. The owner trust will issue two or three tranches of notes which together cover 100 per cent of the cost of the financed equipment. If three tranches of notes are issued, they will usually consist of an 'A' tranche equal to about 85 per cent of the cost of the equipment; a 'B' tranche consisting of about 12 per cent of the cost of the equipment; and a 'C' tranche which must consist of at least 3 per cent of the cost of the equipment in order to meet accounting standards.[1]

The 'A' tranche is secured by the right to receive periodic principal and interest payments from the rent to be paid by the lessee and this obligation is with recourse to the lessee.

The 'B' tranche is to receive interest during the lease from the periodic lease payments and is to be repaid its principal from the proceeds of the sale of the asset at the end of the lease. Tranche 'B' is referred to as a non-recourse tranche.

The 'C' tranche consisting of the 3 per cent interest is the equity requirement and is retained by the leasing company as the beneficiary of the owner trust lessor. Tranche 'C' is repaid from any cash flows not used to satisfy the 'A' tranche and the 'B' tranche and must be fully subordinated as to both payments and rights to purchase the leased asset in order to meet accounting and SEC requirements.

Another variation of the above is to simply have two tranches by combining the 'B' and 'C' tranches into the 15 per cent 'B' tranche.

The specific rights and priorities among the various classes of lenders can vary from transaction to transaction and is usually subject to some negotiation. The interest rates and rewards to the investors in the various tranches vary with the perceived risks involved in the transaction.

(d) Special considerations in real estate leasing

Although this chapter does not purport to cover the many aspects of real estate leasing, synthetic leases can be utilised for off-balance sheet financing for certain real estate transactions. Under SFAS 98, the lessee is prohibited from having any continuing involvement with acquired property other than as a tenant. Loans, purchase options, residual guarantees, and rights to share in appreciation are prohibited.

Where 'build to suit' property sought to be financed by a synthetic lease is not yet constructed, the lessee may enter into a synthetic lease with a lessor before 10 per cent of the construction costs are incurred.[2]

Notes and references

1. FASB *Emerging Task Force* Issues No. 90-15 sets forth when a lessee is required to consolidate a special-purpose entity (such as an owner trust) acting as lessor. One of the requirements is where the owners of the special-purpose entity have not made an initial substantive residual equity capital investment that is at risk during the entire lease term. There is general consensus that a 3 per cent fully subordinate investment meets that requirement for 'an initial substantive investment'.
2. See *Emerging Task Force* Issues Nos. 96-21 and 97-10.

Cross-border, pickle, FSC and double dip leases

1. Cross-border leasing generally

Cross-boundary leasing refers to a lessor in one country leasing property located in another country where the rentals are paid from the country in which the property is located to the lessor in its home location.

Cross-boundary leases have been widely used for ships, aircraft, railroad rolling stock, barges, trucks, containers, and similar assets which by nature move between countries. Such leases have also been used for assets such as offshore rigs and barge facilities. However, the volume of other types of cross-boundary leases has not been large. This is due to a number of factors which discourage cross-boundary leases.

(i) Withholding tax on the rentals which is sometimes based upon the gross amount of the rentals (Canada, for example).
(ii) The lessor may become subject to local property, income or franchise tax. Further, the presence of the leased property may subject other lending activities of the lessor in the lessee's country to tax.
(iii) Import restrictions waived for the lessee may not be available to the lessor.
(iv) Tax shelters associated with equipment ownership are usually substantially reduced or not available.
(v) The general overhead expense involved in administering and documenting cross-boundary leases is higher than for leases in the lessor's home country. Credits are more difficult to analyse. Enforceability is less certain. Title documentation is less clear.
(vi) The lessor generally demands rents to be paid in the same currency as its funding, which may not match the lessee's needs or desires.
(vii) Currency exchange restrictions discourage cross-border leasing.

Cross-boundary leasing will grow in the future as governments recognise and reduce the deterrents to such leasing, many of which are accidental rather than by design. The demand for cross-border vendor leasing will help to break down such barriers.

Cross-boundary leasing where the lessee and lessor are located in the same country, and the leased property is located in another country, can be handled by the lessee making rent payments to the lessor on a net basis, thus shifting any tax problems to the lessee. This type of financing can sometimes be used where a project is located in a foreign country.

2. Pickle leases

The 'Pickle lease' (sometimes called the 'Pickle-Dole lease') is named after the US senator who sponsored legislation in 1984 which established restrictive guidelines for such leases.

The Pickle legislation rules disallowed investment tax credits and reduced tax depreciation for property leased to a non-US taxpayer by a US lessor. The reason for the Pickle rules was to prevent the export of US tax savings possible through US true leases.

A key provision of the Pickle tax legislation required that leased equipment be depreciated on a straight-line

basis over the longer of the asset's class life (12 years for aircraft) or 125 per cent of the lease term. This made a lease structure unattractive as the depreciation benefits available to a lessor and passed to the lessee provided less benefit than the tax-free recovery of principal possible in a straightforward debt transaction.

However, over the years clever lessors discovered the effect of the 125 per cent lease term and other limitations could be minimised by use of a lease/sub-lease or replacement lease structure. This gave rise to a new structure now called the 'Pickle lease'.

Unfortunately, in l995 the US Treasury Department Pickle leases were further curtailed by regulation. However, a review of the Pickle lease structure and use may still be useful depending on the final outcome of the new proposed regulations.

The Pickle lease reduces the effect of the 125 per cent depreciation rule by interposing a US lessee between a US lessor and a non-US lessee (herein called a foreign lessee). The US lessee enters into a sub-lease of the equipment to the foreign lessee for a term that does not exceed 80 per cent of its class life. The 125 per cent depreciation is, therefore, avoided by using the term of the sub-lease as the relevant lease for US tax purposes.

The same result can also be achieved by an accelerator or replacement lease. Under this structure, the lessee has the option to purchase the leased equipment for a pre-arranged price after a shortened lease term. If this is not exercised, the parties enter into a new, or replacement, lease for a term that will run until the end of the original lease. Under this structure, the first lease is recognised for tax purposes.

The use of a replacement lease provided a shorter initial lease term and a quicker depreciation period. Under this structure, Pickle leases were typically around 11–12 years with a depreciation period of 14–l5 years. At the end of this accelerated lease term, the lessee was required to find a replacement lessee for the remaining debt period; pay the remaining portion of the debt; or purchase the aircraft.

Like the Commission Foreign Sales Corporation structures, Pickle leases permit 'internal like-kind exchanges' of assets whereby a fully depreciated asset can be swapped for a new asset.

Pickle leases were originally used to finance new and used aircraft for major creditworthy non-US airlines.

Later financings for European railways have combined Pickle lease financing with debt finance provided by Eurofima, which is a AAA-rated supranational owned by a consortium of European railways, including SNCF and the German Bundesbahn, each holding a 25 per cent stake. Eurofima was specifically set up to provide cheap debt finance for European railways and regularly taps the Euromarkets, where it can raise funds at very competitive rates. Eurofima has raised funds in ECUs, French francs and Deutschmarks.

Pickle leases had been popular among lessors for rolling stock and power plant financing because of the risk-free lessee credit status in such transactions. In 1994, some US$3.5 billion worth of Pickle leases were signed, with European railways accounting for a large proportion of the volume.

However, as noted above the US Treasury Department indicated in April l995 by a proposed regulation that Pickle lease rules will be substantially tightened to prohibit transfer of US tax benefits to non-US foreign lessees. The proposed rules restrict the use of 'accelerator' or 'replacement lease' structures in cross-border leases, such as Pickle leases and ownership Foreign Sales Corporation (OFSC) leases. Also 'like-kind exchanges' will be prohibited.

The restriction placed on the replacement lease is clearly aimed at the traditional Pickle lease structure. OFSC transactions will also be affected. Under the Pickle rules regarding leased equipment by US lessors to foreign lessees, US lessors are required to depreciate the aircraft on a straight-line basis over the longer of the asset's class life (ie, 12 years for aircraft), or 125 per cent of the lease term. For example, if an aircraft is leased for 24 years, the cost would need to be recovered over 30 years, making it an unattractive financing option to foreign lessees. By removing the accelerated lease term, the lessor's tax benefits are reduced which in turn leads to a significant fall in net present value benefits to the lessee, probably by as much as half.

In a 'like-kind' exchange transaction, a taxpayer transfers an asset to another taxpayer in exchange for an asset of a similar kind, but neither party is taxed on the inherent gain of the assets. This structure usually took place between related parties, such as companies within the same corporate group. It was also used to circumvent the depreciation rules on Pickle leases to foreign lessees. Under the proposed internal like-kind exchange regulations, this structure will no longer be allowed where the exchanging taxpayers are related and where 'a principal purpose' of the transaction is to avoid the Pickle depreciation rules.[1]

3. The FSC and its use in leasing

Foreign Sales Corporations (FSC) were created by the United States Congress in 1984 to replace the Domestic International Sales Corporations (DISCs), which had been used since first enabled by legislation in 1972. The legislation permitting FSCs was in response to complaints from the GATT that DISCs were an unfair export subsidy.

A DISC permitted an indefinite deferral of taxes on export profits. The FSC provides tax benefits through a partial exemption of distributed export income. While the FSC legislation clearly allowed FSC tax benefits for leasing activities as well as for sales, FSCs were not initially recognised as particularly attractive by US lessors interested in cross-border leasing.

At the time of the FSC legislation, the leasing industry was still adjusting to the repeal of the investment tax credit and the repeal of accelerated depreciation for aircraft registered with the US Federal Aviation Agency and used by non-US airlines flying to and from the United States.

(a) FSC benefits

FSCs provide tax benefits of either l5 per cent or 30 per cent, depending on which of the two major types of FSC transaction is used. In the first case, the benefit reflects a reduction of the US income tax rates from 34 per cent to 28.9 per cent for the less complex FSC structure called the commission FSC (CFSC). In the second case, for the 'arm's length' or ownership FSC (OFSC) structure, the income tax rate on rental income is reduced to 23.8 per cent from the normal 34 per cent. However in recent years, OFSC lease structures have become increasingly complex and less attractive for lessors.

(b) Qualifying as an FSC

The FSC legislation imposes a special set of requirements for establishing and managing an FSC. For instance, an FSC must be formed in a qualified foreign jurisdiction, such as the US Virgin Islands, Bermuda, Barbados or Guam. Bermuda has generally become the location of choice for FSC leasing transactions.

An FSC lease can only be used for the sale or lease of US export property, essentially US manufactured products or equipment whose fair market value includes no more than 50 per cent imported content. The property must be exported from the US within one year of its manufacture, and during the period when FSC benefits are being claimed, must be used predominantly outside the United States. To be eligible for FSC benefits, transportation assets such as aircraft must meet one of two use requirements:

- they may not spend more than 50 per cent of the year in the United States; or
- of the total mileage flown during the year, no more than 50 per cent may be flown within the United States.

(c) Commission FSC leases

The simplest FSC structure used by most 'sales' FSCs is the commission FSC ('CFSC'). In this structure, a lessor sets up an FSC subsidiary in a qualified jurisdiction. The lessor acquires the equipment to be leased by contributing l5 per cent to 20 per cent of the equipment cost, and borrows the balance on a non-recourse basis. The lessor pays the interest on the debt and deducts the interest expense against its income from other sources. The lessor leases the equipment, such as an aircraft, to either a US or foreign airline, and receives lease rental income.

Since the aircraft is typically on lease to a US airline, modified accelerated cost recovery depreciation (MACRS) can be adopted. The airline pays rental income to the lessor, and the rental income, less the depreciation and interest expense allocation, may still provide positive income to the lessor.

When FSC generates taxable income, a commission is payable by the parent lessor to the FSC. Generally 15 per cent of the profit on the transaction is exempt from US federal income tax on the theory that a portion of the profit is attributable to ' services', the 'commission'. To enhance the benefits of a CFSC, methods have been developed to reduce the interest deduction allocated to the FSC transaction through 'combined taxable income' (CTI). This increases the commission payable to the FSC. This type of structure is called a 'turbo FSC' or 'bifurcated FSC' structure.

(d) Ownership FSC leases

An OFSC differs substantially from a CFSC. While it offers a substantially greater tax benefit (30 per cent

of the profit on the transaction versus 15 per cent for the CFSC) the OFSC is significantly more difficult to complete, and tax treatment of OFSCs has recently become more uncertain due to conflicting signals by the Internal Revenue Service regarding OFSCs.

In an OFSC, a US equity investor creates a wholly owned vehicle to own the stock in the FSC, which is incorporated in an overseas jurisdiction such as Bermuda. The equity provider contributes 15 per cent to 20 per cent of the equipment costs, and borrows the balance, which it contributes to the FSC. The FSC then uses the funds to acquire the US export property, in most cases a wide body aircraft, and leases it to a non-US lessee.[2] Since the lessee is foreign-based, MACRS depreciation cannot be used.

To ensure that the interest expenses on the OFSC borrowing are not allocated to the FSC, it must be shown that the FSC parent is the borrower, rather than the FSC itself. Since the FSC is not seen as the borrower, the lending bank cannot take collateral in the form of a mortgage on the equipment or an assignment of the FSC's lease to the foreign lessee.

Uncertainty over the maximum term of the replacement lease structure and the lack of collateral in the OFSC structure create very serious credit problems for the banks that lend into OFSC transactions as well as the lessors.

The depreciation used for an OFSC is what is known as 'Pickle' depreciation, amounting to straight line over the lease term. To accelerate the depreciation deductions, a shorter lease term has been developed in what is known as the 'accelerator' or 'replacement lease' structure. At the end of the initial term, the lessee must either acquire the equipment or find a replacement lessee meeting certain pre-arranged credit and financial standards. The original lessee may not continue to lease the equipment.

As noted above, in 1995 and 1997 the Internal Revenue Services cast doubt over the 'accelerator' lease or 'replacement' used in OFSCs by issuance of proposed regulations which would prohibit such structures. Use of FSC and OFSC structures has been curtailed since that time, but new variations have promise for the future which warrant their review.

3. Double dip leasing

Tax-oriented leases which make use of tax benefits associated with equipment ownership in more than one country are called double dip leases. The term double dip refers to the double use of tax shelter on the same equipment acquisition.

A 'double dip lease' takes advantage of inconsistent tax laws for determining tax ownership in the two countries involved. A lease transaction which qualifies as a true lease in which the lessor can claim the tax benefits associated with equipment ownership in one country may be considered to be a conditional sale in another country. The lessee under a true lease that qualifies as a conditional sale in the second country can then claim tax benefits associated with equipment ownership in the second country either as the owner/user or as a lessor to a lessee user in a 'follow-on' lease.

The differences in characterising a lease as either a true lease or a conditional sale (or hire-purchase agreement) can usually be explained in terms of the substance of the transaction rather than its form.

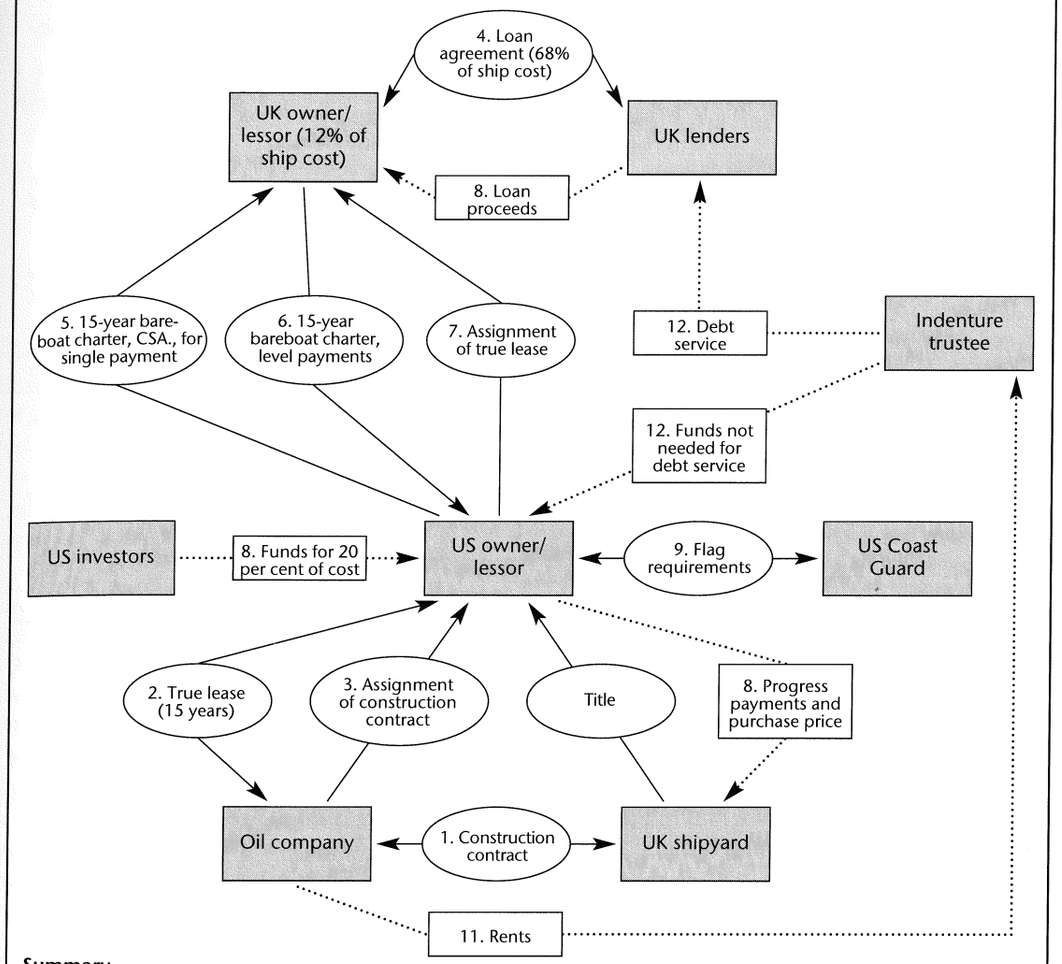
The United States determines whether a transaction qualifies as a true lease in which the lessor can claim tax benefits associated with equipment ownership on the basis of the substance of the transaction taking into consideration a number of characteristics. In the United States, the lessor is considered to be the true owner where the lessor has property rights that in substance indicate the lessor is the true owner.

On the other hand a number of other countries determine true lease status or conditional sale (or hire-purchase agreement) status on the strict basis of legal ownership or compliance with a strict formula that a transaction can be structured to fall within or without. The United Kingdom and certain countries with a tradition of English law tend to view legal ownership and tax ownership as identical, and a fixed price purchase option (with reasonable expectation of exercise) is treated as a conditional sale or hire-purchase agreement. Japan, Germany and France have certain strict requirements that permits some flexibility in structuring a transaction as either a conditional sale or a true lease.[3]

However, it must be noted that the rules for qualifying a lease transaction as either a true lease or a conditional sale in the above countries are constantly under review. Therefore, tax counsel should be consulted to determine the current criteria for determining true lease or conditional sale status.

From the standpoint of the United States, cross-border lease transactions are sometimes referred to as being either 'inbound' or 'outbound'.

Exhibit 16.1: Double dip lease



Summary

1. Oil Co enters into a construction contract with a shipyard in the UK. Oil Co. will pay 100% of construction progress payments, and has the right under this contract to transfer the right of delivery to a third party.
2. US true lease: Oil Co. engages a US corporation (US owner/lessor) to serve as owner of the vessel for US tax purposes and US vessel documentation purposes. US owner/lessor secures financing from US investors for 20% of the cost of the vessel. The US investors are, in effect, the investors in a leveraged lease and entitled to US tax benefits. US owner/lessor barefoot charters the vessel to Oil Co. for 15 years, for a total amount equal to 100% of the cost of the vessel. Payments are level over 15 years.
3. Funding agreement: US owner/lessor enters into a funding agreement with Oil Co. The construction contract is assigned to the US owner/lessor which agrees to fund 100% of the construction progress payments and the delivery payment under the construction contract in return for the right to take delivery and title from the shipyard.
4. A UK corporation (UK owner/lessor) is engaged to serve as owner of the vessel for UK tax purposes. UK owners secures financing from UK lenders for 85% of 80% of the cost of the vessel. UK owner itself is prepared to fund 15% of 80% of the vessel cost.
5. Conditional sales agreement: US owner/lessor enters into a conditional sales agreement (CSA) with UK owner/lessor, under which US owner/lessor barefoot charters the vessel to UK owner/lessor.
   (a) The cost of the CSA to UK owner equals 80% of the cost of the vessel. This amount is 100% prepaid by UK owner/lessor upon delivery of the vessel to US owner/lessor. UK owner/lessor tenders funds to US owner/lessor as needed to make construction payments under the funding agreement.

Exhibit 16.1: Double dip lease *continued*

(b) The CSA provides for passage of title from US owner/lessor to UK owner/lessor after 25 years, or upon early termination of a financial lease from UK owner/lessor to US owner/lessor, described below.

6. UK financial lease:
   (a) The cost of the financial lease to US owner/lessor equals 80% of the cost of the vessel, and is paid over a period of 15 years.
   (b) At the end of the 15-year period the financial lease may be renewed for 10 years at nominal cost.
   (c) Upon termination, UK owner/lessor will appoint US owner/lessor as its agent to sell the vessel to a third party. UK owner/lessor will provide US owner/lessor with 97.5% of net sale proceeds as a rebate of rentals or sales commission, after deduction of amounts owed under the financial lease.
7. Security:
   (a) US owner/lessor assigns the true lease, including rentals due, to UK owner/lessor as security for performance of the UK financial lease. The lease and rentals due are, in turn, assigned to the UK lenders as security for the UK owner's loan (described in 4).
   (b) UK participants have a security interest in the vessel.
8. Funds are provided by the UK lenders, the UK owner/lessor, and the US owner/lessor for the progress payments and final payment of the purchase price of the ship.
9. Flag of vessel: US owner/lessor documents the vessel with the US Coast Guard as a vessel of the United States. The vessel must be deflagged at the end of the 15-year CSA, at which time tide will pass to UK owner/lessor.
10. Delivery: title passes from the shipyard to the US owner/lessor.
11. The lease between the US owner/lessor and the Oil Co. commences and rents are paid by the Oil Co. to an indenture trustee.
12. The indenture trustee services the UK debt and distributes rent not needed for debt service to the US owner/lessor.
13. The US investors and the UK owner/lessor file tax returns and claim tax benefits associated with equipment ownership.

Inbound cross-border leases are leases into the United States by a foreign lessee that has already claimed the tax benefits associated with equipment ownership domestically and incorporated most of those benefits into the lease rate to the United States lessee. The inbound lease cross-border double dip lease is structured in such a way that the transaction qualifies as a conditional sale in the United States and the US lessee is treated as the tax owner for US tax laws. The inbound lessee then either uses the equipment or leases it to a third party while claiming US tax benefits.

Outbound leases from the United States to a foreign lessee are structured as a true lease under US tax laws so the US lessor can claim whatever tax benefits are available. The transaction is also structured so the foreign lessee is treated as the tax owner in the foreign lessee's country.

Triple dip leases are theoretically possible by combining a double dip lease with a government subsidised loan or rebate. The name is derived from the three government subsidies or incentives involved.

Notes and references

1. In 1997, Section 1031 (h) of the Internal Revenue Code was amended to prohibit foreign used property being considered 'like kind' with domestic used property in most cases, one exception being rolling stock of a public transit authority.
2. Commission FSCs have been used mostly for qualified US export assets (mostly aircraft) leased to US tax payers. The OFSC structure is used only for US export assets leased to foreign lessees.
3. See *Leasing Finance* 3rd Ed. Edited by Chris Boobyer, Euromoney 1997, Chapter 10 for a discussion of true lease characteristics in a number of European countries and cross-border leasing in Europe.

17

Worldwide leasing

Leasing is widely used as a method of equipment financing throughout the world. Leasing or chartering of ships has long been used as a method of finance or project financing. Modern equipment leasing was introduced in most countries as vendor financing for computer mainframes and peripherals, and quickly expanded to general equipment leasing.

1. International survey[1]

(a) Western Europe

Leasing is conducted in most European countries on both a non-tax and tax-oriented basis. Attractive tax-oriented leasing is available in Ireland, Italy, Netherlands, Spain, and Sweden as well as in France and Germany. In most countries the lessor can claim tax benefits associated with equipment ownership even through the lessee has a nominal renewal option. French and German leases are discussed separately below.

(b) Eastern Europe and the former Soviet Union

Many of the new democracies in eastern Europe and the former Soviet Union have adopted laws and regulations aimed at encouraging equipment leasing. Unfortunately, these countries do not have a long history or tradition of commercial law enforcement. However, laws affecting the rights of mortgage or lien holders are often more ambiguous. Consequently, ownership by a lessor is often the safest way for a lender to structure what might otherwise be an equipment loan secured by a mortgage.

(c) Asia

Leasing in Japan is done on both a money-over-money basis and on a tax-oriented basis. Leasing practices in Japan are discussed in Chapter 18.

Leasing elsewhere in Asia is carried on primarily on a money-over-money (spread) basis. Substantial leasing companies are located in Hong Kong, the Philippines, South Korea, Taiwan, Singapore, Malaysia and Indonesia. The People's Republic of China has established leasing joint ventures with a number of foreign companies.

Pakistan and India have recently established active leasing companies. Islamic leases in Pakistan may become an attractive source of capital because of restrictions on interest-bearing instruments of borrowing.

(d) Australia

Australia has developed a very sophisticated leasing activity which has used direct leases, leveraged leases and cross-border leases. However, the Australian government has imposed restrictions on cross-border leasing from Australia, and tightened tax-concessions to lessors on other domestic transaction.

(e) Africa

In Africa, domestic leasing is developing in many nations but is not a significant source of funds for project financing. South Africa has a well-developed leasing industry including tax-oriented leasing.

(f) Americas

In the Americas, Canada and Mexico have substantial leasing activities, including tax-oriented leasing. Both Canada and Mexico have withholding tax on rents paid under US cross-border leases. Money-over-money leasing is carried on throughout South America, particularly in Brazil, Chile and Colombia.

(g) Middle East

Islamic leasing in the Middle East has developed in recent years for leases in foreign countries as well as in the Middle East. Islamic law frowns on the receipt of interest for loans. This has barred wealthy institutions and individuals in the Middle East from investment opportunities such as lending syndicates. Certain leases are permitted under Islamic law. Therefore, this type of transaction potentially has access to a large pool of funds.

Islamic leasing is described in more detail later in this chapter.

2. UK tax-oriented leases[2]

In a UK true lease, the lessor acquires the equipment which may be new or used and claims tax benefits associated with equipment ownership.

Rentals are calculated to pay back the lessor's investment in the leased assets plus the lessor's cost of funds and a profit after taking into account any tax benefits available to the lessor. UK lessors are not inclined to take residual risk in true leases, although that may change in the future.

The term of the lease is generally close to the expected useful life of the asset. At the end of the initial lease term, the lessee has the right to renew the lease at a fairly nominal rent (a 'peppercorn' renewal). When the lessee wants to return the equipment, the lessee sells the equipment as 'agent' for the lessor and the lessee receives most of the sale proceeds.

So-called walkaway leases in which the lessee may cancel a lease at intervals during the lease term are also possible by the manufacturer or some interested party providing the lessor with a put sufficient to enable the lessor to recover its investment plus interest and profit.

In other words, the form of the transaction, rather than its substance, determines true lease treatment in the United Kingdom.

UK leases are usually not leveraged. Consequently, most lessors in the UK are large banks with access to low cost funds.

However, it is possible to enhance UK leases with low cost leveraged debt tranches of senior debt and subordinated debt, and double dip structures.

3. German tax-oriented leases

The parties involved in a typical German tax-based or true lease are the manufacturer, the lessor, the lessee and, in case of a leveraged lease, the (non-recourse) lenders.

In a single-investor lease, the lessor acquires the equipment to be leased from the manufacturer and leases it to the lessee. A 'single investor lease' is funded solely through the lessor's equity.

In a leveraged lease, the lessor funds the transaction through a combination of equity and (non-recourse) debt. The non-recourse debt is accomplished through a non-recourse sale of a portion of the lease receivables.

The lessor in a German true lease is considered to be the true 'economic owner' and may depreciate the equipment for tax purposes. The attribution of 'economic ownership' to the lessor is a complex issue and can only be determined in the context of the entire lease structure. The options involved and the lease terms are particularly important. The lease must be for a non-cancelable period ranging between 40 per cent and 90 per cent of the leased equipment's economic useful life as determined by the official depreciation table (AfA-Tabelle). Leases may contain renewal options.

If the lessor in a true lease is considered to be the economic owner of the equipment, the lessor may depreciate the equipment at a maximum rate of three times the straight depreciation rate but not exceeding 30 per cent on a declining balance basis.

The interest expense in connection with the sale of receivables is deductible from the taxable income. The lease rentals and the subsequent sales proceeds constitute taxable income.

In addition to VAT, there are four taxes on a lease in Germany:

1. Corporate tax;
2. Trade tax on income;
3. Trade tax on capital; and
4. Net worth tax.

These taxes result in an overall maximum income tax burden of approximately 60 per cent on the lessor's taxable income.[3]

The accelerated tax depreciation deductions cause tax losses in the early years of a lease, thereby creating a tax deferral effect for the lessor. A portion

of the resulting economic benefit is priced into the lease and passed on to the lessee in the form of lower rentals.

4. French tax-oriented leases

A *crédit-bail* is a leasing transaction in which the lessee has a purchase option at a residual value, determined in advance, which takes into account rental payments made, and relates to equipment or property acquired for business use. *Crédit-bail* companies are governed by following strict regulations:

1. Specific authorisation to be delivered by the Comité des Etablissements de Crédit (Committee of Credit Institutions);
2. Status of société financière (finance company) from the Bank of France; and
3. Certain other obligations including minimum capital, prudent ratios, and the supervision of the Commision Bancaire.

Banks and finance companies can carry on crédit-bail operations as well as other types of leasing operations for various types of equipment.

In recent years, aircraft have been the most popular assets for equipment leases.

With respect to aircraft, a pool of banks, constituted for a single transaction, creates a groupement d'intérêt économique (GIE) – a single purpose company for leasing. The GIE buys the aircraft new and leases the aircraft simultaneously to the airline, thereby qualifying for accelerated tax depreciation deductions.

The members of the GIE need to have tax liabilities for about half the life of the lease transaction in order to make use of the accelerated depreciation deductions. Imaginative lessors have been able to structure double dip leases in conjunction with US, UK, Irish and German lessors.

5. Islamic leases

One of the most interesting potential sources of capital is the Islamic ease. Briefly stated, interest is prohibited under a strict interpretation of Islamic law. However, finance leases are not prohibited.

Under Islamic law, the Shariah is a codification of the rules set forth in the *Koran*, the Holy Book of Prophet Mohammed. The Shariah laws cover property rights, contracts and work ethics as well as human rights and the role of the state. The concept of private property, free enterprise and profits are accepted and permitted.

Islamic financial law prohibits *Riba* or interest. Fixed monetary return on capital not associated with risk, labour or service is not permissible. Some Muslim scholars, also debate whether *Riba* refers to interest or usuary.

Christianity and Judaism (the old and new testament) also prohibit *Riba* but early on it was interpreted by enterprising religious scholars as referring to 'usuary' not 'interest'.

The practice of hiring or renting was actually prevalent in Arabia before Islam, and was brought within the principles of Shariah from the Prophet's time. In any event, rental contracts, or *Ijara,* as the rental contract is known was used for hire of assets, labour and services. In recent years *Ijara* transactions were modified and developed into a finance lease or *Ijara wa Iktina.*

The general requirements for a finance lease are as follows:

1. The lease must cover specific equipment.
2. The lessor owns the equipment during the lease term.
3. The lease is for a fixed term; the lessee has a right to uninterrupted use during the lease term.
4. In theory, the lessee does not have a purchase option. Residual risk can be passed to the lessee by a separate contract. Also, the lessee can prepay to acquire the asset.
5. Generally insurance is provided by the lessor, but the lessee is responsible for maintenance.
6. The lease rate in theory must be fixed, but can contain rental rate adjustments which may make the lease rate look like a floating rate.

The volume of Islamic leases domestically or on a cross-border basis is not large by US or UK standards. However, some cross-border Islamic leases for large assets such as ships have been quietly entered into by private investors. Because of restrictions on earning interest which prohibits Islamic investors from participating in loan syndications, Islamic leases have the potential to become a significant source of funds.[4]

Notes and references

1. Euromoney publishes its *World Leasing Yearbook* which contains useful articles and descriptions of equipment leasing laws and status in a great many countries.
2. *Leasing Finance*, 3rd Ed (1997), edited by Chris Boobyer is an excellent and exhaustive treatise on UK leasing as well as international leasing with a UK perspective.
3. German tax rates are under review as this book goes to press. The outlook is for lower tax rates.
4. See page 100 for an example of an Islamic lease.

Japanese equipment leasing

Domestic leasing in Japan began in the early 1960s. Japan Leasing Corporation, Orient Leasing Corporation and Tokyo lease were formed in 1963 and 1964. After that time, Japanese leasing companies were set up in rapid succession, supported by major commercial banks, general trading companies and large manufacturing firms.

While tax-oriented leasing is offered by Japanese leasing companies, most leasing is in the form of a lease with a purchase option, or a lease in which the title passes unconditionally to the lessee upon the payment of the final rent payment under the lease. In some instances the leases offered by Japanese leasing companies more closely resemble loans or instalment sales than leases.

Leasing has prospered in Japan as a new source of long-term fixed rate financing. Syndicated leases are possible. Documentation is simpler than syndicated loans. Leases are often off-balance sheet for financial accounting purposes. The programme offers long-term fixed rate financing at very attractive rates, and in some instances is comparable to subsidised export financing.

Banks in Japan, are not permitted to engage directly in non-banking activities such as leasing. Japanese banks are under the jurisdiction of the Ministry of Finance and their maximum participation in leasing and other similar non-bank activities is limited to 5 per cent of their assets. However, Japanese banks often have direct and indirectly significant ownership interests in one or more leasing companies.

Beginning in 1984, Japanese insurance companies also began establishing their own leasing companies jointly with some of the large existing leasing companies.

Japanese leasing companies are highly leveraged and risk-averse. However, they are beginning to participate in project finance types of credits.

Japan does not have laws or regulations which comprehensively regulate leases. Consequently, leasing companies enjoy considerable latitude in the type of financing which they can provide. The low entry cost and flexibility in financial products which can be offered are reasons for the continuous entry of new firms into the industry.

The financial crisis in Japan resulting from the real estate bubble in the 1990s curtailed Japanese leasing. However, Japan is now recovering, the first steps in the 'big bang' deregulation of financial services have occurred, and the Japanese financial markets show great promise for the future.

1. International leasing activities

Most large Japanese leasing companies have established offices in New York, London, Hong Kong and Singapore. Some companies have also entered the North American and European markets, either independently or through joint ventures with prominent financial institutions in local markets.

Japanese leasing companies have been active in cross-border leasing of equipment such as ships and aircraft. These leases are written either directly from Japan, or from offshore bases such as Hong Kong and the United States, depending on tax considerations.

Japanese leasing companies have been particularly active in aircraft financing business through leveraged debt for US leveraged leases, hire-purchase contracts, single-investor leases and Japanese leveraged leases.

Japanese leasing companies first gained experience in aircraft leasing in the late 1970s under a special Japanese Exim financing programme utilising US dollar-denominated leases to non-US airlines. This programme (discussed later in this chapter) was instituted by the Japanese government in order to reduce its balance of payments surplus. Such aircraft leasing led Japanese leasing companies to engage in conventional aircraft financing on its commercial merits.

Experience in international cross-border aircraft financing has encouraged Japanese leasing companies to engage in financing of other types of capital equipment throughout the world. Their financial strength and ability to structure transactions in ways not permitted to Japanese banks makes Japanese leasing companies potential sources for project type financing and private placements. Japanese leasing companies credit criteria are similar to that of US insurance companies investing in private placements.

2. Japanese tax-oriented leases

Japanese leveraged leases have received considerable attention in international finance markets as such leases have been used outside of Japan.

The Japanese leveraged lease has many characteristics similar to a US leveraged lease. It is a true lease in which the lessor is considered to be the true owner for tax purposes. Such a lease has three parties consisting of a lessee, a lessor (equity investor) and a lender which provides most of the funds. The equity investor may be a single-purpose corporation, or a special purpose limited partnership called a *Tokumei Kumiai* or 'TK'.

The equity investors claim diminishing value depreciation deductions over a depreciation life based upon a useful life ordinance, which provides a shorter depreciation period than the lease term. For example, the useful life for various size aircraft is as follows:

Description	*Life*
Maximum fully loaded over 130 tons	10 years
Maximum fully loaded between 15–130 tons	8 years
Maximum fully loaded 5–15 tones	5 years

This results in the following diminishing value for the following aircraft:

Equipment	*Useful life*	*Depreciation rate*
Boeing 737-200:	8 years	Diminishing value using a 25 per cent factor to a 5 per cent salvage.
Boeing 747:	10 years	Diminishing value using a 20.6 per cent factor to a 5 per cent salvage.
Airbus A-300:	10 years	Diminishing value using a 20.6 per cent factor to a 5 per cent salvage.

The depreciation deductions are claimed on 90 to 95 per cent of the cost of the leased equipment. In the case of a 10-year asset, the equity investor is usually able to delay reporting income from the transaction for about five years, and in a leveraged lease the equity investor recovers its investment in about two years. The lease rate reflects most of the tax benefits the equity investor is able to claim.

The regulations by the Japanese tax authorities which distinguish an ordinary lease (herein called a true lease) from an instalment purchase are contained in two separate regulations. The first was issued on 20 July 1978, and is called Corporation and Individual Income Tax Treatment of Lease Transactions (herein called the 1978 Regulation). The second is dated 30 March 1988, and is called Tax Treatment of Leases Having a Lease Term Longer than its Applicable Useful Life (herein called the 1988 Regulation).

In order to get the 1988 Regulation into perspective it is first necessary to understand the 1978 Regulation which continues to be in effect.

(a) 1978 Regulation

Lessors in Japan can claim tax benefits associated with equipment ownership (ie, depreciation deductions) if a lease meets certain guidelines provided in the 1978 Regulation.

However, a major purpose of the 1978 Regulation was to prevent lessees from entering into short-term leases with nominal purchase options (or the equivalent) which enabled them to write off equipment by deducting rents over a shorter period of time than permitted for tax depreciation, while at the same time controlling or owning the equipment at the end of the lease term. With this objective in mind, the Tax Administration Agency 1978 Regulation rules set minimum lease terms relative to the legal useful life of the equipment, and make distinctions between true leases, instalment purchases, and other types of financial transactions such as financing lease contracts with nominal purchase options. These guidelines also outline types of equipment not qualified for true leases and classify sale and lease-back contracts as leases where the true lease requirements are met.

One requirement for a true lease set forth in the 1978 Regulations is that the lease term be more than 70 per cent of the legal useful life (or 60 per cent if the legal useful life is over 10 years). If the lease term is fixed at less than the above, the contract is treated as an instalment purchase for tax purposes, the lessee cannot treat the rent as operating expense, and the lessor cannot claim depreciation deductions.

Purchase options and transfers of the leased asset to the lessee at the end of the lease term must also be treated carefully for a true lease to result. A contract that transfers the asset to the lessee after the term of the lease at no cost or for a nominal consideration will be treated as an instalment purchase contract. However, if the price at which the asset can be purchased during the lease term or after the lease term exceeds the residual value of the asset, calculated in accordance with straight-line depreciation based on a legal useful life, then it is accepted by the tax authorities as a true lease.

Certain types of equipment do not qualify for true leases in which the lessor can claim tax benefits associated with equipment ownership. These include:

- real estate such as land, buildings, and ancillary facilities to buildings;
- special purpose assets valuable only to the lessee; and
- assets where it is impossible to determine ownership, or assets that are impossible to control, such as temporary materials for construction works.

All transactions with the above-described characteristics are treated as instalment purchases.

Also, sale and lease-back transactions for used assets are treated as loans by the tax authorities.

In other words, the main thrust of the 1978 Regulation was to prevent a transaction being treated as a lease where the lease term was significantly shorter than the legal useful life (which means tax depreciable life) of the leased asset, and the agreement contains other features which made the transaction in substance a purchase rather than a true lease or contract of hire. The 1978 Regulation was aimed at preventing purchasers from writing off equipment more rapidly than permitted under the legal useful life of the equipment in the hands of an owner.

When the 1978 Regulation was written, the tax authorities did not have in mind establishing guidelines for lessors claiming tax benefits in true leases where the lease terms exceeded the legal useful life of the leased equipment, but that is what resulted.

Briefly stated, the 1978 Regulations and practices under the 1978 guidelines are as follows:

1. The purchase option cannot be nominal; the purchase option should be more than the book value of equipment calculated in accordance with straight-line depreciation based on legal useful life.
2. It is not the practice (as of this writing) that a fixed purchase option be established in the lease based on the estimated future fair market value.
3. Lease agreements sometimes provide for early termination at a price equal to the present value of the outstanding lease rentals, provided the termination payment exceeds the book value based on straight-line depreciation.
4. Renewal options are often provided at nominal rents equal to one-twelfth to one-tenth of the original rents.
5. Put options are prohibited.
6. Tax indemnities apparently are permitted.
7. The equity investment tends to be about 10 to 30 per cent.
8. Equity investors in a leveraged lease can claim depreciation deductions on 100 per cent of the cost of the aircraft even though their investment may be only 15 to 30 per cent of cost.
9. Lease payments in practice are level, but there is no requirement to this effect. The difference between unlevelled lease rent and recalculated level lease rent should be treated as advance lease rent (or deferred lease rent) for Japanese tax purposes such as the lessee's deductible rents.
10. There is no prohibition of defeasance of equity or residual value. However this runs the risk of being in violation of the implied economic substance requirements.

11. The equity investor generally recovers its investment in two or three years.
12. Usually about five years elapse before the lessor starts to report taxable profit on the transaction.
13. The transaction should have a positive cumulative cash flow of 110 per cent of the equity investment to the equity investor.
14. Lease payments should cover 90 per cent of the equipment cost, including interest expense, property tax and insurance expense paid by the lessor.
15. Fixed-price purchase options should be between 15 and 20 per cent of equipment cost, based on a requirement that (a) the purchase option price be more than the residual book value of leased equipment calculated in accordance with straight-line depreciation based on legal useful life, and (b) the sum of lease rentals (excluding purchase option) must be more than 90 per cent of equipment cost.

The consistent theme expressed in the 1978 Regulation and in practice under the 1978 Regulation as evidenced by interpretations by tax authorities is that the economic substance of a transaction must be such that the lessor or equity investor is the actual true owner with the risks and benefits of ownership, in order for the transaction to be treated as an ordinary lease (or true lease) in which the lessor or equity investor can claim depreciation deductions and in which the lessee can deduct rents.

(b) 1988 Regulation

As noted earlier, the 1988 Regulation is called the 'Tax Treatment of leases Having a lease Term Longer Than its Applicable Useful Life' and is dated March 30, 1988. This was supplemented by an advisory letter dated 26 April 1988, from the Chief of the National Tax Administration Agency to the Chief of Regional Tax Administration Bureau.

The useful life in the title of the 1988 Regulation refers to the useful life for tax depreciation. (In the case of large commercial aircraft, for example, 10 years.)

During the 1980s, leveraged true leases of aircraft (as well as other types of equipment) became popular following the guidelines set forth by and under the 1978 Regulation. However, the tax authorities apparently became concerned that some long-term aircraft leases, for example, were in substance instalment sales in which the airline controlled the residual value either through a fixed-price purchase option or by leasing the aircraft for its entire economic life.

This concern gave rise to the 1988 Regulation, which is summarised as follows:

Transactions which meet all of the following conditions, the lease term of which exceeds the number of years equivalent to 120 per cent of the statutory useful life of the subject of the lease, shall be treated as financial transactions or purchase and sale transactions.

1. The leased property was first acquired by the lessee and then transferred to the lessor subject to the condition that the lessor lease the leased property to the lessee; or the lessor directly acquired the leased property from the manufacturer thereof, but the acquisition was made by the lessee in substance because the lessee selected the leased property.
2. The total of rentals payable over the lease term recovers all or almost all of the total acquisition costs of the leased property plus incidental expenses related thereto (ie, interest costs, fixed asset tax, insurance premiums and other expenses).
3. A cancellation of the lease agreement during the lease term is prohibited, or, if a cancellation is made, the lessee must pay an amount equal to all or almost all of the rentals payable during the remainder of the lease term, or it is certain that the lessee will acquire the leased property.
4. The lease agreement does not contain a provision to the effect that the lessee purchase the leased property at the fair market price thereof. Provided, however, that if any one of the following conditions is not met, a lease agreement which contains a fair market price provision shall be deemed not to contain a fair market price provision:
   (a) The market price of the leased property upon the expiration of the lease term is highly likely to be greater than the total amount of the acquisition costs and incidental expenses not collected by the rents.
   (b) Where the lessee has the right or obligation to purchase the leased property, no settlement or adjustment is to be made with respect to the difference between the remaining amount and the market price.
   (c) The lease term is three-fourths or less of the period during which the leased property can actually be used.

Stated another way, to qualify as a true leveraged lease in Japan which is for a term of more than 120 per cent of the statutory useful life (12 years for large commercial aircraft and 10 years for narrow bodied commercial aircraft, rounding up to the nearest year) it must:

1. Contain a fair market value purchase option or a residual payment not exceeding 45 per cent of original cost. (The lessee cannot be required to purchase at fair market value.)
2. Have a residual value which is likely to exceed the difference between the lessor's cost of acquisition (including interest) and the amount collected by rents. The lease must be cash positive for half the transaction. The aggregate amount of taxable income less tax losses to the lessor must not be less than 1 per cent of the original cost. (Stated another way, this is similar to the US positive cash flow without tax benefits test.)
3. No settlement or adjustment is to be made upward or downward by the lessor where the lessee has the right or obligation to purchase the leased property, with respect to either the remaining amount due under the lease or the market price of the asset. (This protects the integrity of the fair market value purchase option.)
4. The lease term must be appreciably shorter (75 per cent or less) than the economic life of the asset. (This is similar to the US requirement that the lease be for no more than 80 per cent of the expected economic life of the asset.)
5. The depreciation expense in excess of rental income is limited to 160 per cent of excess depreciation in a standard lease.

It is interesting to note that the Japanese guidelines under the 1988 Regulation are very similar to the US rules.

(c) Form of equity investor participation

The investor in a Japanese leveraged lease may be one or more corporations or individuals. (Some Japanese tax advisers are not sure individuals can be investors.) If more than one investor is involved, the lead investor or general partner must be a Japanese entity. If individuals participate, they should be Japanese citizens.

Ownership by more than one investor is typically accomplished through a *Tokumei Kumiai* (TK). A TK is defined in Article 535 of the Commercial Code as follows:

> 'A contract of undisclosed association is formed when the parties agree that one of them shall make a contribution toward the business of the other and that they shall divide any profits arising from such business.'

Another entity for investment is a *Nin-i-Kumiai* (NK). Civil Code Article 6671 defines an NK as follows:

> 'A contract of partnership becomes effective when each of the parties has agreed to carry on a joint undertaking by making a contribution thereto.'

A TK consisting of nine or fewer investors is the most common entity used for investments. If there are 10 or more investors in the group, then withholding tax will apply since the investment is considered a security. This is less clear in the case of an NK, but less than 10 participants is still recommended.

The year-end of investors in a TK should be the same.

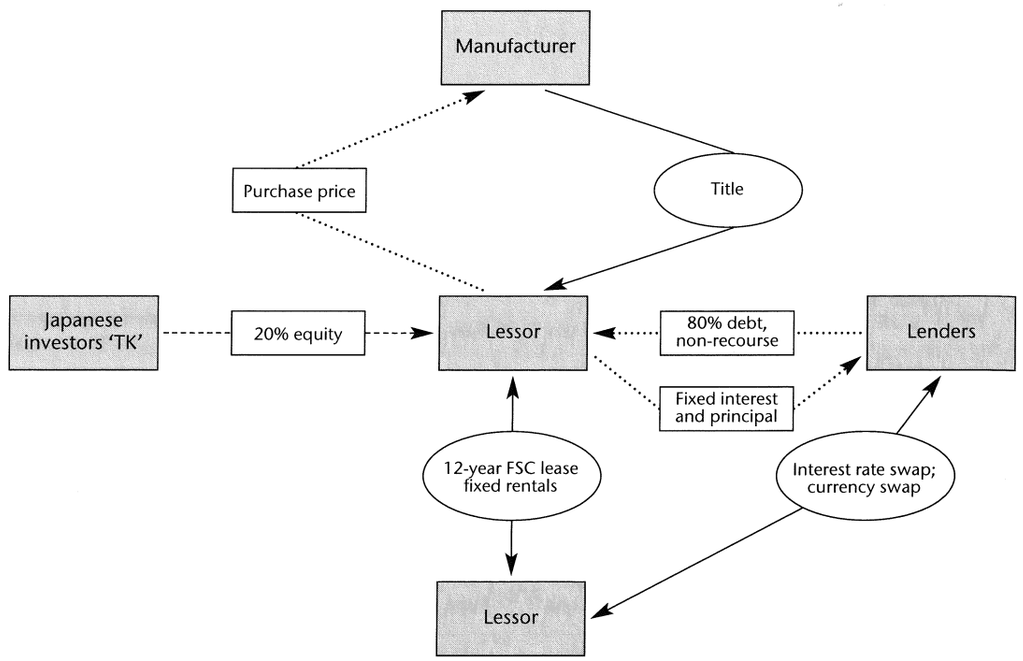
(d) Profile of the equity investor

A typical TK investor in a Japanese leveraged lease is a non-listed, small, family-owned company which expects significant income for several years. Since Japanese tax accounting and book accounting are pretty much identical, such companies are not particularly concerned with reporting earnings, which is a concern of public companies. Because these companies are usually family owned, there are a limited number of stockholders; and since they are not listed, they have limited financial disclosure requirements. Additionally, they can easily change their articles of incorporation to accommodate equipment leasing as a business activity. In Japan, if the investor is a corporation, there is only one basket or classification of income, and therefore early losses from the lease can offset other income.

3. Samurai leases

In 1978 and 1979, the Japanese government authorised a programme of subsidised lease financing (called Samurai leases) to foreign lessees (except for US

Exhibit 18.1: Japanese leveraged lease



lessees) of equipment manufactured outside Japan. The reason for this programme was the Japanese government's concern about the size of the trade surplus. The leased equipment under a Samurai lease showed as an import for Japan because the Japanese leasing companies were the formal owners.

The Samurai programme was reinstituted briefly in 1981 but with many restrictions. The Ministry of International Trade and Industry (MITI) favoured the programme, but the Ministry of Finance (MoF) opposed it and added the restrictions.

The Samurai leases have more than historical significance, since the Japanese government may reinstate the programme from time to time in the future.

4. Shogun leases

A Shogun lease is a lease by a Japanese leasing company to a foreign lessee in fixed rate yen which is funded domestically in Japan. The low effective interest rate of the Shogun yen lease which is based on domestic funding sources in Japan compares very favourably with alternative sources of financing.

Shogun leases for a time were practically the only way to obtain long-term fixed rate yen financing from Japanese domestic sources. However, some of the restrictions on other forms of Japanese loans using domestic funding have now been lifted. Nevertheless, the Shogun lease continues to have significant potential as a source of long-term fixed rate funding for a project company willing to assume or swap out of the currency exchange risk.

Shogun leases are generally in the range of US$10–100 million, with the larger leases syndicated. They are written for terms of up to 15 or even 18 years with terms of up to 10 years more common. Prepayment is not permitted for the initial two or three years of the lease. Prepayment with a penalty payment is allowed after that time. The lessor is the owner of the capital equipment or goods financed where possible. However, if the ownership cannot easily be placed in the hands of the lessor, the lessor secures its interest with a first mortgage or lien on the leased asset. Shogun leases may be structured to meet specific needs and are used, for example, to provide the debt portion of US leveraged leases.

The general characteristics and terms of Shogun leases are as follows:

(a) Size
Shogun leases are generally in the range US$10–100 million, with the larger leases syndicated.

(b) Term
Up to 15 years with terms of up to 10 years more common.

(c) Withholding tax
If applicable, for the account of the lessee on the interest portion of the lease payment.

(d) Maintenance
The lease is a net lease.

(e) Prepayment
No prepayment for the initial two or three years of the lease. Prepayment with a penalty payment after that time.

(f) Security
The lessor is the owner where possible. However, if the ownership cannot easily be placed in the hands of the lessor, the lessor secures its interest with a first mortgage or lien on the leased asset.

(g) Fees
Management fees and commitment fees may be charged as appropriate to the transaction.

(h) Option to convert rents to dollars
It is sometimes possible for the lessee to elect to convert future rents to dollars at their spot exchange rates. However, notice must be given and such option is subject to approval of Japanese exchange authorities.

(i) Use as debt in leveraged lease
A Shogun lease may be structured to provide the debt portion of a US leveraged lease.

5. Kagonuke leases

Using a *Kagonuke* lease, some Japanese leasing companies have side-stepped the Japanese regulations which require a leasing company to obtain the approval of the Minister of Finance if they make a direct yen loan. A typical *Kagonuke* lease involves a number of steps. A subsidiary of a US bank, for example, sells an asset such as an aircraft, a fleet of cars or even a number of gold bars to a Japanese leasing company which immediately leases (or sells on an instalment sale note) that particular asset to the subsidiary of the US bank. However, when the Japanese leasing company buys the asset, it pays the entire purchase price in cash; and when it leases (or sells on an instalment sale note) the asset, it accepts a long-term yen repayment schedule of 15, 18 or even 20 years. (If a lease is used, a nominal purchase option is included.) The subsidiary of the US bank, then provides yen loan financing to the real third party borrower which assumes responsibility for repayment of the yen lease or instalment sale to the Japanese leasing company, which in turn, releases the subsidiary of the US bank from liability on the lease (or instalment sale). In other words, a loan transaction is made to look like a lease or an instalment sale in order to keep the transaction within the scope of activities permitted to be conducted by a Japanese leasing company. (The use of gold bars as a leased asset might be frowned upon since that might be construed to be a violation of Japanese foreign exchange control laws.)

As previously noted, in Japan, banks operate under capital adequacy and reserve stipulations as well as ceilings on lending to any particular country. Japanese leasing companies are generally free of these restraints in entering into leases or instalment sales.

The Japanese term *Kagonuke* refers to a trick whereby a man escapes from a locked cage. Since Japanese banks are generally restricted from offering loans of more than 10 years (or perhaps 15 years at maximum), they are not particularly enthralled with this indirect method whereby a Japanese leasing company may, in effect, make a loan for 15 years or longer. In a few cases, these loans have been used to finance unusual projects such as highways.

19

Revenue bonds

Historically, bond financing has not been a popular vehicle for project financing. As noted in previous chapters, financing projects via the public and private bond markets is expected to increase in the future. The use of the US private placement market by Exxon to issue bonds to finance the construction of its Subic Bay plant in the Philippines is an example.

The establishment by rating agencies of groups dedicated to rating bonds backed by infrastructure projects provides greater comfort to institutional investors and, as a result, expands the institutional base for bonds backed by such projects.

The reason why it is expected that the bond market will be called upon to provide financing for infrastructure projects is because the substantial funding needs required to finance major projects cannot be provided by syndicated bank loans.[1]

In Europe, the specific type of bond structure that is being used for the financing of infrastructure projects is similar to the revenue bond structure used by municipalities in the United States in which repayment of the bonds is wholly dependent upon the revenues of the project. Such bonds are issued for either project or enterprise financings where the bond issuers pledge to the bondholders the revenues generated by the operating projects financed.[2] A feasibility study is performed before the endeavour is undertaken to determine whether it can be self-supporting. Such revenue bonds have been used to finance highways, airports, sports complexes, convention centres, public power facilities, seaports, schools and colleges, and sewer treatment facilities.

Our focus in this chapter is on one type of revenue bond used in the United States – industrial revenue bonds. These bonds (sometimes referred to as IRBs, industrial development bonds, or industrial development revenue bonds) can be used by corporations to finance a wide variety of capital projects in the United States. They can be used to finance new facilities and equipment, as well as the acquisition of existing assets. Industrial, commercial, manufacturing, warehousing, distribution and pollution control facilities are among the types of capital investments that may be financed through IRBs.

This form of financing can be attractive to foreign companies needing to establish or acquire new operations in the United States, as well as to US companies. IRBs can be structured so that the interest on the bonds is either taxable or non-taxable. They can be structured to yield either fixed rate or floating rate interest. Interest rates on non-taxable IRBs are much lower than on taxable IRBs or conventional debt.

There are two sets of requirements which must be met in an industrial revenue bond financing:

1. Federal law requirements for tax exemption; and
2. State law requirements for the circumstances under which such bonds can be issued.

Technically speaking, industrial revenue bonds are bonds issued by, or on behalf of, a political subdivision to finance the acquisition or construction of land, buildings, and equipment for lease to, or use by, an industrial company. The political subdivision might, for example, be a country, city or state public authority. The political subdivision is usually motivated by a desire to attract new business and thus to stimulate the local economy through creating new jobs.

The power of a political subdivision to issue industrial revenue bonds is controlled by the state. Typically, the state law sets forth the maximum maturities per-

mitted, the maximum interest permitted, and the procedure to be followed when issuing such bonds.

Industrial revenue bonds are particularly attractive as a means of financing a project facility when they can qualify to be exempt from federal, state and local taxation (Section 103 of the Internal Revenue Code).

However, taxable industrial revenue bonds can also be used advantageously as a method of entering the US debt markets without becoming subject to SEC regulations.

Exemption from local property tax may be possible through a financing using either a taxable or exempt industrial revenue bond.

1. Definition of industrial revenue bonds

An IRB is defined by the Internal Revenue Code in terms of (i) use of proceeds, and (ii) source of payments. The use of proceeds condition, known as the trade or business test, requires that the bonds be part of an issue, more than 25 per cent of the proceeds of which are to be used in a trade or business carried on by a person subject to federal income taxes. The source of payments condition, known as the security interest test, requires that payment of principal and interest on the bonds be more than 25 per cent secured by (a) an interest in property used in a trade or business, or (b) payments made in respect of such property. In addition, an IRB issue must be used to finance specific types of facilities, popularly known as exempt facilities, or to conform to certain dollar restrictions.

IRBs fall into two broad categories:

1. Exempt facility IRBs; or
2. Exempt small-issue IRBs, which are further classified either as:
   (i) issues of US$1 million or less; or
   (ii) issues of US$10 million or less.

(a) Exempt facility industrial revenue bonds

Categories of exempt facilities eligible for tax exempt industrial revenue bond issues in excess of US$15,000,000, include:

- airports, docks, wharves, mass commuting facilities, parking facilities, or storage facilities directly related to any of the foregoing;
- sewage or solid waste disposal facilities;
- facilities for the local furnishing of electric energy or gas;
- facilities for the furnishing of water, including irrigation systems, if available on reasonable demand to members of the general public;
- local district heating and cooling systems, hazardous waste disposal facilities;
- qualified hazardous facilities;
- high speed intercity rail facilities;
- environmental enhancement of hydroelectric generating facilities; and
- enterprise zone facilities.

An approved project should be carefully reviewed to make sure it strictly complies to a defined activity eligible for such bonds.

(b) Exempt small-issue industrial revenue bonds

Manufacturing facilities of most types are eligible for so-called small-issue industrial revenue bonds.

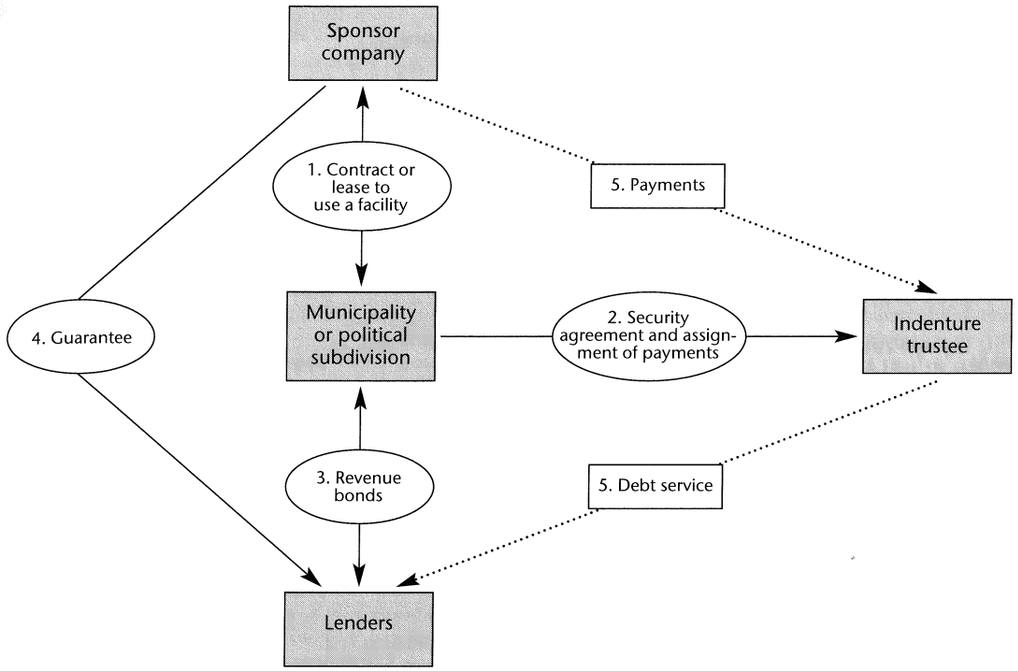
(i) Issues of US$1 million or less

Although issues under this category are restricted to amounts of US$1 million or less, the cost of the entire facility to be financed is not limited to US$1 million. The company involved can finance expenditures in excess of US$1 million. Revenue bonds may be issued on a basis whereby the first US$1 million is tax-exempt, and bonds in excess of US$1 million are taxable.

(ii) Issues of US$10 million or less

Tax-exempt industrial revenue bonds which rely upon the US$10 million maximum limit are subject to strict rules which prohibit capital expenditures by the user of the facility which, when combined with the bonds, would exceed US$10 million. If the total capital expenditures incurred, or expected to be incurred, during a six-year period (beginning three years before the date of the proposed issue and ending three years after the proposed issue) exceed US$10 million, only US$1 million of bonds may be issued under the small-issue exemption. True leases of equipment are not considered to be capital expenditures, and true leases of equipment are often used in conjunction with tax-exempt IRBs in order to keep capital expenditures within the US$10 million limit.

Exhibit 19.1: Project facility financed with tax-exempt revenue bonds supported by a contract or lease from sponsor and a guarantee



Summary

1. The sponsor company enters into a contract or lease with a political subdivision for the use of a port facility. The contract or lease contains a purchase option at a nominal purchase price after debt has been repaid.
2. The political subdivision enters into a security agreement with an indenture trustee and pledges payments or rents due under the lease or contract to the indenture trustee.
3. The political subdivision issues industrial revenue bonds to the lenders on a basis whereby the lenders look solely to the proceeds from the contract or lease with the sponsor company for payment.
4. Simultaneously, the sponsor directly guarantees payment of the bonds. (In the alternative, the guarantee might run to the indenture trustee.)
5. The proceeds of the bonds are used to purchase the facilities; the contract or lease commences; payments are made by the sponsor company directly to the indenture trustee and the indenture trustee pays the debt service. The sponsor company claims income tax benefits of depreciation (straight line) and interest expense.

2. Structure for industrial bonds

The principal participants in an IRB financing are:

1. The issuer (a political subdivision);
2. The borrower (the company);
3. The commercial bank or investment bank which arranges the financing; and
4. The lenders (such as institutional investors or individual investors).

IRBs are issued by the political subdivision within whose jurisdiction the facility will be located. The bond proceeds are used to purchase or construct equipment and facilities which are subsequently leased or sold to the company. The political subdivision acts merely as a conduit of funds between the lenders and the company in order to take advantage of its ability to issue tax-exempt bonds. The issuer is not liable for principal and interest payments on the bonds, or for any other costs incurred in connection with the financing. All such costs and payments are made solely by the company through a financing agreement between it and the issuer.

The specific structure of an IRB financing varies by location, and is governed by the applicable state

and local laws. These structures include financing by means of:

1. A loan agreement;
2. A lease agreement;
3. A lease/lease-back agreement; and
4. An instalment sale agreement.

(a) Loan agreement

In a loan agreement type of transaction, the issuer loans the bond proceeds to the company, to enable it to construct or acquire the facility. The company then agrees, by a loan agreement or a promissory note issued pursuant to the loan agreement, to make loan repayments to the issuer sufficient to permit it to pay principal and interest on the bonds. Although a loan transaction is the simplest financing structure, it is not always permitted under state law.

(b) Lease

In a lease type of transaction, the issuer uses the bond proceeds to construct the facility, and then leases the facility to the company for rental payments sufficient to pay the principal and interest on the bonds. In most cases, however, the company actually constructs the facility on behalf of the issuer. The company is given an option to purchase the facility for a nominal, predetermined sum at the end of the lease term.

(c) Lease/lease-back

In a lease/lease-back type of financing, the company leases the facility to the issuing body for a front-end rental payment equal to the lesser of the cost of the construction of the facility or the bond proceeds. The issuer simultaneously sub-leases the facility to the company for sub-rental payments sufficient to pay the principal and interest on the bonds. This structure is generally used when a company cannot convey title to the issuer, such as when the property being financed is subject to the lien of a first mortgage bond indenture.

(d) Instalment sale

In an instalment sale type of transaction, the issuer uses the bond proceeds to construct the facility which it then sells to the company for a purchase price sufficient to pay the principal and interest on the bonds. The obligation of the company to make payments may be either in the instalment sale agreement itself, or in a promissory note issued pursuant to the instalment sale agreement. Title to the facility may pass to the company either upon completion of construction of the facility, or upon payment in full of the principal and interest on the bonds.

3. Public vs. private placement

IRB financing can be accomplished through either a public offering or a private placement. However, a private placement has certain advantages over a public offering. One big advantage is that there can be fewer disclosure requirements, since an issue is placed directly with sophisticated institutional investors. Another advantage is that issuance costs associated with a private placement are substantially lower than those associated with a public offering. However, better rates may be available on public offerings. Public offerings also provide new sources of debt and permit access to individual investors.

4. Letters of credit

Baa and lower quality credits can often obtain significant savings in financing costs by combining letter of credit support from a commercial bank or similar support from an insurance company. Foreign-owned subsidiaries without established credit can enter the private placement market and make use of IRB financing through the use of letters of credit. Both European and Japanese banks have been active in providing letter of credit support to such transactions.

5. Advantages of using industrial revenue bonds

There are a number of specific advantages in using tax-exempt industrial revenue bonds.

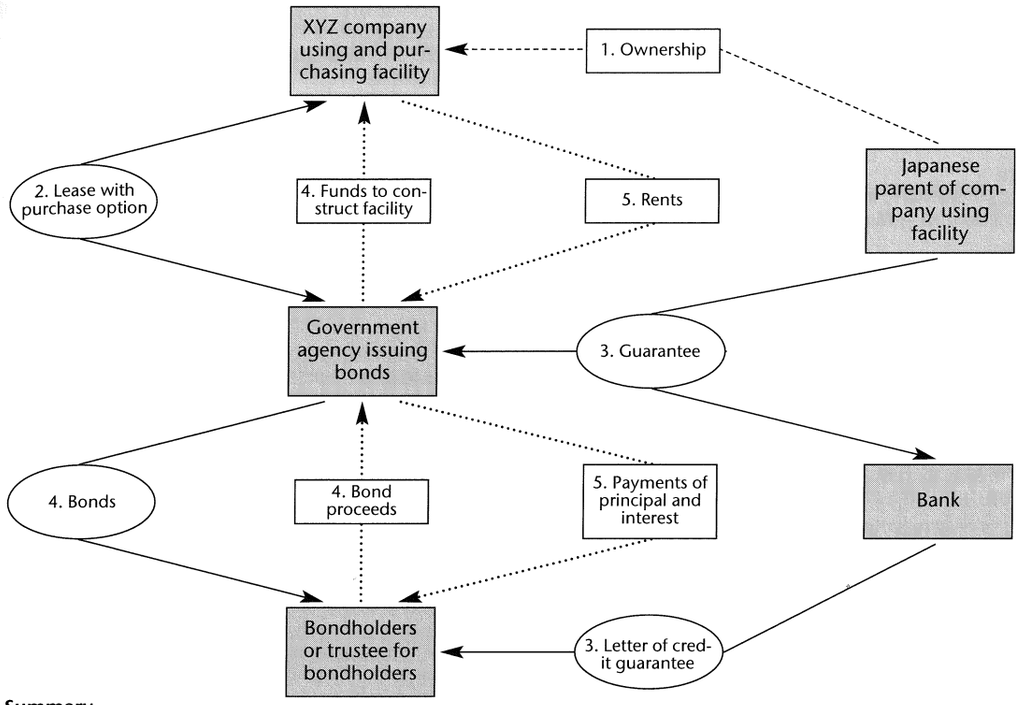
(a) Lower interest expense

Where tax-exempt bonds are used, interest rates are lower, due to exemption from federal taxes and from state and local income taxes in many states. This savings can be 200 or more basis points below the market rate for similar taxable issues.

(b) User can claim federal income tax benefits

Since the user is essentially the owner of the property, the user can claim federal income tax benefits including depreciation deductions[3] and the interest portion of any lease-purchase payments or instalment payments (see Rev. Rul. 68–590, 1968–2, CB66).

Exhibit 19.2: Industrial revenue bonds backed by a bank letter of credit



Summary

1. The XYZ corporation is a subsidiary of a Japanese company which is a strong credit in Japan but not well known in the United States and not desirous of publishing financial information in the United States, or of complying with SEC disclosure rules.
2. The XYZ corporation desires to finance a manufacturing facility (consisting of less than US$10 million) through use of industrial revenue bonds, and arranges with a state government agency for such a financing, using a lease with a purchase option.
3. In order to obtain the best possible rate on the bonds (or to make them an acceptable credit risk), the Japanese parent, whose credit is well known and well regarded by a Japanese bank, arranges for the Japanese bank to issue a letter of credit guaranteeing the bonds. The parent guarantees the bank that XYZ corporation will meet its obligations under the lease to the government agency.
4. The bonds are issued and the bond proceeds used to construct the facility.
5. Rents are paid, and principal and interest on the bonds are paid.

(c) Lack of negative covenants

Industrial revenue bonds can usually be marketed without the restrictions of other forms of borrowing by the company and without negative covenants.

(d) Exempt from SEC registration

Industrial revenue bonds are exempt from registration requirements of the SEC and, in many states, from qualifications under the blue sky (state) laws.

(e) Vehicle for foreign corporation entry to market

Industrial revenue bonds offer a practical method for a subsidiary of a foreign company to enter the debt markets on the basis of the parent's guarantee, or a letter of credit.

(f) Exemption from local tax

The political subdivision issuing the bonds is treated

as the owner of the facility for the purpose of state and local real property taxes. The company may be entitled to total or partial exemption from such taxes or make reduced payments in lieu of tax. This may also be true in the case of taxable industrial revenue bonds.

(g) Outside indenture restrictions

In some instances, industrial revenue bonds are an exception to indenture restrictions which might prevent the use of other methods of financing.

(h) Alternative markets

The potential market for tax-exempt debt includes buyers (individuals), casualty insurance companies, and banks which would not normally be in the market for taxable debt issues of similar maturities.

(i) Longer maturities

Longer maturities are sometimes available under tax-exempt IRBs than for regular debt.

(j) Lower closing costs

Closing costs tend to be lower under industrial revenue bonds.

(k) Use as leveraged debt

Industrial revenue bonds may also be used as leveraged debt in a tax-oriented leveraged lease either by a third party leasing company or a non-owner sponsor of the lessee.

(l) Off-balance sheet

Industrial revenue bonds offer off-balance sheet financing possibilities for a sponsor which uses an unconsolidated project company as the obligor on the bonds, and backs the bonds with a guarantee.

6. Examples of industrial revenue bond financings

(a) Financing of a port facility project constructed by the sponsor, through use of municipal revenue bonds, supported by the sponsor's guarantee

The sponsor's wholly owned subsidiary, Pipeline Company, seeks to finance a port facility terminal project it has constructed through the use of industrial revenue bonds. The Pipeline Company leases the newly constructed terminal for a term of 20-years to the municipality, which issues tax-exempt municipal bonds in approximately the amount of the cost of the terminal. The municipality uses the cash proceeds from the bonds to pay, in a lump sum, the rents due for 20 years on the terminal facility. The proceeds from the rent are used by Pipeline Company to pay off the construction loans and the construction company. The municipality simultaneously enters into a 20 year sublease for the terminal facility back to Pipeline Company for rentals which will be sufficient to service all the principal and interest payments on the revenue bonds which the municipality has issued. The sponsor of the project, the parent company of Pipeline Company, agrees to guarantee payment of principal and interest of the revenue bonds.

Atlantic Richfield pioneered this device in financing its undivided interest in the Valdez Port facility. Its partners later used the same structure to finance their undivided interests.

(i) Rate base

Costs are segregated.

(ii) Income tax

The bonds are tax free. Since the lease is not a true lease, the interest portion of rent payments plus straight-line depreciation is deductible. Generally, interest on obligations of a state or a political subdivision of a state is exempt from federal income tax under Section 103 (B) of the Internal Revenue Code of 1954 as amended, except for certain industrial development bonds. An exception to the industrial revenue bond restriction is contained in Section 103 (B) (4) (D) for issues of industrial revenue bonds used to finance docks, wharves, or directly related storage facilities.

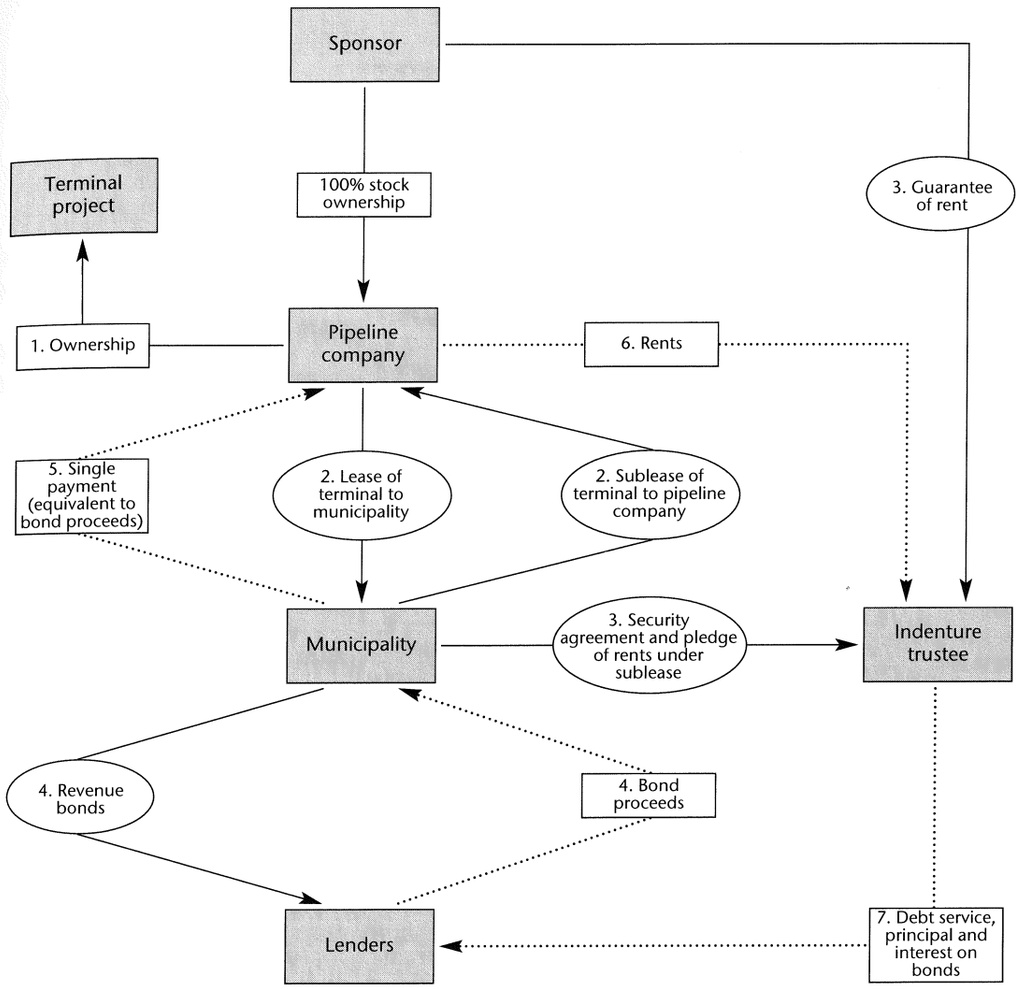
(iii) Credit and debt rate

Credit is that of the sponsor, since lenders rely on the sponsor's guarantee as the ultimate credit. The debt interest rate will reflect the credit rating of the sponsor plus the fact that the obligations are tax free.

(iv) Sponsor's balance sheet and loan covenants

The sub-lease is treated as a capital lease, and the guarantee will probably be reported in the footnotes. The transaction is essentially a sale and lease-back. The sponsor's loan covenants will be affected to the extent

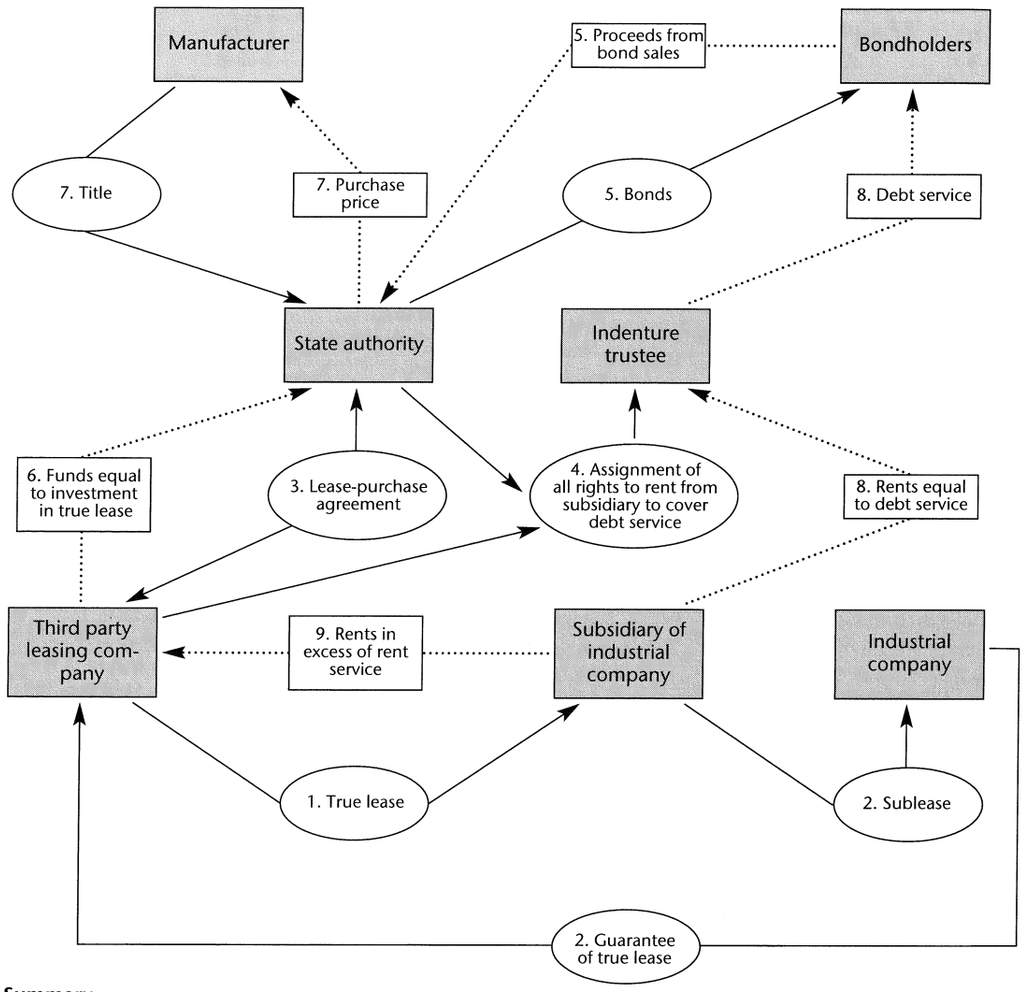
Exhibit 19.3: Financing of port terminal through use of industrial revenue bonds



Summary

1. A pipeline company owns a terminal facility which it wishes to finance through the use of industrial revenue bonds.
2. The pipeline company agrees to lease the terminal to a municipality or political subdivision which, in turn, subleases the terminal back to the pipeline company.
3. The municipality or political subdivision enters into a security agreement with an indenture trustee and pledges rents due under the sub-lease to the indenture trustee. Simultaneously, the sponsor of the pipeline company agrees to guarantee the rental payments to the indenture trustee.
4. The municipality or political subdivision issues the industrial revenue bonds to lenders and the proceeds from the bond sales are paid to the municipality or political subdivision.
5. An amount equivalent to the bond proceeds is paid by the municipality or political subdivision to the pipeline company as a single lump sum payment of rent for the lease of the terminal. This sum is used by the pipeline company to pay off the construction lenders.
6. Periodic rents are paid by the pipeline company to the indenture trustee over the lease term under its sub-lease from the municipality or political subdivision; these rentals are sufficient to service the debt.
7. Debt service is paid by the indenture trustee to the lenders using the sub-lease rentals. The pipeline company claims income tax benefits of straight-line depreciation and interest expense.

Exhibit 19.4: Leveraged lease of hazardous waste disposal facility using industrial revenue bonds as leveraged debt



Summary

1. A subsidiary of an industrial company desires to finance certain hazardous waste disposal equipment through the use of a leveraged lease which uses industrial revenue bonds as leverage, and enters into a true lease with a third party leasing company for the equipment.
2. The hazardous waste disposal equipment will actually be a benefit to the industrial company parent, and it enters into a sub-lease of the hazardous waste disposal equipment from its subsidiary, and also enters into a guarantee of the subsidiary's lease, which runs to the benefit of the third party leasing company.
3. The third party leasing company, in turn, enters into a lease-purchase agreement with the state authority responsible for issuance of hazardous waste disposal industrial revenue bonds. (On the conclusion of the lease from the state authority, the third party leasing company will acquire the equipment for a nominal price.)
4. The state authority and the third party leasing company assign all their rights to rent to an indenture trustee. (Rents are sufficient to cover debt service.)
5. The state authority issues bonds to the lenders (bondholders) and the proceeds from the bond sales are paid to the state authority.
6. Funds equal to the investment in the true lease by the third party leasing company are paid to the state authority by the third party leasing company.

Exhibit 19.4: Leveraged lease of hazardous waste disposal facility using industrial revenue bonds as leveraged debt *continued*

7. The proceeds from the bond sales and the funds received from the third party leasing company are used by the state authority to purchase title to the hazardous waste control equipment from the manufacturer.
8. The lease-purchase agreement and the true lease commence. Rents equal to debt service are paid by the subsidiary to the indenture trustee which, in turn, services the debt. The leasing company claims income tax benefits resulting from deductions from straight-line depreciation and interest from the Internal Revenue Service.
9. Rents in excess of debt service are paid to the third party leasing company.

that a capital lease of its subsidiary would affect its loan covenants.

(v) Variations

Instead of an entire project being leased, the pipeline's undivided interest in a project is leased.

(vi) Advantages

1. Low interest cost through the use of tax-exempt municipal industrial revenue bonds.
2. The Pipeline Company ends up owning the project.
3. Segregated costs.
4. Without the low borrowing cost, the project might not get built.
5. Income tax benefits are preserved.
6. Exemption from local property tax.

(vii) Disadvantage

1. Complex.

(b) Financing hazardous waste disposal facilities with a leveraged lease which uses industrial revenue bonds as leveraged debt

An industrial company desires to install some hazardous waste disposal facilities at one of its plants at the lowest possible cost. The industrial company cannot currently use income tax benefits. The pollution control equipment is not so specialised as to have no value except to the industrial company.

The state in which the plant is located has a development authority which is charged with hazardous waste disposal through use of facilities financed by the issuance of revenue bonds, which are to be repaid solely from revenues derived from such facilities. In as much as the authority is a political subdivision of the state, the revenue bonds it authorises for issuance are exempt from federal tax and, under state law, from the state tax of the state in which the facility is located. Since the bonds are to be used for hazardous waste disposal, there is no federal statutory limit on the amount of tax-exempt bonds the authority can authorise for issuance.

The authority issues bonds for 70 per cent of the cost of the hazardous waste disposal equipment. A third party leasing company provides the remainder of the purchase price to the authority, which uses the proceeds from the bonds and the investment of the leasing company to purchase the equipment.

The authority leases the equipment to the third party leasing company under a lease-purchase agreement. The third party leasing company, in turn, sub-leases the equipment under a tax-oriented true lease to a wholly owned subsidiary of the industrial company, which unconditionally guarantees the obligations of the subsidiary under the lease agreement through a guarantee agreement which runs directly from the industrial company to the third party leasing company.

Pursuant to assignments entered into simultaneously from the subsidiary to the third party leasing company and from the third party leasing company to the authority, there is assigned to the trustee, as security holder for the bonds, all rights of title and interest of the authority, third party leasing company, and the subsidiary in amounts payable directly to the trustee under the lease-purchase agreement, the lease, the sublease, and the guarantee agreement. The amounts payable directly to the trustee include rental payments required to be made by the subsidiary (guaranteed by the industrial company) which are sufficient to pay principal and interest on the bonds.

In the event that the project costs more than estimated, the subsidiary and the industrial company agree to provide, or cause to be provided, such additional monies as may be necessary to complete the project. The authority agrees to issue additional bonds, if necessary, and the leasing company agrees to provide additional equity, if necessary.

(i) Income tax
Interest on industrial revenue bond obligations issued on behalf of a state or political subdivision are exempt from federal income tax where the proceeds are used to provide hazardous waste disposal facilities and certain other facilities (Section 103 of the Internal Revenue Code). Industrial revenue bonds used as a leveraged lease can also be qualified under this exemption.

The third party leasing company is treated as a purchaser and owner of the project and is entitled to deductions for straight-line depreciation and interest in determining its federal income tax liability. The subsidiary may deduct amounts paid under its lease as rent.

(ii) Debt rate
The debt rate will be determined by the credit of the industrial company, adjusted for the fact that the bonds are tax exempt.

(iii) Credit and balance sheet
The credit supporting the transaction is the guarantee of the industrial company. The third party leasing company is not liable on the bonds which are non-recourse to it. The political subdivision is not liable on the bonds. The industrial company would show the lease as a capital lease on its balance sheet.

(iv) Variations
For some kinds of projects, an off-balance sheet financing might be achieved, using a leveraged lease to an unconsolidated subsidiary supported by some kind of a guarantee from a sponsor.

A sponsor might act as the lessor in a leveraged lease to its not-owned project, thus gaining the tax benefits while at the same time procuring an attractive financing cost for the project.

(v) Advantages
The advantages to the industrial company of using tax-exempt industrial revenue bonds in conjunction with a leveraged lease, are:

1. Interest rates on the leveraged debt are lower due to exemption from federal taxes and from state and local income taxes in many states.
2. The savings possible through a leveraged lease are obtained, since the third party leasing company can claim federal income tax benefits including straight-line depreciation deductions and the interest portion of any lease-purchase payments or instalment payments.
3. Industrial revenue bonds are exempt from registration requirements of the SEC and, in many states, from qualifications under the blue sky laws.
4. In some states, the political subdivision issuing the bonds is treated as the owner of the facility for the purpose of state and local real property taxes. In such cases, the property may be entitled to total or partial exemption from such taxes, or to make reduced payments in lieu of tax.
5. The potential market for tax-exempt debt includes buyers, such as individuals, banks and casualty insurance companies, which would not normally be in the market for taxable debt issues of similar maturities.

(vi) Disadvantage
1. The documentation and costs of a leveraged lease can be expensive and cumbersome, unless the transaction is a large one.

Notes and references

1. Robert F. Mabon, Jr., 'Using Revenue Bonds to Finance Infrastructure Projects in Europe,' *Project Finance Yearbook 1993/1994* published by Euromoney, p. 23.
2. The other type of bond structure used by US municipalities is the general obligation bonds. Usually, a general obligation bond is secured by the issuer's unlimited taxing power. Some general obligation bonds are backed by taxes that are limited as to revenue sources and maximum property-tax millage amounts.
3. The cost of property financed with tax-exempt IRBs placed in service after 1982 generally is required to be depreciated under the straight-line method (using a half-year convention for personal property and a monthly convention for real property) over the regular MACRS recovery period, with an election to use the longer recovery periods.
   Exempted from this limit include municipal sewage or solid waste disposal facilities.

Commercial paper and back-up credit facilities

The US commercial paper market offers a reliable low cost source of short-term financing which can be rolled-over for longer-term financing needs. In the United States, over 2000 corporate borrowers have outstanding commercial paper obligations of over US$600 billion.[1] Foreign credits not known in US credit markets, or weaker credits such as project finance companies, tap this market by using a letter of credit and/or a back-up line of credit from a commercial bank or insurance company.

At the time of this publication, the Euro-commercial paper market has become well established and the Japanese commercial paper market is beginning. Although most of this discussion is concerned with the US commercial paper market, the Euro-commercial paper market and the Japanese commercial paper market will continue to expand along similar lines as in the United States.

There are a number of advantages to be gained from using commercial paper for financing needs.

1. Cost

The commercial paper market represents an attractively priced source of funds which is usually cheaper than other funding sources of similar maturities, such as bank loans based on prime or Libor.[2]

2. Non-bank source of funds

A borrower can diversify its funding sources outside traditional commercial bank lenders by using this broadly based market. Investors include individuals, money market funds,[3] and corporate treasurers investing in short-term maturities.

3. Flexibility

The commercial paper market provides an issuer with flexibility since tenors and issuing dates can be tailored to the issuer's specific needs. Notes can be issued and funds disbursed on a same day basis without the need for prior notification as is normal in revolving credit arrangements.

Commercial paper consists of short-term promissory notes. Maturities vary from a few days to six months. The notes are general unsecured debt obligations of the issuer. Commercial paper (CP) is sometimes used for long-term financing needs by rolling the paper forward as it matures. For the past 20 years, a market has existed in the United States for high grade commercial paper. However, an ever present danger in relying on commercial paper for long-term needs is the liquidity of the market.

Investors in the CP market are highly risk-averse. Consequently, the market in the US has developed essentially as a name market, available only to large and financially strong US and foreign corporations.

However, less known US companies, foreign entities and project companies may be able to enter the market with an irrevocable commercial bank back-up line of credit facility which adds the strength of the bank's credit to that of the issuer. In the alternative, insurance companies offer indemnity bonds to back up commercial paper facilities. A bank or insurance

company providing such a back-up credit facility will require a guarantee or equivalent undertaking from the parent or sponsor of the issuer. In this way, the issuer can fully avail itself of the cost benefits of the CP. market which, even with the back-up fees, usually remains competitive with other financing alternatives.

A project company seeking to enter the US commercial paper market should engage a commercial paper agent, which may be a commercial bank or investment bank. Once appointed, the agent will advise and assist its client in setting up an issuing vehicle (if necessary), structuring support facilities, obtaining credit ratings, and generally providing guidance on proper market entry.

Criteria used in the selection of a CP agent are:

1. The agent's track record and experience in selling and trading short-dated instruments;
2. The agent's image in the market as a highly professional and respected financial institution;
3. The ability to ensure broad distribution of an issuer's paper (both onshore and offshore);
4. The ability to generate timely and informative activity reports;
5. The experience of the agent and knowledge of the issuer and its industry.

1. Alternative credit facilities

Many back-up facilities for commercial paper issuers provide additional flexibility, so that the back-up line can be used by the borrower to secure advances as in a regular line of credit. The total outstandings under the line of credit and the CP back-up credit line cannot exceed the total amount of the facility. For example, if an issuer elected to arrange a total US$100 million package, the company would be able to issue US$50 million of CP, and draw US$50 million under the line of credit or any other combination of the two which did not exceed US$100 million.

Such a facility provides an additional important advantage to the issuer who is thus in a position to tap the most favourable financial market at any time. The cost of advances under the back-up line will usually be related to the US prime rate for the bank providing the facility or to Libor for Eurodollars. If at any time the US or Eurodollar markets present highly advantageous financing opportunities, the borrower can enter those markets and temporarily move out of the CP market, or use both markets jointly.

2. Governmental approvals by non-US issuers

In the case of non-US issuers and/or guarantors, local counsel's opinion will be required, to ensure that issuance of the commercial paper of guarantee will not violate any laws or regulations of the country in which the issuer and/or guarantor is resident. In some instances, evidence of specific authorisation by governmental authorities may be required. Non-US issuers and/or guarantors may also need to provide evidence of their central bank's approval for foreign exchange to be available to meet commercial paper obligations.

3. Jurisdiction for non-US issuers

Non-US issuers must agree to submit to the non-exclusive jurisdiction of US federal and state courts. In the case of a non-US guaranteed programme, local (foreign) counsel's opinion will be required on: (a) enforceability in the guarantor's home courts of any judgment obtained in the United States on the guarantee, and (b) the right of holders of the commercial paper to bring suit on the guarantee in those same courts. Non-US issuers must appoint an agent for service of process in the United States. Such an agent can be either a representative of the issuer resident in New York, the issuing/paying agent, or some other party appointed by the issuer.

4. Commercial paper rating

An issuer should obtain a commercial paper rating from at least two major rating agencies, to enable his notes to enjoy the broadest possible distribution and marketability. This rating must be the highest available in order to assure roll-over and continued access to the commercial paper market.

There are four companies that evaluate the risk of default of issuers and summarise their evaluation in the form of a rating: Moody's Investors Service, Standard & Poor's Corporation, Duff & Phelps Credit Rating Co., and Fitch Investors Service. The ratings assigned by these four rating companies is shown in Exhibit 20.1. Commercial paper ratings, as the ratings on other securities, are categorised as either investment grade or non-investment grade.

Exhibit 20.1: Commercial paper ratings*

	Commercial rating company			
Category	*Duff & Phelps*	*Fitch*	*Moody's*	*S&P*
Investment grade	Duff l+	F–1+		A–1+
	Duff 1	F–1	P–1	A–1
	Duff 1–			
	Duff 2	F–2	P–2	A–2
	Duff 3	F–3	P–3	A–3
Non-investment grade	Duff 4	F–S	NP (not prime)	B
				C
In default	Duff 5	D		D

* The definition of ratings varies by rating agency.

Source: Mitchell A. Post, 'The Evolution of the US Commercial Paper Market since 1980,' *Federal Reserve Bulletin* (December 1992), p. 882.

These ratings are used by money market mutual funds in determining the amount of commercial paper that they are permitted to hold. The SEC requirements establish two categories of eligible commercial paper: first-tier paper and second-tier paper. In general, to be categorised as first-tier paper the SEC requires that two of the rating companies rate the issue as '1'. To be categorised as two-tier paper, requires that one rating company rate the issue as '1' and at least one other rate it as '2' or two companies rate it at '2'. It is the second-tier paper that is considered medium-grade and for which there are restrictions on the amount that can be held by money market mutual funds.[3]

The issuer's commercial paper agent can greatly assist this process, due to its knowledge of the issuer and familiarity with the individuals and procedures of the rating agencies. Both the agent and the rating agencies will require information concerning the amount, terms and conditions of available credit facilities. The adequacy of bank credit facilities should be analysed in co-operation with the agent before applying for a commercial paper rating.

5. Issuing/paying agent

To operate a commercial paper programme, an issuer must appoint an agent to issue and redeem its notes and to provide safekeeping for those which remain unissued. This function is performed by the trust departments of most money centre banks.

6. Credit support facilities

It is normally required that issuers of commercial paper maintain bank credit facilities covering 100 per cent of the commercial paper outstanding (see Exhibit 20.2). On a selected basis, where the size of the programme and the borrower's credit standing warrant, less than 100 per cent coverage may be required. In the case of an issue irrevocably backed by a prime bank, no additional credit facilities are required.

The credit facility provides liquidity for the programme, should investors decline for any reasons to purchase an issuer's paper. The level of support provided by such facilities is one factor considered in the assignment of a credit rating.

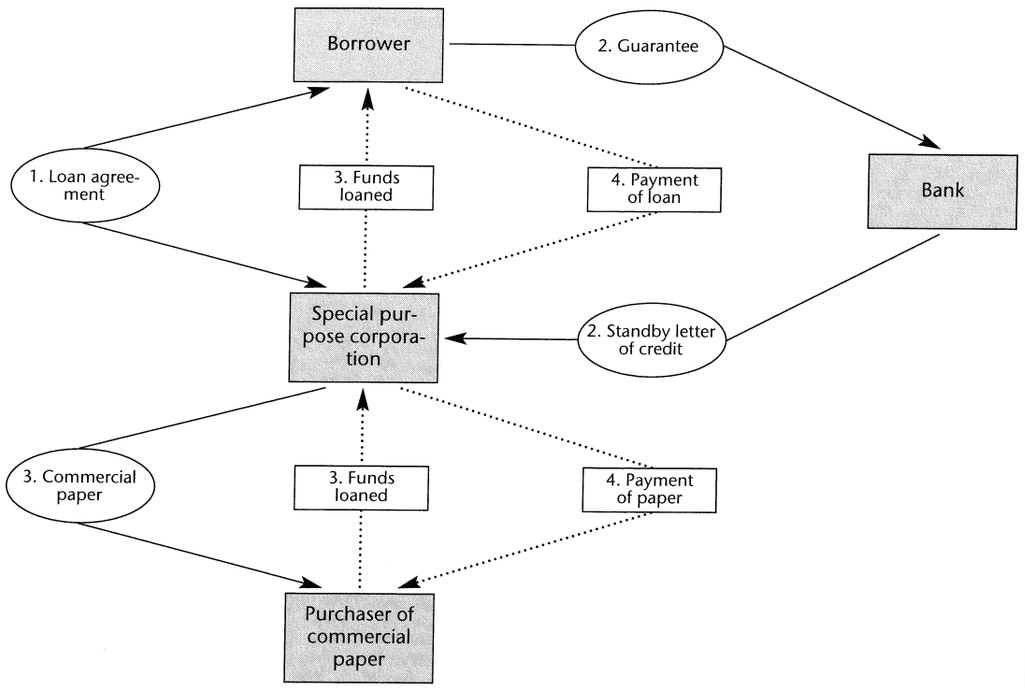
In the case of issuers who use CP proceeds offshore, it is recommended that part of the bank credit facility be offered in the form of immediately available, or same-day, funds which could be applied to pay off maturing notes should technical problems arise in funds transfer. Such overnight swing-line facilities are typically structured as one to three day loans.

7. Types of facilities

Irrevocable back-up facilities have traditionally been in the form of either an irrevocable commitment to lend (IRC), or a stand-by letter of credit. More recently, however, direct pay commercial letters of credit have been used (see Exhibit 20.3).

Under existing federal bankruptcy laws in the United States, use of an IRC or stand-by letter of cred-

Exhibit 20.2: Standby letter of credit used to back commercial paper



Summary

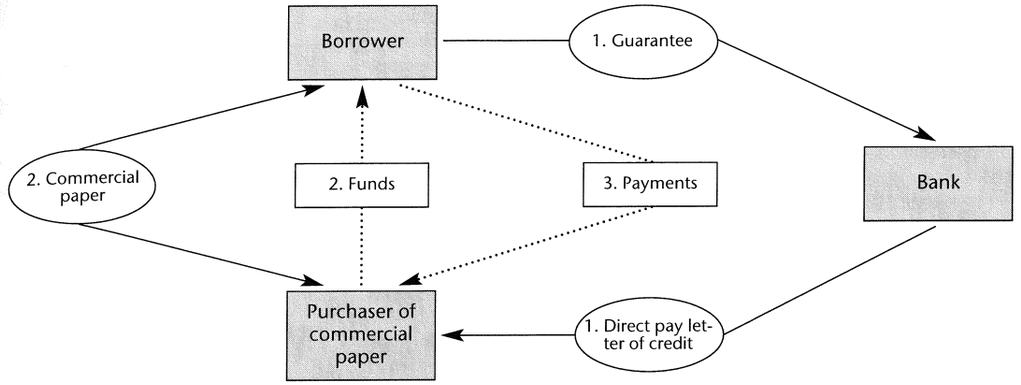
1. A special purpose corporation is established by the borrower to issue commercial paper, and loan the proceeds to the borrower.
2. The borrower arranges for a bank to provide a standby letter of credit for the special purpose corporation. The borrower provides a guarantee to the bank.
3. The commercial paper is issued, and funds are loaned to the special purpose corporation, which in turn loans the funds to the borrower.
4. The borrower repays the loan to the special purpose corporation, which repays the commercial paper investor.

it necessitates creation of a nominally capitalised, special purpose corporation, whose sole function is to issue commercial paper with proceeds on-lent to an end-user.[4] The purpose of this structure is to isolate the actual issuer from the end-borrower, thereby insulating the former from certain effects of the Federal Bankruptcy Law, which tend to be prejudicial to investor interests. Depending on the structure, it may also be necessary to restrict sales of paper to 45 days or less in order to secure a clean legal opinion from counsel on the bankruptcy issue.

The direct pay letter of credit structure eliminates the need to establish a nominally capitalised issuing vehicle, and/or restrict the maturity of paper sold. Whereas the IRC and stand-by letter of credit represent a liability of the bank to provide a secondary source of funds to issuers with which to pay off maturing notes, the direct pay commercial letter of credit represents a direct liability of the bank to pay off each note as it matures. The investor, in this case, looks primarily to the bank as a source of payment. Since the issuer essentially never gets between the bank and the investor, the fact of his possible bankruptcy is irrelevant to the investor.

In addition to saving legal costs, the direct pay letter of credit also facilitates the rating process since the rating agencies will look solely to the credit standing of the bank(s) issuing the letter of credit to arrive at their rating (subject to the availability of a clean legal opinion on the bankruptcy issue). This can be particularly advantageous to issuers whose credit standing, earnings history, financial disclosure policies, and foreign earnings base make it awkward for them to comply with rating agency requirements, or make disclosures regarding their financial statements or operations.

Exhibit 20.3: Direct pay letter of credit backing commercial paper



Summary

1. A borrower seeking an A-1 rating on its commercial paper arranges for a bank with an A-l rating to provide a direct pay letter of credit to purchasers of the borrower's commercial paper. The borrower guarantees its paper to the bank.
2. Investors purchase borrower's commercial paper on the basis that they can look directly to the A-1 rated bank for repayment if the borrower fails to pay.
3. Payments are made by the borrower.

8. Risks inherent in commercial paper

The US commercial paper market has been continuously available to highest-rated commercial paper for the past 20 years. Where a crisis has occurred over a major issuer, such as Chrysler or Penn Central, the market for high-rated commercial paper has remained intact, but low-rated commercial paper has been adversely affected. The Federal Reserve Bank has provided support in such instances to banks providing back-up lines of credit.

9. Administrative costs

Administrative costs for a commercial paper programme vary. However, such a programme will probably cost a minimum of US$25,000 a year plus about 8 per cent of the amount outstanding.

Notes and references

1. *Forbes Magazine*, March 13, 1995.
2. Commercial paper is generally less expensive than bank loans, because CP lenders are not required to maintain reserves or pay FDIC premiums. US banks are at a disadvantage because of federal reserve requirements.
3. The spectacular growth of money market funds in the United States has created a giant pool of investment capital for commercial paper.
4. Such a special purpose corporation is sometimes called an 'SPE' for 'special purpose entity'.

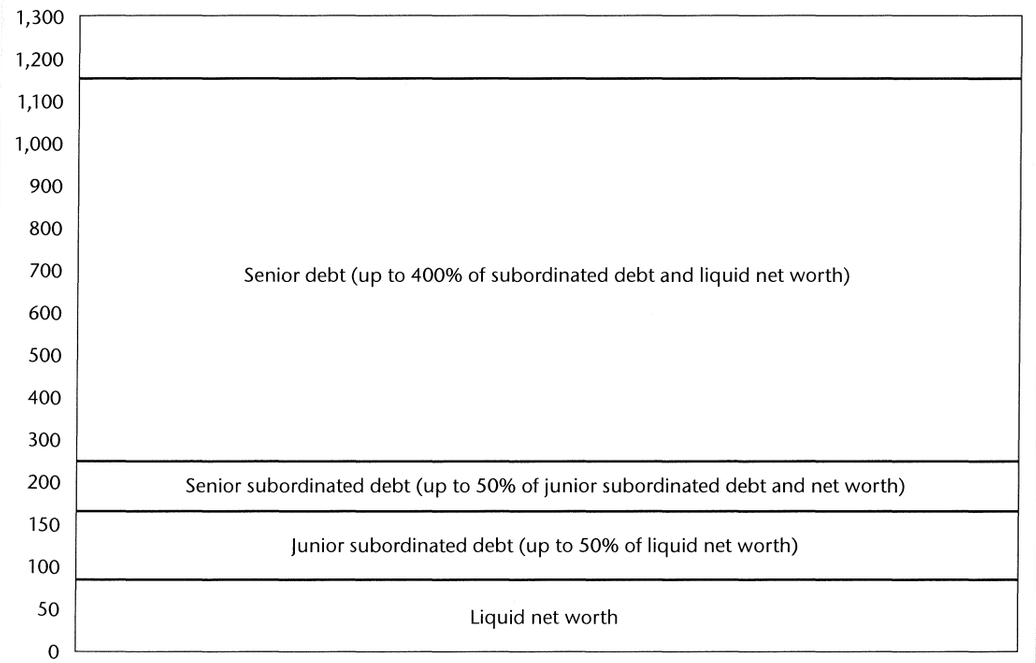
21

Use of captive finance companies

A captive finance company can borrow significant funds on the basis of its own balance sheet and consequently can be used advantageously to finance projects. Finance companies generally enjoy a much higher degree of leverage with their lenders than industrial companies. This makes it possible to use a captive finance company to enhance the total borrowing capacity of the parent corporation. Also, the equity investment in a leveraged lease by a captive finance company to a project has a double leverage effect because of the non-recourse debt associated with a leveraged lease.

Since captive finance companies are typically more than 80 per cent-owned, a parent company can

Exhibit 21.1: Leverage and debt layers (US$)



claim tax benefits generated by its captive finance company on its consolidated income tax return. In addition to interest expense deductions, such tax benefits include MACRS depreciation on equipment purchased in connection with leases written by the captive finance company.

For many years a captive finance company in the United States was not required to be consolidated with its parent company. This rule was changed by FASB Statement No. 94, and consolidation is now required in the United States. However, finance companies can still be used advantageously since lenders and rating services will still unconsolidate them and look at them on a stand-alone basis in many instances.

For a captive finance company to be entitled to treatment as a stand-alone finance company, so that lenders and rating services will treat the finance company as a separate entity, the captive finance company must be organised and operated in a manner which establishes its legal, economic and operating independence.

The finance company should be a separate corporation with its own officers and directors, who may also be officers and/or directors of the parent company. The company should have some employees whose primary duties are administering the affairs of the finance company. The relationship between the parent company and the captive finance company should be spelt out in an operating agreement which sets out the kinds of investments the financing subsidiary is to make. Since the primary function of most financing subsidiaries is to finance instalment receivables arising from the sale of the parent company's products, the operating agreement typically spells out the obligation of the parent company to tender such receivables to the finance company, and the terms and conditions upon which such receivables are to be purchased by the finance company.

An existing captive finance company with an operating history and loans in place is in an ideal position to take on additional loans and investments in projects in which the parent company is interested, while at the same time continuing the separate nature of borrowings used to finance such investments.

Establishing a new captive financing subsidiary which will be used immediately to invest in the projects in which the parent is interested is more difficult but may possibly be accomplished with careful planning. If the parent company has existing customer accounts receivables which can immediately be transferred to the finance subsidiary, this will help to establish the nature of the new subsidiary as a true finance subsidiary.

Contributions to the capital of a newly established finance subsidiary can consist of existing accounts receivables as well as cash. Similar assets, such as the equity in a leveraged lease investment, can be contributed to the finance subsidiary by the parent company as a contribution to capital.

The ability of a finance subsidiary to leverage its equity capital is based upon characteristics which are typical of finance companies, including factors such as high liquidity of assets, stable earning power, and diversity of assets and debtors. Therefore, if the captive finance company is to achieve high leverage on the basis of typical finance companies, its portfolio of assets must have similar characteristics. If a large proportion of the captive finance company's assets are invested in loans to a few projects which are long term and illiquid in nature, this will have a material effect upon the ability of the captive finance company to borrow on its own merit. However, the ability of the captive finance company to borrow from outside sources can be enhanced by keep-well letters and undertakings by the parent company. Furthermore, the parent may even guarantee the debt of the captive finance company, although this will, of course, also have some effect on the parent's credit standing. The parent may indirectly support the debt of the finance company if the lease or loan of the finance company is to a project whose obligations are supported by a take-or-pay contract from the parent.

The degree of leverage which a captive finance company may achieve is largely a matter for negotiation between the finance company, its parent, and its lenders taking all the factors affecting the debt into consideration. Finance companies typically have layers of subordinated debt and even junior subordinated debt to support senior debt. The finance company with an operating history could be structured with junior subordinated debt up to 50 per cent of liquid net worth, senior subordinated debt up to 50 per cent of the total of junior subordinated debt and liquid net worth, and senior debt of up to 300 per cent to 400 per cent of subordinated debt and liquid net worth.

If the captive finance company expects to borrow long-term debt from insurance companies, it should

be operated so that interest on debt obligations and other fixed charges are covered by income at least one and one half times for a five-year period in order to meet legal requirement for insurance company investments under New York law. This usually limits borrowings by newly established captive finance companies to short-term debt obligations during their early years of operation. However, this legal investment requirement can sometimes be satisfied by using an existing subsidiary of the parent company with a satisfactory operating profit history to house a newly established finance subsidiary.

In any situation in which the sponsor is considering a direct loan to a project, the possibility of making such a loan through a captive finance subsidiary should be considered because of the advantageous debt leverage, balance sheet treatment and tax treatment which may be possible. A captive finance subsidiary can also be useful for making working capital loans to projects where the primary project financing originates from other sources.

The independent character and security of the finance company used to back the borrowings of finance subsidiaries has led some lenders to the conclusion that lending to a finance subsidiary may be less risky in some instances than lending to its parent. Indeed, some lenders regard the bankruptcy of the parent as not necessarily posing a threat to the finance subsidiary. However, experience with celebrated credit problems, presented by companies such as Chrysler and Westinghouse, have had a sobering effect on the likelihood of being able to separate a parent's credit problems from those of its finance subsidiary.

It is interesting to note that of the top 50 of the Fortune 500 companies, 33 have captive finance companies, all of which were not consolidated prior to FASB No 94. The unweighted debt to equity ratio of these 33 companies was five to one.

1. Example of a captive finance company used to achieved debt leverage and off-balance sheet financing

The sponsor company desires to arrange financing for a number of projects in which it is interested. The sponsor is a diversified company and, among other things, owns and operates subsidiaries which provide products and services to a large group of customers. In some instances it provides financing to facilitate payment by its customers of goods and services purchased by them.

The sponsor company forms a captive finance company with a view to using that company to provide financing to the projects in which it is interested. This finance company has its own board of directors and officers, including some officers whose time is exclusively devoted to managing and administering the finance company. The sponsor corporation and the captive finance company enter into an operating agreement, spelling out the obligations of the sponsor to tender the accounts receivable to the finance company, and the rights and obligations of the finance company to accept the accounts receivable to be assigned.

The sponsor company transfers some of its accounts receivable to the captive finance company as a contribution to capital. The sponsor company makes an additional contribution to capital in cash sufficient to cover operating expenses during the start-up period.

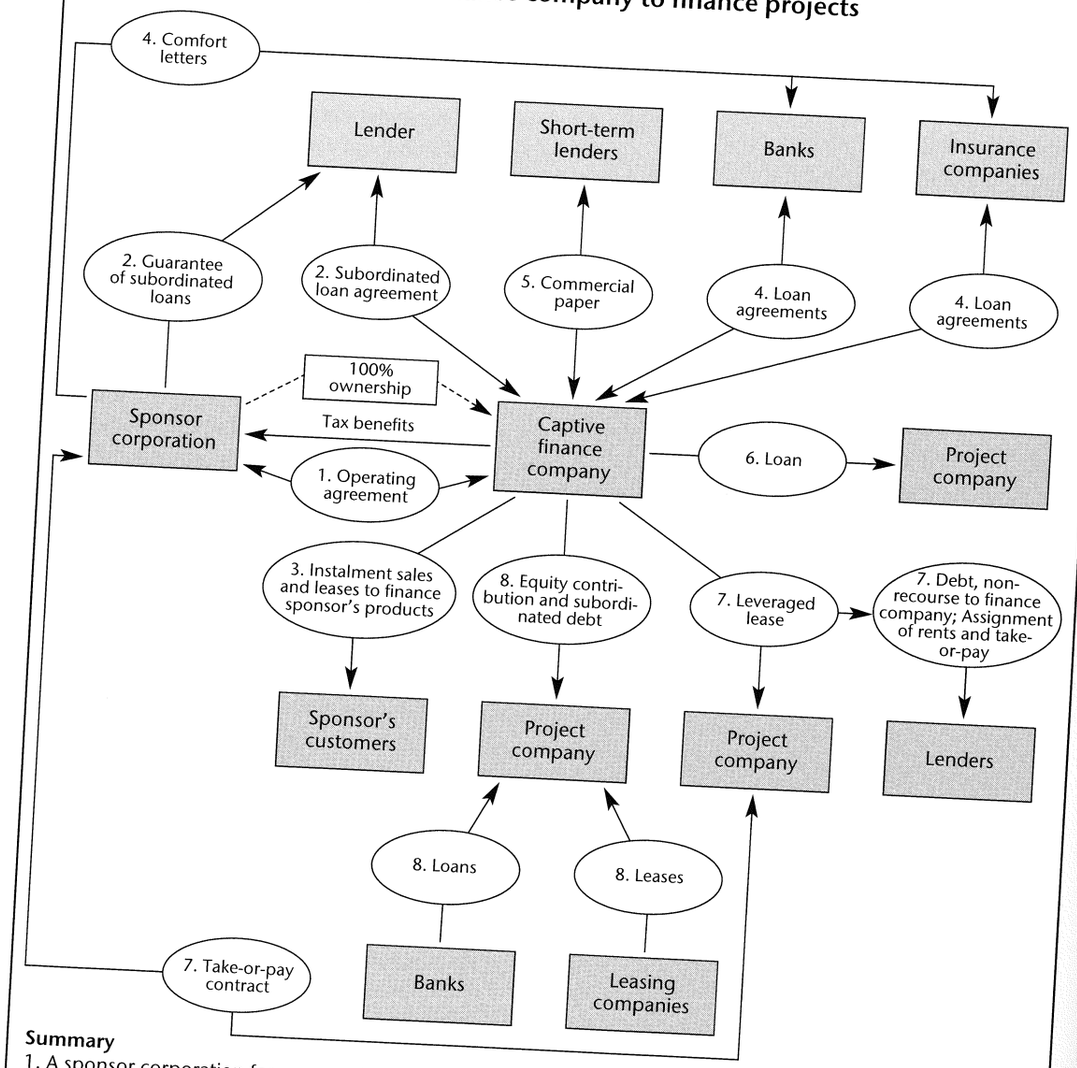
The captive finance company borrows subordinated debt equal to the sponsor's net worth contribution. This debt is guaranteed by the sponsor. A further loan agreement is made for senior debt, which is equal to 300 per cent of the total net worth and subordinated debt. The sponsor furnishes a comfort letter to the senior lenders in which it undertakes to provide adequate management supervision of the finance company, agrees to continue holding 100 per cent of the stock of the captive finance company, and agrees not to change the name of the captive finance company, which is very similar to the name of the sponsor corporation. These undertakings and representations are all for the life of the loan agreement.

The captive finance company then commences operations. It makes collections of accounts assigned to it as a contribution to capital, and purchases new accounts receivable from the sponsor. The captive finance company makes a loan to one project company, makes an equity contribution and a subordinated loan to a second project company, and purchases an equity interest in a leveraged lease of equipment to a third project company.

The second project company to which the subordinated loan and contribution of capital were made then, in turn, makes additional loans and enters into leases based upon that capital base.

The sponsor company supports the third project company to which the leveraged lease was made by a

Exhibit 21.2: Use of a captive finance company to finance projects



Summary

1. A sponsor corporation forms a captive finance company, owns 100% of the stock, and enters into an operating agreement with the finance company to define its operation.
2. The captive finance company arranges a subordinated loan agreement with a group of lenders, which is backed by a guarantee of the sponsor corporation.
3. The captive finance company enters into instalment sales and leases to finance the sponsor's products.
4. The finance company arranges loan agreements with banks and insurance companies, backed by comfort letters from the sponsor corporation.
5. The captive finance company arranges borrowings from the short-term lenders through the use of commercial paper (perhaps backed by letters of credit or bank line commitments).
6. The captive finance company makes a loan to a project company.
7. The sponsor corporation enters into a take-or-pay contract with another project company. The finance company then enters into a leveraged lease to that project company with long-term, non-recourse debt secured by a mortgage, an assignment of rents and the take-or-pay contract.
8. The finance company makes an equity contribution and a subordinated loan to a third project company, which in turn arranges its own loans and leases on the basis of its own capital.

take-or-pay contract. This undertaking enables the debt of the leveraged lease to be sold to lenders on a non-recourse basis to the finance company. The lenders for the leveraged lease receive an assignment of rents and an assignment of the take-or-pay contract as additional security for their loan.

(a) Debt rate

The senior debt rate paid by the captive finance company will depend upon its capital base, subordinated debt, the value of security underlying the senior debt, the direct and implied support which the sponsor will provide the finance company, and the term and quality of the receivables owned by the finance company.

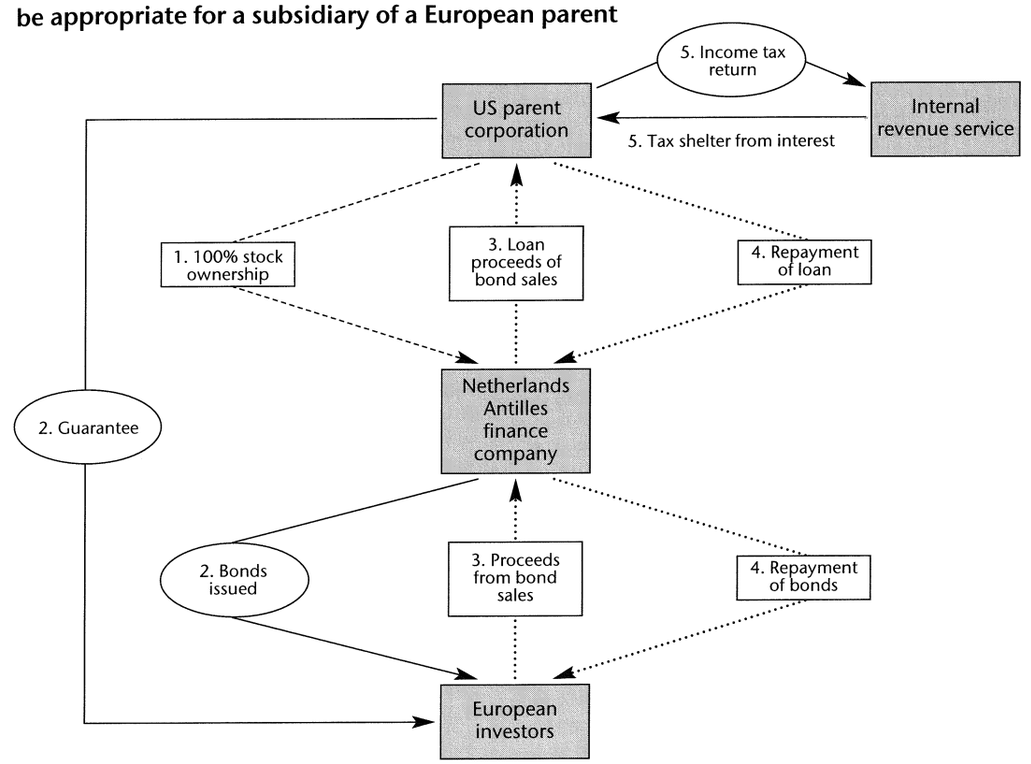
(b) Income tax

The captive finance company files a consolidated return with the parent company, which gains the benefit of interest deductions on borrowings, and depreciation deductions on leased equipment.

(c) Balance sheet

Debt of the finance company will be reflected on the parent sponsor company's consolidated balance sheet. However, if the finance company qualifies as an independent business separate from the parent, the finance company and the parent will be broken out separately as major footnote to the consolidated financial statements.

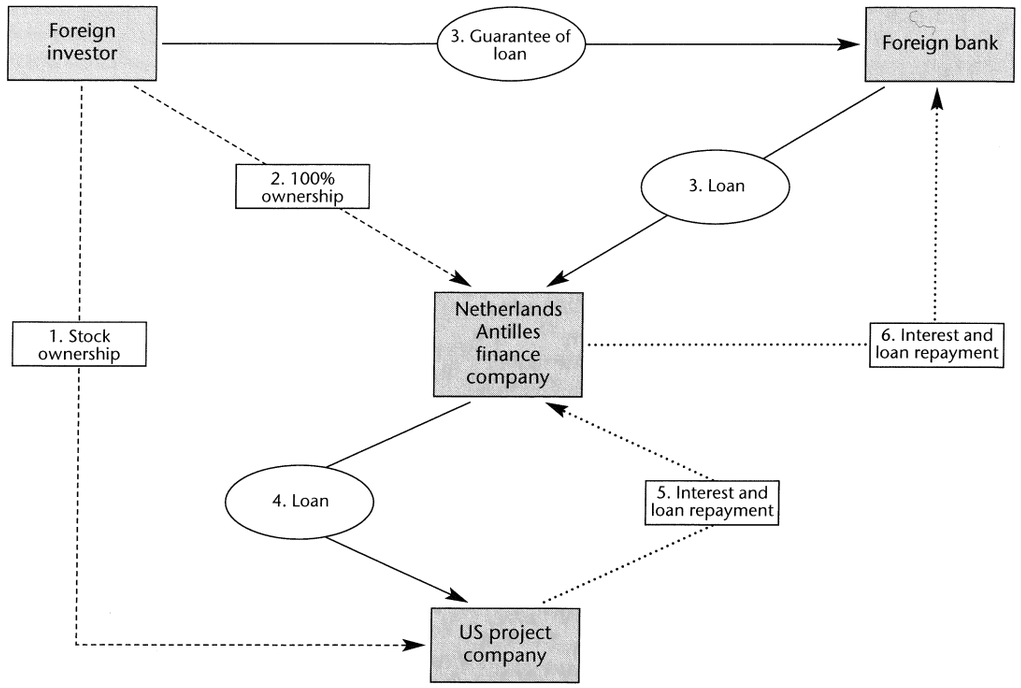
Exhibit 21.3: Use of Netherlands Antilles subsidiary of US parent to raise debt outside the United States under former tax law to avoid withholding tax using a structure which may be appropriate for a subsidiary of a European parent



Summary

1. Formation of Netherlands Antilles finance company.
2. Bonds were issued by Netherlands Antilles company to European investors, free of withholding tax. The bonds are guaranteed by the parent.
3. Proceeds from bond sale loaned by Netherlands Antilles company to US parent.
4. Loan repaid by parent to Netherlands Antilles company and proceeds used to pay bondholders.
5. Parent claims tax deduction for interest payment.

Exhibit 21.4: Use of Netherlands Antilles corporation by a foreign investor to invest in a project company in the United States under former tax law



Summary

1. A foreign investor invested in a US project company either as a wholly owned subsidiary or as a joint owner.
2. The foreign investor formed a wholly owned Netherlands Antilles company.
3. The foreign investor guaranteed a foreign bank loan to the Netherlands Antilles subsidiary.
4. The Netherlands Antilles subsidiary loaned funds to the US project company.
5. Principal and interest payments were made on the loan by the US project company to the Netherlands Antilles company.
6. The Netherlands Antilles company repays the debt with interest.
7. The US project company filed an income tax return and claimed deductions for interest on the loan to the Netherlands Antilles company.

The leveraged lease obligation of the third project company will not be reflected on the balance sheet of the finance company or the sponsor company, provided neither the sponsor nor the finance company controls the project company. The leveraged debt will not be reflected on the balance sheet of the finance company if the leveraged debt associated with the leveraged lease is non-recourse.

(d) Advantages

1. The captive finance company makes it possible for the sponsor to enhance the total borrowing capacity of its corporate group.
2. Lenders generally accept higher leverage for a finance company than for an industrial company.
3. The finance company may be able to double leverage capital available for the project companies through the use of equity investments in leveraged leases and equity contributions in subordinated loans to the project companies.
4. Financing accounts receivable from customers of the parent company enhances the financial position of the parent company.

(e) Disadvantage

1. A separate company and operating arrangement must be set up in order to operate a successful finance company.

2. Use of Netherlands Antilles finance subsidiary of US parent to raise debt outside the United States

In the past, US companies often set up wholly owned subsidiaries in the Netherlands Antilles to sell Eurobonds to overseas investors. The motivation for this structure was because the tax treaty between the United States and the Netherlands Antilles exempted interest payments from US withholding tax. Thus, the Netherlands Antilles subsidiary could issue bonds, lend the proceeds to its US parent corporation, and have the parent repay interest on the debt untaxed. The subsidiary could pay full interest to investors in the bonds. In the absence of a tax treaty, interest paid by a US corporation to foreign investors was subject to a 30 per cent withholding tax. A substantial foreign investor in a US corporation could also escape federal estate tax by purchasing through a Netherlands Antilles corporation.

The absence of tax treaties between the Netherlands Antilles and many other countries also saved the investors from having to identify themselves to their local authorities, making Eurobonds even more attractive.

A change in the tax laws in the United States eliminated the withholding tax and the need for Netherlands Antilles types of subsidiaries in most instances in which they were formerly used. However, the structure remains important as an example of how in similar instances in the future or with another country a holding tax might be avoided.

3. Former use of a Netherlands Antilles corporation by a foreign investor to invest in a project company in the United States

A foreign investor in the United States could formerly use a Netherlands Antilles corporation to channel funds in the form of a loan to a project located in the United States. In this tax avoidance manoeuvre, the US company was under-capitalised, and funds were advanced as a loan rather than as equity. Profits could then be withdrawn as interest and principal payments rather than as dividends. The interest was deductible to the US project and was not subject to the US 30 per cent withholding tax on dividends. This can still be done today without using the intermediary company. However, it illustrates the use of an intermediary company in a similar situation.

The tax authorities may challenge such an arrangement on the grounds that the project is under-capitalised, that the loan is in reality capital, and that the distributions constitute dividends.

Construction financing

1. Objectives

The objectives and considerations of a sponsor or project company in connection with any construction financing, independent of the type of permanent financing to be used, are generally:

1. To obtain financing at the lowest effective interest cost;
2. To make the best use of any and all construction period tax deductions or credits;
3. To optimise the allowed revenue effects resulting from the regulatory treatment of the transaction;
4. To achieve balance sheet and financial reporting treatment deemed desirable;
5. To obtain the financing with minimum adverse impact *vis-à-vis* covenants contained in existing mortgage bond or other indentures;
6. To maintain flexibility regarding the type of permanent financing ultimately employed; and
7. To accommodate the amount and timing of differing types of construction period borrowing instruments (eg, tax exempt, commercial paper, early take-down of long-term funds, bank lines).

Each construction financing is different, and involves establishing priorities for the above objectives. This discussion has particular application to the United States where typically construction financing is provided by one set of lenders and long-term financing is provided by another set of lenders. However, the same principles apply in other countries.

2. Two approaches to construction financing

Construction financing falls into two general categories:

1. Separate entity project financing, in which construction projects are domiciled in special purpose project entities (SPEs) called construction intermediaries, whose borrowing is based upon direct or indirect credit support provided by the sponsor; and
2. Direct financing by the sponsor using corporate funds available from the various direct borrowing facilities which the sponsor has arranged, including new facilities which may be specifically related to (and take-downs thereunder timed with) construction expenditures.

(a) Special purpose entity project financing

Special purpose entity financing, or project financing construction intermediaries, include both corporate and trust vehicles with degrees of ownership and/or control on the part of the sponsor ranging from none to full control. Sponsor credit support for the construction intermediary is usually in the form of an obligation, under certain circumstances, to purchase the project or the notes representing the project's debt. Sponsor credit support in the form of an unconditional take-or-pay contract may, in turn, support a take-out by long-term lenders or a lessor.

The necessity of an equity investment by the sponsor in the project entity is a function of the collateral and the nature of credit support.

Using a construction intermediary approach to construction financing in the United States may facilitate efficient use of construction period tax benefits from interest deductions, either through transfer to a third party or through capitalisation of expenses, with depreciation tax deductions ultimately available on such capitalised expenses as a component of plant cost.[1] The use of asset-oriented tax benefits is of primary concern to project companies considering a leveraged

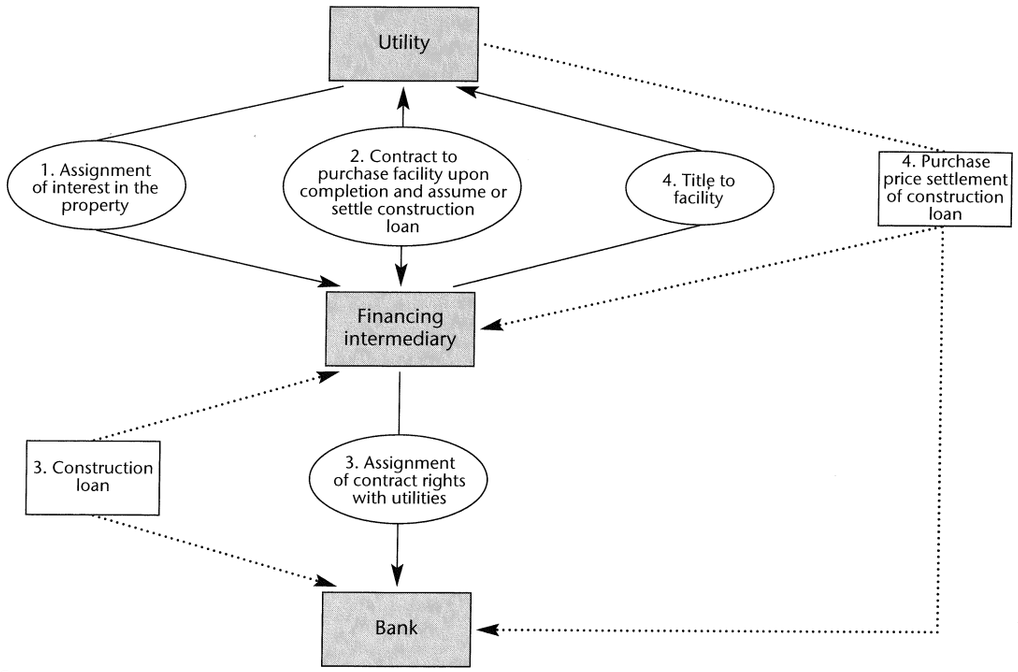
lease as the form of permanent financing, and particularly to those sponsors and/or project companies experiencing a very low declining federal income tax liability as a result of new plant acquisition.

Accounting and tax treatment from the sponsor's standpoint varies according to the nature of its ownership, control and contingent obligation to support the credit. Interest during construction can be capitalised, and off-balance sheet financing may be possible in some instances. However, SEC Accounting Rules, Topic 5-L, states that in the case of utilities, the intermediaries' work in process should be shown in the appropriate caption under utility plant, and that related debt should be included in long-term liabilities and disclosed either on the balance sheet or in a footnote. (See Appendix B for the text of SEC Accounting Rules, Topic 5-L.)

For a project in which rate-making is important, the construction intermediary approach may facilitate allocations of interest expense to current expenses or to rate base as a capitalised cost. Advantages may sometimes be obtained from differentials between actual interest rates and the rates used in computing the allowance for funds used during construction.

With the project economically isolated in the construction intermediary, a wide variety of borrowing alternatives are available to the project entity, including bank lines (which include revolving and term credits) commercial paper, tax exempt debt (where pollution abatement equipment is involved) and early take-down

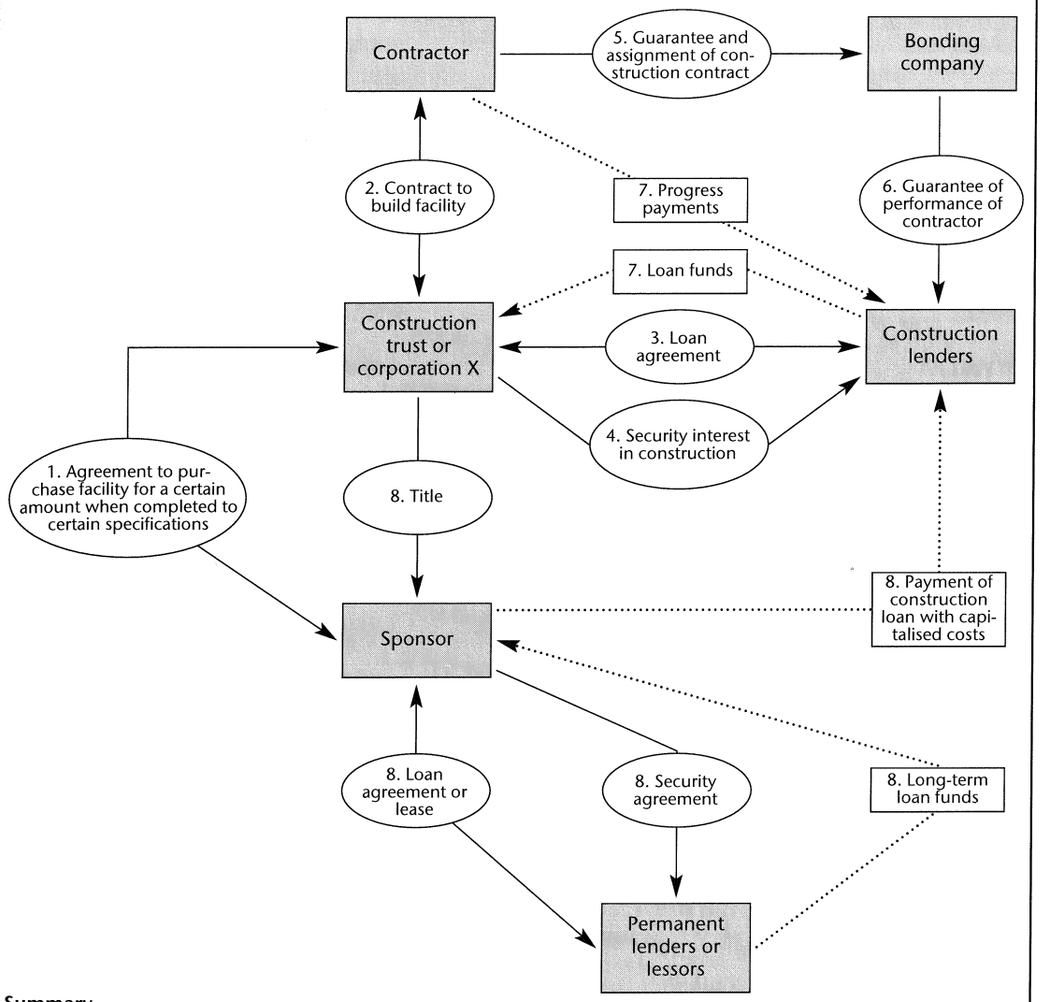
Exhibit 22.1: Financing of construction by a utility by a construction intermediary in which creditors rely primarily upon the credit of the utility



Summary

1. A utility assigns its interest in the construction site and other construction rights to a construction financing intermediary trust.
2. The utility contracts with the intermediary to purchase the facility upon completion, and agrees to assume or settle construction loans that the intermediary is authorised to borrow during construction, and to pay interest on the construction loan.
3. The construction intermediary borrows from banks on the basis of a lien on the work in process and the agreements of the utility to assume or settle construction loans on completion.
4. The facility is completed, the utility purchases the facility, and settles or assumes liability for the construction loans.

Exhibit 22.2: Construction financed through construction trust which relies on the credit of the contractor



Summary

1. The sponsor agrees with the construction intermediary trust to purchase a facility built to certain specifications. The purchase price and time frame for delivery are established.
2. The contractor agrees to build the facility at a price and on terms consistent with the contract between the sponsor and the construction trust.
3. A loan agreement is entered into between the construction intermediary trust and the construction lenders.
4. The construction trust assigns a security interest in its assets to the construction lenders.
5. The contractor enters into an agreement with a bonding company to provide a bond sufficient to guarantee performance, and provides the bonding company with a guarantee and an assignment of its rights under the construction contract as security.
6. The bonding company provides a guarantee. (A bonding company guarantee may not be available at a reasonable price, in which case the lender must look to the financial resources and reputation of the contractor.)
7. Construction loan funds are advanced as needed and progress payments are made to the contractor.
8. The facility is completed to the specifications called for in the contract, the permanent financing is arranged by the sponsor, the construction loan is repaid, title passes to the sponsor, and a security interest passes to the permanent lenders or lessors.

of permanent financing monies. Interest rates should approximate those available to the sponsor directly, unless the sponsor's credit support is conditional or ambiguously indirect.

(b) Direct construction financing

When arranging construction financing without the use of a construction intermediary or project company, all borrowing avenues usually available to the sponsor can be used to fund the construction.

To the extent that a project financing is to be accomplished through a leveraged lease, the mechanics include a sale by the sponsor of the project to the owner trust for lease-back. The sale price to the lessor may include capitalised costs, related to the utility's overhead and financing costs during construction. Under such circumstances, the lessor can claim ITC on such capitalised costs.

However, a primary concern, however, when considering permanent financing alternatives, is the security interest which under such circumstances may automatically attach for the benefit of existing secured lenders under open-ended indentures. Such a situation may ultimately require substitute collateral, such as cash or other property, to release the property being financed to the permanent secured parties under a leveraged lease or secured debt. If a lease is contemplated as the permanent financing, this problem may be solved by having the lessor take title to the facility during the early stages of construction. Under such circumstances, the leasing company can either claim tax benefits from deductions for interest paid during construction, or capitalise interest and claim tax depreciation deductions on such expense as part of the component plant cost, with most of such tax benefits passed through to the project company in the form of reduced rentals. Lease structures are discussed in Chapters 13, 14 and 15.

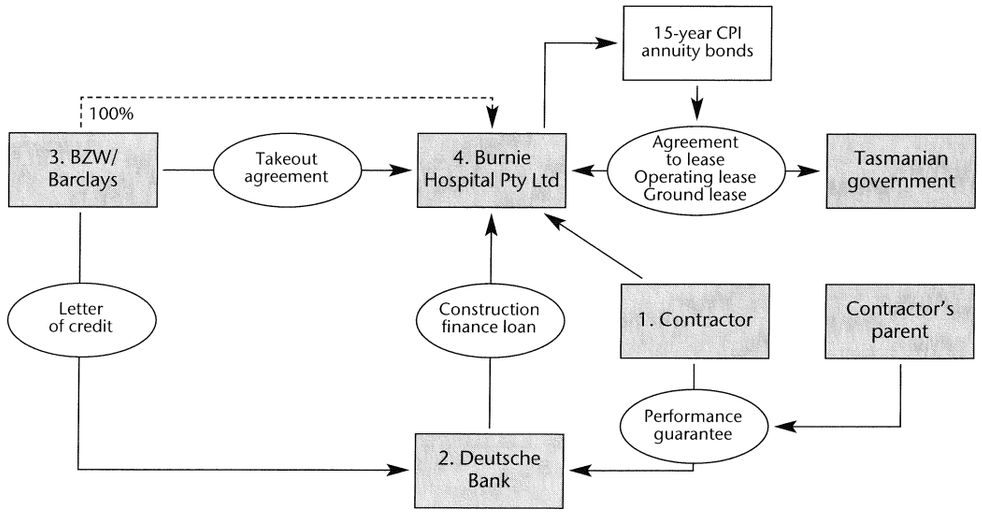
(c) Examples of construction intermediaries

Exhibits 22.1 and 22.2 show two examples of construction intermediary trusts. In the first example, the arrangement clearly falls within the scope of SEC Topic 5-L because the lenders rely primarily upon the credit of utility for take out. The second example attempts to shift the obligation off the balance sheet, or at most to a footnote, by casting the transaction as equivalent to a purchase of equipment which does not become an obligation until delivery of the facility built to specifications. During construction, the lenders look primarily to the credit of the contractor and to his bonding company for assurance that a facility will be built to specification.

Case study: Burnie Hospital – Construction financing

This classic construction financing has a pre-agreed takeout by way of a bond/lease upon completion of the hospital construction. Deutsche Bank facilitates the construction loan with the local subsidiary of a German contractor. Its performance undertakings are guaranteed by its German parent. Deutsche Bank is therefore at little risk so long as the hospital is built.

The bondholders only enter the transaction upon completion of construction. Given satisfactory management and leasing arrangement, their risk(s) are significantly mitigated along with the CPI nature of the bonds. Hospital services are often paid for on the basis of escalation related to CPI, assuming normal efficiencies and operating parameters are otherwise met. Thus the CPI nature of the bond provides a natural hedge to the CPI escalation of the hospital's revenues.



Summary

1. Local subsidiary of German contractor enters into a construction contract for the hospital.
2. Deutsche Bank funds the construction loan under a takeout letter of credit issued by Barclays/BZW.
3. Barclays/BZW underwrites the bond financing takeout. This is the debt used for a leveraged lease.
4. Barclays/BZW own the hospital, itself to be leased to the local state government of Tasmania, Australia.

Notes and references

1. A corporate taxpayer can elect to capitalise construction period interest under Section 266 of the Internal Revenue Code. In absence of an election, the taxpayer may be required by Section 189 to capitalise interest and amortise interest and taxes over 10 years straight line.

Controlling risk: futures, forwards, options, caps and floors

Some contracts give the contract holder either the obligation or the choice to buy or sell a financial asset, currency, or commodity. Such contracts derive their value from the price of the underlying. Consequently, these contracts are called derivative instruments. Examples of derivative instruments include options contracts, futures contracts, forward contracts, cap and floor agreements, and swap agreements.

The existence of derivative instruments provides opportunities for reducing the risk exposure associated with a project. The risk that can be reduced or mitigated are those associated with funding costs, currency fluctuations when cash flows are not in the home currency and commodity price fluctuation. Moreover, in a global financial market with imperfections due to regulations and/or capital restrictions, opportunities arise to reduce the all-in-cost of funds for financing a project or enhance returns.

Unfortunately, several well-publicised financial fiascos involving the use of derivatives have made some participants in the project finance arena shy away from using them. These fiascos, however, are not the result of derivatives *per se.* They are the result of either the lack of understanding of the risk/return characteristics of derivatives or, more commonly, the use of derivative to bet on interest rates, commodity prices, or exchange rates rather than to control risk.

Derivatives have been used successfully in project financing either to control output prices, funding costs, or currency values. By being able to control risk using derivatives, there have been projects that have gone from marginal or unprofitable without the use of derivatives to profitable. Similarly, there have been projects that have been able to achieve lower funding costs from lenders because of the risk reduction resulting from the prudent use of derivatives.

In this chapter we will look at futures, forward, options, caps, and floors. In addition to describing the contracts and their features, we will describe how they can be used to control risk. In the next chapter, we turn our attention to swaps.

1. Futures contracts

Futures contracts are products created by exchanges. A futures contract is a legal agreement between a buyer (seller) and an established exchange or its clearing house in which the buyer (seller) agrees to take (make) delivery of something at a specified price at the end of a designated period of time. The price at which the parties agree to transact in the future is called the futures price. The designated date at which the parties must transact is called the settlement or delivery date.

Prior to 1972, only futures contracts involving traditional agricultural commodities (such as grain and livestock), imported foodstuffs (such as coffee, cocoa and sugar), or industrial commodities were traded. Collectively, such futures contracts are known as com-

modity futures. Futures contracts based on a financial instrument or a financial index are known as financial futures. Financial futures can be classified as (i) stock index futures, (ii) interest-rate futures, and (iii) currency futures. In a project financing, interest-rate futures can be used to protect against funding costs and currency futures to protect against foreign exchange rate fluctuations.

(a) Mechanics of futures trading

Futures contract have a settlement date or a settlement month. This means that at a predetermined time in the contract settlement month the contract stops trading and a price is determined by the exchange for settlement of the contract. A party to a futures contract has two choices on liquidation of the position. First, the position can be liquidated prior to the settlement date. For this purpose, the party must take an offsetting position in the same contract. For the buyer of a futures contract, this means selling the same number of identical futures contracts; for the seller of a futures contract, this means buying the same number of identical futures contracts.

The alternative is to wait until the settlement date. At that time the party purchasing a futures contract accepts delivery of the underlying (financial instrument, currency, or commodity) at the agreed-upon price. The party that sells a futures contract liquidates the position by delivering the underlying at the agreed-upon price. Futures contracts settlement which are made in cash only are referred to as cash settlement contracts.

Role of clearing house

Associated with every futures exchange is a clearing house which performs several functions. One of these functions is guaranteeing that the two parties to the transaction will perform. When an investor takes a position in the futures market, the clearing house takes the opposite position and agrees to satisfy the terms set forth in the contract. Because of the clearing house, the investor need not worry about the financial strength and integrity of the party taking the opposite side of the trade. After the initial execution of an order the relationship between the two parties ends. The clearing house interposes itself as the buyer for every sale and the seller for every purchase. Thus investors are free to liquidate their positions without involving the other party in the original contract and without worry that the other party may default. This is the reason why a futures contract is defined as an agreement between a party and a clearing house associated with an exchange. Besides its guarantee function, the clearing house makes it simple for parties to a futures contract to unwind their positions prior to the settlement date.

Margin requirements

When a position is first taken in a futures contract, the investor must deposit a minimum dollar amount per contract as specified by the exchange. This amount is called the initial margin and is required as a deposit for the contract. As the price of the futures contract fluctuates, the value of the investor's equity in the position changes. At the end of each trading day, the exchange determines the settlement price for the futures contract. This price is used to mark to market the investor's position, so that any gain or loss from the position is reflected in the investor's equity account.

Maintenance margin is the minimum level (specified by the exchange) by which an investor's equity position may fall as a result of an unfavourable price movement before the investor is required to deposit additional margin. The additional margin deposited is called the variation margin and it is the amount necessary to bring the equity in the account back to its initial margin level. Any excess margin in the account may be withdrawn by the investor. If a party to a futures contract who is required to deposit the variation margin fails to do so within a specified time period, the futures position is closed out.

(b) Interest-rate futures contracts

Interest-rate futures contracts can be classified by the maturity of their underlying security. Short-term interest-rate future contracts have an underlying security that matures in less than one year. The maturity of the underlying security of long-term futures exceeds one year. An example of the former is the Eurodollar CD futures contract in which the underlying is a three-month Eurodollar certificate of deposit traded on the Chicago Mercantile Exchange and the London International Financial Futures Exchange (Liffe). Examples of long-term futures are contracts in which the underlying is a government bond such as the US Treasury bond traded on the Chicago Board of Trade

(CBT) and the French government bond traded on the Marche a Terme International de France (Matif).

Because of the importance of the Eurodollar CD futures contract and the US Treasury bond futures contract as a tool for controlling the funding cost of a project, we review these two contracts below.

Eurodollar CD futures contract

The Eurodollar CD futures contract is one of the most heavily traded futures contract in the world. It is frequently used to trade the short end of the yield curve, and many hedgers have found this contract to be the best hedging vehicle for a wide range of situations.

The three-month Eurodollar CD is the underlying instrument for the Eurodollar CD futures contract. The contract traded on the CME involves US$1 million of face value; the Liffe involves £500,000. Both contracts are traded on an index price basis. The index price basis in which the contract is quoted is equal to 100 minus the annualised futures Libor rate. For example, a Eurodollar CD futures price of 94.00 means a futures three-month Libor rate of 6 per cent.

The minimum price fluctuation (tick) for this contract is .01 (or .0001 in terms of Libor). This means that the price value of a basis point for the CME contract is US$25, found as follows. The simple interest on US$1 million for 90 days is equal to:

$$US\$1{,}000{,}000 \times (\text{Libor} \times 90/360)$$

If Libor changes by one basis point (.0001), then:

$$US\$1{,}000{,}000 \times (.0001 \times 90/360) = US\$25$$

The Eurodollar CD futures contracts are cash settlement contracts. That is, the parties settle in cash for the value of a Eurodollar CD based on Libor at the settlement date.

Treasury bond futures

For the reasons to be explained, the Treasury bond futures contract is a complex contract. Other countries that have a futures contract on a government bond have modelled their contract after the US Treasury bond futures contract.

The underlying instrument for a Treasury bond futures contract is US$100,000 par value of a hypothetical 20-year, 6 per cent coupon bond. The futures price is quoted in terms of par being 100. Quotes are in 32nds of 1 per cent. Thus a quote for a Treasury bond futures contract of 97-16 means 97 and $^{16}/_{32}$nds, or 97.50. So, if a buyer and seller agree on a futures price of 97-16, this means that the buyer agrees to accept delivery of the hypothetical underlying Treasury bond and pay 97.50 per cent of par value and the seller agrees to accept 97.50 per cent of par value. Since the par value is US$100,000, the futures price that the buyer and seller agree to pay for this hypothetical Treasury bond is US$97,500.

The minimum price fluctuation for the Treasury bond futures contract is a 32nd of 1 per cent. The dollar value of a 32nd for a US$100,000 par value (the par value for the underlying Treasury bond) is US$31.25. Thus, the minimum price fluctuation is US$31.25 for this contract.

While the underlying for the contract is a hypothetical Treasury bond, it is not a cash settlement contract. The seller of a Treasury bond futures who decides to make delivery rather than liquidate his position by buying back the contract prior to the settlement date must deliver some Treasury bond. The CBT allows the seller to deliver one of several Treasury bonds that the CBT declares is acceptable for delivery. The specific bonds that the seller may deliver are published by the CBT prior to the initial trading of a futures contract with a specific settlement date. Exhibit 23.1 shows the Treasury bond issues that the seller can select from to deliver to the buyer of the September 2000 futures contract. The CBT makes its determination of the Treasury bond issues that are acceptable for delivery from all outstanding Treasury issues that meet the following criteria: it must be a noncallable issue and must have at least 15 years to maturity from the first day of the delivery month. There are usually at least 20 outstanding issues that qualify for good delivery.

The delivery process for the Treasury bond futures contract makes the contract interesting. At the settlement date, the seller of a futures contract (the short) is required to deliver the buyer (the long) US$100,000 par value of a 6 per cent, 20-year Treasury bond. Since no such bond exists, the seller must choose from one of the acceptable deliverable Treasury bonds that the CBT has specified.

To make delivery equitable to both parties, the CBT has introduced factors for converting the invoice price of each acceptable deliverable Treasury issue against the Treasury bond futures contract. The factor is deter-

Exhibit 23.1: **Treasury bond issues acceptable for delivery to satisfy the September 2000 treasury bond futures contract**

Issue	*Maturity*	*Conversion factor*	*Price*	*Implied repo rate (%)*
9 1/8	05/15/18	1.3357	130-26	5.43
9	11/15/18	1.3275	130-00	5.43
7 7/8	02/15/21	1.2180	119-06	5.42
8 3/4	08/15/20	1.3156	128-25+	5.40
8 1/8	08/15/19	1.2371	121-03	5.38
8 1/8	05/15/21	1.2488	122-07	5.35
8 7/8	02/15/19	1.3161	128-29	5.33
8 3/4	05/15/20	1.3136	128-20	5.33
8 1/2	02/15/20	1.2830	125-21	5.26
8 1/8	08/15/21	1.2502	122-12+	5.26
7 5/8	11/15/22	1.1971	117-05	5.24
8	11/15/21	1.2370	121-05	5.06
7 1/8	02/15/23	1.1370	111-10	5.06
8 7/8	08/15/17	1.3010	127-18+	4.99
7 1/4	08/15/22	1.1506	112-22+	4.89
8 3/4	05/15/17	1.2855	126-02+	4.87
6 1/4	08/15/23	1.0307	100-29+	4.77
7 1/2	11/15/16	1.1529	113-01	4.72
7 1/2	11/15/24	1.1895	116-21	4.40
9 1/4	02/15/16	1.3216	129-28	4.39
9 7/8	11/15/15	1.3798	135-21	4.35
7 1/4	05/15/16	1.1250	110-13	4.32
6 7/8	08/15/25	1.1119	109-03	4.16
6	02/15/26	0.9999	98-02+	4.08
7 5/8	02/15/25	1.2061	118-13	4.08
6 3/4	08/15/26	1.0976	107-25	3.84
6 1/2	11/15/26	1.0654	104-21	3.65
6 5/8	02/15/27	1.0820	106-10	3.60
6 3/8	08/15/27	1.0495	103-05+	3.36
6 1/8	11/15/27	1.0166	99-31+	3.10
5 1/2	08/15/28	0.9327	91-29	2.34
5 1/4	11/15/28	0.8989	88-23+	1.63
5 1/4	02/15/29	0.8984	88-30	0.65
6 1/8	08/15/29	1.0169	101-09	-1.34
6 1/4	05/15/30	1.0344	105-05+	-8.54

Source: Bloomberg Financial Markets

mined by the CBT before a contract begins trading. Exhibit 23.1 shows the conversion factor for each of the acceptable Treasury issues. This factor is constant throughout the trading period of the futures contract. The short must notify the long of the bond that will be delivered one day before the delivery date.

The invoice price for the contract is the futures settlement price plus accrued interest. However, as noted above, the seller can deliver one of several acceptable Treasury issues, and to make delivery fair to both parties, the invoice price must be adjusted based on the actual Treasury issue delivered. The conversion factor is used to adjust the invoice price thus:

> Invoice price = Contract size × Futures contract settlement price × Conversion factor + Accrued interest

Suppose the contract settles at 94-08 and that the short elects to deliver an issue with a conversion factor of 1.20. The contract settlement price of 94-08 means 94.25 per cent of par value. As the contract size is US$100,000, the invoice price is:

> US$100,000 × 0.9425 × 1.20 + Accrued interest
> = US$113,100 + Accrued interest

In selecting the issue to be delivered, the short will select from all the deliverable issues the one that is cheapest to deliver. This issue is referred to as the cheapest-to-deliver issue and is key in the pricing of the futures contract. The cheapest-to-deliver issue is determined by market participants as follows. For each of the acceptable Treasury issues from which sellers can select, they calculate the return that can be earned by buying that issue and delivering it at the settlement date. Sellers can calculate the return since they know the price of the Treasury issue and the futures price at which they agree to deliver the issue. The return so calculated is called the implied repo rate. The cheapest-to-deliver issue is the issue among all acceptable Treasury issues with the highest implied repo rate, since it is the one that would give the seller of the futures contract the highest return by buying and then delivering the issue (see Exhibit 23.2).

As well as the choice of issue (sometimes referred to as the quality option or swap option) the short position has two more options under CBT delivery guidelines. The short position can decide when in the delivery month delivery actually will take place. This is called the timing option. The other option is the right of the short position to give notice of intent to deliver, up to 8:00 p.m. Chicago time after the closing of the exchange (3:15 p.m. Chicago time) on the date when the futures settlement price has been fixed. This option is known as the wild card option. The quality, timing, and wild card options (the delivery options), mean that the long position can never be sure which Treasury bond will be delivered or when it will be delivered.

(c) Currency futures

There are US-traded foreign exchange futures contracts for the major currencies traded on the International Monetary Market (IMM), a division of

Exhibit 23.2: Determination of cheapest to deliver issue based on the implied repo rate

Implied repo rate: Rate of return by buying an acceptable Treasury issue, shorting the Treasury bond futures, and delivering the issue at the settlement date.

Buy this issue:	*Deliver this issue at futures price*	*Calculate return (implied repo rate)*
Acceptable Treasury issue #1	Deliver issue #1	Implied repo rate #1
Acceptable Treasury issue #2	Deliver issue #2	Implied repo rate #2
Acceptable Treasury issue #3	Deliver issue #3	Implied repo rate #3
...	...	...
Acceptable Treasury issue #N	Deliver issue #N	Implied repo rate #N

Cheapest to deliver is issue that produces maximum implied repo rate.

the Chicago Mercantile Exchange. The futures contracts traded on the IMM are for the Japanese yen, the German mark, the Canadian dollar, the British pound, the Swiss franc, and the Australian dollar. The amount of each foreign currency that must be delivered varies by currency. For example, each British pound futures contract is for delivery of £62,500 while each Japanese yen futures contract is for delivery of ¥12.5 million.

The maturity cycle for currency futures is March, June, September and December. The longest maturity is one year. Consequently, these contracts are limited with respect to hedging long-dated foreign exchange risk exposure by a project company.

Outside the US, currency futures are traded on the London International Financial Futures Exchange, Singapore International Monetary Exchange, Toronto Futures Exchange, Sydney Futures Exchange and New Zealand Futures Exchange.

2. Forward contracts

A forward contract, like a futures contract, is an agreement for the future delivery of something at a specified price at the end of a designated period of time. Futures contracts are standardised agreements as to the delivery date (or month) and quality of the deliverable, and are traded on organised exchanges. A forward contract differs in that it is usually non-standardised (that is, the terms of each contract are negotiated individually between buyer and seller), there is no clearing house, and secondary markets are often non-existent or extremely thin. Unlike a futures contract, which is an exchange-traded product, a forward contract is an over-the-counter instrument.

Although both futures and forward contracts set forth terms of delivery, futures contracts are not intended to be settled by delivery. In fact, generally less than 2 per cent of outstanding contracts are settled by delivery. Forward contracts, in contrast, are intended for delivery.

Futures contracts are marked to market at the end of each trading day, while the decision to mark to market a forward contract is done by agreement between the two parties at the outset of the transaction. Consequently, futures contracts are subject to interim cash flows as additional margin may be required in the case of adverse price movements, or as cash is withdrawn in the case of favourable price movements. For a forward contract that is not marked to market, there are no interim cash flow effects because no additional margin is required.

Finally, the parties in a forward contract are exposed to credit risk or counterparty risk because either party may default on the obligation. Credit risk is minimal in the case of futures contracts because the clearing house associated with the exchange guarantees the other side of the transaction. Other than these differences, most of what we say about futures contracts applies equally to forward contracts.

(a) Long-term forward foreign exchange agreements

The market for forward contracts on foreign exchange is more frequently used than futures contracts for hedg-

ing existing or anticipated currency exposures. They are available in most major currencies for terms up to five years, or even longer terms depending on market conditions. For longer-dated forward contracts, however, the bid-ask spread for a forward contract increases, that is, the size of the spread for a given currency increases with the maturity. Consequently, forward contracts become less attractive for hedging long-dated foreign currency exposure than currency swaps which we discuss in the next chapter.

The cost/price of a forward contract generally reflects the prevailing market rates for the two currencies for identical maturities. Long-term forward foreign exchange agreements can be used by project companies to decrease or eliminate the currency risk arising from financial transactions denominated in foreign currencies, such as the following:

Long-term contracts
Under various long-term contract agreements, project companies frequently make commitments to disburse or receive payments in foreign currencies under long-term contracts or licensing and royalty agreements. Since these transactions may be for periods of five years or longer, they create a substantial currency risk, which may be mitigated by entering into long-term forward foreign exchange agreements.

Cost of foreign funds
It may be possible to borrow a foreign currency along with a long-term forward foreign exchange contract for purchase of the same currency, at a lower cost than borrowing in the domestic capital market. Also, a project company with an existing loan at an attractive interest rate may wish to limit its foreign exchange risk by a long-term forward exchange agreement.

Accounting rules
Since foreign exchange gains or losses on foreign currency transactions are generally required to be reflected in current income, long-term forward agreements can be used to decrease or eliminate the foreign exchange loss exposure.

(b) Forward rate agreement

A forward rate agreement (FRA) is a customised agreement between two parties (one of whom is a dealer firm – a commercial bank or investment banking firm) where the two parties agree at a specified future date to exchange an amount of money based on a reference interest rate and a notional principal amount. A notional principal amount is an amount by which payments are benchmarked but there is no exchange of principal.

To illustrate an FRA, suppose that an industrial company and a bank enter into the following six-month FRA with a notional principal amount of US$100 million: if three-month Libor six months from now exceeds 5 per cent, the bank pays the industrial company an amount determined by the following formula:

(Three-month Libor six months from now - 0.05) × US$100,000,000 × 0.25

For example, if three-month Libor six months from now is 8 per cent, the industrial company receives:

(0.08 - 0.05) × US$100,000,000 × 0.25 = US$750,000

If three-month Libor six months from now is less than 5 per cent, the industrial company pays the bank an amount based on the same formula.

Project companies can use FRAs to hedge against adverse interest-rate risk by locking in a rate.

3. General principles of hedging with futures and forward contracts

The major function of futures markets is to transfer price risk from hedgers to speculators. That is, risk is transferred from those willing to pay to avoid risk to those wanting to assume the risk in the hope of gain. Hedging in this case is the employment of a futures transaction as a temporary substitute for a transaction to be made in the cash market. The hedge position locks in a value for the cash position. As long as cash and futures prices move together, any loss realised on one position (whether cash or futures) will be offset by a profit on the other position. When the profit and loss are equal, the hedge is called a perfect hedge. In a market where the futures contract is correctly priced, a perfect hedge should provide a return equal to the risk-free rate.

(a) Risks associated with hedging

In practice, hedging is not that simple. The amount of

the loss or profit on a hedge will be determined by the relationship between the cash price (also called the spot price) and the futures price when a hedge is placed and when it is lifted. The difference between the cash price and the futures price is called the basis:

Basis = Cash price - Futures price

If a futures contract is priced according to its theoretical value, it can be demonstrated that the difference between the cash price and the futures price should be equal to the cost of carry. The cost of carry is the net cost of financing a position. That is, it is the difference between the financing rate and the cash yield from holding the underlying.

The risk that the hedger takes is that the basis will change at the time the hedge is removed. This is called basis risk. Therefore, hedging involves the substitution of basis risk for price risk; that is, the substitution of the risk that the basis will change for the risk that the cash price will change.

When a futures contract is used to hedge a position where the asset, currency, or commodity whose risk is to be hedged is not identical to the instrument underlying the futures, it is called cross hedging. Cross hedging is common in many hedging applications. Cross hedging introduces another risk – the risk that the price movement of the underlying of the futures contract may not accurately track the price movement of the asset, currency, or commodity whose risk is to be hedged. This is called cross-hedging risk. Therefore, the effectiveness of a cross hedge will be determined by:

1. The relationship between the cash price of the underlying and its futures price when a hedge is placed and when it is lifted.
2. The relationship between the market (cash) value of the asset, currency, or commodity to be hedged and the cash price of the underlying for the futures contract when the hedge is placed and when it is lifted.

(b) Short hedge and long hedge

A short hedge is used to protect against a decline in the future cash price of an asset, a currency, or a commodity. In the case of an interest-rate futures contract, a decline in the futures price means a rise in the interest rate. To execute a short hedge, the hedger sells a futures contract (agrees to make delivery). Consequently, a short hedge is also known as a sell hedge. By establishing a short hedge, the hedger has fixed the future cash price and transferred the price risk of ownership to the buyer of the futures contract.

A long hedge is undertaken to protect against an increase in the price of an asset, a currency, or a commodity to be purchased in the cash market at some future time. In a long hedge, the hedger buys a futures contract (agrees to accept delivery). A long hedge is also known as a buy hedge.

(c) Hedging illustrations[1]

To illustrate hedging, we shall present several numerical examples from the traditional commodities markets. The principles we illustrate still are equally applicable to financial futures contracts but it is easier to grasp the sense of the commodities product example without involving financial contract nuances.

Assume that a gold mining company expects to sell 1,000 ounces of gold one week from now and that the management of a jewellery company plans to purchase 1,000 ounces of gold one week from now. The managers of both the gold mining company and the jewellery company want to lock in today's price. That is, they both want to eliminate the price risk associated with gold one week from now. The cash price for gold is currently US$352.40 per ounce. The futures price for gold is currently US$397.80 per ounce. Each futures contract is for 100 ounces of gold.

Because the gold mining company seeks protection against a decline in the price of gold, the company will place a short hedge. That is, the company will promise to make delivery of gold at the current futures price. The gold mining company will sell 10 futures contracts.

The management of the jewellery company seeks protection against an increase in the price of gold. Consequently, it will place a long hedge. That is, it will agree to accept delivery of gold at the futures price. Because it is seeking protection against a price increase for 1,000 ounces of gold, it will buy 10 contracts.

The various scenarios for the cash price and futures price of gold one week from now, when the hedge is lifted will be examined.

Perfect hedge
Suppose that at the time the hedge is lifted the cash price has declined to US$304.20 and the futures price

Exhibit 23.3: A hedge that locks in the current price of gold: cash price decrease

Assumptions

Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is placed	US$304.20 per oz
Futures price at time hedge is lifted	US$349.60 per oz
Number of ounces to be hedged	1,000
Number of ounces per futures contract	100
Number of futures contracts used in hedge	10

Short (sell) hedge by gold mining company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Sell 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$304.20 = US$304,200	Buy 10 contracts: 10 x 100 x US$349.60 = US$349,600	-US$45.40 per ounce
Loss in cash market = US$48,200	Gain in futures market = US$48,200	
	Overall gain or loss = US$0	

Long (buy) hedge by jewellery company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$304.20 = US$304,200	Sell 10 contracts: 10 x 100 x US$349.60 = US$349,600	-US$45.40 per ounce
Gain in cash market = US$48,200	Loss in futures market = US$48,200	
	Overall gain or loss = US$0	

has declined to US$349.60. Notice what has happened to the basis under this scenario. At the time the hedge is placed, the basis is -US$45.40 (US$352.40 - US$397.80). When the hedge is lifted, the basis is still -US$45.40 (US$304.20 - US$329.60).

The gold mining company wanted to lock in a price of US$352.40 per ounce of gold, or US$352,400 for 1,000 ounces. The company sold 10 futures contracts at a price of US$397.80 per ounce or US$397,800 for 1,000 ounces. When the hedge is lifted, the value of 1,000 ounces of gold is US$304,200 (US$304.20 × 1,000). The gold mining company realises a decline in the cash market in the value of its gold of US$48,200. However, the futures price has declined to US$349.60, or US$349,600 for 1,000 ounces. The mining company thus realises a US$48,200 gain in the futures market. The net result is that the gain in the futures market matches the loss in the cash market. Consequently, the gold mining company does not realise an overall gain or loss. This is an example of a perfect hedge. The results of this hedge are summarised in Exhibit 23.3.

The outcome for the jewellery company of its long hedge is also summarised in Exhibit 23.3. Because there was a decline in the cash price, the jewellery company would gain in the cash market by US$48,200 but realise a loss of the same amount in the futures market. Therefore this hedge is also a perfect hedge.

This scenario illustrates two important points. First, for both participants there was no overall gain or loss. The reason for this was that the basis did not change when the hedge was lifted. Consequently, if the basis does not change, the effective purchase or sale price ends up being the cash price on the day the hedge is set. Second, note that the management of the jewellery company would have been better off if it had not hedged. The cost of the gold would have been US$48,200 less. This, however, should not be interpreted as a sign of a bad decision. Managers are usually not in the business of speculating on the price of gold and hedging is the standard practice used to protect against an increase in the cost of doing business in the future. The price of obtaining this protection is the potential windfall that one gives up.

Exhibit 23.4: A hedge that locks in the current price of gold: cash price increase

Assumptions

Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is placed	US$392.50 per oz
Futures price at time hedge is lifted	US$437.90 per oz
Number of ounces to be hedged	1,000
Number of ounces per futures contract	100
Number of futures contracts used in hedge	10

Short (sell) hedge by gold mining company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$392.50 = US$392,500	Sell 10 contracts: 10 x 100 x US$437.90 = US$437,900	-US$45.40 per ounce
Gain in cash market = US$40,100	Loss in futures market = US$40,100	
	Overall gain or loss = US$0	

Long (buy) hedge by jewellery company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$392.50 = US$392,500	Sell 10 contracts: 10 x 100 x US$437.90 = US$437,900	-US$45.40 per ounce
Loss in cash market = US$40,100	Gain in futures market = US$40,100	
	Overall gain or loss = US$0	

Suppose that when the hedge is lifted the cash price of gold has increased to US$392.50 and that the futures price has increased to US$437.90. Notice that the basis is unchanged at -US$45.40. Because the basis is unchanged, the effective purchase and sale price will equal the price of gold at the time the hedge is placed.

The gold mining company will gain in the cash market because the value of 1,000 ounces of gold is US$392,500 (US$392.50 × 1,000). This represents a US$40,100 gain compared to the cash value at the time the hedge was placed. However, the gold mining company must liquidate its position in the futures market by buying 10 futures contracts at a total price of US$437,900, which is US$40,100 more than the price when the contracts were sold. The loss in the futures market offsets the gain in the cash market. The results of this hedge are summarised in Exhibit 23.4.

The jewellery company realises a US$40,100 gain in the futures market but will have to pay US$40,100 more in the cash market to acquire 1,000 ounces of gold. The results of this hedge are also summarised in Exhibit 23.4.

Notice that in this scenario the management of the jewellery company saved US$40,100 by employing a hedge. The gold mining company, on the other hand, would have been better off if it had not hedged and had simply sold its product on the market one week later. However, it must be emphasised that the management of the gold mining company, just like the management of the jewellery company, employed a hedge to protect against unforeseen adverse price changes in the cash market, and the price of this pro-

Exhibit 23.5: Hedge: cash price decreases and basis widens

Assumptions

Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is placed	US$304.20 per oz
Futures price at time hedge is lifted	US$385.80 per oz
Number of ounces to be hedged	1,000
Number of ounces per futures contract	100
Number of futures contracts used in hedge	10

Short (sell) hedge by gold mining company

Cash market	*Futures market*	*Basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Sell 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$81.60 per ounce
Loss in cash market = US$48,200	Gain in futures market = US$12,000	
	Overall loss = US$36,200	

Long (buy) hedge by jewellery company

Cash market	*Futures market*	*Basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$304.20 = US$304,200	Sell 10 contracts: 10 x 100 x US$385.80 = US$385,800	-US$81.60 per ounce
Gain in cash market = US$48,200	Loss in futures market = US$12,200	
	Overall gain = US$36,200	

tection is that one forgoes the favourable price changes enjoyed by those who do not hedge.

Basis risk

In the two previous scenarios we assumed that the basis does not change. There is no reason why this would necessarily be the case. In the real world the basis frequently changes between the time a hedge is placed and the time it is lifted.

Assume that the cash price of gold decreases to US$304.20, just as in the first scenario; however, assume further that the futures price decreases to US$385.80 rather than US$349.60. The basis has now declined from -US$45.40 to -US$81.60 (US$304.20 - US$385.80).

The results are summarised in Exhibit 23.5. For the short hedge, the US$48,200 loss in the cash market is only partially offset by the US$12,000 gain realised in the futures market. Consequently, the hedge resulted in an overall loss of US$36,200. There are several points to note here. First, if the gold mining company did not hedge, the loss would have been US$48,200, because the value of its 1,000 ounces of gold is US$304,200 compared to US$352,400 one week earlier. Although the hedge is not perfect, the loss of US$36,200 is less than the loss of US$48,200 that would have occurred if no hedge had been placed. This is what we meant earlier by stating that hedging substitutes basis risk for price risk. Second, the management of the jewellery company faces the same problem from an opposite perspective. An unexpected gain for one participant results in an unexpected loss of equal dollar value for the other. That is, the participants face a zero-sum game since they have identically opposite cash and futures positions. Consequently, the jewellery company would realise an overall gain of US$36,200 from its long (buy) hedge. This gain represents a gain in the cash market of US$48,200 and a realised loss in the futures market of US$12,000.

Exhibit 23.6: Hedge: cash price increases and basis widens

Assumptions

Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is placed	US$392.50 per oz
Futures price at time hedge is lifted	US$474.10 per oz
Number of ounces to be hedged	1,000
Number of ounces per futures contract	100
Number of futures contracts used in hedge	10

Short (sell) hedge by gold mining company

Cash market	*Futures market*	*Basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Sell 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$392.50 = US$392,500	Buy 10 contracts: 10 x 100 x US$474.10 = US$474,100	-US$81.60 per ounce
Gain in cash market = US$40,100	Loss in futures market = US$76,300	
	Overall loss = US$36,200	

Long (buy) hedge by jewellery company

Cash market	*Futures market*	*Basis*
At time hedge is placed Value of 1,000 oz: 1,000 x US$352.40 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 1,000 oz: 1,000 x US$392.50 = US$392,500	Sell 10 contracts: 10 x 100 x US$474.10 = US$474,100	-US$81.60 per ounce
Loss in cash market = US$40,100	Gain in futures market = US$76,300	
	Overall gain = US$36,200	

Suppose that the cash price increases to US$392.50 per ounce, just as in the second scenario, but that the basis widens to -US$81.60. That is, at the time the hedge is lifted the futures price has increased to US$474.10. The results of this hedge are summarised in Exhibit 23.6.

As a result of the long hedge, the jewellery company will realise a gain of US$76,300 in the futures market but only a US$40,100 loss in the cash market. Therefore, there is an overall gain of US$36,200 for the jewellery company. For the gold mining company, there is an overall loss of US$36,200.

In the two previous scenarios it was assumed that the basis widened. It can be demonstrated that if the basis narrowed, the outcome will not be a perfect hedge.

Cross-hedging

Suppose that a mining company finds a rare metal which it calls kryptonite and plans to sell 2,500 ounces of kryptonite one week from now and that a jewellery company wants to purchase the same amount of kryptonite in one week. Both parties want to hedge against price risk. However, kryptonite futures contracts are not currently traded. Both parties believe that there is a close relationship between the price of kryptonite and the price of gold. Specifically, both parties believe that the cash price of kryptonite will remain at 40 per cent of the cash price of gold. The cash price of kryptonite is currently US$140.96 per ounce, and the cash price of gold is currently US$352.40 per ounce. The futures price of gold is currently US$397.80 per ounce.

Various scenarios will be examined to demonstrate the effectiveness of cross-hedging. In each scenario, the gold basis is held constant at -US$45.40. We make this assumption so that we can focus on the importance of the relationship between the two cash prices at the two points in time.

Before proceeding, we must first determine how many gold futures contracts should be used in the cross-

Exhibit 23.7: A hedge that locks in the current price of kryptonite: cash prices decrease by same percentage (while the gold basis stays constant)

Assumptions

Price of kryptonite	
Cash price at time hedge is placed	US$140.96 per oz
Cash price at time hedge is lifted	US$121.68 per oz
Price of gold	
Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is lifted	US$304.20 per oz
Futures price at time hedge is lifted	US$349.60 per oz
Number of ounces of kryptonite to be hedged	2,500
Number of ounces of gold to be hedged assuming ratio of cash price of kryptonite to gold is 0.4	1,000
Number of ounces per futures contract for gold	100
Number of gold futures contracts used in hedge	10

Short (sell) cross-hedge by kryptonite mining company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 2,500 oz: 2,500 x US$140.96 = US$352,400	Sell 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 2,500 oz: 2,500 x US$121.68 = US$304,200	Buy 10 contracts: 10 x 100 x US$349.60 = US$349,600	-US$45.40 per ounce
Loss in cash market = US$48,200	Gain in futures market = US$48,200	
	Overall gain or loss = US$0	

Long (buy) cross-hedge by jewellery company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 2,500 oz: 2,500 x US$140.96 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 2,500 oz: 2,500 x US$121.68 = US$304,200	Sell 10 contracts: 10 x 100 x US$349.60 = US$349,600	-US$45.40 per ounce
Gain in cash market = US$48,200	Loss in futures market = US$48,200	
	Overall gain or loss = US$0	

hedge. The value of 2,500 ounces of kryptonite at the cash price of US$140.96 per ounce is US$352,400. To protect the value of the kryptonite using gold futures, the cash value of 1,000 ounces of gold (US$352,400/US$352.40) must be hedged. Because each gold futures contract covers 100 ounces, 10 gold futures contracts will be used.

Suppose that the cash prices of kryptonite and gold decrease to US$121.68 and US$304.20 per ounce, respectively, and that the futures price of gold decreases to US$349.60 per ounce. Also assume that the relationship between the cash price of kryptonite and the cash price of gold when the cross-hedge was placed holds when the cross-hedge is lifted. That is, the cash price of kryptonite is 40 per cent of the cash price of gold. The gold basis stays constant at -US$45.40. The outcome for the short and long cross-hedge is summarised in Exhibit 23.7.

The short cross-hedge produces a gain of US$48,200 in the futures market and an exactly offsetting loss in the cash market. The opposite occurs for the long cross-hedge. There is neither an overall gain nor a loss from the cross-hedge for either hedger in this scenario. The same would occur if the cash prices of both commodities increase by the same percentage and the basis does not change.

Exhibit 23.8: Cross-hedge: cash price of commodity to be hedged falls by a greater percentage than the futures used for the hedge (while the gold basis stays constant)

Assumptions

Price of kryptonite	
Cash price at time hedge is placed	US$140.96 per oz
Cash price at time hedge is lifted	US$112.00 per oz
Price of gold	
Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is lifted	US$304.20 per oz
Futures price at time hedge is lifted	US$349.60 per oz
Number of ounces of kryptonite to be hedged	2,500
Number of ounces of gold to be hedged assuming ratio of cash price of kryptonite to gold is 0.4	1,000
Number of ounces per futures contract for gold	100
Number of gold futures contracts used in hedge	10

Short (sell) cross-hedge by kryptonite mining company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 2,500 oz: 2,500 x US$140.96 = US$352,400	Sell 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 2,500 oz: 2,500 x US$112.00 = US$280,000	Buy 10 contracts: 10 x 100 x US$349.60 = US$349,600	-US$45.40 per ounce
Loss in cash market = US$72,400	Gain in futures market = US$48,200	
	Overall loss = US$24,200	

Long (buy) cross-hedge by jewellery company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 2,500 oz: 2,500 x US$140.96 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 2,500 oz: 2,500 x US$112.00 = US$280,000	Sell 10 contracts: 10 x 100 x US$349.60 = US$US349,600	-US$45.40 per ounce
Gain in cash market = US$72,400	Loss in futures market = US$48,200	
	Overall gain = US$24,200	

Suppose that the cash price of both commodities decreases but the cash price of kryptonite falls by a greater percentage than the cash price of gold. For example, suppose that the cash price of kryptonite falls to US$112.00 per ounce, while the cash price of gold falls to US$304.20 per ounce. The futures price of gold falls to US$349.60 so that the gold basis is not changed. The cash price of kryptonite at the time the cross-hedge is lifted is 37 per cent of the cash price of gold, rather than the 40 per cent when the cross-hedge was constructed. The outcome for the long and short cross-hedge is shown in Exhibit 23.8.

For the short cross-hedge, the loss in the cash market exceeds the realised gain in the futures market by US$24,200. For the long cross-hedge, the opposite is true. There is an overall gain of US$24,200 from the cross-hedge.

If the cash price of kryptonite had fallen by a smaller percentage amount than the cash price of gold, the short cross-hedge would have produced an overall gain, while the long cross-hedge would have generated an overall loss.

Suppose that the cash price of kryptonite falls to US$121.68 per ounce, while the cash and futures price of gold rise to US$392.50 and US$437.90, respec-

Exhibit 23.9: Cross-hedge: cash price of commodity to be hedged falls and the price of futures used for the hedge rises (while the gold basis stays constant)

Assumptions	
Price of kryptonite	
Cash price at time hedge is placed	US$140.96 per oz
Cash price at time hedge is lifted	US$121.68 per oz
Price of gold	
Cash price at time hedge is placed	US$352.40 per oz
Futures price at time hedge is placed	US$397.80 per oz
Cash price at time hedge is lifted	US$392.50 per oz
Futures price at time hedge is lifted	US$437.90 per oz
Number of ounces of kryptonite to be hedged	2,500
Number of ounces of gold to be hedged assuming ratio of cash price of kryptonite to gold is 0.4	1,000
Number of ounces per futures contract for gold	100
Number of gold futures contracts used in hedge	10

Short (sell) cross-hedge by kryptonite mining company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 2,500 oz: 2,500 x US$140.96 = US$352,400	Sell 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 2,500 oz: 2,500 x US$121.68 = US$304,200	Buy 10 contracts: 10 x 100 x US$437.90 = US$437,900	-US$45.40 per ounce
Loss in cash market = US$48,200	Loss in futures market = US$40,100 Overall loss = US$88,300	

Long (buy) cross-hedge by jewellery company

Cash market	*Futures market*	*Gold basis*
At time hedge is placed Value of 2,500 oz: 2,500 x US$140.96 = US$352,400	Buy 10 contracts: 10 x 100 x US$397.80 = US$397,800	-US$45.40 per ounce
At time hedge is lifted Value of 2,500 oz: 2,500 x US$121.68 = US$304,200	Sell 10 contracts: 10 x 100 x US$437.90 = US$437,900	-US$45.40 per ounce
Gain in cash market = US$48,200	Gain in futures market = US$40,100 Overall gain = US$88,300	

tively. The results of the cross-hedge are shown in Exhibit 23.9.

The short cross-hedge results in a loss in both the cash market and the futures market. The overall loss is US$88,300. Had the kryptonite mining company not used the cross-hedge, its loss would have been limited to the decline in the cash price, US$48,200 in this instance. The long hedger, on the other hand, realises a gain in both the cash and futures market, and therefore an overall gain.

If, instead, the cash price of kryptonite increases to US$189.10 per ounce, while the cash and futures price of gold declines to US$304.20 and US$349.60 respectively, it can be demonstrated that the long cross-hedge results in a loss in both the cash and futures markets. The total loss is US$168,550. The loss would have been only US$120,350, the loss in the cash market, had the management of the jewellery company not cross-hedged with gold.

These illustrations demonstrate the risks associated with cross hedging.

4. Options

An option is a contract in which the writer of the option grants the buyer of the option the right, but not the obligation, to purchase from or sell to the writer something at a specified price within a specified period of time (or at a specified date). The writer, also referred to as the seller, grants this right to the buyer in exchange for a certain sum of money, which is called the option price or option premium. The price at which the asset may be bought or sold is called the strike or exercise price. The date after which an option is void is called the expiration date.

When an option grants the buyer the right to purchase the designated instrument from the writer (seller), it is referred to as a call option or call. When the option buyer has the right to sell the underlying to the writer, the option is called a put option or put.

An option is also categorised according to when the option buyer may exercise the option. There are options that may be exercised at any time up to and including the expiration date. Such an option is referred to as an American option. There are options that may be exercised only at the expiration date. An option with this feature is called a European option. The maximum amount that an option buyer can lose is the option price. The maximum profit that the option writer can realise is the option price. The option buyer has substantial upside return potential, while the option writer has substantial downside risk.

A call option gives the buyer a maximum price (the strike price) at which the underlying can be purchased. A put option gives the buyer a minimum price (the strike price) at which the underlying can be sold. Consequently, for a project company seeking to control input and output prices, puts and calls can be used. The cost is equal to the option price.

For example, in late 1993, Sonangol, Angola's national oil company, purchased a put option from Bankers Trust to sell 2 million barrels of crude oil at a time when the price of oil was US$15 per barrel.[2] The put option was required by Bankers Trust to guarantee sufficient cash flow to repay the loan within one year.[3] There was considerable uncertainty about the cash flow because production did not begin until the following spring. The price of oil subsequently dropped US$3 per barrel. Sonangol would not have been able to pay back the loan had it not been for the put option.

The ability of lenders to buy options gives them greater flexibility in structuring loans for projects. For example, bankers at MeesPierson in Amsterdam structured a deal for the purchase of equipment by Gecamines, a Zairean mining company. Gecamines would use its excess production of cobalt for the payment of vital spare parts for its trucks and locomotives. To eliminate the price risk that MeesPierson faced with the payments made in cobalt, the banker purchased put options on cobalt.[4]

(a) Exchange-traded versus OTC options

Options, like other financial instruments, may be traded either on an organised exchange or in the over-the-counter market. Exchange-traded options have three advantages. First, the strike price and expiration date of the contract are standardised. Second, as in the case of futures contracts, the direct link between buyer and seller is severed after the order is executed because of the interchangeability of exchange-traded options. The clearing house associated with the exchange where the option trades performs the same function in the options market that it does in the futures market. Finally, the transaction costs are lower for exchange-traded options than for OTC options.

The higher cost of an OTC option reflects the cost of customising the option for the many situations where a customer needs to have a tailor-made option because the standardised exchange-traded option does not satisfy its investment objectives. Some commercial banks and investment banking firms act as principals as well as brokers in the OTC options market. OTC options are sometimes referred to as dealer options. The buyer of an OTC option is exposed to counterparty risk. While an OTC option is less liquid than an exchange-traded option, this is typically not of concern to a user – most project companies who use OTC options as part of an overall risk management programme intend to hold them to expiration.

There are variations on the standard call and put options in the over-the-counter market for currencies. Two common types of OTC options on currencies are the lookback currency option and the average rate currency option.

A lookback currency option is an option where the option buyer has the right to obtain the most favourable exchange rate that prevailed over the life of the option. For example, consider a two-month lookback call option to buy yen when the exchange rate between the US dollar and Japanese yen is US$1 for ¥103 on Day 0. Suppose that the next day, Day 1, the exchange rate changes to US$1 for ¥106 . The option buyer has the

right to exchange US$1 for ¥106. Suppose that on Day 2 the exchange rate changes to US$1 for ¥105. The option buyer still has the right to exchange US$1 for ¥106. Regardless of what happens to the exchange rate over the 60 days, the option buyer is able to exercise the option at the exchange rate which prevailed that gave the largest number of yen for US$1 (or, equivalently, at the lowest price per yen).

An average rate currency option, also called an Asian currency option, has a payoff that is the difference between the strike exchange rate for the underlying currency and the average exchange rate over the life of the option for the underlying currency. In the case of a call option, if the average exchange rate for the underlying currency is greater than the strike exchange rate, then the option seller must make a payment to the option buyer. The amount of the payment is:

payoff for average rate currency call option =
(average exchange rate – strike exchange rate)
× underlying units

In the case of a put option, if the strike exchange rate for the underlying currency is greater than the average exchange rate, then the option seller must make a payment to the option buyer equal to:

payoff for average rate currency put option =
(strike exchange rate – average exchange rate)
× underlying units

(b) Differences between options and futures contracts

Notice that unlike in a futures contract, one party to an option contract is not obligated to transact. Specifically, the option buyer has the right but not the obligation to transact. The option writer does have the obligation to perform. In the case of a futures contract, both buyer and seller are obligated to perform. Of course, a futures buyer does not pay the seller to accept the obligation, while an option buyer pays the seller an option price.

Consequently, the risk/reward characteristics of the two contracts are also different. In the case of a futures contract, the buyer of the contract realises a dollar-for-dollar gain when the price of the futures contract increases and suffers a dollar-for-dollar loss when the price of the futures contract drops. The opposite occurs for the seller of a futures contract. Options do not provide this symmetric risk/reward relationship. The most that the buyer of an option can lose is the option price. While the buyer of an option retains all the potential benefits, the gain is always reduced by the amount of the option price. The maximum profit that the writer may realise is the option price; this is offset against any substantial downside risk. This difference is extremely important because, a hedger can use futures to protect against symmetric risk and options to protect against asymmetric risk.

(c) Exchange-traded futures options

Interest rate and currency options can be written on cash instruments or futures. Exchange-traded option contracts whose underlying instrument is a debt instrument, a currency or a commodity are referred to as options on physicals. The most liquid interest rate, currency and commodity exchange-traded options are options on futures contracts, called futures options.

An option on a futures contract gives the buyer the right to buy from or sell to the writer a designated futures contract at a designated price at any time during the life of the option. If the futures option is a call option, the buyer has the right to purchase one designated futures contract at the strike price. That is, the buyer has the right to acquire a long futures position in the designated futures contract. If the buyer exercises the call option, the writer (seller) acquires a corresponding short position in the futures contract.

A put option on a futures contract grants the buyer the right to sell one designated futures contract to the writer at the strike price. That is, the option buyer has the right to acquire a short position in the designated futures contract. If the put option is exercised, the writer acquires a corresponding long position in the designated futures contract.

Mechanics of trading futures options

As the parties to the futures option will realise a position in a futures contract when the option is exercised, the question is: what will the futures price be? That is, at what price will the long be required to pay for the instrument underlying the futures contract, and at what price will the short be required to sell the instrument underlying the futures contract?

Upon exercise, the futures price for the futures contract will be set equal to the strike price. The position of the two parties is then immediately marked to market based on the then-current futures price. Thus, the futures position of the two parties will be at the prevailing futures price. At the same time, the option buyer will receive from the option seller the economic benefit from exercising. In the case of a call futures option, the option writer must pay the difference between the current futures price and the strike price to the buyer of the option. In the case of a put futures option, the option writer must pay the option buyer the difference between the strike price and the current futures price.

For example, suppose an investor buys a call option on some futures contract in which the strike price is 85. Assume also that the futures price is 95 and that the buyer exercises the call option. Upon exercise, the call buyer is given a long position in the futures contract at 85 and the call writer is assigned the corresponding short position in the futures contract at 85. The futures position of the buyer and the writer is immediately marked to market by the exchange. Since the prevailing futures price is 95 and the strike price is 85, the long futures position (the position of the call buyer) realises a gain of 10 while the short futures position (the position of the call writer) realises a loss of 10. The call writer pays the exchange 10 and the call buyer receives from the exchange 10. The call buyer who now has a long futures position at 95 can either liquidate the futures position at 95 or maintain a long futures position. If the former course of action is taken, the call buyer sells a futures contract at the prevailing futures price of 95. There is no gain or loss from liquidating the position. Overall, the call buyer realises a gain of 10. If the call buyer elects to hold the long futures position, then he will face the same risk and reward of holding such a position. But he still has realised a gain of 10 from the exercise of the call option.

Suppose instead that the futures option is a put rather than a call, and the current futures price is 60 rather than 95. If the buyer of the put option exercises it, the buyer would have a short position in the futures contract at 85; the option writer would have a long position in the futures contract at 85. The exchange then marks the position to market at the then-current futures price of 60, resulting in a gain to the put buyer of 25 and a loss to the put writer of the same amount. The put buyer who now has a short futures position at 60 can either liquidate the short futures position by buying a futures contract at the prevailing futures price of 60 or maintain the short futures position. In either case the put buyer realises a gain of 25 from exercising the put option.

5. Caps and floors

A cap is an agreement between two parties whereby one party, for an upfront premium, agrees to compensate the other at designated times if the underlying (ie, a designated price or rate) is greater than the strike level. When one party agrees to pay the other when the underlying is less than the strike level, the agreement is referred to as a floor.

The terms of a cap or floor include:

1. The designation of the underlying
2. The strike level that sets the cap or floor
3. The length of the agreement
4. The frequency of settlement
5. The notional principal amount

(a) Interest-rate cap illustration

Consider, for example, an interest-rate cap. Suppose that a project company buys an interest-rate cap from a bank with terms as follows:

1. The reference rate is three-month Libor
2. The strike rate is 6 per cent
3. The agreement is for seven years
4. Settlement is every three months
5. The notional principal amount is US$20 million

Under this agreement, every quarter for the next seven years, the bank will pay the project company on designated dates whenever three-month Libor for the period exceeds 6 per cent. The payment will equal the dollar value of the difference between three-month Libor and 6 per cent times the notional principal amount divided by four.

Caps and floors can be combined to create a collar. This is done by buying a cap and selling a floor.

(b) Risk/return characteristics

In both a cap and floor, the buyer pays an upfront fee, which represents the maximum amount that the buyer can lose and the maximum amount that the seller of

the agreement can gain. The only party that is required to perform is the seller of the cap or floor. The buyer of a cap benefits if the underlying rises above the strike level because the seller (writer) must compensate the buyer. The buyer of a floor benefits if the underlying falls below the strike rate, because the seller (writer) must compensate the buyer. In essence these contracts are equivalent to a package of options.

6. Fair value hedge accounting

For financial reporting purposes, in the United States a change in the fair value of a derivative instrument must be included in earnings. However, if a derivative instrument is designated by the manager as a hedging instrument and it can be demonstrated that the derivative instrument will be effective in hedging the designated risk, then Financial Accounting Standard (FAS) 133 affords special hedge accounting treatment to the derivative instrument. Specifically, there is an earnings match between the gains and losses due to changes in the fair value of the derivative instrument and the impact on earnings due to changes in the fair value of the hedged item.

FAS 133 specifies three categories of hedge – fair value hedges, cash flow hedges, and foreign currency hedges. In a fair value hedge the objective of the hedge is to protect against a change in the fair value of the hedged item that could affect reported earnings. In a cash flow hedge the hedge is used to protect against variation in the expected future cash flows that could affect reported earnings. Finally, foreign currency hedges are used to protect against an adverse movement in foreign exchange rates.

FAS 133 sets forth the two requirements for a derivative instrument to qualify for hedging accounting and the types of risks that qualify for hedge accounting. First, the entity that seeks hedge accounting treatment must state at the inception of the transaction that the derivative instrument is being used for a hedge and must also specify the risk that it is seeking to eliminate. This must be formally documented, with a clear identification of the hedging relationship and the risk management objective and strategy. Second, the entity seeking hedge accounting treatment must demonstrate that the derivative instrument can be expected to be highly effective in offsetting changes in fair value attributable to the risk that the entity seeks to hedge. Specifically, Paragraph 20(b) of FAS 133 states:[5]

'Both at inception of the [fair value] hedge and on an ongoing basis, the hedging relationship is expected to be highly effective in achieving offsetting changes in fair value attributable to the hedged risk during the period that the hedge is designated. An assessment of effectiveness is required whenever financial statements or earnings are reported, and at least every three months.'

Notes and references

1. These illustrations are adapted from Mark Pitts and Frank J. Fabozzi, *Interest Rate Futures and Options* (Chicago: Probus Publishing, 1989), Chapter 8.
2. 'The Hidden Benefits of Derivatives,' *Project & Trade Finance* (February 1994), p. 36.
3. 'BT Puts Option into Sonangol,' *Project & Trade Finance* (November 1993), p. 15.
4. 'Cobalt Put Options Prop Up Zairean Mining,' *Project & Trade Finance* (September 1993), p. 15.
5. For cash flow hedges, Paragraph 28(b) of FAS 133 indicates a similar requirement. That is, during the period for which the hedge is designated, the hedging relationship must be expected to be highly effective in achieving offsetting changes in cash flows attributable to the hedged risk.

Swaps

A swap is an agreement whereby two parties (called counterparties) agree to exchange periodic payments. The dollar amount of the payments exchanged is based on a notional principal amount. Swaps are classified based on the characteristics of the swap payments. There are four types of swaps: currency swaps, interest-rate swaps, commodity swaps, and equity swaps. All but equity swaps have been used in project financing.

A swap is not a new derivative instrument. Rather, it can be decomposed into a package of forward contracts. While a swap may be nothing more than a package of forward contracts, it is not a redundant contract for several reasons. First, in many markets where there are forward and futures contracts, the longest maturity does not extend out as far as that of a typical swap. Second, a swap is a more transactionally efficient instrument. By this we mean that in one transaction a project company can effectively establish a pay-off equivalent to a package of forward contracts. The forward contracts would each have to be negotiated separately. Third, the liquidity of the swap market has grown since its beginning in 1981; it is now more liquid than many forward contracts, particularly long-dated (ie, long-term) forward contracts.

1. Development of the swap markets

The swap market developed because of the needs of companies, banks, and governments to manage their exposure to the volatility of interest rates, exchange rates, and commodity prices throughout the world.

(a) Reasons for the development of the swap market

Some of the specific needs which led to the development of the swap market are as follows:

1. The arbitraging of capital markets by borrowing in one currency in order to generate another currency by attaching a hedge to the borrowing. This arbitrage process sometimes permits borrowers to generate a desired currency at a cheaper all-in cost than borrowing the currency directly.
2. The adverse effect of foreign currency translation losses on earnings.
3. The need to eliminate currency and interest-rate exposure by matching of assets and liabilities both in terms of currency and maturity.
4. The need to cover long-term commitments in foreign currencies.
5. The access or lack of access to funding in a particular currency.
6. The ability to raise floating-rate funds coupled with lack of ability to raise needed fixed-rate funds.
7. The lack of coverage available in forward foreign exchange markets.
8. The lack of liquidity for primary borrowing in a particular currency or market.
9. The lack of availability of longer maturities in certain markets.
10. The need to mobilise blocked currencies worldwide.
11. The need to take advantage of any available subsidised government financing from such sources as export credit agencies, where the primary need is in another currency.
12. The utilisation of excess foreign tax credits by shifting interest cost from unprofitable to profitable tax paying entities.
13. The diversification of markets for primary funding so that various capital markets can be utilised.
14. The avoidance of delays in gaining access to a capital market where the flow of new issues is limited by government regulation.

(b) The role of commercial and investment banks in swap transactions

The role of the intermediary in a swap transaction sheds some light on the evolution of the market. Intermediaries in these transactions have been commercial banks and investment banks, who in the early stages of the market sought out end users of swaps. That is, they found in their client bases those entities that needed the swap to accomplish a funding or investing objective and they matched the two entities. In essence, the intermediary in this type of transaction performed the function of a broker.

The only time that the intermediary would take the opposite side of a swap (ie, act as a principal) would be to balance out the transaction. For example, if an intermediary had two clients that were willing to do a swap but one wanted the notional principal amount to be US$100 million while the other wanted it to be US$85 million, the intermediary might become the counterparty to the extent of US$15 million. That is, the intermediary would warehouse or take a position as a principal to the transaction to make up the US$15 million difference between client objectives. To protect itself against an adverse interest-rate movement, the intermediary would hedge its position.

There is another problem in a swap that we have yet to address. The parties to the swaps we have described had to be concerned that the other party would default on its obligation. While a default would not mean any principal was lost because the notional principal amount had not been exchanged, it would mean that the objective for which the swap was entered into would be impaired. As the early transactions involved a higher and a lower credit-rated entity, the former would be concerned with the potential for default of the latter. To reduce the risk of default, many early swap transactions required that the lower credit-rated entity obtain a guarantee from a highly rated commercial bank.

As the frequency and the size of the transactions increased, many intermediaries became comfortable with the transactions and became principals instead of acting as brokers. As long as an intermediary had one entity willing to do a swap, the intermediary was willing to be the counterparty. Consequently, interest-rate swaps became part of an intermediary's inventory of product positions. Advances in quantitative techniques and futures products for hedging complex positions such as swaps made the protection of large inventory positions feasible.

Another reason existed to encourage intermediaries to become principals rather than brokers in swaps. As more intermediaries entered the swap market, bid-ask spreads on swaps declined sharply. To make money in the swaps market, intermediaries had to do a sufficient volume of business, which could be done only if an intermediary had (i) an extensive client base willing to use swaps and (ii) a large inventory of swaps. This necessitated that intermediaries acted as principals. For example, a survey by *Euromoney* asked 150 multinationals and supranationals to identify the characteristics that make a swap house efficient.[1] The results indicated that the speed at which a swap could be arranged for a client was the most important criterion. That speed depended on the client base and inventory. The same survey also revealed clients to be less interested in brokered deals than in transactions in which the intermediary was a principal.

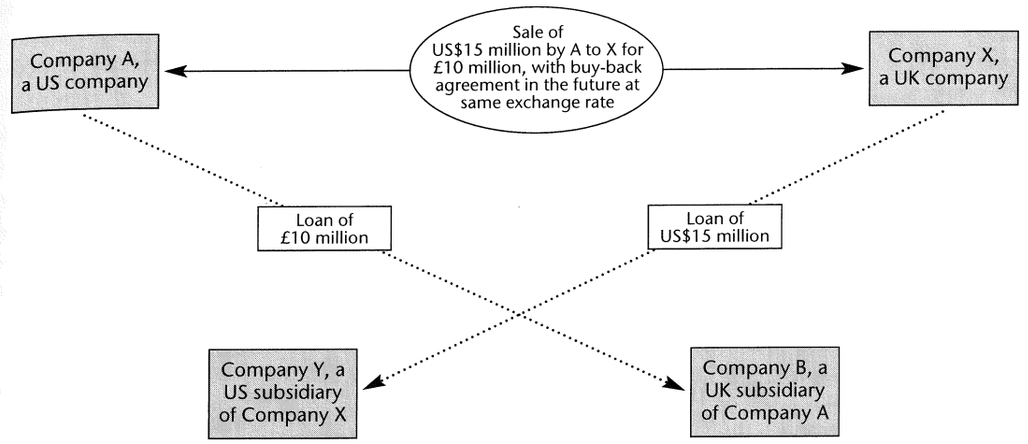
Consequently, we can describe the development of the swap market as one that originated to exploit real or perceived imperfections in the capital market, but that involved into a transactionally efficient market for accomplishing asset/liability objectives.

2. Currency swaps

In a straight currency swap, parties sell currencies to each other subject to an agreement to repurchase the same currency in the same amount, at the same exchange rate, at a fixed date in the future. The mechanics of a currency swap transaction are as follows.

The amount of a particular currency to be swapped is established and the spot exchange rate for that currency at the time of closing is used to establish the amount of the other currency which is to be swapped. For example, a US company with dollars has a UK subsidiary in need of sterling financing for its UK operations. A UK company with sterling funds requires dollar financing for its US operations. The respective financing needs of the two companies are met as illustrated in Exhibit 24.1. Assuming an exchange rate of US$1.50 at the time of closing, the British subsidiary of the US company receives 10 million sterling from the UK company to meet its financing needs. The US subsidiary of the British company receives £15 million to meet its needs. The approximate interest-rate

Exhibit 24.1: Straight currency swap



differential between the two currencies is paid annually. If sterling interest rates are higher, the US company pays the British company the difference. If dollar interest rates are higher, the British company pays the US company the difference. Interest rates can be either fixed or floating. Repayment occurs simultaneously at maturity at the same exchange rate as at the original closing.

Companies engaged in project financing should be interested in currency swaps because changes in exchange rates can erode or eliminate profit margins. While short-term hedging techniques can be used for short-term exposure, that strategy does not provide protection to longer-term currency exposure problems encountered in project financing.

The need for a currency swap in a project financing also arises where loans are available to the project in different currencies than the project will generate from the sale of its product or service. This can commonly occur where a project has available subsidised, attractively-priced export financing in a currency which the project will not generate.

(a) Use of currency swaps by the World Bank

The World Bank did a great deal to legitimatise and enhance the swap product by its early acceptance of this mechanism as a financing technique.

During the late 1970s, the World Bank discovered certain applications of the swap product to be an excellent problem solver. The World Bank has a declared policy of raising funds in currencies with low interest rates. This created problems in that its appetite for borrowing in those currencies over a long and continuing period of time was greater than the respective capital markets could support. Take for example the Swiss franc capital market. The World Bank had issued so much Swiss franc fixed-rate debt that every portfolio in Switzerland was long of World Bank paper. Consequently the Bank would have to pay premium rates in that market, compared with other AAA borrowers.

Since the only capital markets in the world big enough to support the Bank's demand for funds was the dollar denominated Eurobond market and the US domestic market, the swap market proved an ideal solution for the Bank. The Bank was able to take advantage of the anomaly that Swiss franc paper (debt) issued by US companies was much sought after by Swiss investors. Certain borrowers were able to borrow Swiss francs as cheaply, if not cheaper, than the Bank. In the dollar market, however, this was not the case.

Under these circumstances, an ideal opportunity existed for the Bank, through a bank intermediary, to act as a surrogate borrower of fixed-rate dollars for, say, a strong US borrower and for that same borrower to act as a surrogate borrower of fixed-rate Swiss francs for the World Bank. Through the swap mechanism, the strong US borrower ended up with a synthetic fixed-rate dollar debt at an all-in cost less than if it were to borrow dollars directly and similarly the

World Bank ended up with a synthetic Swiss franc liability at a lesser all-in cost.

Needless to say, the World Bank used its floating-rate dollar borrowing ability in the same way, thus widening the number of its applications of the swap and increasing the Bank's fund raising alternatives.

(b) Use of currency swaps by export agencies

The export credit agencies of most countries have been slow to recognise the potential of the swap product for reducing their cost of funds, or enabling them to lend to exporters in currencies other than their home currencies. However, the corporate borrower from export agencies has benefitted by accepting subsidised export credit from the various agencies and then swapping out of a fixed- or floating-rate debt in one currency into a fixed- or floating-rate liability in another currency.

Certain export credit agencies are also prepared to lend at a subsidised rate in more than one currency. Under these circumstances, a project company should always borrow in the currency carrying the biggest interest-rate subsidy. This will generate a cheap liability which, through the swap mechanism, can be sold for a profit. That profit can then be used to subsidise a borrowing in another desired currency.

A major function of the export credit agencies should be their willingness and ability to lend in currencies other than their home currency. One of the problems with this is that they may not always be in a position to raise fixed-rate money in the desired currency. The swap, however, can often permit an agency to borrow in one capital market and convert its liabilities into a currency in which no fixed-rate capital market exists or is closed because of market conditions.

(c) Objectives of currency swap transactions

The objective of most currency swap transactions is to reduce foreign exchange risk. However, swaps can be particularly useful in many project financing situations, including the following.

Interest costs

Interest costs may be reduced by using a swap to raise funds in a foreign currency.

A loan of a foreign currency is not readily available

A swap may be used to gain access to a loan in a foreign currency at a reasonable interest rate.

Use of blocked currency

Where a company has funds in a blocked currency because of exchange controls, a swap transaction can provide a mechanism to make use of those funds by lending or selling those funds to a company in need of such funds.

Exchange control regulations

Purchase of needed foreign currencies may be regulated or discouraged by investment currency exchange controls which make such currencies expensive or unavailable. A swap transaction may be used in some situations to by-pass such controls.

Whether a multi-currency swap is done on a simple interest differential basis (exchange of borrowing) or in the form of forward exchange rates at a premium or discount, the underlying pricing parameters remain the same:

1. The interest differential between the currencies for a particular maturity;
2. The varying perceptions of different markets and the availability of funding in different markets; and
3. Swaps are tailored to the tax, cash flow, and accounting requirements of the company which provides a degree of flexibility for which it may be willing to pay a certain premium over public market rates.

3. Interest-rate swaps

In an interest-rate swap, two parties agree to periodically swap interest-rate payments over the life of the swap. In a generic interest-rate swap, one party pays a fixed interest rate and the other party a floating interest rate. An interest-rate swap can create a source of lower cost debt or higher yielding assets, provide access to an otherwise unavailable source of funds, and change an existing asset/liability structure without affecting the source or use of the underlying capital.

Interest-rate swaps were developed to satisfy borrowers' needs for fixed-rate funds. Their development was enhanced by a credit anomaly in that interest-rate swaps effectively arbitrage the credit. Banks are willing to loan floating-rate funds to less creditworthy borrowers on a term basis even though such borrowers are unable to raise funds through fixed-rate bonds at an acceptable price. Banks will not provide fixed-rate term financing to such borrowers because banks do not fund themselves on a fixed-rate basis.

This situation resulted in an anomaly between the credit spread differentials of the public capital market and the bank credit market, whereby strong corporate borrowers could borrow on a fixed-rate basis through a public Eurobond issue and swap such borrowings into cheap floating-rate finance. Likewise, a less creditworthy borrower without access to the Eurobond market could borrow funds from a bank on a floating-rate basis for a similar term and convert this funding to a fixed-rate basis by entering into a swap transaction either directly with the fixed-rate issuer or through an intermediating bank.

An interest-rate swap can be based upon a wide range of floating rates. The most commonly used rate is Libor. Other floating rates frequently chosen are as follows:

- Treasury bills;
- Commercial paper;
- Certificates of deposit;
- Prime rate; and
- Federal funds.

The tenors may be any of those commonly used such as daily, 30 day, 90 day, etc. Interest-rate swaps come in three categories:

1. Coupon or interest swaps in the same currency, fixed to floating;
2. Cross-currency fixed to floating debt swaps; and
3. Cross-currency fixed to fixed debt swaps.

Transactions involving more than one of the above swaps are possible.

In a pure interest-rate swap, an interest rate is converted from a fixed interest rate to a floating interest rate or vice-versa, in the same currency. The amount of the notional principal involved is not exchanged. The underlying liability is not exchanged. Interest is calculated on the notional principal amount and only interest payments are exchanged.

(a) Example of an interest-rate swap

Assume Company X, a BB credit, desires to raise US$100 million in fixed-rate funds for a term of five years. Due to its credit standing, X can only borrow five-year fixed-rate funds at a substantial premium. However, X can borrow floating-rate funds for a five-year term at a small premium. Big Bank, on the other hand, is an AA credit and can issue fixed-rate bonds at a small premium but needs floating-rate funds to match its floating-rate loan portfolio. More specifically, assume Big Bank can issue five-year fixed-rate dollar bonds at a rate of 8 per cent per annum and can obtain term floating-rate dollar funds at Libor per cent per annum, while Company X can issue five-year fixed-rate dollar bonds 10 per cent per annum and can obtain five-year term floating-rate dollar funds at Libor + 2 per cent per annum. Under these circumstances it is advantageous for Big Bank and Company X to enter into a swap whereby Company X raises floating-rate dollars and Big Bank raises an identical amount of fixed-rate dollars and they swap interest-rate obligations. The differential between the fixed rates is 2 per cent (10 per cent as compared to 8 per cent) and the differential between the floating rates is 2 per cent (Libor compared to Libor plus one-half per cent). The net positive differential arising out of the swap is 1.5 (2 per cent less 0.5 per cent). This differential saving is divided between the parties mainly on the basis of supply and demand. If Company X badly needs fixed-rate funds and is competing for the swap with Big Bank, most of the differential will go to Big Bank.

However, assuming the differential is evenly divided, the net result from the swap will be as follows:

- Big Bank has raised floating-rate funds at Libor less 0.75 per cent, thus saving 0.75 per cent when compared with alternative sources.
- Company X has raised fixed-rate funds at 9.25 per cent and saved 0.75 per cent when compared with its alternative sources.

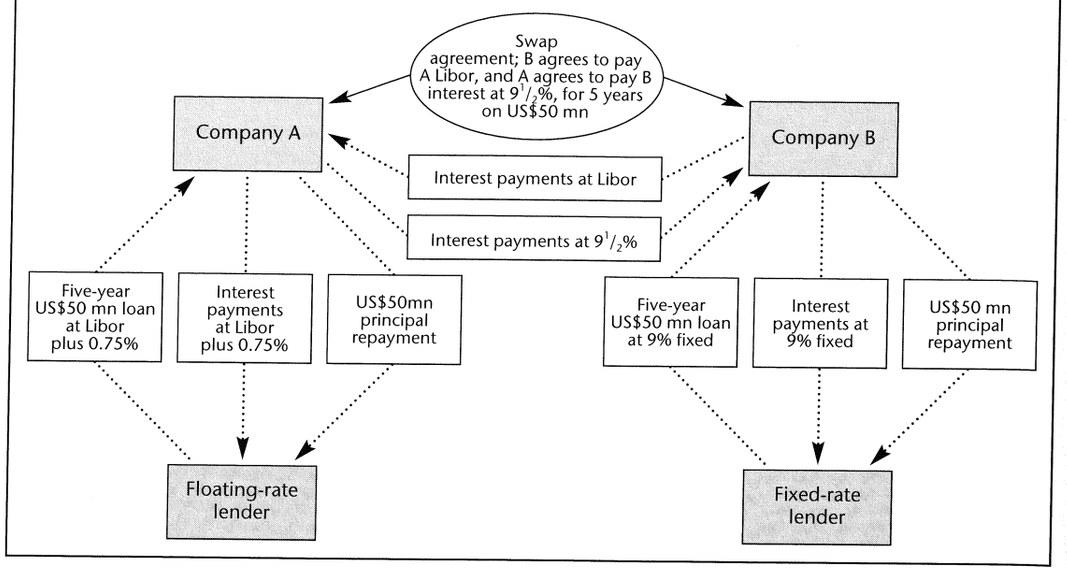
The advantages to Big Bank are as follows:

- obtains a lower cost of borrowing than otherwise available in the floating-rate market;
- match funds its assets and liabilities; and
- eliminates interest rate and refunding risks.

The advantages to Company X are as follows:

- obtains a lower cost of borrowing than otherwise available in the fixed-rate market;

Exhibit 24.2: Interest-rate swap agreement



- reserves its capacity for accessing the fixed-rate market;
- saves the expense and time associated with a public issue;
- is not restricted by the financial covenants that might exist in a traditional private placement; and
- must only be disclosed in footnote form in the company's financial statements unless it is material.

The above example is illustrated in Exhibit 24.2. The currency swap works for both parties because the rate differential on fixed-rate funds between an AA-rated bank and a BB company, is larger than the rate differential on Libor floating-rate funds. This differential results from the lenders' subjective perspectives regarding lending term fixed-rate funds and term floating-rate funds. It is this credit anomaly that gives rise to the arbitrage opportunity which justifies the swap for both parties.

(b) Arbitrage opportunities

As interest-rate swaps have become widely understood and used, the opportunities for large savings from arbitrage opportunities have declined. For example, in a May 1984 contribution sponsored by Citicorp that appeared in *Euromoney* the following appeared:

> The nature of swaps is that they arbitrage market imperfections. As with any arbitrage opportunity, the more it is exploited, the smaller it becomes....But some of the causes of market imperfections are unlikely to disappear quickly. For example, insurance companies in many countries are constrained to invest mainly in instruments that are domestic in that country. That requirement will tend to favour domestic issuers artificially and is unlikely to be changed overnight. And even in the world's most liquid markets there are arbitrage opportunities. They are small and exist only briefly. But they exist nevertheless.[2]

The opinion demonstrates that as early as 1984 it had been argued that the difference in quality spreads in the two markets may be attributable to differences in regulations in two countries. Similarly, differences in tax treatment across countries also create market imperfections that can be exploited using swaps. Thus, swaps can be used for regulatory or tax arbitrage.

As arbitrage savings to the counterparties have declined, the fees banks have been able to charge for intermediary services have also declined.

(c) Swap rate quotes

The convention that has evolved for quoting interest-rate swaps levels is that a swap dealer sets the floating rate equal to the reference rate and then quotes the fixed rate that will apply. For example, suppose that the reference rate is three-month Libor and the swap is for 10 years. The fixed rate that applies is the 10-year Treasury yield plus a spread. The spread is called the swap spread. The fixed-rate payer/floating-rate receiver would pay the 10-year Treasury yield plus the swap spread and receive the floating rate. The fixed-rate receiver/floating-rate payer would receive the 10-year Treasury yield plus the swap spread and pay the floating rate.

A dealer would quote a bid and an offer. To illustrate this convention, suppose a 10-year swap is offered by a dealer when the 10-year Treasury yield is 8.35 per cent. The floating rate is three-month Libor. Suppose the dealer quotes the swap at '40-50'. This means that the swap spread when the dealer is paying the fixed rate is 40 basis points, but the swap spread when the dealer is receiving the fixed rate is 50 basis points. Consequently:

1. The dealer is willing to enter into a swap in which it pays the floating-rate flat (ie, without a spread) and receives the Treasury yield of 8.35 per cent plus 50 basis points; and
2. The dealer is willing to enter into a swap in which it pays the Treasury yield of 8.35 per cent plus 40 basis points and receives the floating rate.

(d) Calculation of the swap rate

At the initiation of an interest-rate swap, the counterparties are agreeing to exchange future interest-rate payments and no upfront payments by either party are made. This means that the swap terms must be such that the present value of the cash flows for the payments to be made by the counterparties must be equal. This is equivalent to saying that the present value of the cash flows of payments to be received by the counterparties must be equal. The equivalence of the cash flows is the principle in calculating the swap rate.

For the fixed-rate side, once a swap rate is determined, the payments of the fixed-rate payer are known. However, the floating-rate payments are not known because they depend on the value of the reference rate at the reset dates. For a Libor-based swap, the Eurodollar CD futures contract (discussed in Chapter 23) can be used to establish the forward (or future) rate for three-month Libor. Given the cash flow based on the forward rate for three-month Libor, the swap rate is the interest rate that will make the present value of the payments on the fixed-rate side equal to the payments on the floating-rate side.

The appropriate rate to discount any cash flow is the theoretical spot rate. Each cash flow should be discounted at a unique discount rate.[3] These rates can be obtained from forward rates. It is the same three-month Libor forward rates derived from the Eurodollar CD futures contract that can be used to obtain the theoretical spot rates.

The procedure can be illustrated with an example. Consider the following hypothetical swap:[4]

Swap term: Three-year swap
Notional amount: US$100 million
Fixed receiver: Actual/360-day count basis and quarterly payments
Floating receiver: Three-month Libor, actual/360-day count basis, quarterly payments and quarterly reset

The 'actual/360-day count basis' is a market convention describing how to calculate the interest for the period.

Our worktable for calculating the swap rate is Exhibit 24.3. The first column just lists the quarterly periods. There is a Eurodollar CD futures contract with a settlement date that corresponds to each period. The second column shows the number of days in the period for each Eurodollar CD futures contract. The third column shows the futures price for each contract. As explained in Chapter 23 the future three-month Libor is found by subtracting the futures price from 100. This is shown in Column (4) representing the forward rate.

It is from the forward rates that the discount rates that will be used to discount the cash flows (payments) will be calculated. The discount factor (ie, the present value of US$1 based on the spot rate) is found as follows:[5]

$$\frac{\text{Discount factor in the previous period}}{[1 + (\text{Fwd rate in previous period} \times \text{No. of days in period}/360)]}$$

The discount factors are shown in Column (5).

The floating cash flow is found by multiplying the forward rate and the notional principal amount.

Exhibit 24.3: Determining the swap rate

Goal: Determination of swap rate
Three-year swap
Notional amount: US$100 million

Fixed receiver:
Actual/360-day count basis
Quarterly payments

Floating receiver:
Three-month Libor
Actual/360-day count basis
Quarterly payments and reset

Swap rate is the rate that will produce a fixed cash flow whose present value will equal the present value of the floating cash flow: in illustration the swap rate is equal to 4.987551%

(1) Period	(2) Day count	(3) Futures price	(4) Fwd rate	(5) Discount factor	(6) Floating cash flow	(7) PV of floating CF	(8) Fixed cash flow	(9) PV of fixed CF
1	91		4.05	1.00000				
2	90	95.85	4.15	0.98998	1,012,500	1,002,351	1,246,888	1,234,390
3	91	95.45	4.55	0.97970	1,049,028	1,027,732	1,260,742	1,235,148
4	91	95.28	4.72	0.96856	1,150,139	1,113,978	1,260,742	1,221,104
5	91	95.10	4.90	0.95714	1,193,111	1,141,974	1,260,742	1,206,706
6	94	94.97	5.03	0.94505	1,279,444	1,209,137	1,302,305	1,230,741
7	91	94.85	5.15	0.93318	1,271,472	1,186,516	1,260,742	1,176,503
8	90	94.75	5.25	0.92132	1,287,500	1,186,201	1,246,888	1,148,784
9	91	94.60	5.40	0.90925	1,327,083	1,206,657	1,260,742	1,146,335
10	91	94.50	5.50	0.89701	1,365,000	1,224,419	1,260,742	1,130,899
11	91	94.35	5.65	0.88471	1,390,278	1,229,993	1,260,742	1,115,392
12	93	94.24	5.76	0.87198	1,459,583	1,272,732	1,288,451	1,123,507
13	91	94.10	5.79	0.85947	1,456,000	1,251,387	1,260,742	1,083,569
Total						**14,053,077**		**14,053,078**

Explanation of columns
Column (2): The day count refers to the number of days in the period.
Column (3): The Eurodollar CD futures price.
Column (4): Fwd rate = Forward rate. The forward rate for Libor found from the futures price of the Eurodollar CD futures contract as follows: 100.00 - Future price
Column (5): The discount factor is found as follows:

$$\frac{\text{Discount factor in the previous period}}{[1 + (\text{Fwd rate in previous period} \times \text{No. of days in period}/360)]}$$

Number of days in period is found in Column (2).

Column (6): The floating cash flow is found by multiplying the forward rate and the notional amount, adjusted for the number of days in the payment period. That is:

$$\frac{\text{Fwd rate previous period} \times \text{No. of days in period}}{360} \times \text{Notional amount}$$

Column (7): Present value of floating cash flow, found as follows: Column (5) x Column (6)
Column (8): This column is found by trial and error, based on a guess of the swap rate. In determining the fixed cash flow, the cash flow must be adjusted for the day count, as follows:

$$\frac{\text{Assumed swap rate} \times \text{No. of days in period}}{360} \times \text{Notional amount}$$

Column (9): Present value of fixed cash flow, found as follows: Column (5) x Column (7)

However, the forward rate must be adjusted for the number of days in the payment period. The formula to do so is:

$$\frac{\text{Fwd rate previous period} \times \text{No. of days in period}}{360} \times \text{Notional amount}$$

These values represent the payments by the floating-rate payer and the receipts of the fixed-rate receiver. The values are shown in Column (6). The present value of each of these cash flows is shown in Column (7) using the discount factor shown in Column (5). The present value of the floating cash flow is US$14,053,077.

In order for no other payments to be exchanged between the counterparties other than the interest payments, the swap rate must be set such that the present value of the fixed cash flows is equal to the same value, US$14,053,077. This can be found by formula. For our hypothetical swap, the swap rate is 4.987551 per cent. The cash flow is as shown in Column (8). In determining the fixed cash flows, each cash flow must be adjusted for the day count, as follows:

$$\frac{\text{Assumed swap rate} \times \text{No. of days in period}}{360} \times \text{Notional amount}$$

Using the discount factors in Column (5), the present value of the fixed cash flows is equal to US$14,053,078. This confirms that the swap rate is 4.987551 per cent, since it is this rate that equates the present value of the floating and fixed cash flows.

Given the swap rate, the swap spread can be determined. For example, since this is a three-year swap, the three-year on-the-run Treasury rate would be used as the benchmark. If the yield on that issue is 4.587551 per cent, the swap spread is then 40 basis points.

The calculation of the swap rate for all swaps follows the same principle: equating the present value of the cash flows.[6]

(e) Valuing a swap

Once the swap transaction is completed, changes in market interest rates will change the cash flow of the floating-rate side of the swap. The value of an interest-rate swap is the difference between the present value of the cash flow of the two sides of the swap. The three-month Libor forward rates from the current Eurodollar CD futures contracts are used to (i) calculate the floating cash flows and (ii) determine the discount factors at which to calculate the present value of the cash flows.

To illustrate this, consider the three-year swap used to demonstrate how to calculate the swap rate. Suppose that one year later, interest rates change. Column (3) in Exhibit 24.4 shows the assumed prevailing futures price for the Eurodollar CD futures contract. Columns (4) and (5) then show the corresponding forward rates and discount factors. Column (6) shows the floating cash flow based on the forward rates in Column (4) and Column (7) shows the present value of the floating cash flow using the discount factors in Column (5). The present value of the floating cash flow is US$11,485,949. This means that the floating-rate payer has agreed to make payments with a value of US$11,485,949 and the fixed-rate payer will receive a cash flow with this value.

The fixed rate side will be continued. The swap rate is fixed over the life of the swap. The fixed cash flow is given in Column (8) and the present value based on the discount factors in Column (5) is shown in Column (9). The present value of the fixed cash flows is US$9,501,601. This means that the fixed-rate payer has agreed to make payments with a value of US$9,501,603 and the floating-rate payer will receive a cash flow with this value.

From the fixed-rate payer's perspective, a floating cash flow with a present value of US$11,485,949 is going to be received and a fixed cash flow with a present value of US$9,501,601 is going to be paid out. The difference between these two present values, US$1,984,346, is the value of the swap. It is a positive value for the fixed-rate payer because the present value of what is to be received exceeds the present value of what is to be paid out.

From the floating-rate payer's perspective, a floating cash flow with a present value of US$11,485,949 is going to be paid out and a fixed cash flow with a present value of US$9,501,601 is going to be received. Once again, the difference between these two present values, US$1,984,346, is the value of the swap. It is a negative value for the floating-rate payer because the present value of what is to be received is less than the present value of what is to be paid out.

(f) Other types of interest-rate swap

Thus far we have described the 'plain vanilla' or generic interest-rate swap. Non-generic or individualised

Exhibit 24.4: Determining the value of a swap

Goal: Determination of swap value after one year
Two-year swap
Notional amount: US$100 million

Fixed receiver:
Swap rate 4.987551%
Actual/360-day count basis
Quarterly payments

Floating receiver:
Three-month Libor
Actual/360-day count basis
Quarterly payments and reset

(1) Period	(2) Day count	(3) Futures price	(4) Fwd rate	(5) Discount factor	(6) Floating cash flow	(7) PV of floating CF	(8) Fixed cash flow	(9) PV of fixed CF
1	91		5.25	1.000000				
2	94	94.27	5.73	0.987045	1,370,833	1,353,074	1,302,305	1,285,434
3	91	94.22	5.78	0.972953	1,448,417	1,409,241	1,260,742	1,226,642
4	90	94.00	6.00	0.958942	1,445,000	1,385,671	1,246,888	1,195,693
5	91	93.85	6.15	0.944615	1,516,667	1,432,667	1,260,742	1,190,916
6	91	93.75	6.25	0.929686	1,554,583	1,445,274	1,260,742	1,172,094
7	91	93.54	6.46	0.915227	1,579,861	1,445,931	1,260,742	1,153,865
8	93	93.25	6.75	0.900681	1,668,833	1,503,086	1,288,451	1,160,483
9	91	93.15	6.85	0.885571	1,706,250	1,511,005	1,260,742	1,116,476
Total						**11,485,949**		**9,501,603**

PV of floating cash flow: US$11,485,949
PV of fixed cash flow: US$ 9,501,603
Value of swap: US$ 1,984,346

swaps have evolved as a result of the needs of borrowers and lenders and some are described below. Regardless of the types of interest-rate swap, the valuation procedure described above can be used.

Amortising, accreting and roller coaster swaps
In a generic swap, the notional principal amount does not vary over the life of the swap. Thus, it is sometimes referred to as a bullet swap. In contrast, for amortising, accreting, and roller-coaster swaps, the notional principal amount varies over the life of the swap.

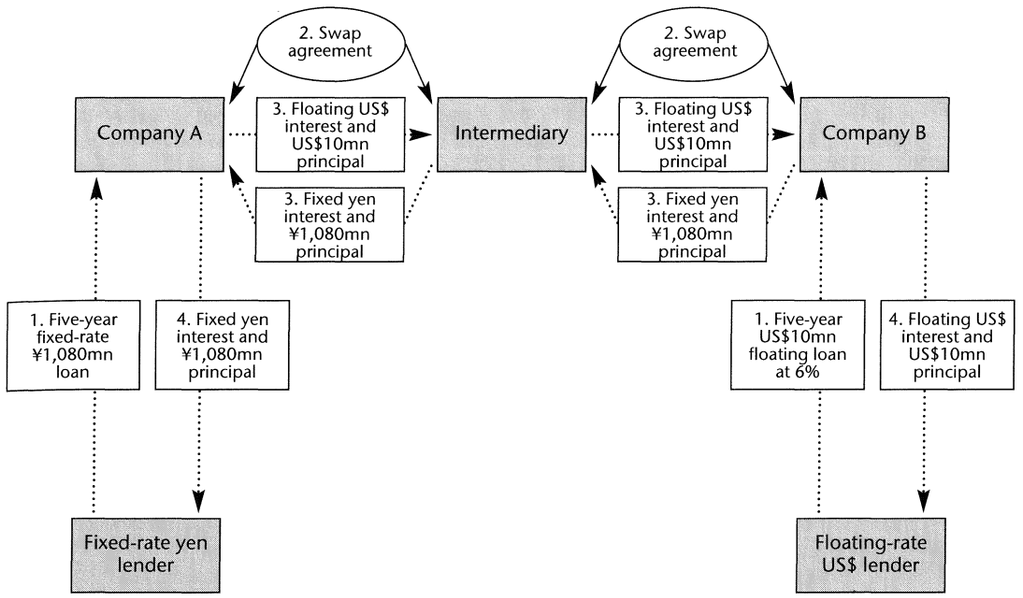
In an amortising swap the notional principal amount decreases in a predetermined way over the life of the swap. In situations where a liability to be funded increases over time, an accreting swap can be employed. An accreting swap is one in which the notional principal amount increases in a predetermined way over time. An accreting swap could be used by a lending institution that has committed to lend increasing amounts to a customer for a project. In a roller coaster swap, the notional principal amount can rise or fall from period to period according to a borrower's cash flow structure.

Zero-coupon swaps
In a zero-coupon swap, the fixed-rate payer does not make any payments until the maturity date of the swap but receives floating-rate payments at regular payment dates. This type of swap exposes the floating-rate payer to significant credit risk because this party makes regular payments but does not receive any payments until the maturity date of the swap.

Basis rate swap
The terms of a typical interest-rate swap call for the exchange of fixed- and floating-rate payments. In a basis rate swap, both parties exchange floating-rate payments based on a different money market index.

Forward-rate swaps
A forward swap is simply a forward contract on an interest-rate swap. The terms of the swap are set today,

Exhibit 24.5: Cross-currency swap fixed to floating with an intermediary



but the parties agree that the swap will begin at a specified date in the future.

4. Cross-currency interest-rate swaps

Cross-currency interest-rate swaps combine the features of single currency interest-rate swaps and currency swaps. These swaps may be fixed to floating whereby one party converts fixed-rate financing in one currency to floating-rate financing in another currency. Or they may be fixed to fixed or floating to floating in different currencies. They differ from pure interest-rate swaps in that they involve principal exchanges at maturity.

(a) Fixed to floating example

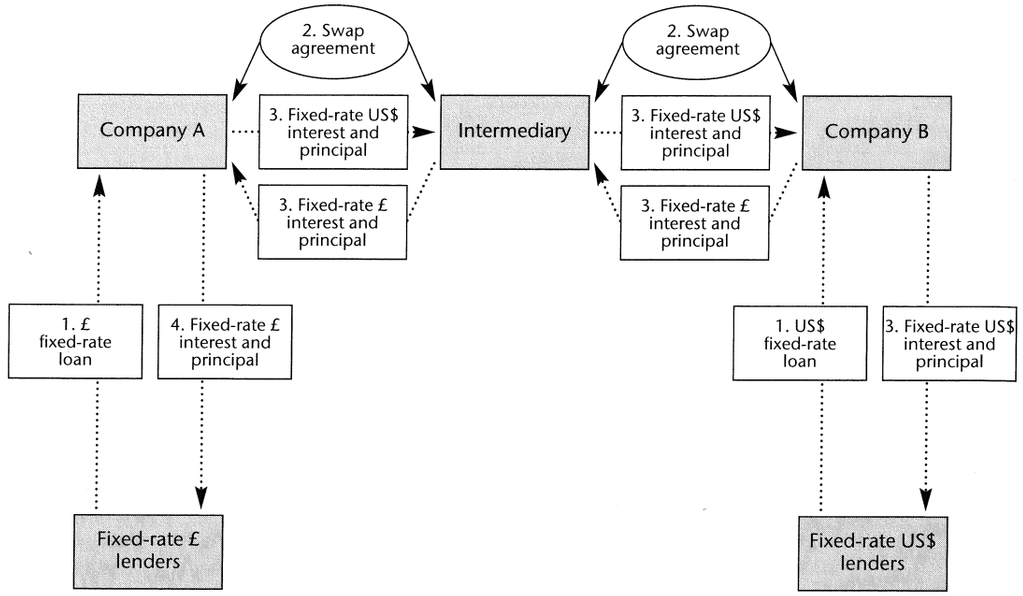
Assume Company A can borrow ¥1,080 million for five years at 6 per cent (fixed) payable annually while Company B can borrow the dollar equivalent of ¥1,080 million, say US$10 million (based on an exchange rate of 108 yens per US dollar), for five years at Libor (floating) plus a margin (say 0.5 per cent) payable bi-annually. Under a swap agreement, Company A would agree to pay to Company B dollars equal to the interest payments and principal repayment due under Company B's floating-rate loan on the appropriate future payment dates. In return Company B would pay to Company A Japanese yen equal to the interest payments and principal repayment due under Company A's fixed-rate loan on the appropriate future payment dates. Under this arrangement, Company A acts as a surrogate borrower of fixed-rate Japanese yen for Company B and Company B as a surrogate borrower of floating-rate dollars for Company A. This transaction is shown in Exhibit 24.5.

(b) Fixed to fixed example

In a cross-currency interest-rate swap, a liability in one currency is converted into a liability in a different currency.

Assume, for instance that Company A, a US corporation, needs five-year funding in US dollars. Assume, furthermore, that Company A has been a frequent issuer of US dollar bonds and consequently has to pay a premium in the US dollar market. However, Company A has never issued bonds in the UK market and for a variety of reasons can expect an attractive rate on a private placement in the United Kingdom. Assume Company B, on the other hand, needs five-year funding in pounds sterling and that Company B

Exhibit 24.6: Cross-currency swap fixed to fixed



is not particularly attractive to UK investors, but is a well-regarded credit in the United States and can raise five-year funds in dollars at an attractive rate.

Assume further that Company A can issue five-year US dollar bonds at 9 per cent per annum and can do a five-year private placement in pounds sterling at a coupon of 6.25 per cent per annum and that Company B can issue five-year US dollar bonds at a coupon of 8.5 per cent and can do a five-year private placement in pounds sterling at a coupon of 6.375 per cent per annum.

Under these circumstances, Company A does a private placement in pounds sterling and swaps into US dollars while Company B issues five-year bonds in US dollars and swaps it into pounds sterling. The principal amounts in US dollars and pounds sterling are exchanged at the spot rate at the start of the transaction and the same exchange rate is used to exchange the principal amounts at maturity.

This example is illustrated in Exhibit 24.6. The net results of the swap are as follows:

1. Company A obtains fixed-rate US$ funding at $8^{7}/_{8}$ per cent per annum, ie, a saving of $^{3}/_{8}$ per cent per annum;
2. Company B obtains fixed-rate pounds sterling funding at 6.25 per cent per annum, ie, a saving of $^{1}/_{8}$ per cent per annum; and
3. the intermediating bank receives an arbitrage spread of $^{1}/_{8}$ per cent.

The available arbitrage on the swap is as follows:

Arbitrage

	Company A	*Company B*	*Per annum*
Objective:	US$ borrowing	£ borrowing	
Cost of £:	6.25%	6.375%	0.125%
Cost of US$:	9.00%	8.500%	0.500%
			0.625%

The arbitrage savings of 62.5 basis points are split between the three parties as follows:

Company A:	37.5 basis points in US dollars
Company B:	12.5 basis points in pounds sterling
Bank:	12.5 basis points in US dollars

Cross-currency swaps are tailored to the requirements of the counterparties. Consequently the two sides of

the same swap often have different structures. In such cases, the intermediating bank takes the risk of mismatches on its own books. The pricing of such transactions by the intermediary bank takes into account the risk of the effect of the mismatches.

5. Secondary market for swaps

There are three general types of transactions in the secondary market for swaps. These include (i) a swap reversal, (ii) a swap sale (or assignment), and (iii) a swap buy-back (or close-out or cancellation).

(a) Swap reversal

In a swap reversal, the party that wants out of the transaction will arrange for a swap in which (i) the maturity on the new swap is equal to the time remaining of the original swap, (ii) the index is the same, and (iii) the notional principal amount is the same. For example, suppose party X enters into a five-year swap with a notional principal amount of US$50 million in which it pays 10 per cent and receives Libor, but that two years later, X wants out of the swap. In a swap reversal, X would enter into a three-year interest-rate swap, with a counterparty different from the original counterparty, eg, Z, in which the notional principal amount is US$50 million and X pays Libor and receives a fixed rate. The fixed rate that X receives from Z will depend on prevailing swap terms for floating-rate receivers at the initiation of the three-year swap.

While party X has effectively terminated the original swap in economic terms, there is a major drawback to this approach: party X is still liable to the original counterparty Y, as well as to the new counterparty, Z. That is, party X now has two offsetting interest-rate swaps on its books instead of one and as a result it has increased its default risk exposure.

(b) Swap sale

The swap sale or swap assignment overcomes this drawback. In this secondary market transaction, the party that wishes to close out the original swap finds another party that is willing to accept its obligations under the swap. In our illustration, this means that X finds another party, A, that will agree to pay 10 per cent to Y and receive Libor from Y for the next three years. A might have to be compensated to accept the position of X, or A might have to be willing to compensate X. Who will receive compensation depends on the swap terms at the time. For example, if interest rates have risen such that, to receive Libor for three years, a fixed-rate payer would have to pay 12 per cent, then A would have to compensate X because A has to pay only 10 per cent to receive Libor. The compensation would be equal to the value of the swap at the time. If, instead, interest rates have fallen so that, to receive Libor for three years, a fixed-rate payer would have to pay 6 per cent, then X would have to compensate A for the value of the swap.

Once the transaction is completed, it is then A not X who is obligated to perform under the swap agreement. (Of course an intermediary could act as principal and become party A to help its client X.)

In order to accomplish a swap sale, the original counterparty, Y in our example, must agree to the sale. A key factor in whether Y will agree is whether it is willing to accept the credit of A. For example, if A's credit rating is BBB while X's is AA, Y would be unlikely to accept A as a counterparty.

(c) Buy-back

A buy-back or close-out sale (or cancellation) involves the sale of the swap to the original counterparty. As in the case of a swap sale, one party might have to compensate the other, depending on how interest rates and credit spreads have changed since the inception of the swap.

6. Commodity swaps

In a commodity swap, the exchange of payments by the counterparties is based on the value of a particular commodity such as oil. The exchange of payments is as follows on the payment dates. One party agrees to pay a fixed price for a specified quantity of the commodity. The counterparty agrees to pay the spot price for the commodity at that date.

The commodity swap market can be used to hedge the long-term price risk of the outputs or inputs for a project. The commodity swap market is less mature than the interest rate and currency swap markets. Typically the maturity for commodity swaps are for only three years, although for some commodities seven year swaps are available.

7. Swaptions

The second generation of products in the swap market is options on swaps referred to as swaptions. The buyer of this option has the right to enter into a swap agreement on predetermined terms by some specified date in the future. The buyer of a put or call swaption pays the writer a premium.

A put swaption is an option allowing the buyer to enter into an interest-rate swap in which the buyer pays a fixed rate and receives a floating rate and the writer receives a fixed rate and pays a floating rate. A call swaption is an option that allows the buyer to enter into an interest-rate swap where the buyer pays a floating rate and receives a fixed rate, while the writer receives a floating rate and pays a fixed rate. Swaptions may be exercised at any time prior to the expiration date (ie, American type) or only at the expiration date (ie, European type).

A callable or a putable swap is a swap with an embedded option. A swaption effectively allows one of the parties to terminate the swap; it is therefore referred to as a cancelable or terminable swap.

To understand the motivation for using a swaption, suppose that bonds of an issuer who has used a swap are callable and that interest rates decline sufficiently so that the issuer finds it economic to call the issue. The issuer will still be responsible for making the payments as specified in the swap. An option to exit the swap would be needed to offset these obligations.

Notes and references

1. Special Supplement on Swaps, *Euromoney* (July 1987), p. 14.
2. 'Swap Financing Techniques: A Citicorp Guide,' Special Sponsored Section, *Euromoney* (May 1984), pp. S1–S7.
3. For a further discussion, see Chapter 2 in Frank J. Fabozzi, *Valuation of Fixed Income Securities and Derivatives* (New Hope, PA: Frank J. Fabozzi Associates, 1998).
4. This illustration is from Fabozzi, *Valuation of Fixed Income Securities and Derivatives.*
5. The formulas presented below are taken from Chapter 6 of Ravi E. Dattatreya, Raj E.S. Venkatesh and Vijaya E. Venkatesh, *Interest Rate & Currency Swaps* (Chicago: Probus Publishing, 1994).
6. For a more detailed explanation of how this is done with more complicated swaps, see Chapter 6 of Dattatreya, Venkatesh and Venkatesh, *Interest Rate & Currency Swaps.*

Defeasances

1. Debt for equity swap

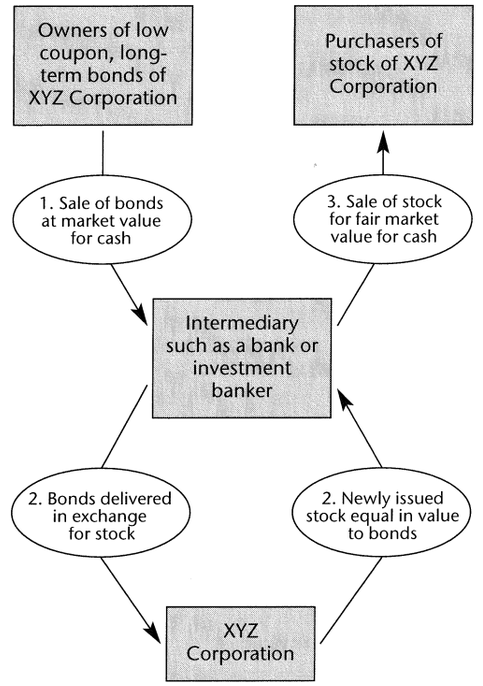
The XYZ Corporation desires to invest capital in a project, but is concerned about the amount of debt on its balance sheet, and the possible adverse reaction of the rating services and lenders to additional debt. Included on the balance sheet are some old long-term bonds issued several years ago at a coupon rate of 7 per cent. These bonds have a present market value of about 60 per cent of face value. The XYZ Corporation decides to reduce debt in a tax-free swap of its newly issued stock for as many of the bonds as possible.

A bank or an investment banker retained by XYZ Corporation purchases as many of the bonds as possible on the open market or in privately arranged purchases. These bonds are exchanged in a tax-free exchange for newly issued stock with the same market value plus the investment banker's fee. The investment banker arranges a sale of the stock to recover the amount expended for the bonds.[1]

The net result is a reduction in debt and a net improvement to the debt to equity ratio. As each bond is repurchased, debt of US$1,000 on the balance sheet is eliminated at a cost of US$600 in stock rather than in cash. The XYZ Corporation reports earnings of US$400 on the transaction for financial accounting purposes.

With the balance sheet improved, the XYZ Corporation is in a position to incur more debt currently to finance its project.

Exhibit 25.1: Debt for equity swap



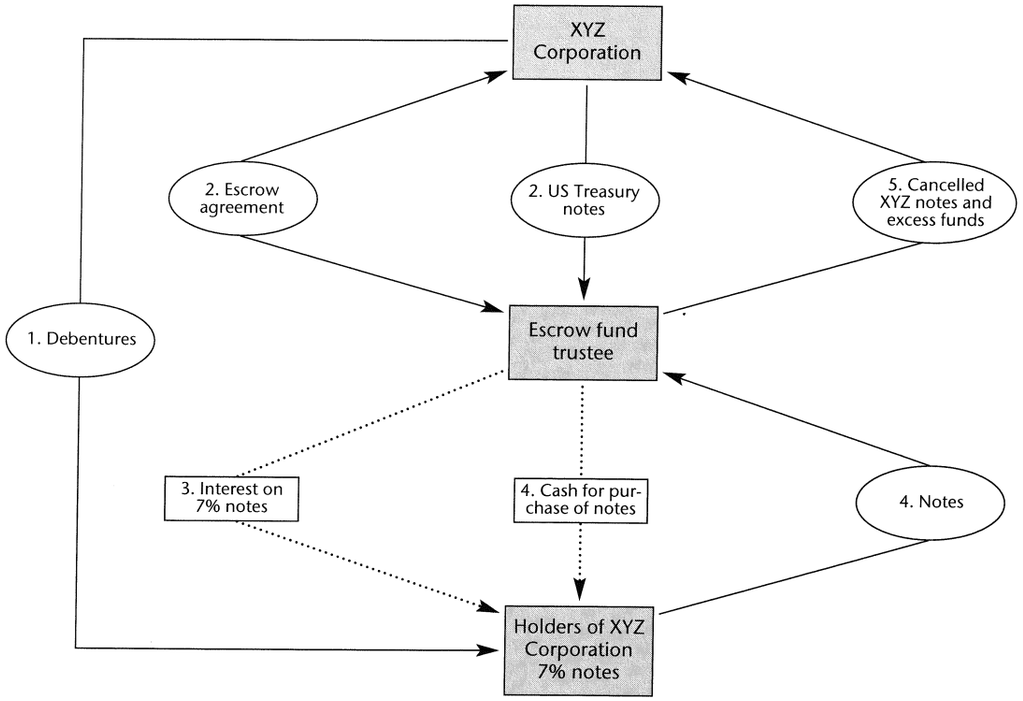
Summary

1. An intermediary purchases for cash XYZ Corporation long-term, low interest rate bonds at a substantial discount to an intermediary.
2. After locating a buyer for XYZ Corporation stock with a value equal to the bonds, the intermediary arranges with the XYZ Corporation to exchange the bonds for newly-issued XYZ Corporation stock. (This is a tax free exchange.)
3. The intermediary completes the sale of the stock to the purchaser for cash, and recovers the amount paid to the bondholders plus a fee.

2. Debt for debt swap

A debt for debt swap works similarly to a debt for equity swap, except that new term debt at current market

Exhibit 25.2: Defeasance of debt



Summary

1. XYZ Corporation issued 20-year notes several years ago, which are now selling at substantial discount from face value.
2. XYZ Corporation establishes an irrevocable trust or escrow fund with a bank, and purchases and deposits Treasury notes into escrow, with maturities and interest which match the cash needed to pay interest on and retire its 7% notes. The debt is removed from its books.
3. The escrow agent pays interest on the 7% notes as it becomes due.
4. The escrow agent purchases some of the notes when they are available at a fair price and the remainder of the notes at maturity.
5. The notes are paid at maturity, cancelled and returned to XYZ Corporation with any excess funds in the escrow. XYZ Corporation realises a capital gain at that time on any purchases made by the escrow agent at discount.

rates is substituted for old long-term bonds at a long interest rate selling for a discount.

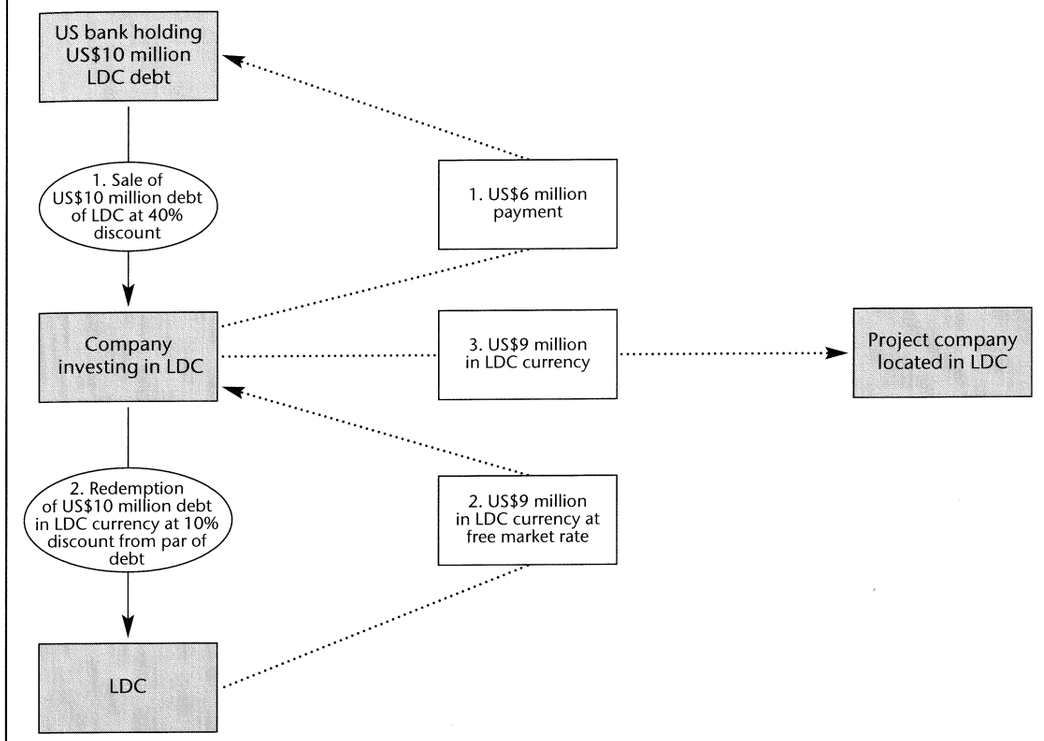
The net result is a reduction in debt and an improvement in the debt to equity ratio.

3. Defeasance of debt

Defeasance of corporate bonds offers a company an opportunity to reduce debt, clean up the balance sheet, improve its ratios, and protect its debt rating. This could be helpful to a company planning new borrowings for a project financing.

A defeasance may be practical for a company with old long-term debt carrying low interest rates and selling at a substantial discount. The company sets up an irrevocable trust or escrow account with a trustee to pay interest on the debt, and to purchase the debt as it becomes available and retire the debt at maturity. The company funds the escrow fund by purchasing and delivering to the trustee US Treasury bonds which will produce a cash flow which matches the payments due on the bonds. Interest on the US Treasury bonds may be stripped to aid in the matching. Taxes on the gain realised on the purchase of bonds at discount are deferred until the bonds mature and the tax is at capital gain rates (the tax on a cash purchase at discount would be ordinary income). Most important, the company removes the debt from its books and realises book

Exhibit 25.3: Sale of LDC debt at discount for LDC currency to invest in LDC



income for financial accounting purposes at the time the escrow funds are established.

The defeasance device can be especially useful where the debt to be retired is widely held. It has also been commonly used to retire tax-exempt debt where, for example, property is acquired with an industrial revenue bond issue outstanding, which the purchaser wishes to retire.

4. Defeasance of rental obligations

Defeasance of rental obligations under a lease is possible (in a situation where a swap might be used) by depositing an amount equal to the present value of the rents and any residual.

Defeasance of rental obligations by lump sum payments is useful in many types of lease transactions.

5. Security deposits and debt funding

Defeasances can be used to establish security deposits in connection with cross-border lease transactions. In such cases, the defeasance may include the residual value.

6. Sale of LDC debt at discount for LDC currency to invest in LDC

Project companies wishing to invest or to raise capital in less developed countries may wish to explore the possibility of purchasing sovereign debt of the LDC at discount (defeasing the debt) and reselling the debt at less discount to the LDC with the understanding that such funds will be invested within the LDC. Exhibit 25.3 illustrates such a transaction which would work as follows:

1. A company decides to invest in a project located in a less developed country (LDC). The company purchases US$10 million of sovereign debt of the LDC on the secondary market from a US bank at a 40 per cent discount for US$6 million.
2. The investing company then takes the purchased debt to the LDC which agrees to purchase the debt

(pursuant to an earlier understanding) at 90 per cent of face value in LDC currency at the free market rate for the LDC currency.

3. The investing company then uses the LDC currency to invest in the new project located in the LDC.

Notes and references

1. Salomon Bros pioneered this type of tax-free swap in August 1981 for Quaker Oats. This structure has been widely used since that transaction.

Entities for jointly owned or sponsored projects

There has been an increasing trend towards jointly owned or controlled projects in recent years. While most companies prefer absolute ownership and control of vital supply and distribution projects, a number of factors have dictated the formation of jointly owned or controlled projects comprised of partners with mutual goals, talents, and resources.

1. The undertaking is beyond a single company's financial and/or management resources.
2. The partners have complementary skills or, in the case of projects in some foreign countries, political expertise or presence.
3. Economies of a large project lower the cost of the project or service substantially over the possible cost of a smaller project if the partners proceeded individually.
4. The risks of the project are shared.
5. One or more partners can use tax benefits.
6. Off-balance sheet financing can be arranged by sponsors, using the project company as the borrowing entity.
7. Requirements of financial covenants and indenture restrictions can be met.
8. Greater debt leverage can be obtained.
9. To obtain or maintain control over a resource or market position.
10. One or more of the parties proceeding alone may not have access to funds from lenders due to political or financial reasons.
11. A special purpose entity (SPE) is required.

There are five basic forms for jointly owned projects:

a. corporations;
b. partnerships;
c. limited partnerships;
d. limited liability companies;
e. contractual joint ventures (including undivided interests); and
f. trusts.

These in turn, can be structured in a variety of ways to meet legal and tax objectives. The variations, and some of the advantages and disadvantages of each, need to be carefully considered at the outset.

Before proceeding to a discussion of the relative advantages and disadvantages of alternative entities to house a project financing, however, an understanding of accounting considerations is important.

1. Accounting for joint ventures

Joint ventures are attractive to some sponsors because of the off-balance sheet accounting treatment of the debt of the project company, where not more than 50 per cent of the project company is owned.

Where a parent owns more than 50 per cent of a corporation, contractual joint venture or partnership, accounting rules in the United States and general tradition or practice in many countries require line-by-line consolidation of assets and liabilities for financial accounting purposes.

This is based on the premise that more than 50 per cent ownership results in control over the venture, and

Exhibit 26.1: Consolidated balance sheet for 55% investor in a joint venture company

	55% investor	*Joint venture company (US$)*	*Consolidated*
Assets			
Cash	200	100	300
other current assets	2,000	I,000	3,000
Inventory	1,000	500	1,500
Property, plant and equipment	6,000	5,000	11,000
Investment in joint venture	I,100	–	–
Total assets	10,300	6,600	15,800
Liabilities			
Accounts payable	500	200	700
Other short-term liabilities	500	200	700
Long-term debt	2,000	4,200	6,200
Total liabilities	3,000	4,600	7,600
Minority interest in joint venture			900
Stockholders' equity			
Capital stock	I,000		1,000
Retained earnings	6,300		6,300
Partners' equity	–	2,000	–
Total equity	7,300	2,000	7,300
	10,300	6,600	11,800
Debt to equity ratio	0.4	2.3	1.04
Sales	10,000	4,000	14,000
Expenses			
Cost of goods sold	4,000	1,500	5,500
General sales and administration	I,000	600	1,600
Depreciation	500	500	I,000
Interest	200	I,000	1,200
	5,700	3,600	9,300
Income before taxes and minority interest	4,300	500	4,700
Provision for taxes	2,000	–	2,000
Income before minority interest	2,300	400	2,700
Minority interest in joint venture	–	–	180
Net income	2,300	400	2,520
Earnings coverage of interest	23 times		4 times
Net income as a percentage of sales	23%		18%

that control requires consolidation. Such consolidation on a line-by-line basis can adversely affect the financial statements and ratios of the parent.

On the other hand, ownership of 50 per cent or less of a joint venture company is generally insufficient to achieve control, and in such case the parent can use the equity method of accounting which requires only a one-line entry on the balance sheet disclosing the amount of investment in the joint venture company. Likewise, only a one-line entry is required on the profit and loss statement. Less than around 20 per cent ownership generally requires no disclosure.

Exhibit 26.1 – a consolidated balance sheet and earnings statement – illustrates the effect of consolidating a 55 per cent owned joint venture company on a line-by-line basis. In the example, the debt equity ratio goes from 0.4 to 1.04 as a result of consolidation. The earnings coverage of interest declines from 23 times to four times and net income as a percent of sales declines from 23 per cent to 18 per cent as a result of consolidation.

If the ownership interest had been 50 per cent (or perhaps an amount which would assure control) instead of 55 per cent, the financial statements would have merely shown a one-line entry of the investment, and the ratios of the parent would have been preserved (see Exhibit 26.2).

Exhibit 26.2: Balance sheet of 50% investor in a joint venture company

Assets	*US$*
Cash	200
Other current assets	2,000
Inventory	1,000
Property plant and equipment	6,000
Investment in joint venture	1,000
Total assets	10,200
Liabilities	
Accounts payable	500
Other short-term liabilities	500
Long-term debt	2,000
Total liabilities	3,000
Stockholders' equity	
Capital stock	1,000
Retained earnings	6,200
Total equity	7,200
	10,200
Debt to equity ratio	0.4

A footnote disclosing the percentage ownership interest in the project, the total assets, the total liabilities, any guarantee of debt, the sales and the net income of the project is appropriate. Also, a footnote disclosure of any long-term take-or-pay contract is required by the FASB, including the minimum required payments payments made, and obligations, if any, to pay raw material costs and operating expenses of the plant. See statement of Financial Accounting No. 47 dated March 1981 and FASB Interpretation No. 34, dated March 1981, both included in Appendix A.

2. Corporations

A corporation may not be a satisfactory way in which to structure a joint project financing because a sponsor cannot file a consolidated federal income tax return with the project. In the United States, 80 per cent ownership is required for a parent and subsidiary to file a consolidated tax return. Although tax benefits from investment tax credit, energy tax credit, depreciation, and interest expense can be claimed by the project corporation, these tax benefits will be delayed for a considerable period or lost forever if the project corporation has limited taxable income.

While the income of the project corporation can be controlled to some extent by the sponsors, unrealistic adjustments may be subject to attack by the Internal Revenue Service if not at arm's length, and may give rise to loss of deductions. However, when the project is profitable, only 15 per cent to 20 per cent of dividends (or distributions presumed to be dividends) will be taxed for federal income tax purposes to a corporate stockholder after taking into consideration the dividend received exclusion. (The dividend received credit is reduced from 85 per cent to 80 per cent over ten years beginning in 1987.)

(a) True lease from third party leasing company to a corporation

Corporations can be used as entities for jointly owned projects without wasting tax benefits if the project equipment is financed through a true lease from a third party leasing company able to claim the tax benefits and pass through most of those tax benefits to the lessee in the form of low cost lease payments.

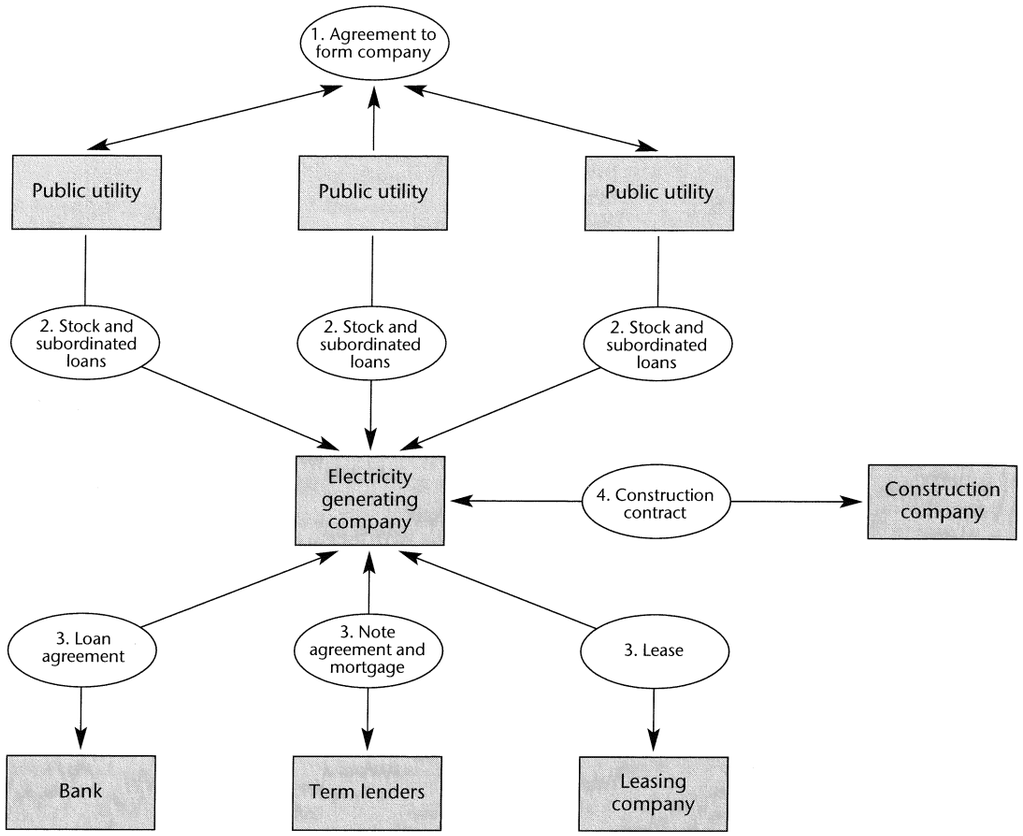
(b) True lease from sponsors

If the project sponsors can use tax benefits, a corporation can be used as an entity for a project without wasting tax benefits through the use of a tax-oriented lease from the sponsors to the entity in which the sponsors claim the tax benefits of ownership under the lease.

(c) Cost company

Cost companies, organised under Revenue Ruling 56-542, have been used in mining projects to pass through tax benefits of a jointly owned corporation to its shareholders. Cost companies have nominal capital and hold title to the mineral property. The shareholders agree to take product in proportion to their stock ownership.

Exhibit 26.3: Jointly owned sponsor



Summary

1. Three utilities enter into an agreement to form a corporation to build and operate an electricity generating plant.
2. Each of the utilities purchases stock and makes subordinated loans to the electric generating company in accordance with their agreement.
3. On the basis of the capital contributions and prospects for the jointly formed company, construction loans and long-term debt to take out the construction loans or a lease to take out the construction loans are arranged.
4. The generating company arranges for the construction of the facility; thereafter, the generating company operates as an independent company arranging its own financing as needed.

Cost companies are treated similarly to partnerships for tax purposes. They file information returns and their shareholders report their pro rata share of the revenues and expenses of the company.

(d) Example of a corporation jointly owned by sponsors which borrows to finance a project

A jointly owned corporation borrows on the basis of its own credit to finance a project. Typical projects include electricity generating, refining or processing plants. Investment and operating expenses are segregated for purposes of the project company. Rates necessary to meet costs and provide return on equity can be easily identified.

Income tax

The project company files its own income tax return and is not consolidated on any sponsor return if no sponsor owns 80 per cent or more.

Debt rate

The debt rate will usually be higher than the debt rate of the individual participants or sponsors.

Sponsor's balance sheet and loan covenants

The investment in the project company may be shown as a one-line equity investment entry for a sponsor which owns less than 50 per cent of the controlling stock, and the debt of the project company will be off-balance sheet for the sponsor. If the sponsor owns more than 50 per cent of the controlling stock, a line-by-line consolidation is required. If less than 50 per cent owned, project company liabilities will probably not constitute debt for debt-equity ratios, or a loan for loan or mortgage restrictions.

Variances

1. Same as above, with credit backed by long-term take-or-pay contracts in proportion to ownership. (Take-or-pay contracts are discussed separately.)
2. Same as above, with credit backed by obligations of the owners to make up deficits.
3. Same as above, with true lease from one or more sponsoring parties able to claim tax benefits.

Advantages for the sponsor

1. Debt of the project company is off-balance sheet for the sponsor if less than 50 per cent owned and not controlled.
2. Outside loan covenants restricting debt of leases.
3. Capital preserved for other uses.
4. Economies of a large-scale project achieved by combining and concentrating financial resources and technical skills.
5. An essential facility built without the sponsor-participant being required to pay the entire cost of the project.
6. Cost segregated for rate-making purposes.
7. Risks of the project are shared.
8. Loan is non-recourse to sponsor.
9. Income from a foreign company is not Subpart F Income under the Internal Revenue Code (reportable even though not distributed) if less than 50 per cent controlled.
10. Insulated from tort and contractual liabilities of the project company, subject to piercing the corporate veil or proof of an agency relationship.

Disadvantages for the sponsor

1. Higher borrowing cost.
2. Lack of absolute control over the facility.
3. Possible loss or delay in claiming tax benefits by the jointly held company.

(e) Example of a joint venture corporation with tax benefits claimed by one party

One advantage of a corporate joint venture is the opportunity which exists for one party to claim the entire tax shelter attributable to the project company. A balancing of ownership and control rights can be achieved through convertible debt and operating contracts, as shown in Exhibit 26.4.

Advantages for the sponsor

1. Debt of the project company is off-balance sheet for the sponsor if less than 50 per cent-owned.
2. Outside loan covenants restricting debt or leases.
3. Capital preserved for other uses.
4. Economies of a large-scale project achieved by combining and concentrating financial resources and technical skills.
5. An essential facility built without the sponsor-participant being required to pay the entire cost of the project.
6. Cost segregated for rate-making purposes.
7. Risks of the project are shared.
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10. Insulated from tort and contractual liabilities of the project company, subject to piercing the corporate veil or proof of an agency relationship.

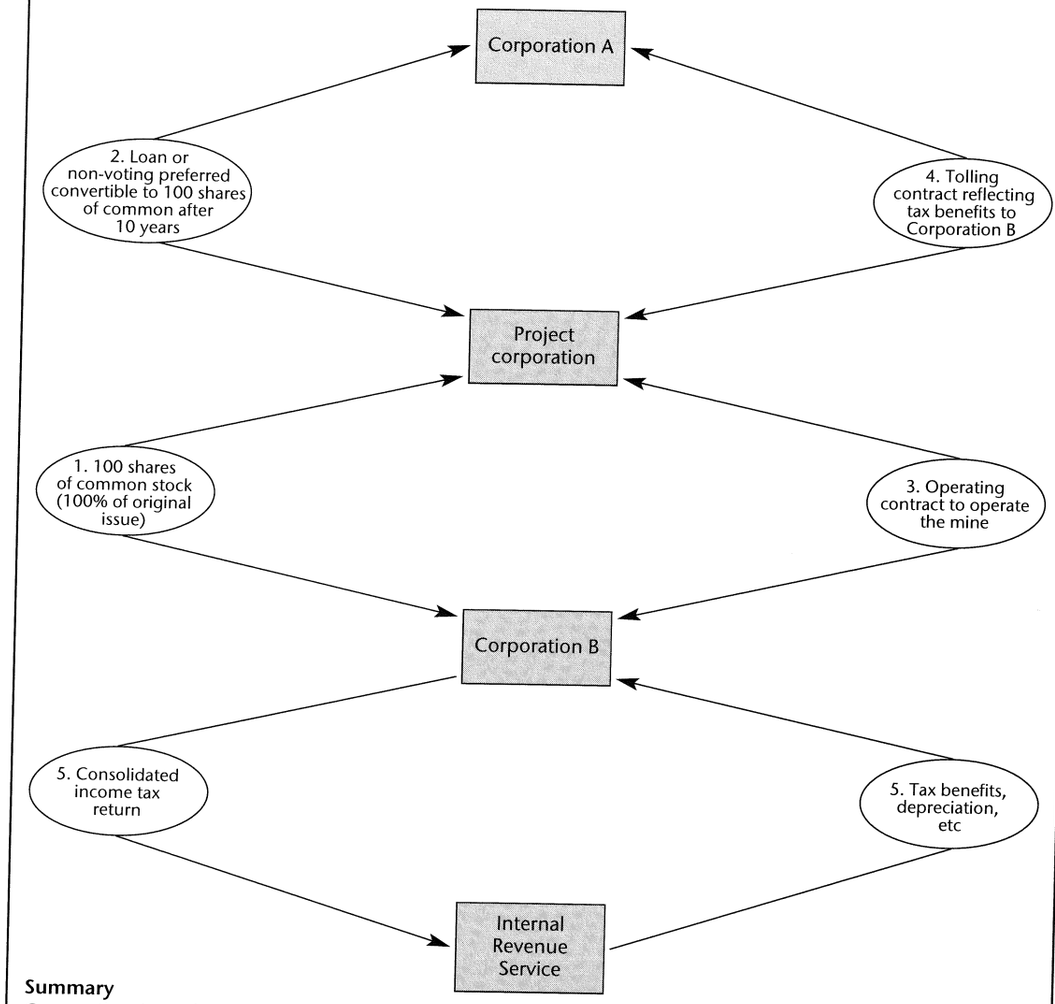
Disadvantages

1. Higher borrowing cost.
2. Lack of absolute control over the facility.
3. Possible loss or delay in claiming tax benefits by the jointly-held company.

3. Partnerships

A partnership can operate a project, hold property, hold property in its own name and enter into a financing arrangement in its own name. Partnerships, as entities for joint legal ownership of a project, have numerous advantages from an income tax standpoint. A partnership is not a separate taxable entity, does not pay income tax and files a partnership income tax return which reports the revenues, deductions and credits attributable to the partnership. The partners

Exhibit 26.4: Joint venture with tax benefits claimed by one party

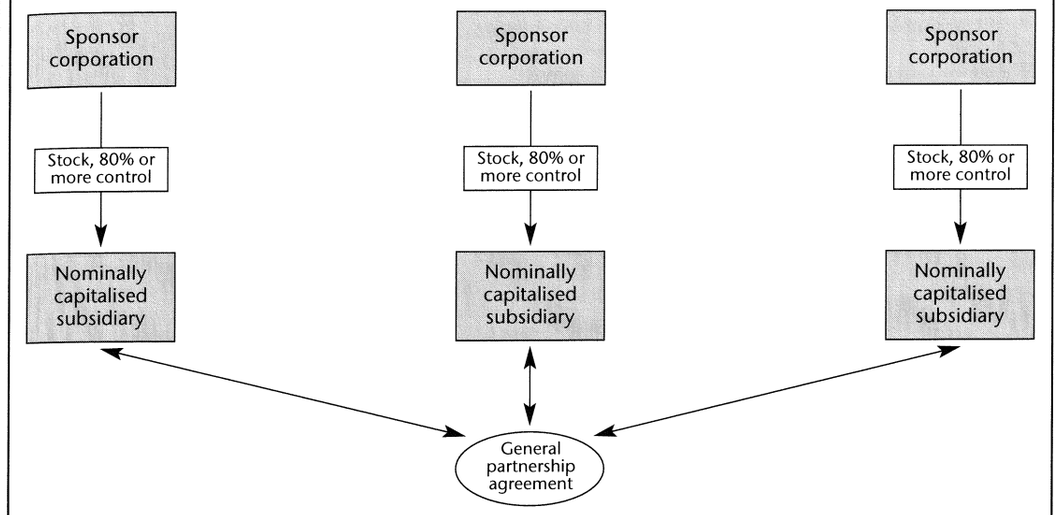


Summary

Corporation A needs coal but has no operating experience. Corporation B is an operator. Corporation B can use tax benefits from MACRS depreciation, but Corporation A cannot use tax benefits. They decide to enter into a corporate joint venture on the following basis:

1. The project company is formed. Corporation B provides capital and loans to the project company and is issued 100 shares of its common stock, which is 100% of the original issue.
2. Corporation A loans or purchases non-voting preferred stock of the project company which is convertible into 100 shares of its common stock after 10 years, with anti-dilution protection. This loan (or purchase) provides the bulk of the capital for the project.
3. The project company enters into a 10-year operating agreement with Corporation B whereby Corporation B will operate the mine.
4. Corporation A enters into a l0-year tolling agreement for the purchase of coal from the project company. The tolling agreement reflects most of the tax benefits which can be claimed by Corporation B.
5. Corporation B files a consolidated income tax return with the project corporation and claims the tax benefits of depreciation on qualified equipment of the project company.
6. (not shown) Corporation A converts its debt (or stock) to 100 shares of common stock of the project company after 10 years. Corporation A and Corporation B are then equal owners of the project company.

Exhibit 26.5: General partnership with nominally capitalised subsidiaries



report their distributive shares of these items plus their distributive shares of partnership income and loss, thus permitting immediate benefit by the partners for tax purposes of available depreciation deductions, operating expenses, investment tax credit and interest deductions.

A corporation, on the other hand, pays tax as a taxable entity and claims available tax deductions for depreciation and operating expenses, on its own returns. In start-ups, these deductions must be carried forward for many years until the corporation is taxable. When dividends are paid, stockholders must pay tax on such distributions of profits.

General partnerships present problems from a legal standpoint inasmuch as general partners generally are jointly and severally responsible for all partnership liabilities which cannot be satisfied from partnership assets. These include liabilities for contracts, debt and tort liabilities. In the case of a corporation, stockholders are not generally responsible for such liabilities. Limited partnerships avoid this problem.

However, partners can protect themselves to some extent by forming subsidiaries to enter into a partnership agreement to operate a joint venture. If the subsidiary is nominally capitalised and has limited operations, the parents may possibly still be held to be the true partners by piercing the corporate veil. (Special purpose subsidiaries to act as partners may be preferable in any event, to avoid the parent unnecessarily having to qualify to do business in a state, or unnecessarily subjecting itself to a regulatory agency.)

Further steps can be taken to protect joint venturers who wish to operate as a partnership. One such step is to require lenders to limit their recourse for loans against the assets of the partnership and waive rights against the assets of the partners. Lenders will go along with such limitation if the assets of the joint venture are strong enough to support the transaction. In such circumstances, these assets may include an unconditional take-or-pay or through-put contract from a responsible credit.

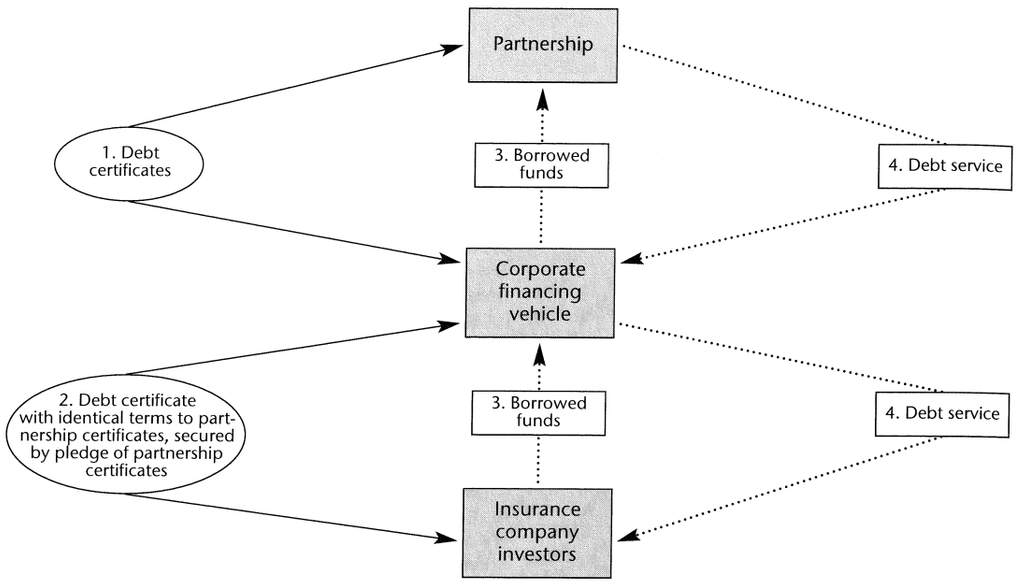
Another step is an agreement among the partners not to enter into loan agreements or material contracts without the consent of all or some specified percentage of the partners. This type of agreement is typically buttressed by cross indemnities of the partners or their parents.

Potential tort liabilities, in excess of partnership assets, can usually be covered by insurance.

Care must be taken that, in limiting the functions of the partnership, the resulting entity for tax purposes does not constitute an association which will be taxable as a corporation.

Generally, three of the following four attributes must be present for a partnership to be deemed to be an association taxable as a corporation. (The Internal

Exhibit 26.6: Corporate financing vehicle



Summary

1. A partnership issues notes to a nominee corporation.
2. The nominee corporation issues notes or bonds to lenders which are identical in interest rate and maturities to the partnership securities. The partnership notes are pledged as security.
3. The lenders pay the bond or note proceeds to the nominee corporation, and the corporation pays the funds to the partnership.
4. Debt service is paid by the partnership through the nominee corporation or through a security trustee.

Revenue Service has occasionally expressed the view that only two of the four attributes need be present for partnership to be deemed to be an association.)

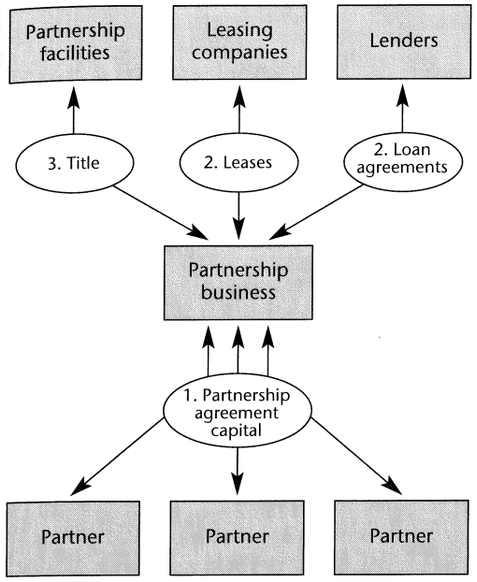
- Continuity of life;
- Centralisation of management;
- Limited liability; and
- Free transferability of interest.

Normally, it is possible to form a partnership which will not be deemed to be an association even though protective steps are taken to limit the exposure of the partners to debt and contractual liability by agreements with creditors and among themselves.

Financial accounting for partners in reporting liabilities of partnerships follows the same rules as for corporations. More than 50 per cent control generally requires line-by-line consolidation. Less than 50 per cent control but more than 20 per cent control generally requires only a one-line entry of the partners' investment. However, when the lenders to the partnership agree that they will seek recourse against only the partnership assets and not the assets of the partners, the partnership debt is not included in the balance sheets of the partners, but in the footnotes. To qualify for such treatment, the partnership must have entity status to own property and borrow funds in its own name (not a contractual joint venture, discussed later).

A disadvantage of a partnership as compared to a corporation is the inability of the partnership to issue securities which qualify as legal investments for insurance companies. However, this problem can be solved by establishing a corporation known as a corporate financing vehicle. The partnership issues debt certificates to the corporate financing vehicle, which in turn issues debt securities with identical terms which are secured by a pledge of the partnership securities and partnership obligations. The debt certificates issued by the corporate financing vehicle then can qualify as a legal investment for insurance companies.

Exhibit 26.7: General partnership to operate a project



Summary

1. Three partners enter into a partnership agreement and contribute capital to a partnership to conduct and operate a certain business.
2. The partnership in its own name enters into loan agreements and enters into lease agreements.
3. The partnership holds title to property in its own name.

(a) General partnership to operate a project

Two or more parties decide to jointly own and/or operate a business through a general partnership.

Rate base

Costs are segregated.

Income tax

A partnership income tax return is filed. Subject to certain limits, a partner's distributive share of partnership income, loss or other items is determined by the partnership agreement. Partners can claim deductions for depreciation, interest and operating expenses in excess of income. The entity is not taxed as a corporation.

Credit

Borrowings by the partnership reflect the joint and several liability of the general partnership and the partners. The debt base reflects the credit strength of the strongest partners.

Sponsor's balance sheet

Each partner's balance sheet generally reflects its partnership interest, using the equity method of reporting where a single partner lacks control.

Sponsor's loan covenants

Joint and several liabilities of the partnership may not be restricted by the loan covenants of individual partners.

Variation

The parties desiring a partnership substitute subsidiaries to act as partners. (If the subsidiary acting as a partner has no other significant business purpose, the subsidiary will not constitute a reliable shield for the parent against partnership liability.)

Advantages

1. Off-balance sheet and outside loan covenants as to the portion of capital contributed by other partners in the partnership.
2. The economies of a large-scale operation may be achieved by combining and concentrating the financial resources and technical skills of several partners.
3. An essential facility is built without the sponsor participant being required to pay the entire cost of the project.
4. The borrowing cost may be lower as a result of combining the project with other partners.
5. Partners immediately claim tax deductions.

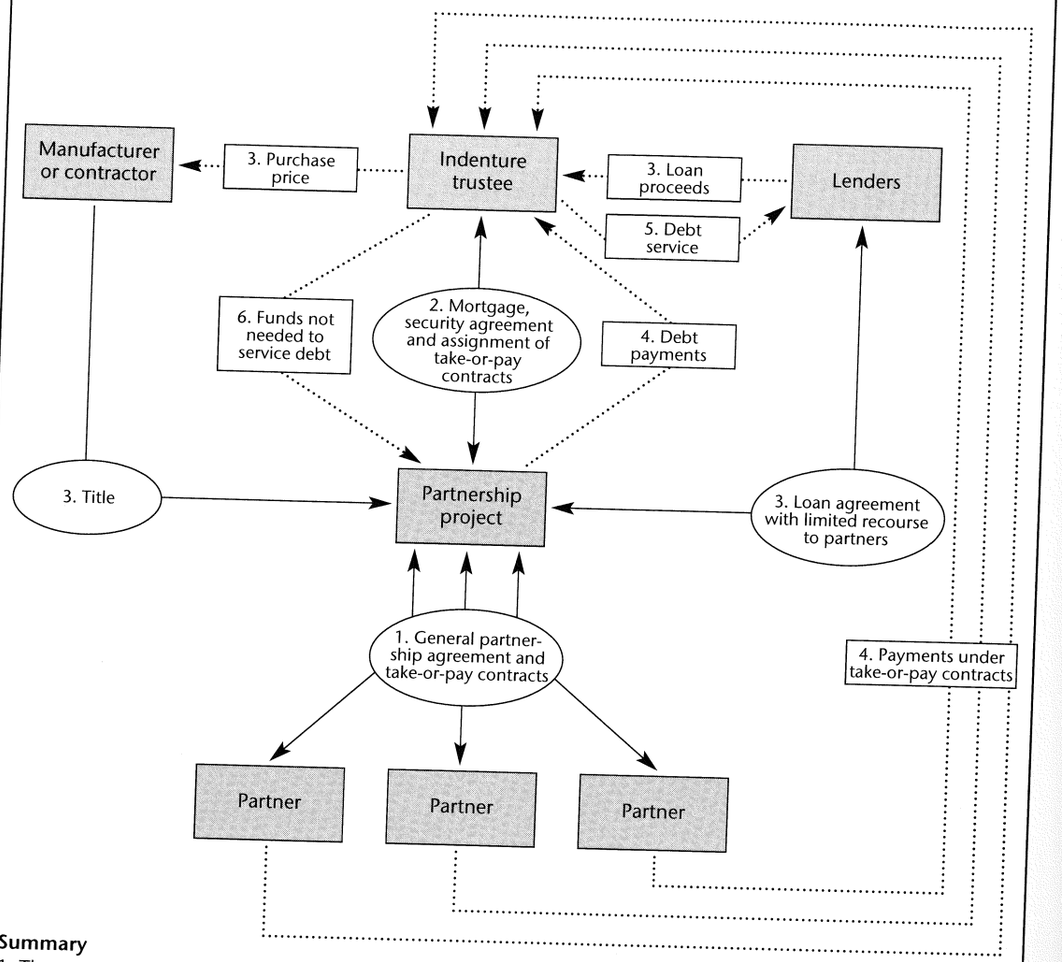
Disadvantages

1. The loss of absolute control over the project.
2. Joint and several liability of the partners for contractual and tort obligations.
3. The partnership cannot issue securities which constitute legal investments except through a corporate financing vehicle.

(b) A general partnership with limited recourse secured debt supported by a take-or-pay from the sponsor partners

Two or more companies desire to enter into a partnership for the purpose of owning or operating a joint

Exhibit 26.8: Partnership with limited recourse debt



Summary

1. Three partners enter into a general partnership agreement to operate a project as a partnership. Each partner also enters into a take-or-pay contract with the project.
2. The partnership enters into a security agreement with an indenture trustee, which includes a mortgage on certain property to be acquired by the partnership and an assignment of proceeds from the take-or-pay contracts.
3. The partnership enters into a loan agreement with a group of lenders under an arrangement whereby the lenders agree to limit their recourse against the partners to the partnership assets only. Loan proceeds are paid to the indenture trustee, which in turn pays the manufacturer the purchase price of the property to be acquired by the project. The manufacturer than conveys title to the partnership in the partnership name, subject to the mortgage.
4. The partners make payments under the take-or-pay contract directly to the indenture trustee. The partnership makes any additional payments to the indenture trustee required to meet current debt payments.
5. The indenture trustee pays the debt service.
6. Funds not needed to service the debt are paid to the partnership.

project or business and wish to limit their partnership contractual liability.

The partnership enters into loan agreements for financing major assets which are secured by those assets, other partnership assets and the assignment of a take-or-pay contract from the partners for product produced by the partnership. However, the loan agreement limits the lenders' recourse to the partnership assets and to

the proceeds from the take-or-pay contract. It can be used for almost any processing or production project.

Rate base
Cost is segregated.

Income tax
Partnership return is filed. Partners can immediately claim deductions for depreciation, interest and operating expense in excess of income.

Credit
The security value of the project properties and other partnership assets, plus the value of the take-or-pay contracts.

Sponsor's balance sheet
A take-or-pay contract constitutes an indirect obligation and is disclosed in the commitments and contingent liability section of the footnotes to the balance sheet. The limited recourse debt of the partnership need not be shown by a partner which does not control the partnership.

Sponsor's loan covenants
Senior debt restrictions and lease restrictions of the individual partners may be avoided by the fact that the loan agreement is with limited recourse to the partners. A take-or-pay contract constitutes a long-term contract generally outside the scope of covenants limiting debt or leases.

Variations
The parties desiring a partnership substitute subsidiaries to act as partners. If the subsidiary acting as a partner has no other significant business purpose, the subsidiary might not constitute an adequate shield for the protection against liability; the corporate veil may be pierced. Therefore, a subsidiary active for some business purposes should be used as a partner.

Advantages
1. The advantages of a partnership are obtained for tax and accounting purposes without having to assume joint and several partnership contractual liability for the major debt of the partnership.
2. Off-balance sheet and outside loan covenants as to the portion of capital contributed by other credits in the partnership.
3. Limited recourse debt of the partnership is generally off-balance sheet and outside loan covenants of partners.
4. The economies of a large-scale operation may be achieved by combining and concentrating the financial resources and technical skills of several partners.
5. An essential facility is built without the sponsor participant being required to pay the entire cost of the project.
6. The borrowing cost may be lower as a result of combining the project with other partners.

Disadvantages
1. Lack of absolute control over the facility.
2. Joint and several liability of the partners for contractual obligations (other than limited recourse debt) and tort obligations.

4. Limited partnerships

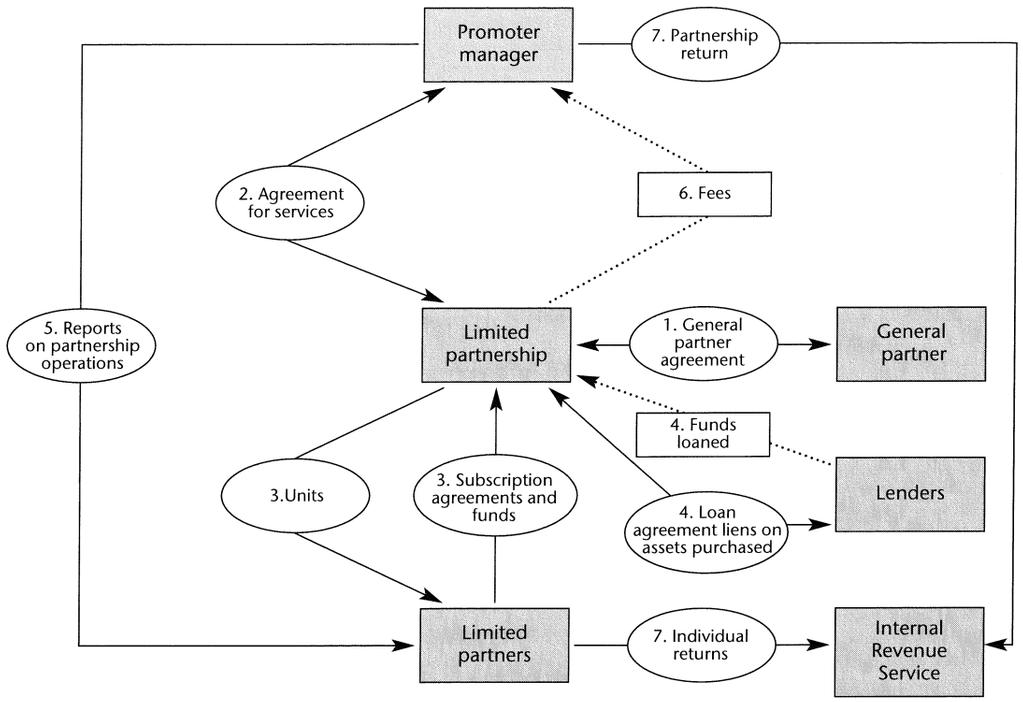
Limited partnerships are entities which expressly limit the liability of limited partners to the amount of their capital investment. Since limited partners can, nevertheless, claim a proportionate share (and, according to some tax experts, a disproportionate share) of tax benefits from the operation of the partnership, the limited partnership entity has great appeal to investors seeking to shelter their tax liabilities with little risk to capital.

Limited partnerships have been used extensively to finance development of oil and gas properties and these types of limited partnerships are separately discussed in Chapter 30. Limited partnerships have also been used extensively in financing real estate and such limited partnerships are discussed later in this chapter. More recently, limited partnerships have been used to finance research and development and such R&D limited partnerships are also discussed later in this chapter. Leveraged lease arrangements also use structures similar to limited partnerships.

The diversity of limited partnership structures warrants considering the use of such a structure for additional financing.

Limited partnerships must always have one general partner. This may be the sponsor, or some person or corporation associated with the sponsor. For tax purposes, the general partner must have financial substance.

Exhibit 26.9: Limited sponsorship



Summary

1. A limited partnership is formed upon the general partner agreeing to act as general partner and the completion of a sale of a unit to the general partner.
2. The partnership enters into an agreement for services with the promoter. These services might include sales of units, organisation of the partnership, investment of partnership funds and management of partnership assets.
3. Subscriptions for limited partnership interests are sold, funds advanced and units issued.
4. A loan agreement is negotiated, funds are advanced and liens are recorded on purchased assets. These funds are invested in the assets or activities of the partnership.
5. The activities of the partnership begin. Reports on partnership activities are distributed by the promoter manager.
6. Fees are paid to the promoter manager for promotional and management services.
7. The partnership files a partnership income tax return for information purposes, reporting the distributive shares of partners in income and expense; limited partners file individual returns, reporting their share of revenues and their distributive shares of operating expense, interest expense and depreciation expense.

In structuring a limited partnership, care must be taken to meet the Internal Revenue Service criteria, which will qualify the limited partnership as a partnership for federal income tax purposes and avoid taxation of the limited partnership as an association or corporation.

Under Internal Revenue Service Regulations (Section 301.7701-2)[1] there are four major characteristics for distinguishing a corporation from a partnership:

- continuity of life;
- centralised management;
- limited liability; and
- free transferability of interest.

If a limited partnership does not have more than two such characteristics, it will generally not be taxed as an association or corporation. On the other hand, if it has three or four such characteristics, it will probably be taxed as a corporation or association.

It is generally fairly easy to structure a limited partnership so as to avoid free transferability, limited liability and continuity of life. Generally, a partnership

formed under the Uniform Partnership Act, or the Uniform Limited Partnership Act, will qualify as a partnership for tax purposes.

Limited partners or general partners in a limited partnership may be either individuals or corporations. The Revenue Act 1987 and other recent tax law changes have made it difficult for individuals to claim tax deductions generated by passive investments.

Income tax

Limited partnerships file a partnership tax return but are not subject to tax as a legal entity such as a corporation. Limited partners are taxable on their share of partnership income, may claim their share of ITC and may deduct operating expenses, tax depreciation and interest.

From the standpoint of the company using the limited partnership to finance a project, if such a company were unable to use tax benefits currently, it could indirectly gain the benefit of tax depreciation and ITC from reduced rents or fees charged by the limited partnership. It could also claim deductions for such rents or fees.

Rate base

The rents or fees charged by the limited partnership would be segregated expenses recognised for rate base purposes.

Loan covenants

Restrictions in loan covenants might be avoided by use of limited partnerships for financing facilities or services.

Advantages

1. Low cost financing as a result of limited partners claiming tax benefits and passing them through in the form of reduced rents or fees. Tax benefits are not wasted.
2. Off-balance sheet financing.
3. Ratios not affected.
4. Loan covenants not affected.
5. Risk of failure shifted to limited partners.
6. Access to a new source of funds (wealthy individuals).

Disadvantages

1. Somewhat complex structure.
2. Loss of some control over facilities or service functions.
3. Time and legal expense in arranging the financing.

(a) Leveraged limited partnerships

In a leveraged limited partnership, the limited partners achieve high rates of return by reducing their initial after-tax investments by borrowing on a non-recourse basis.

One form of leveraged partnership provides that a portion of the original investment of a limited partner is in the form of a recourse note. This type of investment is called staged equity, meaning that the equity is paid in stages. In some circumstances the limited partners may be permitted, under this arrangement, to take tax deductions equal to, or in excess of, their initial cash investments. The limited partner pays the note over a period of time as the partnership needs the funds. If the partnership is generating payments due the limited partners, the note may be paid by offsetting such payments against the obligations under the note.

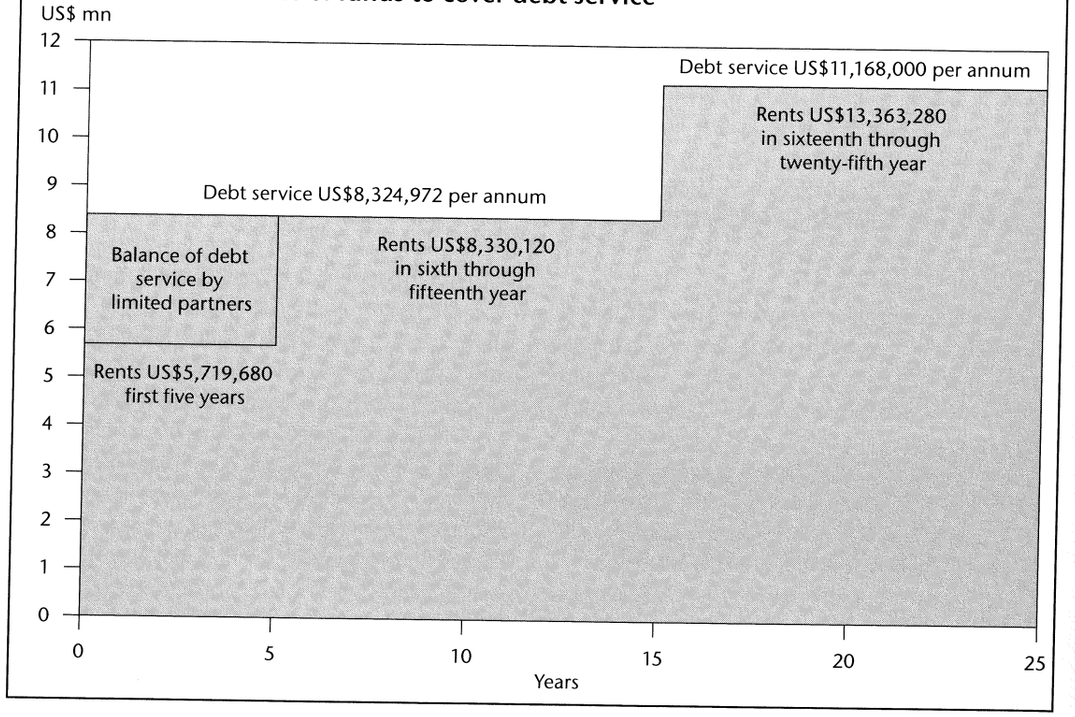
(b) Limited partnerships to finance and lease a building

A corporation (building lessee) with a strong credit rating desires to construct an office building for its corporate headquarters. The building lessee enters into an arrangement with a promoter, whereby the promoter will arrange a limited partnership to finance a building built to the building lessee's specifications and then lease the building to the building lessee.

The partnership leases certain land from the building lessee for a term of 25 years, commencing on the date of building completion and acceptance. This lease may be renewed for l0 successive terms of five years each. (If the building is to be built on land controlled by an urban redevelopment corporation, the building lessee may first lease the land with a purchase option from the urban redevelopment corporation and then sub-lease the land to the building lessee.)

The partnership agrees to finance and construct a building on the leased land and then lease the building to the building lessee. The initial lease term covers the construction period and the primary lease term of 25 years. The primary lease term commences upon completion of construction, acceptance by the building lessee and take-down of permanent financing. The

Exhibit 26.10: Sources of funds to cover debt service



building lessee has options to extend the lease for up to five terms of five years each. The lease is a net lease. The building lessee has certain options to acquire the building from the partnership at the end of the primary lease term or extensions, either at its then fair market value or for an amount sufficient to pay off the principal balance of the original debt outstanding on the building, whichever is greater.

The total cost (or aggregate basis) of the partnership in the buildings and improvements is estimated to be US$92,483,623.

Construction cost is estimated to be US$91,375,000. The partnership will borrow US$91,375,000 from a group of banks (bank lenders) under a construction loan evidenced by a note. If construction costs exceed US$91,375,000, the partnership will be responsible for raising additional capital, either through borrowing or selling additional equity interests, or both. Any excess not funded by the partnership is the responsibility of the building lessee.

For the sake of this example tax depreciation for real estate is assumed to be 15 years although actual guidelines are now 31.5 years. Limited partners are assumed to have an all in tax liability of 50 per cent for purposes of this example. Longer depreciation and lower tax rates lessen the dramatic effect of this structure which is illustrated because of its possibilities for future applications.

Upon completion of the building, acceptance and a temporary certificate of occupancy, an institutional investor (the insurance company) agrees to purchase the note from the bank lenders for US$83,000,000, provided the partnership has invested US$8,375,000 in the building and improvements, either directly or by payment of a portion of the note to the bank lenders. The note is secured by an assignment of the lease of land and building, and a first lien on the building. The note is non-recourse to the partners or to the partnership. If the note is purchased by the building lessee because of the failure of the insurance company to purchase the note for some reason (such as a cost over-run), the note is recourse to the partnership, but not to the individual limited partners. In such event, the partnership has 12 months to arrange new permanent financing. Adjustments in rents, terms and the amount of the investment

by the partnership, will be renegotiated if not previously agreed.

During the first 15 years, interest only is payable on the insurance company note, which amounts to US$8,324,972 per annum. Commencing in the sixteenth year, principal and interest payments of US$11,168,000 are made for the next 10 years. After 25 years, the outstanding principal balance will be US$35,000,000. The insurance company can then either demand payment of the balloon principal balance, or require annual payments of US$7,018,952 for seven years to retire the note.

The fixed annual rent (payable quarterly in arrears) by building lessee is anticipated to be as follows, based on a project cost of US$91,375,000:

US$5,719,680 for the first five years
US$8,330,120 for the next 10 years
US$13,363,280 for the next 10 years
US$7,310,000 for any extended term

During the first five years of the primary lease term the rents under the lease will not be sufficient to pay debt service under the note to the insurance company. The partnership is to make up this difference. Limited partners are to pay their capital contributions over six years and the instalments are calculated to be sufficient to cover the partnership's obligation to make up the deficiency in debt service. (This is a leveraged limited partnership.) To induce the insurance company to make the loan, a credit company owned by the promoter agrees to pay US$13,026,460 of debt service on the note during the first five years. This obligation is backed by a letter of credit from a bank. As noted above, the limited partners pay for their equity contributions in instalments over six years and these payments in the aggregate are sufficient to cover the payments the credit corporation is obligated to make to the insurance company.

The partnership has agreed to pay the promoter an origination fee of US$7,888,348, of which US$1,788,348 plus interest will be paid from capital and the balance of US$6,100,000 with interest will be paid from cash flow from operations beginning after the lease is in effect for 17 years (US$2,189,352 per year at 13 per cent interest).

Units are sold at US$151,467 each. Payment for the units is made over six years as follows:

1 January	*Principal (US$)*	*Principal + 11% interest*
Year 1	30,967	36,536
Year 2	26,000	39,255
Year 3	25,500	35,895
Year 4	25,500	33,090
Year 5	25,500	30,285
Year 6	18,000	19,980
	151,467	195,041

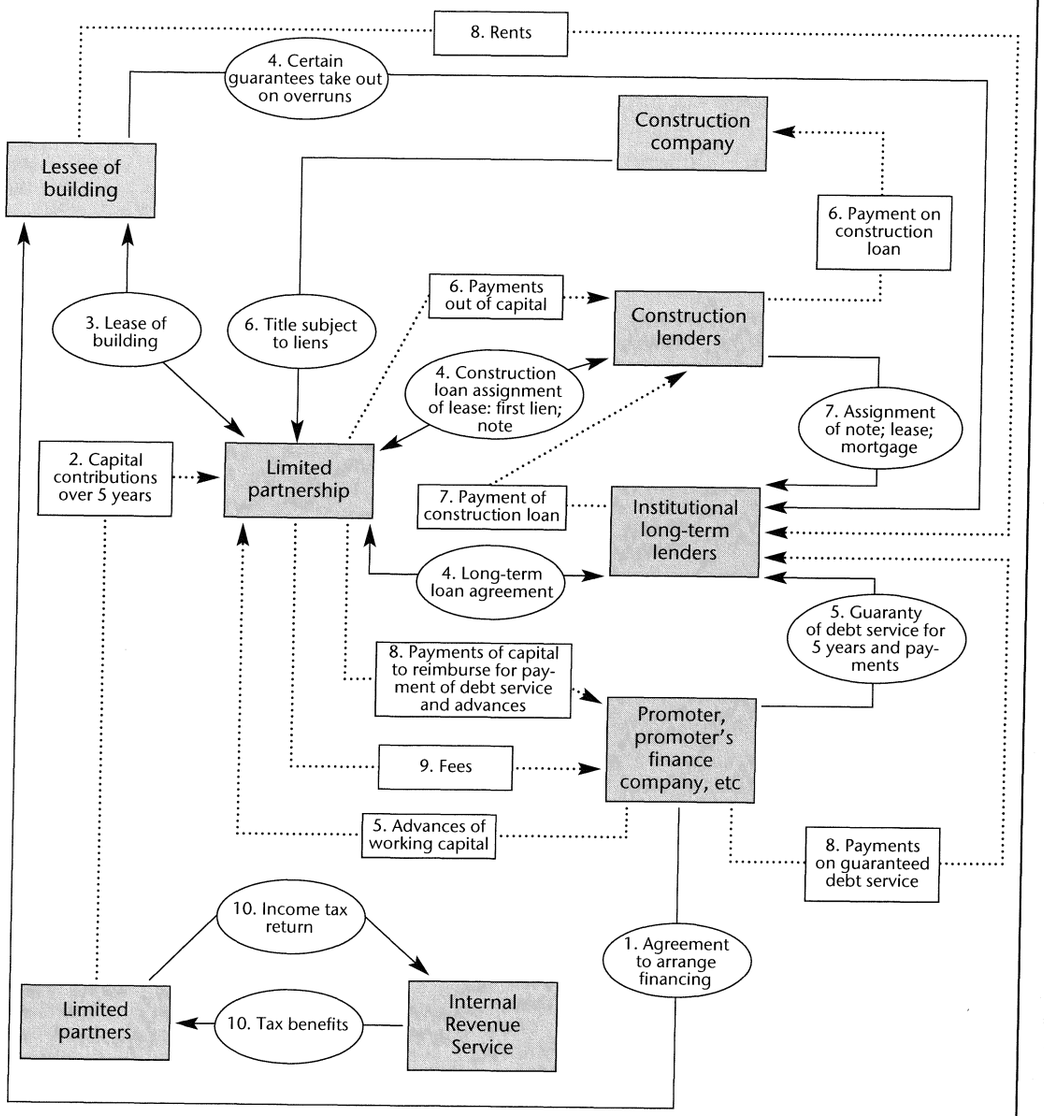
The total capital contributions of the general and limited partners will be US$27,250,000, which will be used as follows:

	(US$)
Cash investment in property as a condition of insurance company obligation	8,375,000
Commitment fees to insurance company	695,000
Payments to credit corporation which are in turn used to make up the difference between rent and debt service	13,026,000
Selling commission for sale of limited partnership interests	2,156,000
Organisation fee to the promoter	1,778,000
Finders' fee for the deal	1,000,000
Tax, legal construction consultation	200,000
Total	27,250,000

It is contemplated that about US$14,000,000 will be borrowed by the partnership on a short-term basis to meet partnership obligations, in addition to the US$13,026,460 to be used to pay the difference between rents and debt service. This US$14,000,000 will be borrowed from banks and secured by subscriptions of the limited partners. If a bank loan is not available a loan will be arranged with credit corporation. This loan is a condition to the insurance company making its US$83,000,000 loan.

Limited partners in an all-in 50 per cent tax bracket for purposes of this example, that have sufficient tax liability to absorb their proportional share of interest, operating expenses and depreciation deductions associated with the building, will have tax savings approximately equal to the cash required to pay principal and interest on the instalment payments required to purchase their units. This assumes the Internal

Exhibit 26.11: Lease of building by limited partnership



Summary

1. Promoter agrees to finance a headquarters building for a company with a strong credit rating, using a limited partnership structure.
2. A limited partnership is formed on a basis whereby subscriptions for capital are paid over five years.
3. A lease agreement is entered into with the lessee, which is a company with a strong credit rating and standing.
4. Loan agreements are entered into by the partnership with construction lenders and long-term lenders for the cost of construction. The partnership gives the construction lenders a note, secured by a mortgage on the property and an assignment of the lease. The lessee enters into certain guarantees with the long-term lenders for a take-out in the event of a cost over-run or financial problems the partnership cannot handle.
5. The promoter guarantees debt service during the first five years to the long-term lenders and advances working capital to the partnership. (In the alternative, the partnership may borrow working capital from a bank.)

Exhibit 26.11: Lease of building by limited partnership *continued*

6. The building is constructed and the contractor is paid. The partnership makes payment to the construction lender out of capital to reduce the total borrowing under the construction loan. Title passes to the partnership subject to liens and mortgage.
7. The building is completed. The construction lender is paid and taken out by the long-term lender. The note, mortgage, and lease are assigned to the longer-term lenders.
8. The lease begins. Rents are paid to the lenders to service debt. The promoter's finance company pays the debt service guaranteed, the limited partners pay their subscriptions, which are used to reimburse the promoter's finance company and bank loans which were used to finance other expenses of the partnership.
9. Various fees are paid to the promoter for various services.
10. Limited partners file income tax returns and claim deductions for operating expenses, depreciation and interest in excess of rents. Tax savings for limited partners are approximately equal to the instalment payments for their respective capital contributions. (This example reflect tax rates and depreciation rates in effect prior to the Tax Reform Act 1986.)

Revenue recognises such interest and depreciation deductions and the weight of present law favours such a conclusion.

As noted previously, this example assumes the combined federal and state tax was to be 50 per cent. Also, depreciation for real estate which is 15 years in this example is now 31.5 years. However, it is likely that depreciation deductions will be increased in the future to stimulate building construction when the need arises, and the former depreciation rate is used to illustrate the leverage possible in using this structure.

(c) R&D limited partnerships

R&D limited partnerships have been used successfully in the United States to accomplish off-balance sheet project financing of research and development expense.

Over 1,000 R&D limited partnerships have been formed in the United States. Most such limited partnership interests have been privately placed. Large public placements of units have also been made. Unfortunately some very large and visible publicly placed R&D partnerships have been spectacular failures, notably Trilogy Ltd. and Storage Technology.

Nevertheless, the structures are interesting and well worth consideration in the right circumstances.

The structure of an R&D partnership

A corporation (the sponsor) which requires capital for research and development of products sets up a wholly owned subsidiary to engage in research and development. This R&D subsidiary in turn organises a limited partnership, with itself as general partner. The R&D subsidiary as a general partner sells a 99 per cent interest in the partnership to limited partners.

The limited partnership interests are sold in units which are typically priced at US$5,000–10,000 each. This is usually accomplished by a private placement. The limited partners have no voice in the management of the limited partnership and no liability for partnership debts beyond their original investment.

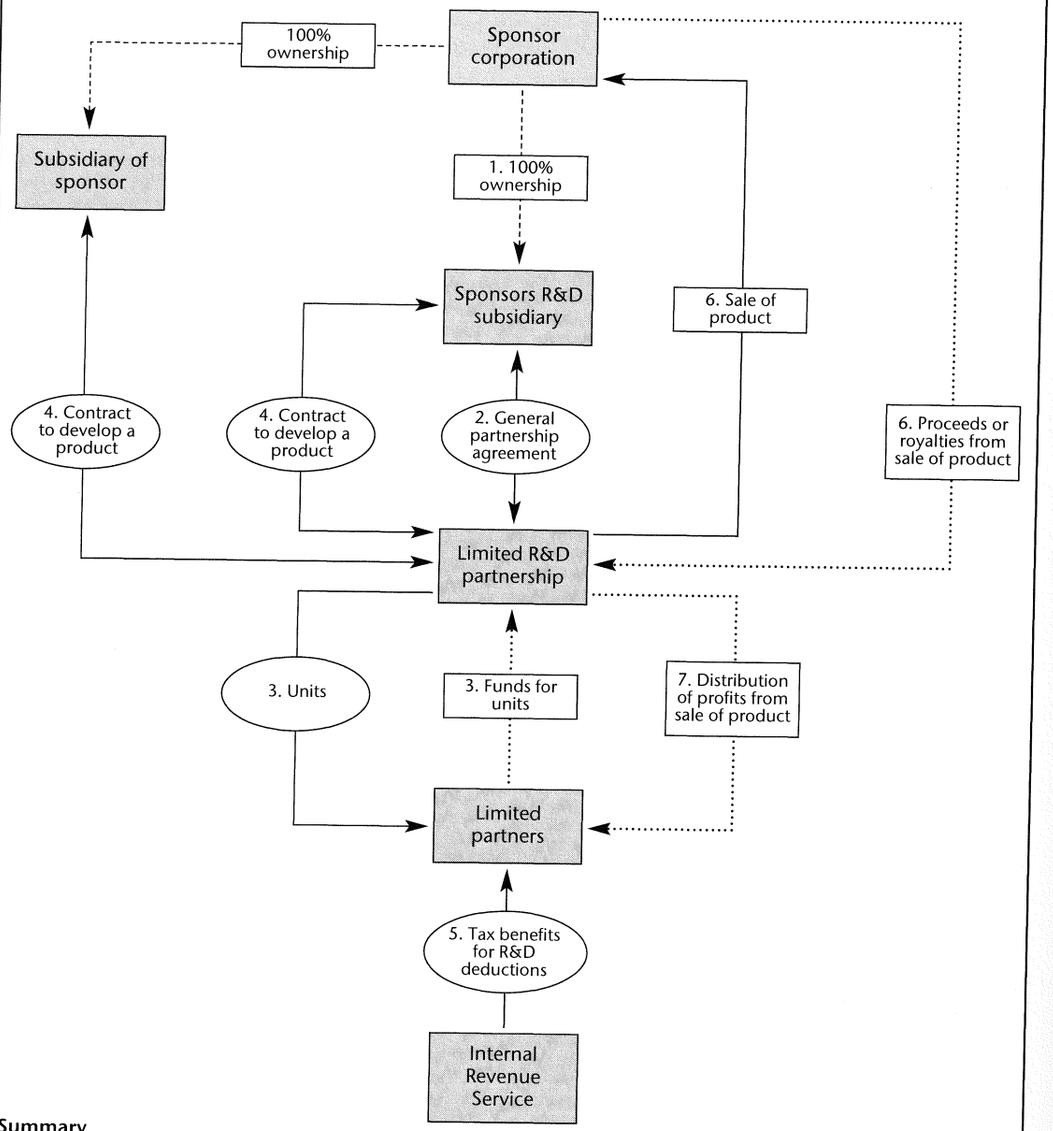
The limited partnership enters into a contract with the R&D subsidiary of the sponsor (or with some other subsidiary of the sponsor) whereby the subsidiary contracts to develop a product.

Rewards for investors

If the project is successful, the partnership (and limited partners) may be compensated in a variety of ways, which are set forth in the terms of the contracts between it and the corporation. Some of the methods used are:

a. The sponsor may have an option to purchase the exclusive rights to the products developed. Purchase price may be paid in stock or cash.
b. The sponsor and the limited partnership may enter into a joint venture to manufacture and/or market the products developed.
c. The sponsor may have an option to obtain an exclusive licence to manufacture and/or sell the new products in return for payments to the partnership in the form of royalties. The royalties may be based on:
   1. sales (either a fixed amount per unit sold or a percentage of the selling price);
   2. profits from sales of the new products; or
   3. a certain percentage of sales until the limited partners have received a specified return on their investment, after which the percentage will decrease.

Exhibit 26.12: R&D limited partnership



Summary

1. The sponsor corporation, which requires capital for research and development of some promising products, sets up a wholly owned R&D subsidiary.
2. The R&D subsidiary forms a limited partnership, in which it acts as general partner and which it manages.
3. Units are sold to limited partners and funds are paid to the partnership.
4. The partnership enters into a contract with the R&D subsidiary (or some other subsidiary of the sponsor) to develop a product.
5. Limited partners claim tax benefits for R&D deductions as they are incurred. Presently, special B & E tax credit is due to expire at the end of 1988 but may be extended.
6. The R&D subsidiary develops a product which is sold by the partnership to the sponsor or marketed by the sponsor. Proceeds or royalties are paid by the sponsor to the partnership.
7. Profits or royalties from the sale of the product are distributed to the limited partners by the partnership.

The sponsor can protect itself by making royalty payments subject to a ceiling and payable only if the corporation has a positive cash flow from manufacturing and selling the new products.

The sponsor may also have the right to purchase the exclusive rights to the basic technology and to the products developed after it has begun to pay royalties to the partnership and it may have the right to offset some or all of the royalties against the purchase price.

However, the rights and compensation paid the limited partnerships obviously have a significant effect on the attractiveness of the investment to investors.

US income tax considerations

The attractiveness of this transaction to the limited partners arises from the special provisions of Section 174 of the Internal Revenue Code, designed to encourage R&D expenditures and from the way in which partnerships are taxed. Under normal accounting rules, expenditures for research and development are usually capital costs, which must, in line with the general principle of matching income and related expenses, be amortised over some reasonable period of time. Section 174 instead allows most R&D expenditures to be deducted as they are incurred, often many years before they give rise to any associated income.

Assume the limited partnership incurs US$5 million in immediately deductible R&D expenditures during its first year of operation. If the limited partnership were a corporation, it would deduct these expenses from whatever taxable income it had and carry forward the unused deduction. However, partnerships are taxed differently. The entity itself pays no federal income taxes. Rather, its income and expenses are passed through to the partners, who report the items on their own tax returns in proportion to their ownership interests. A 1 per cent partner in a partnership which incurred expenses of US$5 million, for example, would be entitled to deduct US$50,000.

However, deductions alone are not enough to make an investment profitable. The tightening of US tax laws in recent years has made it difficult for an individual investor to deduct more money than he has at risk and limited deductions for passive expense to passive income. Therefore, individual limited partners ultimately depend upon the development of a profitable product for profits.

Royalty payments will likely be taxed as ordinary income. However, if circumstances are right, the limited partners may be able to sell the exclusive rights to the products developed in the R&D programme, so that the proceeds qualify for treatment as long-term capital gain, taxable at a maximum rate of 20 per cent. However, the Internal Revenue Service may contest attempts to characterise the profits of R&D partnerships as capital gain, on the theory that it is unfair to allow investors to deduct their expenses from ordinary income, while having their profits taxed at capital gain rates.

Every few years Congress threatens to do away with R&D partnership tax benefits, but continues to preserve them. Tax counsel should be consulted regarding the current status of the law.

Credit

The sponsor's credit is not affected by the transaction. The sponsor has only a contract to produce a product, which may or may not be successful.

Sponsor's loan covenants

The sponsor's loan covenants should not be affected, unless they are specifically drafted to prevent such a transaction.

Securities laws

Limited partnership interests are usually considered to be securities that must be issued and distributed in accordance with the provisions of the Securities Act 1933. Securities law compliance is expensive and can result in substantial liability if improperly done.

Private placements, the method by which most R&D partnerships have been sold, are often less expensive and simpler than public offerings but still require extensive disclosure documents to be prepared. Mis-statements in these documents, including omission of facts that later turn out to be significant, may give rise to liability under the securities laws. Each state has its own system of securities' regulation. Depending on the standards of local law and the state regulators' whim, it may be inordinately expensive or impossible to sell limited partnership interests in some states.

Accounting

Affiliated limited partnerships have no significant effect on the financial statements of the sponsor or its R&D subsidiary. Payments made by the R&D partnerships

do not appear as a liability or expense on the sponsor's financial statements. The US Financial Accounting Standards Board is reviewing the accounting practices of companies that raise capital through the use of affiliated limited partnerships and may decide to require fuller disclosure than at present. However, if the sponsor is not required to make payments to the limited partners, or the research is unsuccessful, it is unlikely that the arrangement will be regarded as a borrowing.

Advantages for a sponsor

1. Large amounts of capital for R&D can be obtained.
2. Expense of R&D can be moved off the income statement.
3. Better financing costs can be obtained because investors can claim their investment as a tax loss until the project becomes profitable.
4. No adverse effect upon the financial statements of the sponsor.
5. Risk of failure of research and development activities shifted to limited partners.
6. Tax benefits are used currently for a good purpose and not wasted.
7. The sponsor can retain control over the R&D project as well as control over other operations.
8. Issuing equity to raise funds for R&D would result in expanding the ownership of the enterprise, impact the earnings per share and might result in loss of control.
9. Avoids debt service requirements for future cash flow, avoids impact on debt to equity ratios and strengthens financial ratios for rating services.
10. The sponsor retains greater flexibility in dealing with the limited partnership than in a group of stockholders.
11. Access to a new source of funds.
12. Lower initial costs using debt to finance R&D.
13. Qualified research and development personnel can be hired who otherwise might be concerned about the funding and dedication of resources to research and development.

Disadvantages for a sponsor

1. Although limited partners have no legal management rights, it is not realistic to expect that investors in a limited partnership project will always agree with the general partner's actions. If the limited partners sense that development is being poorly handled, or that better opportunities are available for exploiting a developed product, they may attempt to impose their views through lawsuits, effectively throwing management into the hands of the courts.
2. The sponsor may be particularly vulnerable to attack at the point where a commercially profitable product has at last been developed. Although the corporation that formed the partnership will have an option to acquire exclusive rights to the development, the limited partners may object that the option was not negotiated at arm's length, or should for other reasons be revised. Since contracts between corporations and affiliated limited partnerships are rarely negotiated at arm's length, such arguments may receive a sympathetic judicial hearing.
3. The eventual costs of a successful R&D development will probably be higher than if the R&D had been developed with conventional financing. This is because the potential rewards offered investors must usually be substantial to attract risk capital.
4. A lot of time and expense is required to establish an R&D limited partnership.

Advantages for an investor

1. A good speculative investment with substantial upside potential in the carefully researched deal.
2. Protection of the securities laws.

Disadvantages for an investor

1. Investor must rely heavily on the good faith of the corporation in whose R&D programme they have invested. They have few means of determining on their own whether R&D funds are being used effectively.
2. There is little independent bargaining between the limited partnership and the contractor performing the research and development. Consequently, the contract may be distinctly unfavourable to the limited partners. Provisions frequently included are guaranteed profits for the contractor and limitations on the potential return of the limited partners.
3. The internal Revenue Service may challenge some of the anticipated tax benefits.
4. Risk of loss is shifted to the limited partners.

5. Contractual joint ventures

The term 'joint venture' is used in connection with project financing to describe all kinds of contractual relationships between investors in projects. Jointly owned corporations or limited liability companies are referred to as joint ventures. General partnerships and limited partnerships are called joint ventures.

Use of the term to describe corporation and partnership structures is not incorrect. However, there are contractual-type relationships called joint ventures which are neither partnerships nor corporations. Such joint venture-type agreements are used in project financing where the participants desire to minimise the duties and obligations among themselves and for each others' actions.

A joint venture closely resembles a partnership. However, the parties contract among themselves, rather than enter into a partnership agreement. One of the joint ventures with extensive experience in the type of project to be constructed and operated is typically designated the manager, with authority to act for the joint venture. In the alternative, the participants may, by agreement, appoint a corporation to act as an agent for purposes of operating the project. The best way to describe a joint venture is to note the difference between a joint venture and a partnership.

1. Partners have general agency for one another. Joint venturers do not.
2. Partners may be jointly and severally liable beyond their investment. Joint ventures are liable only to the extent of their investments and advances to the project.
3. Property of a partnership may be held in partnership name. Property of a joint venture is held as tenants in common. Each party holds an undivided interest.
4. Generally partners may sue each other on the partnership agreement only by bringing suit for an accounting (an equity action). Joint venturers may sue each other for breach of contract.
5. The joint venture often has a fairly limited purpose and life, which may be determined by the nature of the project.
6. A partnership may have a short tax year in the year of its inception. Holders of undivided interest have a full tax year.

The Alaskan pipeline project is one of the most famous joint venture arrangements. There, the participants organised a new corporation to serve as operating agent, the Alyeska Pipeline Company. The facilities are held in proportion to expected use and each of the joint venturers is responsible for financing costs of the project in proportion to its interest in the project facility.

A joint contractual venture resembles a limited partnership more than a general partnership. But there are differences in that a limited partnership must have at least one general partner. Although the party designated as the operator of a joint venture has some characteristics of a general partner, the operator does not have the broad management control nor the general liability characteristics of a general partner.

A major motivation for creation of a joint venture which is neither a partnership nor corporation is its status for US income tax purposes. Parties to a joint venture may make an election under Section 761 of the Internal Revenue Code not to report income from the joint ven-

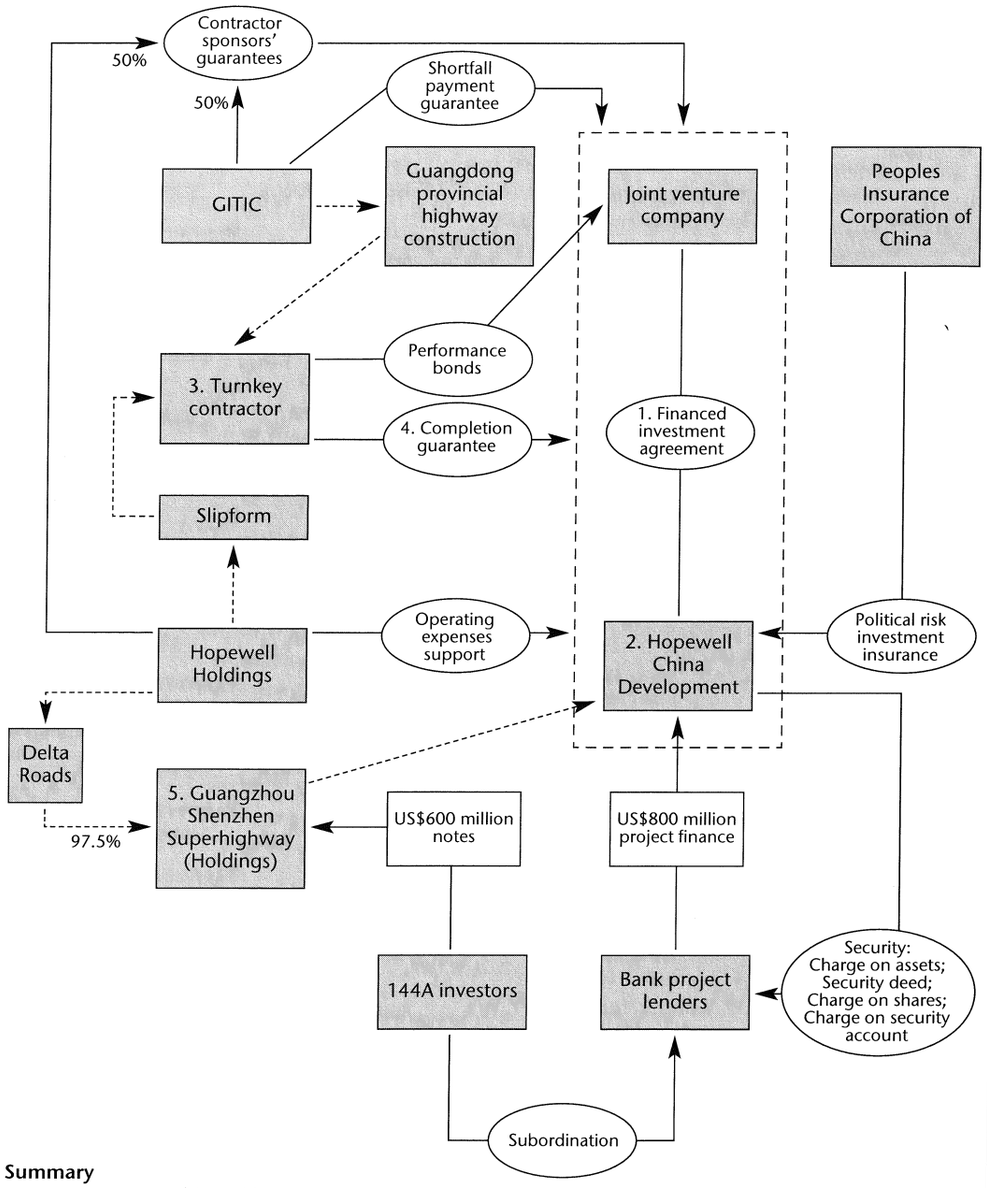
Case study: Guangzhou Shenzhen Superhighway – Contractual joint venture

Hopewell's Sir Gordon Wu spent eight years negotiating a 30-year concession for a 123km toll road from Hong Kong to Guangzhou (Canton), one of China's largest industrial cities/regions. The tollway offers a two-hour time saving compared with the old highway connection.

On the basis of a joint venture with the local provincial government, the US$800 million debt portion of this US$1.2 billion project was syndicated by Hopewell to a group of 20 banks with Hong Kong offices. The borrower, Hopewell China Development, onlent that amount to the joint venture company. As well as the contractor ownership and construction linkage, the parent companies both provide pre-completion shortfall guarantees.

With the spectacular collapse of the Chinese provincial investor, GITIC, the project was in technical default of these shortfall guarantees. However, strong traffic growth combined with real-estate developments by Hopewell at the highway's main interchanges, appear to ensure its survival. Nevertheless, the first payments to the subordinated 144A lenders are delayed.

Case study: Guangzhou Shenzhen Superhighway *continued*



Summary

1. Joint venture established between Hopewell Holdings' Chinese development arm and the provincial government's construction company.
2. Hopewell China borrows US$800 million project financing from offshore lenders.
3. Both construction companies enter into a turnkey contract.
4. Completion support is given severally by each sponsor.
5. Hopewell refinances its equity in the project through a US$600 million 144A bond, fully subordinated to the project financing.

ture as a partnership. This election is sometimes called electing out of Sub-chapter K. This election may include such things as method of depreciation or interest capitalisation and is very important in that it permits each party to the joint venture to make independent elections with respect to income and expense items in its own tax return.

A ruling on the tax status of a contractual joint venture is advisable, since a joint venture resembles an association taxable as a corporation as well as a partnership. Where members retain the right to take a share of the project produced in kind, or where any agency to sell the product is revocable, the Internal Revenue Service takes the position that the association is not taxable as a corporation because of lack of joint purpose and centralised management.

On the other hand, a foreign joint venture might be structured as an association where the owner has less than 50 per cent control, in order to attempt to avoid taxation of profits in the United States. Under Sub part F, profits of foreign subsidiaries 50 per cent-owned are taxed to a US parent even though not distributed (except shipping companies and certain finance companies).

Contractual joint ventures by their nature do not constitute legal entities which can easily borrow for their own account (except in the case of some production payment loans). Leases offer a financing vehicle well suited for joint ventures, since each joint venturer can be a co-lessee of an undivided interest in the leased asset. Joint venturers can arrange separate financing of their undivided interests in the joint venture and the joint agreement can be drawn with this type of financing in mind so as to provide collateral to lenders to the joint venturers.

Financial accounting for ownership of joint ventures follows the same rules as for ownership of corporations. More than 50 per cent control generally requires line-by-line consolidation. 50 per cent or less than 50 per cent control but more than 20 per cent control generally requires only a one-line entry of the investment in the project.

Joint ventures have been used in recent years by electric and gas utilities seeking energy sources. They have also been used extensively in developing and operating mines. Joint ventures are used in development of oil and gas production, but other forms of ownership are more favoured in that industry, primarily for tax reasons. As noted earlier, the term joint venture is used to describe partnership and jointly owned corporations. There are 'joint ventures' and 'joint ventures'. It is important to keep the distinction in mind when discussing project financing.

(a) Joint venture supplier financed by advances of each joint venturer

A contractual joint venture (not a formal partnership or a corporation) constructs and operates a facility to provide a product or service to members of the joint venture. The project is financed by capital advances and operating advances for each joint venturer. The project is owned as tenants in common. Capital expenditures and operating expenses are shared in proportion to ownership. Liability of each joint venturer is limited to investment.

The obligations of the parties to the joint venture are set forth in an operating agreement. If one does not pay its share of expenses, its share is forfeited to other parties or may be sold to a new venturer. Other venturers are often required to assume obligations of a defaulted venturer in proportion to their investment. Voting may be done on the basis of majority in interest and majority in number. Changes in the operating agreement may require more than a majority vote. Typical projects include LNG plants and facilities, coal gasification plants, pipelines, mines and electrical generating plants.

Rate base

Where a sponsor.is a public utility and the project is to assure a source of supply, its direct investment may usually be included in the sponsor's rate base.

Income tax

Expense and income flow back to sponsors.

Credit support

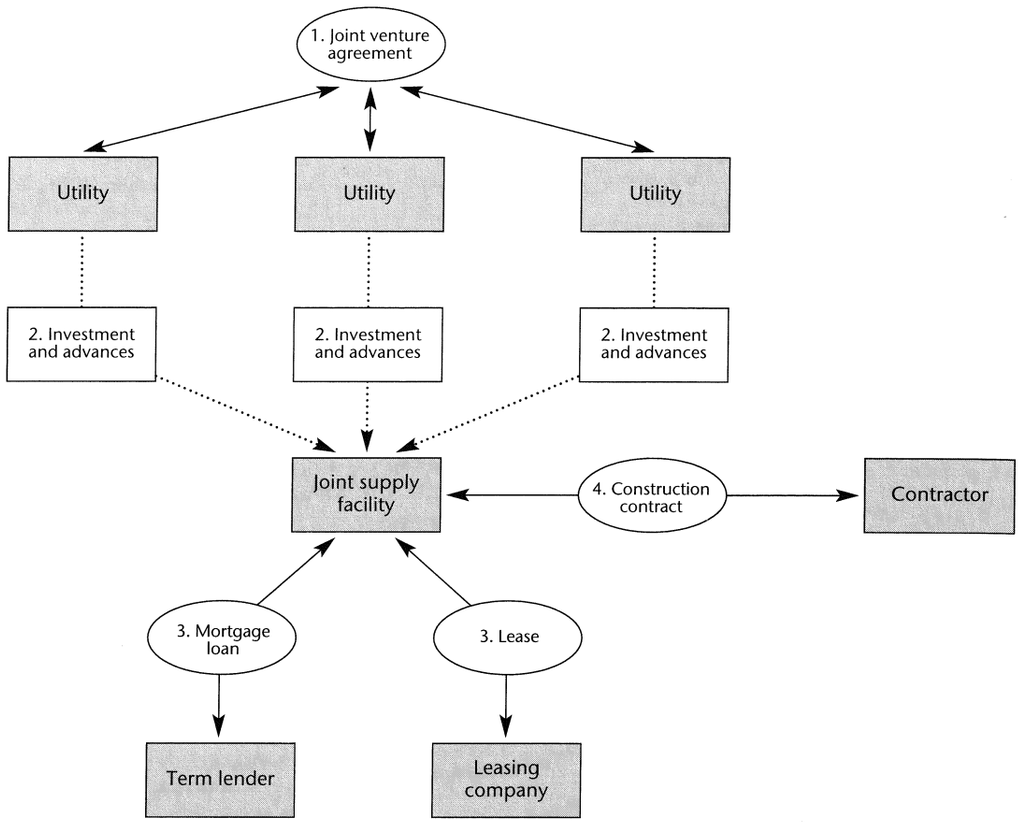
Credit of each joint venturer and their undertakings in the operating agreement.

Individual venturers may borrow using their interests in the joint venture as a pledged security for the loan. In the event of default by the borrower, the lender may step into the shoes of the borrower.

Debt rate

Funds are advanced by each joint venturer as needed. Debt cost for such funds is the debt rate for joint venturer. This results in the lowest possible cost of funds

Exhibit 26.13: Joint venture electric generator



Summary

1. Three utilities agree to form a joint venture to build and operate an electricity generating facility, whereby each party will hold title to an undivided interest in the facility.
2. Each of the utilities purchases stock and makes subordinated loans to the joint supply facility in accordance with their agreement.
3. On the basis of the capital contributions, a lien on certain assets of the joint venture and prospects for the jointly formed company, construction loans, and long-term debt to take out the construction loans or a lease to take out the construction loans are arranged.
4. The operating manager of the joint supply facility arranges for the construction of the facility; thereafter, the joint venture operates as an independent company arranging its own financing as needed.

for each of the joint venturers. However, the joint venture itself might borrow on a secured basis or lease. In such instances, the lender or leasing company will lend or lease on the basis of the collateral, the joint obligations of the joint venturers and the importance of the project to the joint venturers.

Balance sheet

Investment, debt and liability are on the balance sheet of each sponsor to extent of exposure.

Loan covenants

The liability of each sponsor is counted as debt for purposes of the sponsor's debt equity ratios, as loan restrictions, etc.

Advantages

1. Each joint venturer enjoys the benefits and economies of a large facility, and an assured source of supply which would not be feasible for the utility to finance alone.

2. Off-balance sheet and outside loan covenants as to the portion of a loan or lease to weak credits in the joint venture.
3. Economies of a large-scale project may be achieved by combining and concentrating financial resources and technical skills of several venturers.
4. An essential facility is built without the sponsor participant being required to pay the entire cost of the project.
5. The borrowing cost may be lower.

Disadvantage

1. Lack of absolute control over the facility.

(b) Exploration, development and/or operation of a mine under a joint venture operating agreement

Several parties who can use the production of a mine enter into a joint venture to develop and operate a mining property. They construct and operate the mine under an operating agreement which typically contains the following provisions:

1. The operating agreement defines a particular scope of activity to be carried out by the joint venturers and limits the activity to a particular area.
2. Title to the property is generally held by the parties as tenants in common. Each of the parties has an undivided interest in the project and in all mineral interests subject to the operating agreement. Each party makes capital advances and operating advances to the project as needed to carry on the activity of the project in proportion to its respective interest.
3. One party is designated the operator of the project. The operator has day-to-day management responsibility for the project and work plans approved by the parties. Major policy decisions are made by a committee composed of representatives of all the parties. The committee approves work plans for proposed new undertakings of the joint venture. The committee approves all major expenditures. The approval of a new work plan or major expenditure may require a majority in number as well as majority in interest of members of the committee.
4. Each party to the agreement shares in the production of the project in kind in proportion to its interest in the project. Generally, each party uses the production. However, arrangements may be made for other disposition.
5. In the event a party fails to provide its allocable contribution, the agreement may provide various remedies, including complete forfeiture, forfeiture of project until sufficient produce is sold to cover the deficiency and sale or assignment of the interest of the defaulting party to a third party.

Typical projects include exploration, development and operation of a mine.

Income tax

Parties make an election under Section 761 of the Internal Revenue Code not to report income from the joint venture as a partnership. This permits each joint venturer to make independent income tax elections with respect to its respective share of income and expense items in its own tax return. A ruling on the tax status of the joint venture is advisable since a joint venture resembles an association taxable as a corporation as well as a partnership.

Credit support

Credit of each joint venturer and its undertakings in the operating agreement. A party to the joint venture may borrow using its interest in the joint venture as pledged security for the loan. In the event of default by the borrower, the lender may step into the shoes of the borrower.

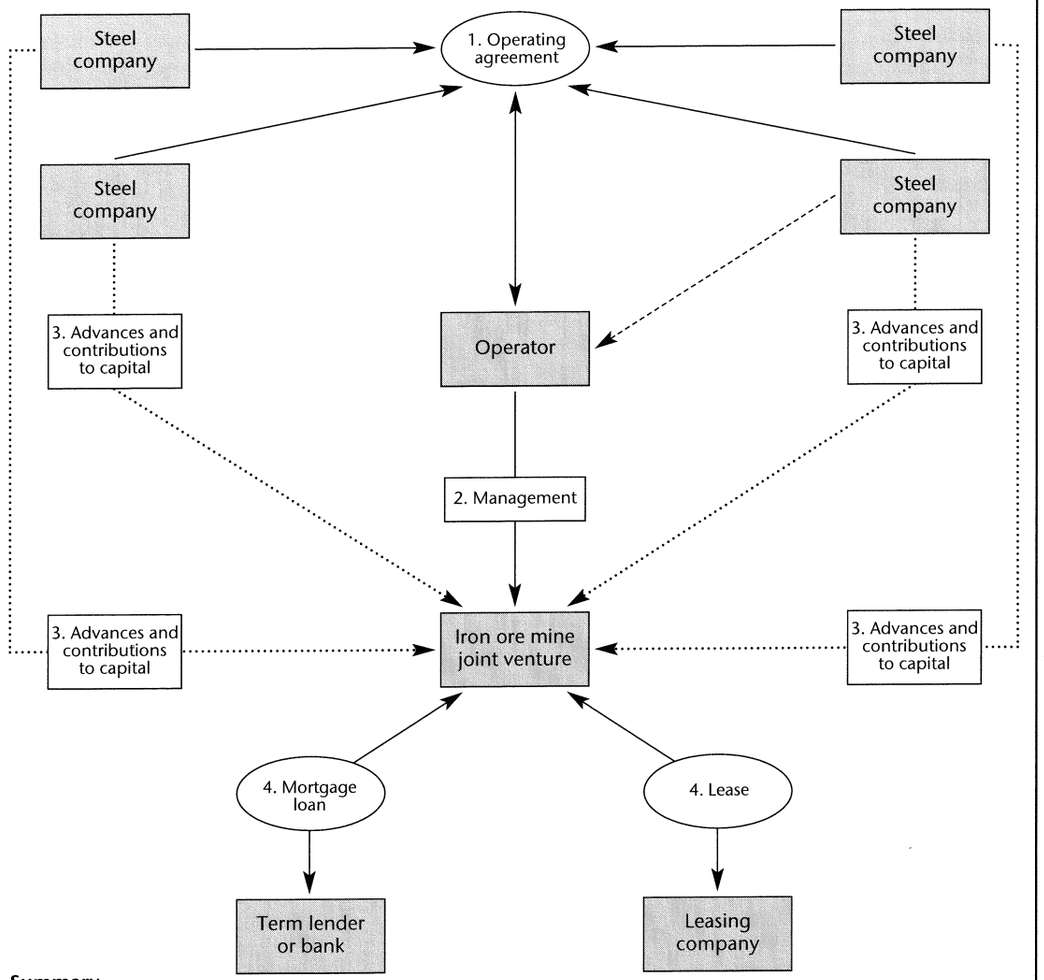
Debt rate

Funds are advanced by each joint venturer as needed. Debt cost for such funds is the debt rate for each joint venturer. This results in the lowest possible cost of funds for each of the joint venturers. However, the joint venture itself might borrow on a secured basis or a lease. In such instances, the lender or leasing company will lend or lease on the basis of the collateral, the obligations of the joint venturers and the importance of the project to the joint venturers.

Balance sheet

Investment, debt and liability are on the balance sheet of each sponsor to the extent of exposure. If a party owns and controls over 50 per cent of a joint venture, a line-by-line consolidation may be appropriate. If voting is on the basis of both a majority of parties and a

Exhibit 26.14: Joint venture mine



Summary

1. Four steel companies enter into an operating agreement to operate a mine as a joint venture in which each steel company owns an undivided interest in the mine properties.
2. One of the steel companies is designated the operator in charge of day-to-day management of the mine.
3. Advances and contributions to capital are made to the joint venture operation by the steel companies as needed and in accordance with the terms of the operating agreement. Each steel company arranges the financing of its contribution.
4. A secured mortgage loan or a lease may be possible by the joint venture based on the security of the assets involved, the obligations of the joint venturers to support the project and the importance of the project to the joint venturers.

majority of investment, mere ownership of more than 50 per cent may not require consolidation.

Loan covenants

The liability of each venturer is counted as debt for debt-equity ratios and as loans for loan restrictions. Borrowings of a joint venture less than 50 per cent-owned by a party are probably not included.

Advantages

1. Availability of the right either to file a partnership return or to elect under Section 761 of the Internal Revenue Code not to file a partnership return, thus preserving for each joint venturer the right to make income tax elections.
2. Off-balance sheet and outside loan covenants as to the portion of the loan or lease to other credits in the joint venturer.
3. Economies of a large-scale project are achieved by combining and concentrating financial resources and technical skills.
4. An essential facility is built without the sponsor-participant being required to pay the entire cost of the project.

Disadvantage

1. Lack of absolute control over the facility.

(c) Lease by a utility of an undivided interest in a co-generation facility to be operated as a joint venture

A utility, a tyre company and a chemical company join together in a joint venture to finance and operate a co-generation facility. The utility company needs electricity. The tyre company and the chemical company primarily need steam. The tyre company and the chemical company both enjoy a higher debt rating than the utility. Therefore, the tyre company and the chemical company are reluctant to have the project finance itself with debt or with a lease. Under the agreement between the parties, each party agrees to provide one-third of the cost of the facility. Each party is to have an undivided one-third interest in the facility.

The chemical company provides its US$100 million from internally-generated funds and proceeds from past debt issues. The tyre company finances its US$100 million investment by providing US$30 million internally generated funds and borrowing US$70 million from lenders on the basis of the security of its undivided one-third interest in the project. The tyre company can make use of the tax benefits. The debt market will accept a one-third undivided interest in the project as acceptable collateral for its US$70 million debt placement.

The utility cannot currently use the tax benefits. Therefore, the utility uses a third party leasing company to provide the financing of its US$100 million interest in the joint venture. The lease runs from the third party leasing company to the utility.

Credit support

The value of the one-third undivided interest of the project plus the general credit of the utility provide the credit support of the lease transaction. The credit support for the loan to the tyre company consists of the collateral value of the one-third undivided interest in the project facility, plus the lenders' appraisal of the support the tyre company will provide the project.

Lease and debt rate

The lease rate will reflect the value of the one-third undivided interest in the project facility, plus the general credit standing of the utility lessee. In the case of the tyre company, the debt rate will be determined by the value of the one-third undivided interest in the project facility plus the value the lenders place upon the likelihood the tyre company will support the debt.

Balance sheet

The lease will probably show as a capital lease on the balance sheet of the utility. The debt will probably show as a liability on the balance sheet of the tyre company, even though secured.

Loan covenants

Since the lease will probably be classified as a capital lease, the lease may also be counted as debt for purposes of loan covenants of the utility. Since the debt is secured, the debt might not be counted as debt under the loan covenants of the tyre company.

Income tax

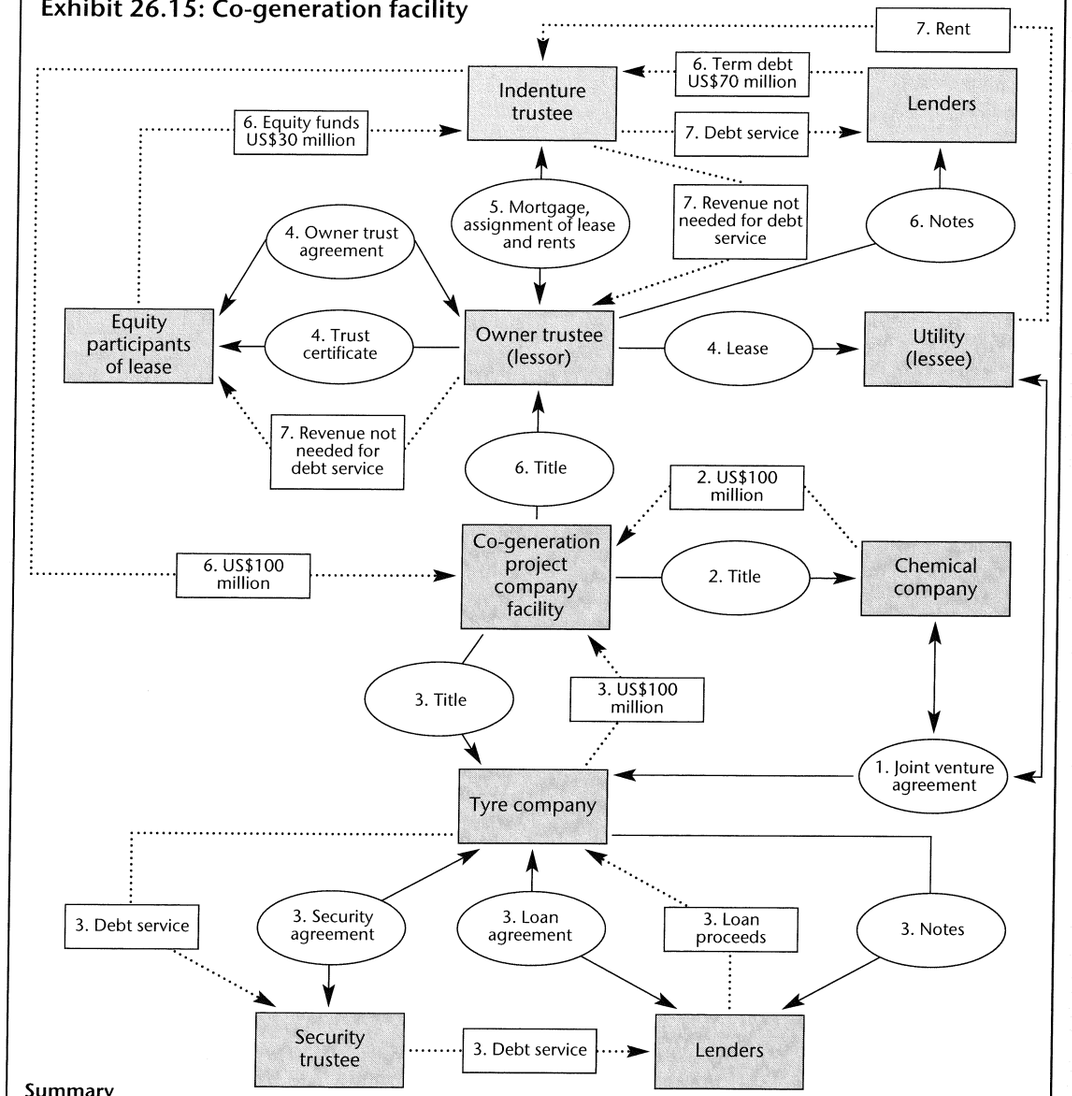
The lessor can claim interest and depreciation deductions. The agreements between the joint venture parties must be structured to permit the lease to qualify as a true lease, particularly on residual value. The Internal Revenue Service may challenge the lease of an undivided interest. The tyre company and chemical company can claim tax benefits from depreciation and interest deductions.

In the year of inception, each of the holders of an undivided interest has a full tax year. (This would not be true in a partnership and might result in loss oftax benefits from a partial tax year.)

Variations

The same structure can be used for many joint ven-

Exhibit 26.15: Co-generation facility



Summary

1. A chemical company, a tyre company and a utility enter into a joint venture agreement whereby each will hold an undivided one-third interest in a co-generation facility.
2. The chemical company contributes its capital to the co-generation facility from general corporate funds.
3. The tyre company finances its contribution to the co-generation facility by arranging a secured loan in which its undivided interest in the co-generation facility is pledged as security.
4. The utility finances its contribution to the co-generation facility through a leveraged lease, owner or equity participants establish an owner trustee which, in turn, enters into a lease with the utility for the one-third undivided interest in the co-generation facility.
5. A mortgage on the undivided interest, and the lease and rentals under the lease, are assigned as security to an indenture trustee for the benefit of lenders under the leveraged lease.
6. The owner trustee issues notes to the lenders who pay the loan proceeds to the indenture trustee, in the meantime, the equity participants have provided equity funds to the indenture trustee. The indenture trustee purchases the undivided one-third interest in the co-generation facility, with title passing to the owner trustee.
7. Rental payments are made by the utility to the indenture trustee which services the debt and pays revenue not needed for debt service to the owner trustee, which in turn passes through unneeded revenue to the equity participants.

tures such as mines, processing plants or transportation facilities.

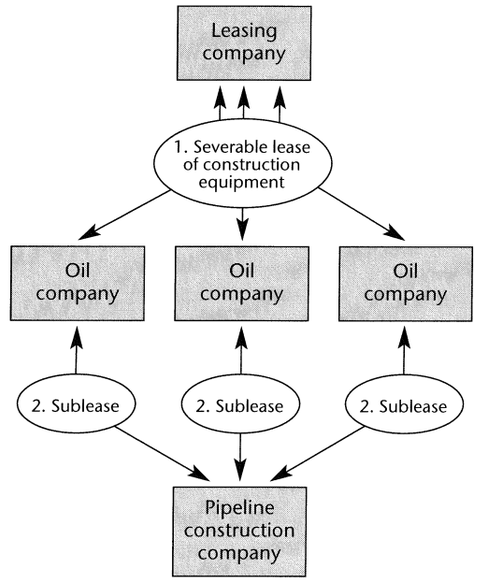
Advantages

1. Two of the three sponsors end up with control of the key asset of the project at the end of the true lease with the third sponsor.
2. Off-balance sheet and outside loan covenants as to the portion of capital contributed by other sponsors to the project.
3. The economies of a large-scale operation may be achieved by combining and concentrating the financial resources and technical skills of several sponsors.
4. An essential facility is built without any one sponsor being required to pay the entire cost of the project or assume the entire risks of the project.
5. Each borrower goes to the debt market separately and gains the advantage of his respective credit standing and debt rate.

Disadvantage

1. Lack of absolute control over facility.

Exhibit 26.16: Joint venture with severable lease



Summary

1. Three oil companies enter into a severable lease of construction equipment, with each oil company leasing an undivided one-third interest in each piece of equipment.
2. Each of the oil companies, in turn, sub-leases its undivided one-third interest in the equipment to a pipeline construction company which is building a pipeline the oil companies will need and use.

(d) Sponsor-owned joint venture supplier financed by sponsor's severable lease

A joint venture project is financed with a lease to the joint venturers in which they are each only liable to the extent of their interest in the project. However, a default by one party in its share of the rent would place the entire lease in default. Typical projects include a pipeline, refinery, reforming facility, or mine.

Rate base

If the lease is a capital lease, the related asset might be included in the rate base of a public utility sponsor.

Income tax

Depreciation deductions are claimed by the lessor.

Debt rate

The lease rate is determined in relation to the debt for each lessee and the likelihood other venturers will assume obligations of a venturer which becomes insolvent. Weak co-venturers adversely affect the lease rate and viability of the transaction. Where subsidiaries of strong credits are the joint venturers, the debt rate can be improved by arranging the lease directly with the parent companies which, in turn, sub-lease to their respective subsidiaries.

Sponsor's balance sheet and loan covenants

Each joint venturer reports its severable lease obligation the same as a net lease in the amount of the severable obligation. Leases of construction equipment can often be structured as operating leases. The sponsor's loan covenants are treated as a lease to the extent of the severable obligations of each sponsor.

Variation

A leveraged lease using commercial paper as debt has been proposed for a relatively short-term lease of construction equipment for building a pipeline.

Advantages

1. Off-balance sheet if structured as an operating lease.
2. Off-balance sheet and outside loan covenants on the portion of the loan or lease to weak credits in the joint venture.
3. Capital is preserved for other uses.
4. Economies of a large-scale project are achieved by combining and concentrating financial resources and technical skills.
5. An essential facility is built without any one sponsor-participant being required to pay the entire cost of the project.
6. Costs are segregated for rate-making purposes.

Disadvantages

1. Somewhat higher borrowing cost and lack of absolute control.
2. Possibility that necessity may force credit support of weaker parties to the joint venture.

(e) Sponsor-owned joint venture supplier with one or more weak sponsors financed by loan or lease

Where one or more companies with excellent credit are parties to a joint venture with other parties whose credit is weak, lenders or lessors may be convinced that the nature of the project and its importance to the strong venturers is such that the strong venturers cannot afford to abandon the project, but will be compelled to support the obligations of the parties whose credit is weak if any such parties are unable to meet their obligations.

This type of contingent liability is not reflected on the balance sheet of the strong credit supporting the transaction. An example might be a project to build a pipeline or facility by a joint venture whose members are several strong oil or gas companies and a construction company with limited capital. Lenders would probably be satisfied to lend to such a joint venture company on the basis that the oil and gas companies were indirectly liable regardless of the terms of the joint venture agreement.

Another example might be a mine operated by a joint venture made up of several parties who are strong credits and one or two parties who are weak credits. If the strong credits required the production of the mine and if the ore was attractively priced as compared to alternative sources for the strong credits, a lender would probably feel comfortable lending to the joint venture.

Advantages to strong sponsor

1. Off-balance sheet as to the portion of the loan or lease to weak credits.
2. Outside loan covenants as to the portion of the loan or lease to weak credits.
3. An essential facility built without the sponsor-participant being required to pay the entire cost of the project.
4. Costs segregated for rate-making purposes.

Disadvantage

1. Higher borrowing cost.
2. Lack of absolute control over the facility.

(f) Sale of appreciated equipment to a joint venture which finances the purchase with non-recourse debt

The owner of an offshore oil rig which has appreciated in value desires to form a joint venture with a foreign investor located in the host country near which the rig is working. The owner forms a joint venture with the host country investor to own and operate the rig. The offshore rig company then enters into a long-term agreement with the joint venture whereby the rig company agrees to operate the rig under a management contract for the joint venture. If possible, the rig is placed under charter to an oil company for a term of years. The joint venture arranges a loan to purchase the rig which is secured by a first mortgage on the rig, together with an assignment of the charter revenues, net of operating costs. Proceeds from the loan, together with contributions to capital by the joint venturers, are then used to purchase the rig from the offshore rig company for its fair market value. Typical projects include an oil rig or any appreciated asset to be acquired by a joint venture to which the owner of the equipment is a party.

Income tax

The owner will realise a capital gain on the proceeds from the sale of one-half of the value of the rig less basis. The debt rate on the loan used to finance the purchase of the rig is a function of the credit of the joint venture, the value of the asset and the value of the charter.

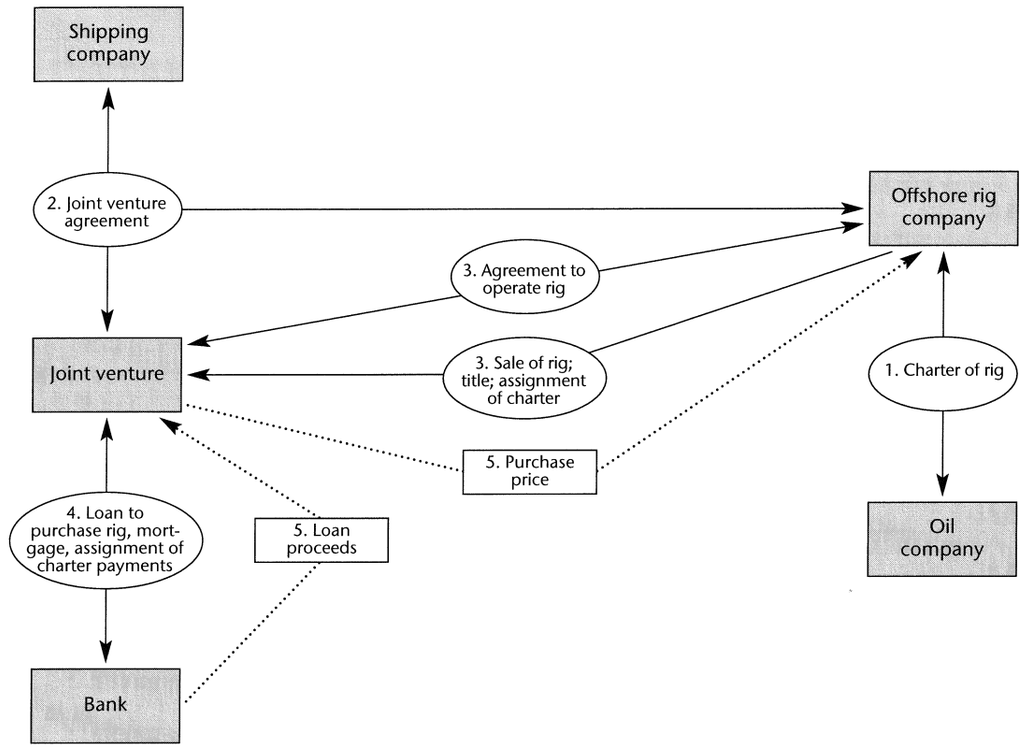
Balance sheet

From the standpoint of the offshore rig company, cash will be realised from the sale price and any existing indebtedness on the rig will be paid off and removed from the balance sheet. Whether or not the debt of the joint venture will be shown on the balance sheet of the rig company will depend upon an interpretation of whether the rig company controls the joint venture for financial accounting purposes.

Variation

The loan by the bank is on a non-recourse basis to the joint venture or, in the further alternative, to the joint venturers.

Exhibit 26.17: Sale of appreciated equipment to a joint venture



Summary

1. An offshore rig company owns a rig which is on charter for a significant period of time to an oil company. The value of the rig is substantially in excess of the rig company's book value.
2. The rig company enters into a 50-50 joint venture agreement with a shipping company to own and operate the rig.
3. The rig company enters into an agreement with the joint venture for the sale of the rig, subject to the charter and an assignment of the charter. The joint venture entity and the rig company enter into an agreement whereby the rig company will operate the rig for fees for a number of years at least equal to the term of the charter.
4. The joint venture arranges a loan to purchase the rig and secures the loan by a first mortgage on the rig and an assignment of the charter payments.
5. The loan proceeds are paid to the joint venture. The loan proceeds and capital contributions by the two joint venturers are used to pay the purchase price to the rig company.

Advantages

1. The rig company cashes out a portion of the appreciated value of the rig, thus raising capital for other needs.
2. The rig company retains the profits from the operating agreement.
3. Political pressure from the host company for local participation in the development of its natural resources is solved.

Disadvantage

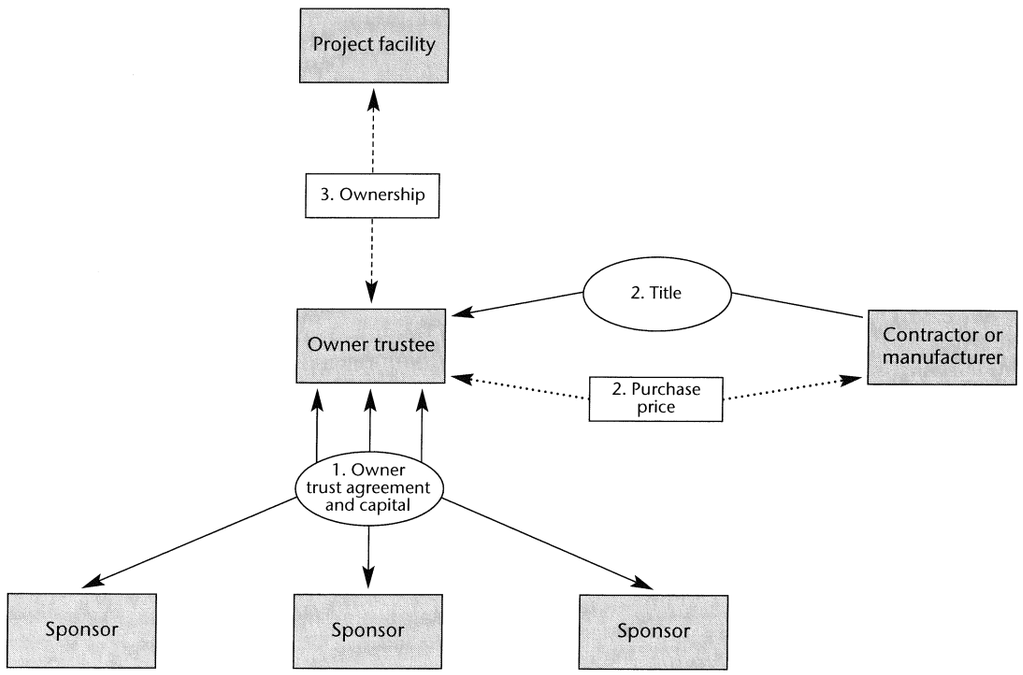
1. Loss of complete ownership and control of the rig.

6. Trusts

A trust, called a construction trust, can be used to hold title to a project during construction. Such a trust can be used for either a jointly owned or solely owned facility. An independent, nominally capitalised corporation, or a financial institution, would act as trustee. The trustee has limited discretionary authority. In such a situation the trust borrows short term to finance construction against an unconditional take out guarantee of the sponsors of the project or the take out guarantee of long-term lenders, which are in turn guaranteed by the sponsors. Guarantees by the sponsors of the short-term debt of the trust to finance construction may also be necessary. Interest incurred by the trust during construction may often be capitalised into the cost of the project. Depending on the objectives of the parties, construction trusts may sometimes be structured so as to be on- or off balance sheet for financial accounting on regulatory purposes. Construction intermediaries are discussed in Chapter 26.

A trust is also sometimes used to hold title to either a jointly owned project facility or a solely owned project facility. The trust, in turn, leases the facility to the project operator. The trustee has limited discretionary powers and is, typically, a financial institution otherwise independent from the transaction. Rents are usually guaranteed by the user, the user's parents, some responsible credit, or supported by an unconditional take-or-pay contract. The trust files a partnership income tax return and the beneficial owners of the trust, called owner participants, can claim tax benefits of ownership if the lease is a true lease for tax purposes. The owner participants may be third leasing companies, or may be the sponsors directly interested in the project. A second trust may be established to issue debt certificates secured by a lien held by the trustee for the benefit of the lenders. Trusts are discussed in more detail in connection with examples of project financings which make use of leases (see Chapters 14 and 15).

Exhibit 26.18: Use of owner trust to hold title to project facility



Summary

1. Three sponsors enter into an owner trust agreement establishing an owner trust to hold title to certain property to be acquired by the trust. The three sponsors contribute capital to the trust.
2. The trustee pays the purchase price for the property and takes title to the property.
3. The owner trustee owns the project facility under the trust agreement.

(a) Example of a project facility owned through a trust

One or more sponsors desire to own a facility in a certain state but are not qualified to do business there and do not wish to qualify in that state. Therefore, the sponsors establish and capitalise a trust to purchase and to hold title to the project property for their benefit. Income tax is payable on income from the project reported by the sponsors on a partnership return.

Credit and debt rate

Sponsors and the security of the project itself. The debt rate is a reflection of the sponsors' credit and the value of the collateral.

Sponsors' balance sheet and loan covenants

Shown as owners of the project to the extent of their respective interests, the same as a partnership. Debt to finance the project is shown as debt unless borrowed by the trust on a non-recourse basis. Loan covenants are affected to the extent that debt is borrowed by the sponsors.

Variation

Leveraged non-recourse debt backed by a take-or-pay contract and the value of the project properties.

Advantages

1. Joint ownership of a project can be accomplished without a formal partnership agreement.
2. The benefits of a partnership income tax return are obtained.
3. The sponsors may avoid having to qualify or do business in the state where the project is located.

Disadvantage

1. Dealing through a nominal trust is sometimes complex and cumbersome.

7. Debt ratings for jointly owned projects where liability is joint, several, or both

Examples of a probable range of debt ratings for jointly owned projects where liability is joint, several, or both joint and several are:

Contract liability	*Interest and ratings of parties*	*Probable range of project rating*
Joint and several	50% A; and 50% A	A to AA
Several	50% A; and 50% A	A to Baa
Joint and several	75%A; and 25% A	A to AA
Joint and several	50%AA; and 50% A	AA
Several	50%AA; and 50% A	A
Joint and several	10%AA; and 90% A	AA
Joint and several	10% AA; and 40% A; 10% Ba; 20% Baa and 20% unrated	AA

Bond rating grades are as discussed in Chapter 8.

Notes and references

1. Amended T. D. 7515, 42 Fed. Reg. 55612 (1977).

Guarantees

The objective of many project financings is to combine and amalgamate various kinds of guarantees and undertakings from various interested parties so that the financial burden or risk of any one party will not be onerous, but the combined guarantees and undertakings of all the parties will be a bankable credit.

Guarantees are the life-blood of most project financings because project companies have high debt to equity ratios. Guarantees enable promoters to shift the financial risk of a project to one or more third parties. They permit off-balance sheet financing. They provide a basis for shifting certain risks inherent in a project financing transaction to interested parties who have no desire either to become directly involved in the operation of the project, or to directly provide the capital for the project. By assuming the commercial risks of a project financing through a guarantee rather than a loan or contribution to capital, a third-party guarantor sponsor keeps the guaranteed liability off-balance sheet as a direct liability, while achieving its objective of getting the project built. However, the term guarantee may be as broad, or as limited, as the needs of the transaction dictate.

Direct and indirect guarantees will be noted by the rating services – particularly where the guarantees are substantial and where ratios and interest coverage may be affected – as will positive cash flows and benefits which may result from the project.

While guarantees are essential to project financing, guarantees can give lenders a false sense of security. Lenders cannot assume that guarantees will be easy to enforce. Credit judgements depend on the integrity and financial standing of the guarantors. A guarantor seeking to avoid payment has many defences and a lender must take special pains to preserve its rights against the guarantor. A lender should not waive any of its rights against the borrower without the guarantor's consent. The guarantee agreement should not require exhaustion of all remedies by a lender against a borrower before the guarantee can be enforced. The guarantee agreement should have clear triggers for enforcement.

1. Guarantors

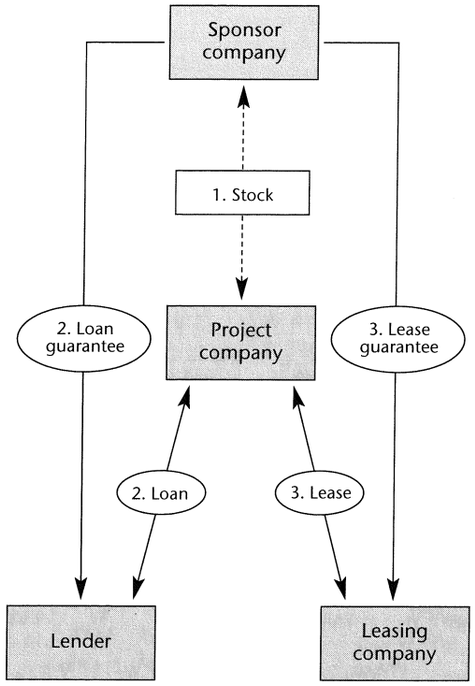
(a) Owner guarantors

The obvious guarantor of a project financing transaction is the owner of the project. In some project financing situations, an under-capitalised subsidiary, special purpose entity or special purpose corporation is set up to own and operate a project which has insufficient capital or operating history to support borrowings on the merits of its own credit standing. Therefore, lenders must be provided with a guarantee from a satisfactory credit. This means the parent must provide the guarantee, unless the circumstances of the project make it possible for the parent to substitute a satisfactory third-party guarantor. Where a parent company guarantees debt of a controlled subsidiary, the debt will appear on its consolidated balance sheet. However, there are contingent and indirect guarantees and undertakings that the owner may assume, with less impact on its financial statements. These, combined with guarantees of other parties, can result in the debt of the project company being acceptable to lenders. Furthermore, with proper structuring, such debt may be off-balance sheet for the parent or sponsor.

(b) Third-party guarantors

third-party guarantees are attractive to owners or sponsors who are not guarantors because they permit the sponsor or owner of the project in many instances to keep a liability off-balance sheet and outside loan

Exhibit 27.1: Project company supported by owner sponsor's guarantee



Summary

1. Sponsor company establishes a thinly capitalised special purpose company to own and operate a project.
2. Sponsor company provides direct and indirect guarantees for loans to the project company.
3. Sponsor company provides direct and indirect guarantees for leases to the project company.

restrictions. Third-party guarantors nearly always receive direct or indirect benefits from a transaction as motivation for their undertaking. To some degree, any guarantor is a sponsor.

(i) Candidates for third-party guarantors

Third-party guarantors generally may be divided into five groups: suppliers, sellers, users, contractors and interested government agencies.

Suppliers

A supplier may see a need for his product, provided further processing is performed on the product. Therefore, a supplier may be motivated to provide a guarantee, if necessary, to a third-party owner and/or operator of the project in order to get a processing plant constructed and operating.

In another instance, the supplier may see the market for its product disappearing because the user of its product is unable to compete without drastic modification or remodelling of its processing facilities. Again, the supplier might be motivated to provide a guarantee in order to bring these changes about and to preserve its market.

Sellers

A seller may have plant or equipment surplus to its needs, with little prospect of selling the plant or equipment except to an under-capitalised company which the seller feels has good prospects. In such circumstances, a guarantee by the seller may be necessary to enable the purchaser to obtain financing. The seller realises cash. The purchaser achieves a project financing. A leveraged buyout of a division by its employees is one example of such a financing.

Users

The user of a product or a potential project may be motivated to financially aid or guarantee debt required to finance the project in order to get the project built and ensure a needed supply. The same situation would be present where transportation needs are required by a user who is motivated to provide credit support for transportation of a product in or out of its facilities.

Contractors

Contractors are interested in getting projects built because they are in the construction business. For some types of projects, such as mines, they also may hope to be the operator. The prospect of this business may induce them to assume unusual risks and guarantees regarding construction of the facility and its operation.

Interested government agencies

Government guarantees may be necessary in order to finance a project. As a matter of fact, government guarantees are the mother's milk of supplier financing in international projects. The nature of the economic and political risks may be such that guarantees are simply not available from other sources.

Guanxi

In the People's Republic of China, *guanxi,* or reliance on personal connections with China's leadership has been the safety net for many international investments in China. In recent years these types of assurances have been less reliable.

(ii) Objectives of third-party guarantors

Governments and international agencies are motivated by economic, political and social needs of the exporting country or user country. Private companies profit by:

(i) Construction of a project, such as a dock, storage facility, railroad or pipeline, which is needed in connection with a guarantor's or sponsor's existing operations, even though owned by a third-party.
(ii) Assuring a source of supply of petroleum, gas, electricity, ore, semi-manufactured goods, or agricultural products. This type of guarantee is described in more detail later in this chapter.
(iii) Selling a product to be used in the project.
(iv) Selling a service in connection with the construction of the project.
(v) Selling a service or product to the project after completion.
(vi) Acquiring an equity interest in the project.
(vii) Construction of the project as a contractor.
(viii) Operating a project after completion.

(iii) Typical third-party guarantors

Third-party guarantors include the following:

(i) US and foreign manufacturers of products to be used in the project.
(ii) Users of products or services to be produced or provided by the project.
(iii) Suppliers of services or products to be used in the project.
(iv) Contractors which will build and/or operate the project.
(v) An agency of the US government interested in getting a project built.
(vi) An agency or agencies of the host government interested in getting the project built, including the central bank.
(vii) An agency of a state government interested in getting the project built.
(viii) Foreign government export agencies and national interest agencies supporting exports of products to be used in the project.
(ix) The World Bank.
(x) Area development banks:
  (a) African Development Bank.
  (b) Asian Development Bank.
  (c) Inter-American Development Bank.
(xi) EBRD.

(iv) Commercial guarantors

Commercial guarantors provide guarantees for a fee and include:

- banks;
- insurance companies; and
- investment companies.

(a) Banks – letters of credit

Bank guarantees usually take the form of letters of credit. They may be used to guarantee the loan of an under-capitalised project company, where a responsible sponsor guarantees the bank against loss on its letter of credit. The fee for a letter of credit is a function of the administrative costs and the net loan spread the bank would expect to realise from lending to the sponsor. The bank is merely a conduit of the credit of the sponsor which, for one reason or another, does not wish to provide a direct guarantee. In recent years US banks have been less competitive in writing letters of credit due to Federal Reserve characterisation of such guarantees as loans. Japanese banks, on the other hand, have been excellent sources for letters of credit at competitive prices. For example, the cost of borrowing using the letter of credit may be less than the cost of borrowing with a guarantee of the sponsor. However, recently defined capital adequacy requirements for US banks, Japanese banks and European banks will tend to reduce availability and increase the price in the future.

There are two basic types of letters of credit provided by banks:

- commercial letters of credit; and
- standby letters of credit.

Commercial letters of credit are intimately related to a specific movement of goods. Standby letters of credit, on the other hand, serve as security devices. This discussion is concerned with the use of standby letters of credit in project financing situations.

Standby letters of credit (also called standby LCs) differ from actual guarantees, but serve similar functions. Standby letters of credit are frequently used as performance bonds and as backstops for corporations issuance of commercial paper.

An important difference between the commercial and the standby credit is that standby letters of credit are not expected to be drawn upon. The newer forms of standby letters of credit possess risk characteristics – tenor in particular – that differ substantially from those for which the instrument was designed. Such undertakings have the potential of converting to direct loans to the party on whose behalf they are issued.

The US Comptroller of the Currency has established five standards as sound banking practices for US banks in issuing letters of credit and as a means of distinguishing them from guarantees:

1. Each letter of credit should be conspicuously entitled as such.
2. The credit should have an expiration date.
3. The bank's undertaking should be limited in amount.
4. The bank's obligation to pay should only be on the presentation of specified documents and should not involve the bank in disputes of fact or law between the account party and the beneficiary.
5. The customer should have an unqualified obligation to reimburse the bank for moneys paid under the credit.

Since banks providing standby letters of credit do not expect them to be drawn against, banks sometimes consider standby letters of credit to be contingent liabilities. Since fees are earned by banks without using assets, issuing standby letters of credit improves a bank's ROA. However, as usage of standby letters of credit has expanded dramatically in recent years banks (and federal regulations) treat standby letters of credit as equivalent to loans in determining the total amount of related credit outstanding to a particular customer.

Most American banks have established internal limits for the total standby letters of credit they will issue as well as other irrevocable commitments. The limit is typically set at two times capital, but this has been exceeded at many banks. American banks are at a competitive disadvantage in issuing standby letters of credit as compared to foreign banks with fewer regulatory or self-imposed constraints.

Standby letters of credit are also used as bid or performance bonds. A bid credit is normally for a nominal amount representing a good-faith binder on the part of the bank's customer submitting a contract bid. If the bank customer is successful in bidding on a contract, a performance bond may be required. A performance letter of credit effectively ensures contract performance and typically involves a substantially larger amount, perhaps as much as 50 per cent of the total contract size. A bank is not legally bound to issue the performance letter of credit merely because it issued the bid credit. An advance payment bond is a related type of credit and is an undertaking that may be given to obtain advances against a contract.

(b) Insurance companies

Some insurance companies will provide a guarantee similar to a bank letter of credit.

Other guarantees provided by insurance companies include performance bonds and construction completion bonds. Insurance companies also provide guarantees of indemnity provisions of contracts. Some types of insurance policies, such as political risk insurance and business interruption insurance, are tantamount to guarantees. The line between many types of insurance and guarantees is sometimes a thin one.

Political risk insurance is discussed later in this chapter and in Chapter 28.

(c) Investment companies

Investment companies will sometimes provide debt or performance guarantees. The price charged for the guarantee will be commensurate with the risk assumed.

2. The coverage of guarantees

(a) Commercial risk

The repayment and performance of a loan agreement is the most common assumption of commercial risk in a project financing. Other commercial risks are discussed below. Most types of commercial risks must be covered by guarantees from the sponsoring party or from some responsible third-party.

(i) Completion

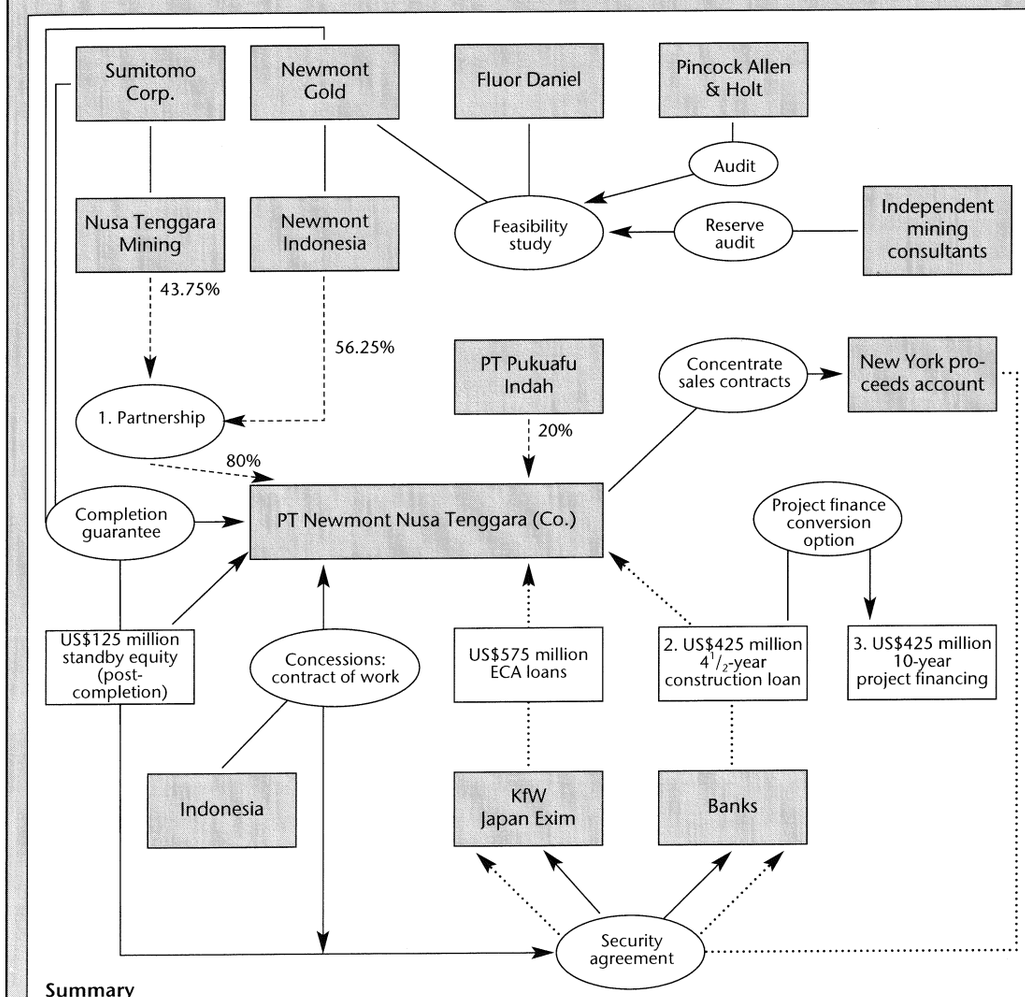
Completion of the project facility and its operation must be at a cost and rate consistent with specifications. Completion guarantees that the project will be

Case study: Batu Hijau – Refinancing risk and opportunity

The US$1.9 billion Batu Hijau development on Indonesia's Sumbawa island represented a clear two-step transaction where the sponsors took the risk of refinancing a large construction loan to convert it into a 10-year term loan on a project-finance basis. Total senior debt of US$1 billion sits alongside US$417 million of cash equity, US$468 million of subordinated debt, and US$69 million in sunk costs. The diagram shows the structure for a US$425 million bank tranche and a US$575 million ECA tranche.

Part of the reason for the two-step approach is to mirror the US Exim stipulation of political-risk-only cover pre-completion. This way US Exim avoids entering the project finance architecture until after completion.

Upon the conversion to the project finance term loan, subject to political-risk force-majeure events, the sponsors also provide operating expenditure and debt-service support (recourse) of US$125 million, plus the commitment to fund the US$159 million third grinding line if that proves to be necessary.



Summary

1. Partnership between Sumitomo and Newmont for their investment in the special-purpose project company.
2. $4^1/_2$-year construction loan convertible into three.
3. 10-year term loan, project finance basis with extra sponsor supports.

completed and operating in accordance with specifications cover this risk. The contractor sometimes assumes this risk and using a reliable contractor helps to minimise this risk. Start-up specialists can be employed to bring expertise to start-up problems.

(ii) Cost over-run

Any cost over-run must be borne by the sponsor or by some party with whom the sponsor has contracted. In view of the bad cost over-run experience in recent years, contractors are reluctant to assume over-run risk on out of the ordinary projects, except at a substantial premium. On the other hand, while a fixed price contract may not be available at the start of a project, such a contract may later be available if the subcontractor bids can be obtained on a fixed price basis. Sometimes this risk can be covered by provision for escalation or for adjustment to take-or-pay contracts to cover additional cost. Sometimes cost overrun risk can be covered by a completion bond issued by an indemnity company. Lenders can share in the cost over-run risk by providing standby credit for such a contingency, with provision for repayment of any cost over-run.

(iii) Delay

The cost of delay has a compounding effect on a project. Interest costs continue unabated and needed cash flows are delayed. Provision can sometimes be made for coverage of this risk through the construction contract, or by the choice of a reliable contractor able to overcome delay problems. Provision also can be made to adjust take-or-pay contract revenue to cover increase in costs resulting from delay.

(iv) Cost of raw material and energy

The economics of a particular project are often largely dependent on its ability to obtain some product or service at a certain price. The project itself may be able to borrow money and may be able to partially or wholly finance itself, provided it has an assured cost for a needed product. Assumption of this risk by a third-party guarantor may consequently be essential to financing the project and may, in some instances, obviate the need for other guarantees. Examples of products, the source and availability of which may be guaranteed at a maximum price, include: natural gas, oil, electricity and raw ore. Put-or-pay contracts or deliver-or-pay contracts can be used to cover this risk.

(v) Market for product

An assured resale price of the product or service of a project, after it is produced, may be essential to the economics of a project. This risk can be covered by unconditional take-or-pay contracts, through-put contracts, tolling contracts or cost-of-service agreements. The risk can also be covered by conditional 'take-and-pay contracts' in which an established contract sale price will be paid, provided delivery is made.

Many energy projects will be difficult to finance without some financially responsible party assuming the risk of the resale price. Since governments are deeply involved in energy price control, a government may be the only party willing to assume the commercial risk of radical, new and expensive energy sources. For example, the production of oil from shale or from tar sands at a price which makes economic sense at the start of such a project may not make economic sense at the conclusion of the project, if the price of competing oil has in the meantime declined. The economic feasibility of the construction of gas and oil transmission pipelines may also change if it is based on future market prices of the end-products. The same would be true when producing gas from coal or methane from deep wells to compete with natural gas.

(b) Political risk

The political risk of doing business in some countries may make it difficult or impossible to obtain capital for development of a project to be located in that country, in the absence of an assumption by some responsible party of the political risk inherent in the transaction. While the risk immediately apparent is expropriation or seizure of the project by the government in which the project is located, protection is also needed against more subtle methods of a government taking over control. Creeping expropriation is as effective as an act of nationalisation of a project. In many instances political risks must be assumed by a government agency, or some politically friendly country, or international financing agency, if the project is to proceed.

In recent years, arbitrary blanket moratoriums (or threats of such moratoriums) on repayment of foreign debt by Latin American countries have placed a new dimension on political risk.

(c) Casualty risk

Casualty risk can be covered by a well-planned insurance programme.

(d) War risk

While many of the risks in any project may be assumed by non-government guarantors and interested parties, war risk may be beyond the scope of risks which such parties or commercial insurance companies are willing to assume. In such a case, a government guarantor may be necessary to support the transaction. Although this risk may be remote, it is also the kind of risk which a lender is usually unwilling to assume. But it must be considered, in order to obtain the financing of a project located in an area of the world subject to such a risk.

Destruction of ships and facilities in the Persian Gulf in recent years have provided some companies with first hand current experience with war risk.

(e) Acts of God

Insurance coverage can often be obtained against all but the most remote kinds of casualty risks. However, gaps sometimes exist in the insurance coverage available to a project. These gaps must be covered for the project to be financed. Often, therefore, it becomes necessary for an interested party to assume special casualty risks not covered by insurance.

3. Types of guarantees

Guarantees are normally considered to be direct, unconditional guarantees by a guarantor, under which it assumes the responsibility to perform all the obligations of the guaranteed party. In many cases, this is the only kind of guarantee which will suffice to support the transaction.

In many cases, however, the guarantee need not be all-encompassing in order to provided sufficient support for the transaction to be financed. Guarantees may be limited both in amount and time. They may be indirect, contingent or implied. In a given situation, something less than a full unconditional guarantee of all obligations of the guaranteed party may be sufficient to support the transaction from the standpoint of the guarantor. This may be very important for the guarantor, since the impact on its credit standing and financial statements may be considerably lessened by a guarantee tailored to provide the necessary support for a transaction, but which does not constitute an unconditional obligation to pay or perform under any circumstances.

(a) Limited guarantees

Guarantees may be limited in amount, in time, or in both.

(i) Guarantees limited in amount

Guarantees may not be required to cover 100 per cent of the lenders' credit exposure in order to be effective. They may take the form of deficiency guarantees or first-loss guarantees up to a certain amount. A lender may feel comfortable lending to a project company, provided it is of the opinion the project will have only limited deficits under the worst of circumstances and it has an agreement that such deficits (in an amount satisfactory to the lender) will be made up by the guarantor.

Another kind of guarantee limited in amount is a joint venture, in which the liability is joint rather than joint and several. Each joint venturer is liable only up to its joint amount and not for the entire liability of the joint venture, thus preserving its credit standing.

Yet another kind of guarantee limited in amount is for cost over-runs. A lender may be willing to finance a project, provided the costs are as predicted. A lender does not want to find itself trapped into having to finance a larger amount simply because cost over-runs occur and no other source of funds is available. In situations involving such risk, potential overrun risk will have to be covered by interested parties to the transaction. With possible cost over-run risks covered, the balance of the project may be readily financeable on its merits. For example, the project may have a firm unconditional take-or-pay contract sufficient to cover debt service on the contract price, but not sufficient if there is a cost over-run.

A similar guarantee is the guarantee by the sponsor of payment of operating expense, where the gross revenues of a project are allocated to debt service and are insufficient to cover both operating expense and debt service.

A pre-committed pool of funds by the sponsor is yet another kind of guarantee limited in amount. In such an arrangement, the lender must be satisfied that the pre-committed pool of funds is sufficient to cover contingencies which would otherwise be covered by guarantees.

(ii) Guarantees limited in time

While a prospective guarantor may be reluctant to enter into a direct guarantee of the long-term debt of a particular project, the guarantor may feel very comfortable in guaranteeing the project during its start-up period.

The projections for a project may indicate to prospective lenders that the project will generate adequate cash flows to service the project debt, provided the project performs to specifications. However, depending on the complexity of the project, this performance may not be assured for several months or years after completion of the project. In other words, there is a start-up risk.

Lenders, on the other hand, may feel comfortable lending to the project only if it performs to specifications. Therefore, a bridging guarantee which will expire after the project performs as specified for a certain period of time may be a sufficient form of guarantee to cover risks in the transaction not otherwise addressed. When combined with other undertakings by interested parties, there should be sufficient credit support for the financing of the project. This guarantee is called a completion guarantee.

A completion guarantee is essentially a guarantee limited in time, since it guarantees the project will be completed in a certain time-frame and will perform at a certain rate of efficiency. It expires not on completion of construction but after the expiration of a period of time sufficient to ensure that the project will in fact perform as represented. If the lender is otherwise satisfied with the projected cash flows and the economics of the transaction, the completion guarantee may obviate the necessity for a long-term direct guarantee.

(b) Indirect guarantees

The most common indirect guarantees involved in project financings to assure a stream of revenue are take-or-pay contracts, through-put contracts or long-term unconditional transportation contracts, which provide a guaranteed stream of revenue to a project. These guarantees are accepted by the accounting profession as being indirect for purposes of balance sheet accounting and, therefore, are includable only in footnotes to the balance sheet. However, take-or-pay contracts, through-put tolling agreements, cost-of service agreements, or unconditional transportation contracts sufficient to support a project financing, constitute a very definite unconditional obligation to pay revenue to a project for a period of time, usually sufficient to amortise debt associated with the project.

Another kind of indirect guarantee to a project financing is a price support for production. This support may be provided by a third-party user. It may also be provided by an interested government agency. A deficiency guaranty to make up the difference between take-or-pay revenues dedicated to debt service and the amounts required for debt service is another approach.

The economics of the project may depend upon an assured price of a raw material or a service to be used by the project. This risk can be covered by a long-term put-or-pay contract from a supplier, which is an indirect guarantee of price by the supplier. In a put-or-pay contract the supplier provides the raw material or service at a certain price, or subsidises the price if the project company acquires the raw material or service from a third-party at a higher price because the original supplier is unable to perform.

(c) Contingent guarantees

Lenders do not want to be equity risk-takers, even though such risks are remote and very contingent. Consequently, it is often necessary for some interested part to a project to assume remote contingent risks in order to get a project financed. The assumption of such risks may have relatively small impact on the footnotes of the balance sheet of the contingent guarantor, if it appears at all.

Contingent guarantees may take many forms. The contingency may not be deemed to occur except in the case of a number of events, such as the failure of other interested parties to the transaction in performing or paying after reasonable efforts by a lender to enforce performance or collection. Nevertheless, the contingent guarantee of a strong credit may be necessary to support the transaction where other parties to the transaction are of questionable financial strength.

The contingent guarantee may take the form of some event beyond the control of the parties. It may be an unlikely event, such as a change in price, an action of government, or some uninsurable act of God. However, lenders will regard the assumption of such risks to be the task of the owners, interested parties, governments, or sponsors, rather than themselves.

(d) Implied guarantees

Implied guarantees are not really guarantees at all. They are merely undertakings or sets of circumstances which make it likely, from the lenders' standpoint, that the guarantor will provide support to the transaction. Implied guarantees are popular with guarantors because they are non-binding and do not have to be reported on financial statements.

A comfort letter which carries implication of support is the most common form of an implied guarantee. The term 'comfort letter' covers a broad spectrum of undertakings. A comfort letter is often nothing more than an agreement to supervise the project company and to see that it is properly managed. Comfort letters are sometimes referred to as 'letters of responsibility'. How much comfort that gives is a lender's subjective decision.

In the past, in the United States, comfort letters included undertakings to provide funds to a project company or subsidiary if it got into difficulty. Sometimes this was expressed as an agreement to maintain the working capital at a certain level, which was tantamount to a full guarantee. Until several years ago, when the accounting rule was changed in the United States, such an undertaking in a comfort letter was not considered a guarantee for financial accounting purposes. However, today such an undertaking is regarded as a guarantee.

In Europe, on the other hand, broad undertakings in comfort letters are sometimes not considered to be guarantees. Some European sponsors of a project may be able to use a strongly worded comfort letter without reporting it as a guarantee.

In the case of a strong credit participating with weak credits in a joint venture where the project is essential to the strong credit, the mere participation of the strong credit carries implications of support.

A project company, the debt of which is not guaranteed by the parent but the name of which is similar to the parent's name and associated with the parent's name, carries implied guarantees of performance. This is particularly true where the parent agrees to hold 100 per cent of the stock of the project company and not change the name of the project company during the term of the loan.

When the parent's loan agreements contain provisions which will create an event of default in the event of the default in the loan of a subsidiary lenders may feel comfortable with a loan to a subsidiary project company, provided they control the terms of the parent's loan agreement.

Guarantees of all types will continue to be a popular support of project financings so long as the balance sheet impact is less than a loan.

(e) Example of a project financing support by a user sponsor's guarantee

Supplier supported by sponsor's guarantee

An independent supplier of crude oil, feedstocks or LNG, with limited access to capital, finances a project by obtaining loans guaranteed by a sponsor seeking an assured source of supply in return for an agreement to supply the sponsor. Typical projects include storage facilities, refineries, reforming facilities, pipelines.

Tax, credit, debt rate and balance sheet

The supplier claims depreciation deductions against its income tax. The credit supporting the transaction is the sponsor's credit. The supplier's debt rate reflects the sponsor's credit. The loan is shown as senior debt on the supplier's balance sheet. This debt could be structured as subordinated debt, since creditors will rely on the guarantee of the sponsor in any event.

If payment of the loan and accrued interest were limited to proceeds from production, the loan might be considered to be contingent debt, shown in a footnote and not shown as a general obligation of the supplier.

Covenants

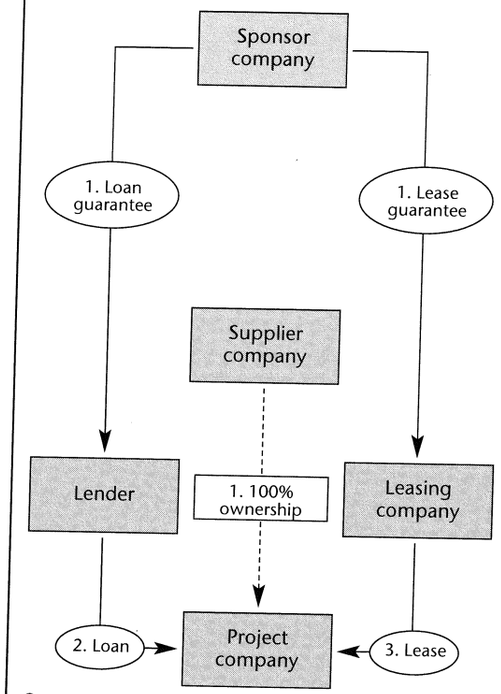
If the guaranteed debt is structured as subordinated debt for the supplier, such debt may avoid senior debt and lease restrictions. The supplier might form an unrestricted subsidiary to borrow and build the plant to remove the project from loan restrictions.

The language of the sponsor's loan agreement would determine amount of guarantees permitted and whether the example guarantee would count.

Advantages for the sponsor

1. Off-balance sheet except for footnotes.
2. Outside loan covenants restricting debt or lease.
3. An essential facility is built without the sponsor participant being required to pay the cost of the project.
4. Capital is preserved for other uses.

Exhibit 27.2: Project financing supported by sponsor guarantee



Summary

1. The sponsor is interested in having a certain facility which will provide a needed product or service. It does not want to own or operate the facility. The sponsor, therefore, arranges for a supplier to build and own the facility and agrees to guarantee a loan and a lease in connection with the project.
2. The project company arranges a loan from a lender, backed by a guarantee from the sponsor.
3. The project company arranges a lease from a leasing company, backed by a guarantee from the sponsor.

Disadvantages for the sponsor

1. Lack of absolute control over the facility.
2. Guarantees must be shown in a footnote to the balance sheet.
3. Use of guarantees affects the credit standing of a sponsor, even though carried as a footnote to the balance sheet. Other forms of project financing may be more appropriate for a sponsor with a need for greater leverage.

(f) Completion guarantees

The greatest period of risk in a project financing is during the construction and start-up phases of the project. Many projects are supported during these phases by a special kind of guarantee agreement called a completion guarantee, which is supplied by the sponsor or sponsors of the project. This type of guarantee may apply to both the short-term lenders during construction and to term lenders or lessors who have agreed to take out the short-term lenders on completion of the project.

The completion guarantors undertake to complete the project within a certain time period and to provide funds to pay all cost over-runs. The completion guarantee also contains appropriate guarantees as to title to the properties, minerals and structures.

Completion, under a completion guarantee, involves more than a mere completion of the construction of the facility. The test of completion often includes requirements of achieving certain specified amounts of production and efficiencies at certain specified costs. This is especially true where direct sponsor guarantees cease upon completion and the take-out term lender must rely on the operation of the project alone, or the operation of the project and revenue from take-or-pay contracts to service the term debt or lease. The term lender or lessor wants to be sure that the project will work to the efficiencies represented and assumed in the financial projections which formed the basis for the loan or lease.

The completion guarantor can protect itself by selecting financially responsible contractors and negotiating provisions into the construction contract which meet the terms required by the completion guarantee. In some instances, the lenders may be satisfied with the ability, financial standing and reputation of the contractor to perform without additional guarantees.

The completion guarantor can also seek to protect itself by purchasing bonds and insurance against delays and failure to complete. These kinds of guarantees are usually not acceptable to a lender as a substitute for a completion guarantee, although they may offer some protection (if carefully drawn) to the completion guarantor.

Lenders have in some instances been willing to limit the liability of the sponsor to a pre-committed pool of funds or amount. In such a situation, the lender must be satisfied that the pre-committed pool of funds is sufficient to cover all contingencies. The Woodside project in Australia and the Belridge acquisition by Shell are examples of pre-committed funds substituted for completion guarantees.

(g) Guarantees and bonds under construction contracts

There are a number of types of guarantees and bonds used to guarantee completion and performance under construction contracts. These include:

a. bid bonds;
b. performance bonds;
c. advance payment guarantees or bonds;
d. retention money guarantees or bonds; and
e. maintenance bonds.

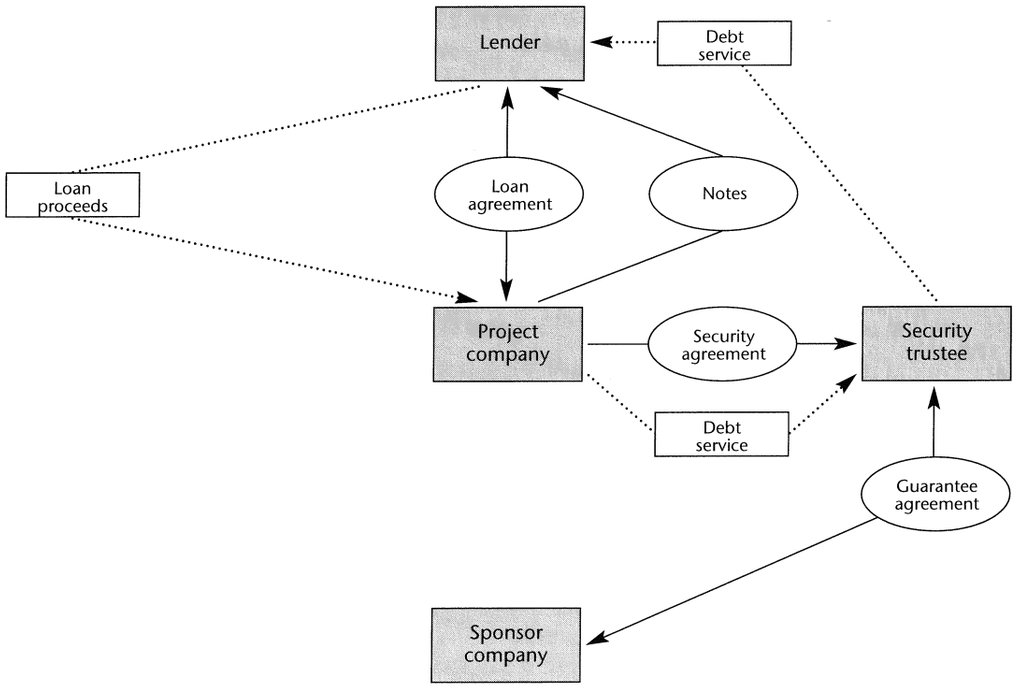
Third-party guarantors of bonds include surety companies and banks.

In the United States, performance bonds are generally issued by surety companies and it is quite common for such bonds to be for 100 per cent of the contract price. The obligation of the surety company (if properly drafted) is to perform under the contract. A breach of contract by the beneficiary of the bond constitutes a defence. Surety bonds can create a false sense of security for a beneficiary. Such contracts must be carefully drafted to achieve the degree of protection sought. Generally, lenders are apprehensive about relying on security bonds for loan repayment.

Security bonds in international transactions are drafted as unconditional obligations to pay a sum of money to the beneficiary on demand where, in the opinion of the beneficiary, the contractor has failed to perform. Sometimes these contracts are written by international surety companies. More often, they are written by banks as unconditional letters of credit payable on simple demand without proof of non-performance. Such bonds do not require performance of the contract. Rather, they are for a cash payment equal to a fraction of the contract price, which typically ranges from 5–30 per cent.

Surety bonds, as commonly used in the United States and international contract guarantee bonds backed by bank letters of credit, which are used in many international transactions are compared in the following table:

Exhibit 27.3: Guarantee by a sponsor company using a security trustee



Factor	*US domestic surety bond*	*International surety bond backed by letter of credit*
Obligations	To perform the contract	To pay a sum of money
Coverage	100 per cent of contract	5–30 per cent of contract price
Call	On default	On demand
Commitment	Conditional	Unconditional
Format	Guarantee	Letter of credit

A surety bond or a letter of credit is only as good as the financial strength and integrity of the guarantor, which must be an institution satisfactory to the beneficiary.

Exhibit 27.4 illustrates the typical coverages which might be required for an international construction contract. These are:

	Amount (%)	*Months of coverage*
Bid bond	$2^1/_2$	12
Performance bonds	5	36
Advance payment guarantee	14	36
Retention money guarantee	5	36
Maintenance bonds	10	24

(i) Bid bond

A bid bond is required of bidders on a contract, to make sure that each bidder is serious, will accept the award of the contract if offered and will proceed with the execution of the contract.

(ii) Performance bond

The purpose of the performance bond is to provide additional funds in the event the contractor fails to perform, for any reason. The existence of such a bond is also an endorsement of the credit and confidence of the guarantor in the ability and professional standing of the contractor.

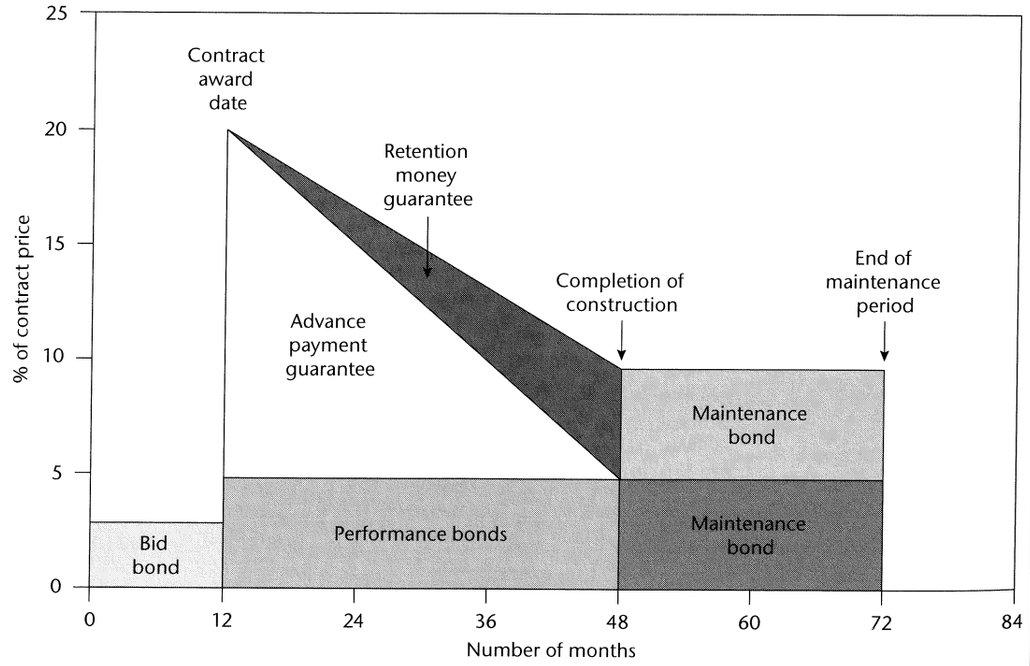
(iii) Advance payment guarantee

The purpose of the advance payment guarantee is to assist the contractor in purchasing and assembling the materials, equipment and personnel necessary to get the construction started, so as to meet the requirements for receipt of progress payments under the contract.

(iv) Retention money bonds

It is common practice for the beneficiary for whom a

Exhibit 27.4: International construction contract performance bonds and guarantees



project is being built to retain or hold back a portion of the progress payment which would otherwise be due, in order to provide a fund to cover unforeseen expenses due to any contractor mistakes in the construction. Since most contractors prefer to receive the progress payments as quickly as possible, they substitute a retention bond for the amount of the funds retained, to receive immediate payment.

(iv) Maintenance bonds

The purpose of the maintenance bond is to provide a source of funds for correcting defects in the construction or the performance of the project, which are discovered after completion of the actual construction. Typically, the performance bond and the retention bond are converted to maintenance bonds upon the completion of the contract.

Guarantee to support an off-balance sheet construction loan

A public utility desires to build a generating unit. The time required for construction of the plant runs for several years and the utility does not wish to penalise earnings by incurring interest expense to finance construction during those years.

A non-profit corporation, independent of the utility, agrees (for a management fee) to form a subsidiary to act as the construction company to build the plant. (This type of special purpose company is called a construction intermediary.) The construction company appoints the utility as its agent to construct the plant. The construction company borrows funds needed to construct the plant, based upon the guarantee and commitment of the utility to complete the plant and take out the lenders upon completion. Typical projects include any large equipment project facility. (See Chapter 22 for a more complete discussion of construction loans.)

Income tax

Interest deductions during construction are lost. However, interest expense may be capitalised into the price of the plant with later tax deductions for depreciation and interest based upon the capitalised cost.

Rate base and debt rate

Investment in the construction is kept out of the rate base. Capitalised interest is usually included in the rate base. The debt for the construction company is a function of the credit of the utility.

Balance sheet and financial statements

Interest is kept out of the income statement as an expense during construction. Whether the construction and debt of the construction company are shown on the balance sheet of the utility depends on whether the transaction falls within SEC Rule 5-L.

Variation

A lessor might be substituted for the construction company. The lessor could then elect to capitalise interest, claim ITC and depreciation on the capitalised costs and pass most of the resulting savings through to the lessee. The lessee would accomplish its objective of excluding interest expense from its profit and loss statement during construction.

Advantages

1. If the utility, by owning the property during construction, would have to expend interest, such expense could be avoided.
2. Borrowing capacity or the ability of the utility to borrow short-term debt may be increased.
3. Interest coverage formulas may not be affected during construction.

Disadvantage

1. Loss of tax deductions and perhaps credits during construction.

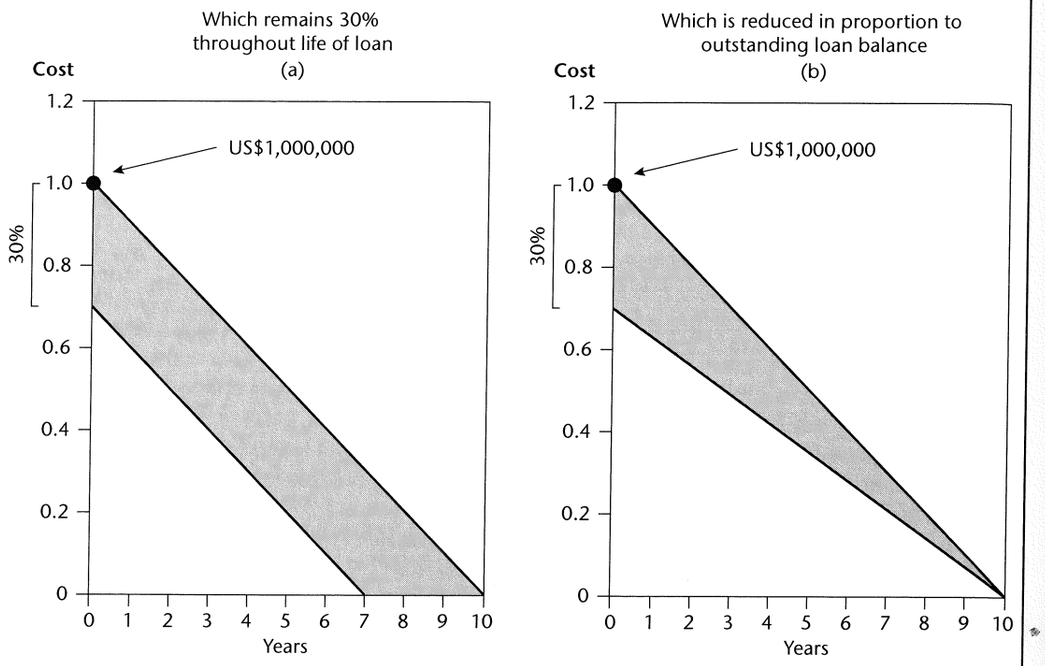
(i) Deficiency guarantees

A deficiency guarantee is a guarantee limited in amount to the deficiency suffered by the creditor in the event of default, re-possession and resale. A deficiency guarantee is usually expressed as covering the first loss suffered by a lender in the event of default repossession and resale. Generally included in the lender's loss are lost interest, expenses of resale and the unpaid loan balance.

A limited deficiency guarantee is a deficiency guarantee with a maximum limit of exposure for the guarantor. A 25 per cent deficiency guarantee is a deficiency guarantee with a maximum exposure of 25 per cent of the amount financed.

Alternatively, the limit might be expressed as a dollar amount. A limited deficiency guarantee can be

Exhibit 27.5: 30% deficiency guarantee on a 10-year level principal payment note



used very effectively in project financing in situations in which the collateral for the loan or lease is marketable and has substantial value. If, for example, the original cost of equipment is US$100, the amount of the outstanding balance US$75, the limited deficiency guarantee 25 per cent of original cost, and the property is repossessed and sold for US$55 (after expenses), the guarantor would be liable for US$20. If resold for US$45, the guarantor would be liable for US$25.

In the case of a lease, the lessor might have the option to either sell or re-lease in the event of default. The stipulated loss schedule of the lease plus unpaid past due rents with interest would be used to determine the actual loss.

A limited deficiency guarantee is often reduced over the term of the loan or lease in proportion to loan amortisation or the lease termination schedule. This makes the guarantee less onerous to the guarantor. From the standpoint of a guarantor, a limited deficiency guarantee can often accomplish the same result as a full guarantee, but with much less impact on the guarantor's balance sheet footnotes and credit.

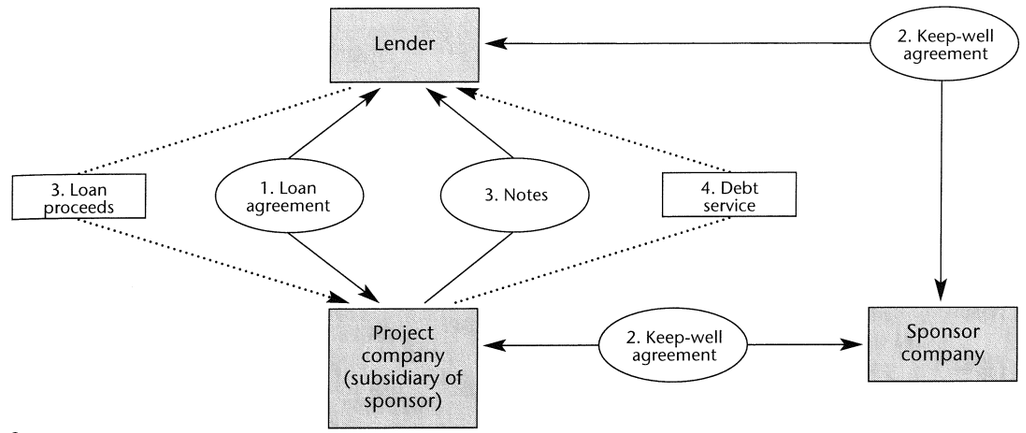
Other types of deficiency guarantees cover cost over-runs or revenue deficiencies and are also discussed in this chapter.

(j) Undertakings which provide comfort to lenders but are not really guarantees

Sponsors can sometimes make representations to lenders, or agree to undertakings which are not guarantees yet give a lender sufficient comfort to proceed with a loan to the beneficiary of such representation or undertaking. Use of such undertakings instead of guarantees are popular since they are not reflected on the sponsor's balance sheet and are not usually noted in footnotes. Examples are:

1. Short-term advances of a sponsor or parent might be channelled through the subsidiary's bank account (subject to offset) to provide the sponsor's balances which would have to be maintained in any event.
2. A parent with a spotless credit standing might agree to continue to hold 100 per cent of the stock of the borrower until the loan was retired.

Exhibit 27.6: Keep-well agreement by sponsor company for subsidiary



Summary

1. The project company enters into a loan agreement with a lender.
2. A keep-well agreement is entered into between the sponsor and the project company; the sponsor also enters into an agreement with the lender to keep-well the project company.
3. The notes are signed and delivered by the project company to the lender and the loan proceeds paid to the project company.
4. Debt service is paid to the lender by the project company.

3. If the subsidiary's name was a derivative of the parent's name, the parent might agree not to change the name of the subsidiary while the loan was outstanding. (Over the years there have been a few surprises when parents refused to stand behind such subsidiaries, but in most of these cases the parent's integrity was already suspect.)
4. In the case of a supplier where a take-or-pay contract might provide the needed support, an agreement by the sponsor to deal only with the benefactor company for procuring the needed service or product might be sufficient if the sponsor requires minimum amounts of such service or product for a period of years which bears some relationship to the term of the loan or lease.
5. Comfort letters, in which a parent undertakes to supervise closely the management of a subsidiary without responsibility for the subsidiary meeting its contractual obligations. This type of letter is usually given little weight by lenders unless combined with 2 or 3 above.
6. Cross-default clauses with some other contract or loan agreement which the sponsor cannot afford to permit to default and which the lenders relying on the comfort letter control.

Where one or more joint venturers are involved with a joint venturer whose credit is weak, lenders or lessors may be convinced that the nature of the project and importance to the strong venturers is such that the strong venturers cannot afford to abandon the project but will be compelled to support the obligations of the weak credit venturers, if any are unable to meet their obligations.

Governments can provide subsidisation and undertakings which are not guarantees, but are sufficient in nature to provide credit support. Price supports are indirect guarantees. For example, development of oil shale production will require long-term government guaranteed prices for production.

Cost-of-service tariffs by public utility commissions which permit actual costs of product to be melded into utility rates will provide credit support to a transaction, if such tariffs cannot be changed at the whim of a politically sensitive commission.

Foreign governments can provide support to a project by affirmations and acknowledgements of policies on such matters as currency movement, permissible methods of operating a business within the country, allocation of the country's resources to the project, providing infrastructure support and taxation.

(i) Loan to a corporate joint venture supported by the implied guarantee of a cross-default clause

A sponsor company needs a plant to supply it with a certain product and wishes to finance the plant off-balance sheet. The sponsor does not wish to enter into a take-or-pay contract. A joint venture corporation is formed with an operating company which has unique technical skills to operate the proposed plant, but has limited financial resources. The sponsor and the operating company each own 50 per cent of the stock of the joint venture company.

Nominal capital contributions are made to the joint venture corporation by the sponsor and operating company. A loan to the joint venture company is arranged, which contains provisions whereby the operating company agrees to surrender to the lenders 10 per cent of its stock in the joint venture corporation in the event that the loan is in default for any reason. The lenders have a right to put that stock to the sponsor company which also agrees that at all times during the loan it will retain stock evidencing its 50 per cent interest in the joint project.

Other provisions of the loan agreement assure that the 50 per cent stock ownership of the sponsor will remain in effect throughout the term of the loan, so that any shares put to the sponsor by the lenders will give the sponsor control of the project and require recording the defaulted loan on its balance sheet.

The sponsor has other long-term loan agreements which contain cross-default clauses which will place such loans in default in the event any company controlled by it has a loan in default. The joint venture company falls within this definition if the sponsor owns more than 50 per cent of its stock. The lenders to the joint venture rely upon the supposition the sponsor will support the joint venture company rather than permit its long-term loan agreements to go into default. A typical project could include any processing plant or facility.

Income tax

Income tax benefits will flow to the joint venture company.

Debt rate, balance sheet impact and loan covenants

The debt rate is based upon the likelihood the sponsor company will assume the obligation of the project company, rather than have its loans go into default. The value of the project itself will help support the debt rate. The loan to the joint venture company will be off-balance sheet so long as the sponsor does not have control of the company. The loan to the joint venture company will be outside the loan covenant restrictions of the sponsor company, unless a default occurs and the stock of the project is put to the sponsor by the lenders.

Variation

The tax benefits might be better used by a third-party leasing company, or by the sponsor entering into a leveraged lease agreement with the joint venture company for the facility. In the case of such a lease by the sponsor, additional questions are raised as to control for financial accounting purposes.

Advantages

1. The sponsor avoids a direct guarantee of the project loan.
2. The loan to the project is off-balance sheet and outside the loan covenants of the sponsor.
3. The sponsor's capital is preserved for other uses.
4. Technical expertise for the operation of the project plant is obtained.

Disadvantages

1. A higher debt rate may result from the indirect nature of the sponsor's support.
2. Credit support may have to be provided to a less than 100 per cent-owned subsidiary.

(ii) Project financing supported by third-party guarantor

The ideal project from the standpoint of a promoter/sponsor is a project company which is owned by the sponsor, provides a service or product or a profit opportunity from construction or operation desired by the sponsor and is financed directly or through the guarantee of a third-party.

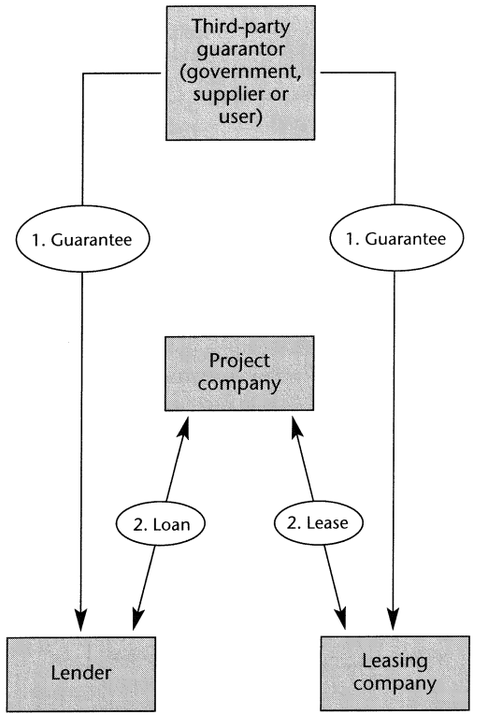
Credit and debt rate of the project

The credit is the credit of the guarantor and the project company. The debt rate is the debt rate of the third-party guarantor.

Balance sheet and loan covenants of the owner

The effect on the owner's balance sheet is as debt, unless special steps are taken to avoid that result. The sponsor/owner may not want to own a large equity interest outright at the time the project has a large outstanding debt, because the debt will show on the

Exhibit 27.7: Third-party guarantor



Summary

1. A third-party guarantor which does not own or control the project company enters into a guarantee agreement whereby it guarantees loan obligations and/or lease obligations of the project company.
2. On the basis of the guarantee, a lender and/or a leasing company enter into a loan or lease, respectively, with the project company.

owner's balance sheet. The owner might hold a small interest during developing years, control the project through a long-term management contract and achieve a substantial interest later through warrants and options.

The effect of the loan on the sponsor/owner's loan covenants is also as debt if the loan is a direct liability. The owner may be able to avoid this result by using an unrestricted subsidiary to hold title, or using subordinated debt, or borrowing non-recourse. Control can be maintained using a long-term management contract.

Objective of the guarantor or the sponsor

Governments and international agencies are motivated by economic, political and social needs of the exporting country or user country.

Private companies profit by:

1. Construction of a project (such as a dock, storage facility, railroad or pipeline) needed in connection with guarantor's or sponsor's existing operations even though owned by a third-party.
2. Assuring a source of supply of petroleum, gas, ore, semi-manufactured goods, or agricultural products. (This type of guarantee is described separately in more detail.)
3. Selling a product to be used in the project.
4. Selling a service in connection with the project.
5. Selling a service or product to the project after completion.
6. Acquiring an equity interest in the project.

Examples of third-party guarantors

1. US and foreign manufacturers of products to be used in the project.
2. Users of products or services to be produced or provided by the project.
3. Suppliers of services or products to be used in the project.
4. An agency of the US government interested in getting a project built.
5. An agency or agencies of the host government interested in getting the project built, including the central bank.
6. An agency of a state government interested in getting the project built.
7. Foreign government export agencies and national interest agencies supporting exports of products to be used in the project.[1]
8. The World Bank.
9. Area development banks:
   (a) African Development Bank;
   (b) Asian Development Bank;
   (c) Inter-American Development Bank.
10. European Bank for Reconstruction and Development (EBRD).

Advantages to owner and third-party sponsor not a guarantor

1. Loan is non-recourse if borrowing is by an independent subsidiary.
2. Project may be kept off-balance sheet and outside loan covenant restrictions.
3. Capital is preserved for other uses.

4. Credit sources are preserved for other uses.
5. A needed facility is built without the sponsor being required to use its credit to support the project.
6. Borrowing cost may be lower as a result of guarantor's credit.
7. If the project is located in a foreign country, the project might not be financeable in the absence of a guarantee from the host government, an international agency or a US Government agency. Such a guarantee provides comfort to the lender against nationalisation or expropriation of the project. Host governments might try to avoid payment of a bank loan, but cannot afford to ruin their credit with international agencies, Eximbank, or other export-import banks.

Disadvantages

1. Lack of control over the facility by sponsor.
2. Debt must be shown on-balance sheet of owner if the company receiving the guarantee is 50 per cent controlled.

(k) Direct and indirect guarantees against nationalisation, expropriation and political risk

A generous share of the mineral resources of the world are located in developing countries which sometimes lack political stability satisfactory to potential lenders or investors. Users of such minerals (and their financial advisors) are faced with the problem of raising capital needed to develop such vital sources of supply. The political risk involved in owning, operating or financing a project in a foreign country can assert itself in many ways. Risks in financing such a foreign project include:

1. Expropriation, nationalisation or confiscation.
2. Currency:
   a. currency convertibility;
   b. current devaluation;
   c. import restrictions in currency;
   d. export currency restrictions or taxes on dividends and capital distributions;
   e. export currency restrictions or taxes on debt service.
3. Increased taxes on the property, project, production or income. Increased taxes on imports or on exports.
4. Labour:
   a. availability of local labour;
   b. work permits for imported labour;
   c. ability to deal with local labour unions.
5. Resources:
   a. availability and price of local supplies, materials, machinery and products;
   b. allocation of local resources to the project such as electricity, gas, oil, coal;
   c. availability of roads, docks, railroads, airports, transportation;
   d. ability to import needed materials, machinery and raw material.
6. Export restrictions or taxes on product; political embargos.
7. Police and property protection.
8. Local government interference or harassment through licences, regulation, taxes, police, militia.
9. Local and federal government regulatory agencies which can interfere with the project such as labour and resource allocation agencies, as well as environmental protection agencies.
10. Enforceability of contracts. The lack of an effective system of laws and courts within a country which will be available to enforce contracts and to provide protection against unwarranted claims is obviously very important. This includes the ability to collect damages under a foreign court system after a favourable court decision is rendered. Today investment opportunities are attractive to potential markets in the former Communist world which are hampered by the uncertainty of collection of claims, payment of dividends and enforcement of partnership or joint venture contracts.
11. Safety of personnel. Projects cannot be operated without good management. Extortion and threats to personal safety and kidnapping executives or members of their family for ransom has become a serious deterrent to investment in some developing countries. The host country must be able and willing to protect the project enterprise and its personnel from criminal activities.
12. Terrorism. Foreign projects are attractive targets for terrorists seeking to make a political statement. Where war risk insurance is available, coverage of terrorist acts should also be covered. Political violence insurance may also be available for this contingency.
13. Loss due to war, revolution or insurrection.

Some of these risks may be addressed and protected against in a number of ways:

1. A concession agreement with the host government or letter of understanding which covers the risks outlined above. Such a concession agreement should contain firm dates as to its time limits.
2. A guarantee by the host government against expropriation or nationalisation.
3. A guarantee by the central bank of the host country may provide protection against many of the risks including currency and foreign exchange restrictions.
4. Insurance from the Overseas Private Investment Corporation (OPIC), an agency of the US government, is available to US companies, against expropriation, nationalisation, confiscation or loss due to war, revolution or insurrection.
5. Insurance against political risk provided by private insurance companies.

Other more subtle measures to protect against the Outlined risks include:

1. Multinational sponsorship. A loan to the project either backed by a guarantee or participated in by an international agency such as the World Bank or one of the area development banks. (A developing country which might be willing to nationalise a project and thus cause a default on a loan from a US, Japanese or European financial institution would

Case study: Hubco – Multinational Sponsorship

The US$1.6 billion Hub Power Project in Pakistan, in which Britain's National Power invested US$100 million for a 25 per cent equity stake, is a landmark in the private sector financing of infrastructure development in the third world and a good example of multinational sponsorship.

Negotiated through eight changes of government in Pakistan, it required legal documentation weighing 28kg a set.

The sponsors, including National Power and Xenel, a Saudi company which originally conceived the project, had to reconcile awkward clashes between Western banking and Islamic law which bars interest-bearing transactions.

The deal was born out of the need to increase electricity supply in a country whose development has been impeded by chronic shortages of power but whose government lacks the funds to develop new generating capacity. It provides for a consortium including Mitsui and Ishikawajima-Harima Heavy Industries to build an oil-powered thermal power station with a gross capacity of 1,292MW. It will be operated by National Power.

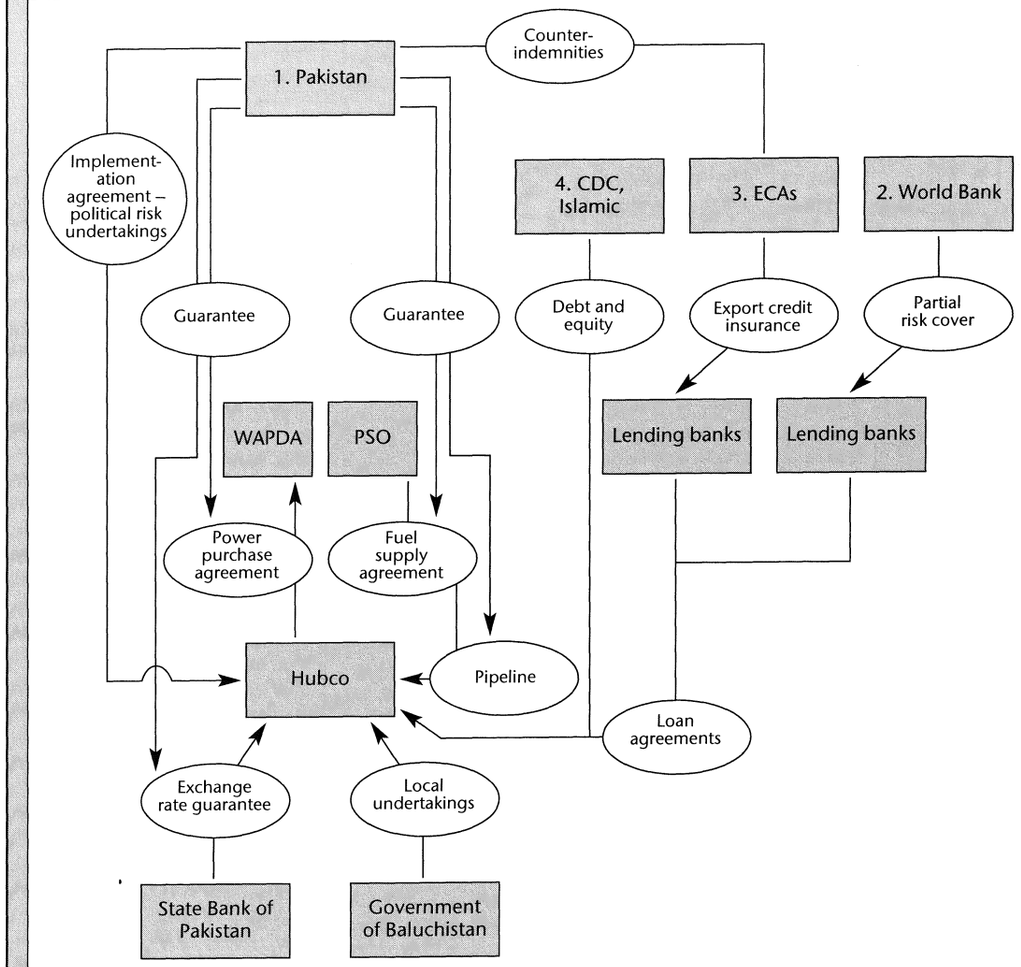
Assembling the finance at a time when banks were unwilling to lend large amounts to developing countries was an awesome task. Essentially the structure involves a complex allocation of risk that prevents equity investors and lending banks having to shoulder too much of the burden.

Of the US$1.78 billion raised for the project, including US$220 million in standby credit, only US$175 million was raised from international and local equity investors and US$686 million from international banks.

Because of guarantees provided by the World Bank, as well as France, Italy and Japan, the banks were spared the need to take on the political risk of default stemming from actions by the government. They have only taken on the commercial risk of the project itself. A further buffer was provided through a US$582 million subordinated loan from a World-Bank-sponsored private-sector energy-development fund. Money from this fund is lent first to the government of Pakistan and then passed on to the project in a back-to-back transaction to get round the constraint on private sector lending by the bank.

The comprehensive political-risk package of parallel loans has been stress tested by successive Pakistani governments trying to renegotiate the tariff downwards. It has also accused the former government of corruption. Physical intimidation of employees at the Hubco site coupled with efforts to cancel the power purchase agreement, created great tension under what was thought to be a model World Bank programme for independent power plant development. The World Bank's partial-risk support (under what was earlier called the ECO programme) has turned out to be pivotal in retaining the political-risk cover overall.

Case study: Hubco *continued*



Summary

1. Pakistan supports the project in four ways: oil pipeline, oil supply, power offtake, and foreign-exchange availability.
2. World Bank provides partial-risk guarantee to banks to back up the Pakistani government's commitments. In turn, the World Bank is counter-indemnified by the Pakistani government.
3. ECA loans are provided by France, Italy and Japan.
4. Islamic lending is included in local rupee and other facilities.

be foolish to purposely cause a default on an international agency obligation and thus lose financial support from the agency and similar agencies.)

2. A loan to the project backed by a guarantee from and/or participated in by the US, the Japanese or a European export-lmport bank. (A developing country which might be willing to nationalise a project and thus cause a default on a loan from a financial institution will be reluctant, if not foolish, to default on a loan from a government agency of a major country, with resultant loss of aid from other foreign sources and serious diplomatic ramifications.)

3. Use of a variety of loans and/or guaranties from a number of government export agencies of various industrial nations. The same considerations are present as in a default on a export-import bank loan.
4. Loan to the project in which a broad range of international banks participates, some of which have other loans to the obligor or guarantor, with cross-default clauses. (A developing country which might be willing to cause a project to default on a loan from a US bank, will be unlikely to ruin its international credit by refusing to pay amounts due to a broad spectrum of international banks.)
5. Heavy involvement of nationals from the host country as investors or co-lenders.
6. Investment in the project by influential foreign banks and investors.
7. An investment by the World Bank, EBRD, or one of the area development banks. While the investment may be small, the transaction can be structured to require the vote of the international agency for majority voting decisions, thus balancing the interests of the sponsor and the host country investors where neither alone has majority control.
8. A co-financing. A loan in which a private bank syndicate closely associates its loan to a foreign project with a loan to the same project by the World Bank or EBRD or an area development bank. Payments under the loan to the private bank syndicate are paid to the World Bank or EBRD or an area development bank as a collection agent. Financial reports on the project, which are required by the commercial lenders, are also run through the World Bank or EBRD. Payments are made to coincide with payments under the World Bank or EBRD loan. The World Bank or EBRD loan contains a cross-default clause in the event the commercial bank loan is not paid. This arrangement puts considerable pressure on the borrower to give the same priority of repayment to the private bank syndicate loan as to the World Bank or EBRD loan. The same procedure could be used with an area development bank.
9. A complementary financing. A syndicate loan made by an area development bank or EBRD. Instead of a separate commercial bank loan and development bank loan, one large loan is made by the development bank or EBRD which is then partially sold on a non-recourse basis to the commercial bank syndicate. However, any default on the commercial bank loan portion is in effect a default on the area development bank or EBRD loan. Thus, the commercial bank receives the same priority in repayment as an area development bank or EBRD.

(I) US Eximbank financing and loan guarantee programmes

The Export-Import Bank of the United States (the US Eximbank) provides direct financing and loan guarantee programs which can be used to finance the cost and installation of US manufactured products in projects located outside the United States.

Eximbank offers a wide range of financial support programmes, including loans and guarantees of loans made by others. The loan and guarantee programs cover up to 85 per cent of the US export value. In general, medium-term transactions have repayment terms of two to five years and an Eximbank liability of up to US$10 million; long-term transactions have repayment terms of five years or more and an Eximbank liability in excess of US$10 million.

Eximbank's role is to promote US exports but not at the expense of prudent lending practices. Eximbank must find reasonable assurance of repayment on each transaction it supports. Factors considered are the creditworthiness of the buyer, the buyer's country and the exporter's ability to perform. While the purpose of the Eximbank is to encourage exports, it will not take imprudent credit risks. If the borrower is not a substantial company, the bank may require a guarantee from a responsible bank, host country bank, or host government. This will increase the financing cost by the amount of such guarantee fee, if any.

However, the US Eximbank has recently established a separate Project Finance Division to provide financing to projects which rely upon cash flows for payment.

Specifically, the Eximbank in its public announcements has stated:

> 'The Export-Import Bank of the United States is committed to establishing a world class program in limited recourse project finance. As developing nations turn away from sovereign-guaranteed borrowing, Eximbank's project financing program will assist US exporters to compete in new international growth industries such as the development of private power and...

While such a financing structure has been used successfully in the past for oil and gas, mining and power projects, recent emphasis around the world on infrastructure 'privatisation' has also opened up the telecommunications and other sectors to this type of financing. ...'

The term 'Project Finance' refers to the financing of projects that are dependent on the project cash flows for repayment as defined by the contractual relationships within each project. These projects do not rely on the typical export credit agency security package which has recourse to a foreign government, financial institution or established corporation to meet a reasonable assurance of repayment criteria. By their very nature, projects rely for successful completion on a large number of integrated contractual arrangements.'

A more detailed description of the Eximbank project finance policies is included in Appendix E. A general discussion of more US Eximbank traditional programmes follows:

A typical Exim loan involves a direct loan from the Eximbank equal to 55–65 per cent of the cost of the equipment at a fixed rate of interest. A cash payment is required from the foreign buyer of not less than 15 per cent of the US content. The balance is financed by private lenders, but the Eximbank will usually provide guarantees to the private lenders. The interest rate, the amount of the loan, the guarantee and other terms vary with the type of equipment and foreign financing available for competing foreign-built equipment.

The 15 per cent not financed or guaranteed by the Eximbank is typically financed by borrowings from sources within the country where the equipment is located or from other foreign borrowing sources.

Eximbank's loans provide competitive, fixed interest rate financing for US export sales. Eximbank extends direct loans to foreign buyers of US exports and intermediary loans to fund responsible parties that extend loans to the foreign buyers.

Eximbank's direct loans carry the lowest interest rate permitted under the OECD arrangement for the market and term. Under most circumstances, this rate is the OECD Commercial Interest Reference Rate (CIRR), which changes monthly and varies according to the repayment term of the loan.

Eximbank's guarantees provide repayment protection for private sector loans to creditworthy buyers of US goods and services exports. Eximbank's guarantee is available alone or may be combined with an intermediary loan.

Eximbank considers the commercial banking sector the principal provider of export financing services and is only prepared to be involved in a given transaction when requested by the supplier, commercial lender, or buyer.

Where an Eximbank loan is combined with an Eximbank guarantee, the guaranteed commercial bank loan in an Eximbank transaction is typically used for the short maturities, with the Exim-fixed-rate loan for the longer maturities wrapping around the commercial bank short-term maturities. This has the effect of improving the overall melded rate.

Where Eximbank does not provide a direct loan, it will sometimes guarantee as much as 85 per cent of the cost. The commercial loan guaranteed by the Eximbank may be raised outside the United States in any freely convertible currency.

Most Eximbank guarantees provide comprehensive coverage of both political and commercial risks. In addition, an Eximbank guarantee covering only political risks is available for transactions with private or non-sovereign public buyers and is the only type of guarantee available where there is common ownership between the supplier (or exporter) and the foreign borrower (or guarantor), or where there is a relationship between the guaranteed lender and the borrower.

Political risk coverage generally includes war risks, cancellation of an existing export or import license, expropriation, confiscation of or intervention in the buyer's business, or currency transfer risk. Losses due to currency devaluation are not considered a political risk.

Commercial risk guarantees cover non-payment for reasons other than specified political risks. Examples are insolvency or protracted default due to a deterioration in the buyer's market, fluctuations in demand, unanticipated competition, shifts in tariffs, technological change and natural disasters.

Eximbank will guarantee payments on cross-border or international leases structured as finance leases of US manufactured equipment. (Eximbank insurance is available for operating leases.) The lease terms may vary considerably, depending on the transaction, but must conform to the general guidelines of

the OECD and the Berne Union. The Eximbank must be satisfied the equipment will be exported as a result of the guaranty.

Eximbank's guarantees carry the full faith and credit of the United States Government. Notes covered by Eximbank's guarantee may be freely transferred. In the event of a default, the guaranteed lender must file a claim no less than 30 and no more than 150 days after the default.

Eximbank has shown considerable flexibility in recent years with complex, innovative structures that go beyond traditional, floating-rate loans, including transactions:

- funded in the US commercial paper market;
- funded with fixed-rate Pefco debt;
- funded in the fixed-rate public and private markets;
- leveraged debt transactions with subordinated debt not guaranteed by Eximbank;
- Japanese leveraged leases with defeased and non-defeased debt.

Appendix E contains a comprehensive description of Exim programs, as well as Eximbank project finance loans, guarantees and other programs.

(m) OPIC – loans and guarantees

OPIC (Overseas Private Investment Corporation) is a United States government agency which encourages US private investment in developing countries by providing loans, guarantees and other programs. In 1995, OPIC listed 140 countries which are eligible for OPIC loans and guarantees. OPIC has been especially active in providing financial support to joint venture projects in central and eastern Europe as well as Russia and the New Independent States (NIS) of the former USSR.[2]

OPIC supports, finances and insures projects that have a positive effect on US employment, are financially sound and promise significant benefits to the social and economic development of the host country.

OPIC provides financing for direct loans for projects sponsored by US small businesses. These loans generally range in amount from US$2 million to US$10 million.

OPIC loan guaranties are typically used for larger projects. Such OPIC guarantees range in size from US$10 million to US$75 million. In certain instances, such guarantees can be as high as US$200 million. Guarantees are also used to support private investment funds.

OPIC occasionally will make loans in the form of convertible notes or other instruments with profit participation features. Depending on their terms, such loans can often be considered quasi-equity, thereby serving to strengthen the equity base. In addition, convertible notes may help to achieve or increase local ownership (often a host government requirement) by the eventual sale of the notes to local investors.

OPIC's criteria for approval of a financing transaction are the same for making a direct loan or for issuing a loan guaranty.

Projects eligible for OPIC financing must be commercially and financially sound. They must be within the demonstrated competence of the proposed management, which must have a proven record of success in the same or a closely related business. It is helpful if the proposed management has a significant continuing financial risk in the enterprise.

OPIC recognises the concepts and acceptability of project financing, which looks for repayment to the cash flows generated by projects. OPIC carefully analyses the economic, technical, marketing and financial soundness of each project. There must be an adequate cash flow to pay all operational costs, service all debt and to provide the owners with an adequate return on their investments. To the extent that project financing techniques are appropriate, sponsors need not pledge their own general credit beyond completion guarantees and undertakings.

OPIC finances foreign (non-US) enterprises which are wholly owned by US companies. OPIC also finances joint ventures involving foreign domestic companies and US sponsor firms. The US investor is expected to assume a meaningful share of the risk, generally through the purchase of at least 25 per cent of the equity in the joint venture project.

To receive OPIC support, projects must demonstrate a potential for positive effects on the US economy. OPIC weighs the balance-of-payments and employment effects on the US economy of every project it considers supporting. Such factors as the level of US procurement, net financial flows and net project exports to the United States are important to OPIC in reaching a decision to assist in financing a project.

OPIC assistance is denied to projects that are likely to have a negative effect on US employment or trade.

OPIC will not support a runaway plant, such as the substitution of existing US facilities with a foreign plant to produce for the same US or export markets. OPIC will decline to assist projects that are likely to have an adverse effect on the US balance of payments. OPIC assistance need not be tied to the procurement of US goods or services, but assistance may be denied in cases where a preponderance of the procurement is from other industrialised countries.

OPIC generally requires at least 51 per cent of the voting shares of the foreign venture should be held by firms or persons from the private sector. However, financing may be offered to an entity in which host government ownership of voting shares represents the majority provided it is contractually agreed that management will remain in private hands and there is a strong showing of direct US interest in other respects. Projects wholly owned by governments are not eligible.

Loan guaranties are issued to US financial institutions which are more than 50 per cent beneficially owned by US citizens, corporations, or partnerships. Foreign institutions that are at least 95 per cent US-owned are also eligible. Typical funding institutions include commercial banks, insurance companies and pension funds.

OPIC guaranteed loans are fully protected by the full faith and credit of the United States of America. Such loans are classified as eligible US government securities for insurance companies and many other institutional investors. As a result, funding is available through fixed or floating interest rate obligations at approximately the same rates as those guaranteed by other US Government agencies.

The repayment schedule of a direct or guaranteed loan will reflect the purpose of the loan and projected level of cash flows to be generated by the project, which must be sufficient to meet interest and principal payments and to provide for an adequate return to equity investors. The terms of such loans typically provide for a final maturity of five to fifteen years following a suitable grace period during which only interest is payable.

Interest rates on OPIC loans will vary with OPIC's assessment of the financial and political risks involved. They will also reflect changes in interest rates in long-term capital markets in the United States.

As primarily noted, interest rates on guaranteed loans are comparable to those of other US Government-guaranteed issues of similar maturity and are subject to OPIC approval. For loan guaranties, OPIC charges the borrower a guaranty fee which typically averages 2 to 4 per cent per annum on the outstanding principal amount, depending upon commercial and political risk assessment. OPIC will sometimes adjust its guaranty fee to include an income-sharing provision.

With the exception of convertible subordinated promissory notes, OPIC expects that its creditor participation will be on a senior basis, *pari passu* with the holders of other senior debt and that it will share in a first lien on fixed assets and any other appropriate collateral. A host government guaranty normally is not required by OPIC.

Consistent with commercial lending practices, up-front, commitment and cancellation fees are charged and reimbursement is required for related out-of-pocket expenses, including fees for outside counsel and for the services of experts or consultants.

Appendix D contains a more comprehensive description of OPIC loans, guarantees, insurance and other programmes.

(n) Shipping company financing the purchase of a foreign flag ship by a non-recourse loan

A shipping company sponsor with limited credit and limited access to capital seeks to finance a foreign-built, foreign flag ship, by a non-recourse loan based on the collateral of the ship and the charter. Title to the ship is held by a wholly owned subsidiary of the sponsor. Shipyard financing, shipyard guarantee, or foreign export credit programmes may provide considerable sources of support. Such outside financing may wrap around shipyard financing or be exclusive and must be secured by a first mortgage on the ship (junior to the shipyard of a wrap-around).

A long-term bare boat charter to a very strong credit with a hell-or-high water clause which provides sufficient cash flow to service debt and pay operating costs, will provide credit support for possible 100 per cent financing.

The shipping company obtains a bare boat charter for the ship from a very strong credit with hell-or-high water obligations for 15 years, which provides adequate cash flows to service the debt, pay any operating expenses and provide a contingency fund. The charter must contain adequate safeguards against rising operating costs and taxes, including possible withholding taxes. The obligation to pay is unconditional and not excused by failure of the ship to operate, or

labour dispute or the owner to perform. In the event of total loss of the ship, the obligation to pay continues until insurance is paid (the charter insurance). Thus, the obligation of the charter party to pay supports the transaction.

Sources of funds include international bank syndications and the international bond market. US insurance companies have very limited amounts available for offshore loans.

In the case of the international bond market, collateral consists of a first ship mortgage held by a trustee for the benefit of note or bondholders, plus an assignment of the charter and the right to receive payments under the charter. An international bank syndication is often an agency loan arrangement with the same collateral held by the agent.

Debt rate, balance sheet and covenants

The rate will be somewhat higher than the debt rate of the chartering party. When available, the international bond market is fixed rate. Bank syndications are usually floating rate although occasionally are fixed. Typically, off-balance sheet financing for the parent is achieved by holding title to the ship through an unrestricted subsidiary and structuring the loan non-recourse to the parent.

Advantages

1. The loan may be non-recourse to the sponsor if the borrowing is by an independent subsidiary.
2. The loan may be outside loan covenants of the sponsor restricting debt or leases if structured non-recourse to the sponsor.
3. Capital is preserved for other uses.
4. Project might not be otherwise financed due to absence of outside credit support.

Disadvantages

1. Higher borrowing costs.
2. Borrowing will show as debt on a consolidated balance sheet. However, foreign flag shipping companies infrequently publish or rely on consolidated balance sheets.

(o) Take-or-pay, through-put and put-or-pay contracts

(i) Take-or-pay contracts

Take-or-pay contracts are indirect guarantees. A take or-pay contract is an unconditional contractual obligation to make periodic payments in the future for fixed or minimum amounts or quantities of products, goods or services at fixed or minimum prices.[3] The obligation is either not cancellable or is cancellable only with the consent of the other party, or in the event of some remote contingency. If lenders are relying upon a take-or-pay contract for repayment of their loans, the payments must be in an amount sufficient to both service the debt needed to finance the project or facility which will provide the contracted services or product and to pay fixed and variable operating expenses of the project. The obligation to make minimum payments is unconditional and must be paid whether or not the service is actually furnished or the product actually delivered. The payments are usually subject to escalation due to increased operating costs of the facility.

The obligation to take-or-pay may be in a variety of forms. Minimum payments sufficient to service debt plus payments for product or service as delivered or performed are one method. Another method provides for payment for certain minimum amounts of service or product whether or not delivered, with credit against future obligations to pay where larger payments than required are made.

The unconditional nature of the obligation to pay by the take-or-pay obligor is absolute and not limited by total destruction of facilities, acts of God, nuclear explosion, confiscation, condemnation, etc. The obligation is to pay, 'come hell-or-high water'.

Provision is often made for payments to be made by the take-or-pay obligor to a trustee, which pays the debt service directly to creditors, thus assuring the creditors' right to such payments in the event of insolvency or bankruptcy of the supplier. For a borrower with foreign markets and lenders, the payments by take-or-pay obligors may be to a trustee outside the borrower's country.

The take-or-pay obligor can protect its interests by retaining rights to take over the project in the event of failure by the supplier to perform. Any such take-over would be subject to the take-or-pay obligor assuming or paying the debt used to finance the project. Typical projects financed by a take-or-pay contract might be coal mines, refineries, reforming units, petrochemical plants, terminals, pipelines, distribution systems, electricity generating plants, co-generation plants.

A discussion of the terms which might be included in a typical take-or-pay contract for coal appears later in this chapter.

(ii) Through-put contracts, tolling agreements and cost-of-service tariffs

Where the project is to provide a service, such as the transmission of a product through a pipeline, the long-term take-or-pay contract for the transmission service is called a through-put contract.

Through-put agreements take many forms. However, when used to support the financing of the facility or pipeline, the obligation to make periodic payment for the service is unconditional over the life of the loan and is regarded by the lender as a guaranteed source of income. The obligor pays, whether the service is used or not. This type of obligation is also sometimes called a tolling agreement, a cost-of-service tariff, or a deficiency agreement.[4]

(iii) Put-or-pay contracts

Put-or-pay contracts or supply-or-pay contracts are provided by suppliers of energy, raw material or products to a project which needs an assured supply of such energy, raw material or product over a long period, at a predictable price, to meet production cost targets. Under such contracts, the put-or-pay obligor must either supply the energy, raw material or product, or pay the project company the difference in costs incurred in obtaining the energy, raw material or products from another source.

(iv) Take-and-pay contracts

Take-and-pay contracts are similar to take-or-pay contracts, but differ in the very important respect that they are not unconditional obligations to pay for product or service whether or not delivered.

Rather, a take-and-pay contract is an obligation to pay for the product or service only if it is delivered. It is, for example, an obligation to pay for coal if it is delivered to a rail site; or an obligation to pay for energy if it is delivered to the fence (that is, the plant site); or an obligation to pay for oil if it is delivered to the dockside.

Although long-term take-and-pay obligations can be helpful in providing support for the financing of a project, since the obligation to pay is not unconditional, 'come hell or high water', the obligation is not the equivalent of a guarantee and usually carries little weight with lenders. However, where other risks in the project and in providing the service can be covered by undertakings of a strong operator, for example and insurance, the combination of a take and-pay and such obligations may provide sufficient credit support for the project so as to make lenders comfortable with the credit risk.

Confusion between take-or-pay contracts and take and-pay contracts has resulted in many prospective project financings failing before they get started. Take-and-pay contracts are easier to negotiate than take-or-pay contracts. Consequently, a sponsor or promoter sometimes negotiates a take-and-pay contract under the mistaken impression that such a contract will provide adequate security for a loan to finance the facility. In some situations, a take-or-pay contract might have been negotiated, had the sponsor or promoter aggressively pursued that course originally.

Some promoters will argue with their bankers that there is no such thing as an unconditional take-or-pay contract. However, this is not the case. It may be rarer in some industries than others, but it has come into increasing use in recent years as users of products and services have sought ways and means to get projects financed off their balance sheets even though included in a footnote.

(v) Take-if-needed

Another type of contract much less desirable than even a take-and-pay contract is a take-if-needed contract which puts the supplier at the mercy of the user's needs.

(vi) Comparison with ship charters

It may be helpful, in gaining perspective on a long-term take-or-pay contract or through-put contract, to compare the obligation to a long-term bare boat ship charter. Such transactions are quite common. Ships have been financed on the basis of such charters for many years. Such a long-term ship charter, in which the charter party is obligated to pay 'come hell or high water', is the equivalent of a guarantee so far as lenders are concerned. (The hell-or-high water clause originated in unconditional ship charters.)

It is also well to note that some long-term time charters obligations do not contain hell-or-high water clauses. In such contracts, the charter party pays only if the service is furnished. Thus the charter is merely the equivalent of a take-and-pay contract. Still, a ship operator of good reputation and financial standing, with adequate insurance, can obtain financing on the basis of such a contract.

(vii) Accounting treatment of take-and-pay contracts and through-put contracts

Financial Accounting Statement No. 47, *Disclosure of long-term obligations*, issued in March 1981 and SEC Staff Accounting Bulletin No. 28, both set rules for reporting long-term unconditional take-or-pay contracts; both are reproduced in Appendices A and B.

Briefly stated, long-term unconditional take-or pay contracts are to be treated as indirect obligations of the party contracting for the service or the product. This means that the obligation should be disclosed in a footnote to the balance sheet, but need not be recorded as a balance sheet obligation. According to FAS 47, the footnote should contain a fairly complete description of the contract, including:

'a. The nature and term of the obligation(s).
b. The amount of the fixed and determinable portion of the obligation(s) as of the date of the latest balance sheet presented in the aggregate and, if determinable, for each of the five succeeding fiscal years.
c. The nature of any variable components of the obligation(s).
d. The amounts purchased under the obligation(s) (for example, the take-or-pay or through-put contract) for each period for which an income statement is presented.'

A consideration of the problems presented in prescribing rules for the reporting of take-or-pay obligations illustrates the dilemma of the accounting profession in trying to arrive at standards for the fair presentation of the financial obligations of corporations.

Take, for example, two companies, A and B, which have electric coal-generating facilities which will both require coal for 20-years.

Company A enters into a long-term take-or-pay contract for coal with a supplier at a set price, with escalation for certain operating expenses. The operator is able to use the contract to obtain financing for the construction of the mine in a project financing. Because of the value of the contract to the operator, Company A is able to negotiate a long-term contract for coal at what appears to be an attractive price, considerably under the expected spot market.

Company B, on the other hand, elects to buy coal in the spot market, even though it knows that it will require coal deliveries for 20-years.

Looking at the published financial statements, Company B will appear stronger than Company A, since it has made no disclosure of a long-term cash obligation for the purchase of coal. However, Company B will be required to make purchases of coal and will probably pay higher prices in the spot market than Company A.

(viii) Take-or-pay contract obligations of utilities subject to special scrutiny

Some utility commissions, in their short-sighted zeal to provide a politically expedient, immediate benefit to consumers today at the expense of many tomorrows, have undermined the ability of utilities under their jurisdiction to act as reliable take-or-pay obligors under long-term supply contracts, by arbitrarily cancelling long-term supply contracts entered into by utilities when spot markets offered more favourable pricing.

In the light of such experience, lenders will not regard a take-or-pay contract entered into by such a utility as an unconditional obligation to pay, ie, the equivalent of guarantees and adequate support for a long-term loan.

Perhaps the solution in such circumstances is to get the unconditional agreement of the utility commission not to cancel the contract, with an opinion of the state attorney general that such an arrangement is binding.

(ix) Take-or-pay obligations of pipeline companies

In recent years the sanctity of take-or-pay contracts was put to test as a result of wide fluctuations in the price of product, particularly gas. There were many instances of unilateral breaches, with the injured party facing years of litigation to say nothing of being cut off from future business dealings with the party breaking the contract. As a practical matter many of these breaches of contract were settled, although some are still pending.

Needless to say, these disputes were not encouraging to potential lenders seeking to rely on take-or-pay contracts.

(x) Example of a project financing supported by a take-or-pay contract

A utility is building an electric generating plant and requires a long-term supply of coal. It could acquire a mining property itself and construct a mine, but it

already has heavy debt obligations and faces future capital expenditure for additional generating facilities.

After investigating other alternatives, the utility enters into a long-term take-or-pay contract with a coal operator, which then uses the take-or-pay contract as security for financing the construction of the mine.

Rate base, tax, credit and debt rate

The take-or-pay obligation is not in the sponsor's rate base. The amount paid for the service or product is a clearly segregated cost. As far as income tax liabilities are concerned, the supplier claims depreciation deductions. The credit is that of the take-or-pay contracting party and the contract. The debt rate depends upon the credit rating of the take-or-pay sponsor and upon the form of debt instrument used with the take or-pay.

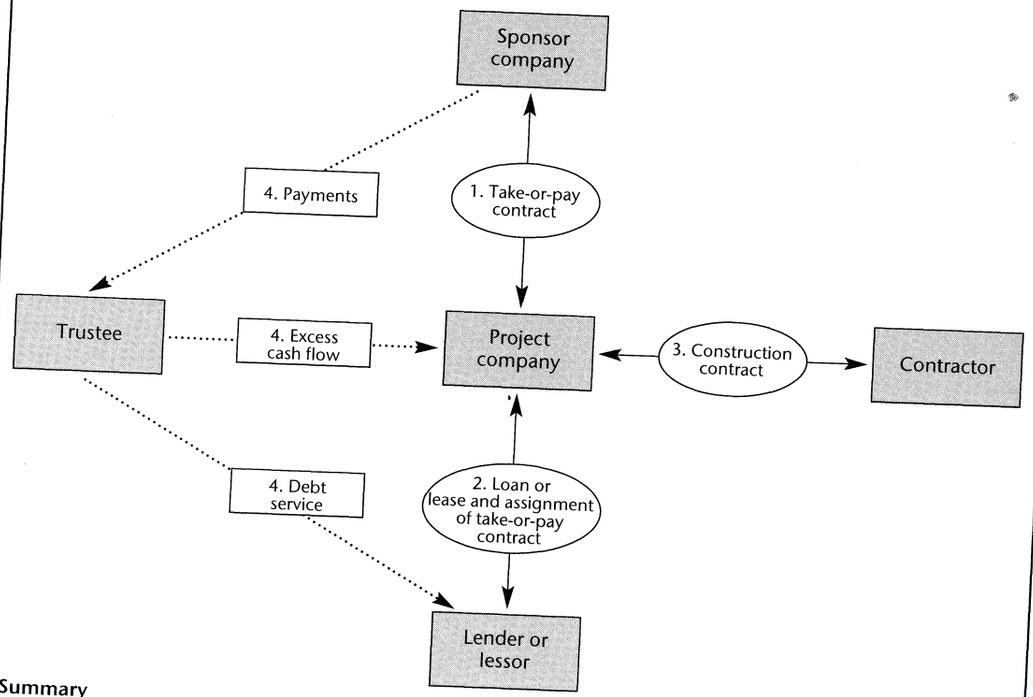
Balance sheet and loan covenants

The supplier can use the sponsor's take-or-pay contract to support any of the following: bank lines of credit, leases, senior debt, subordinated debt, notes also secured by first mortgage, or an instalment sale contract. These direct obligations will show on the supplier's balance sheet or in its footnotes along with its obligations under the take-or-pay contract.

The borrowing secured by a take-or-pay contract will appear as debt. However, loan covenant restrictions might be avoided if the debt is non-recourse, or if the project is held by an unrestricted subsidiary and the supplier is not a party or guarantor. The obligation to take-or-pay may not fall within the scope of loan covenants restricting debt or leases.

As regards the sponsor's balance sheet, a take-or pay contract constitutes an indirect obligation. It is regard-

Exhibit 27.8: Project financing supported by a take-or-pay contract



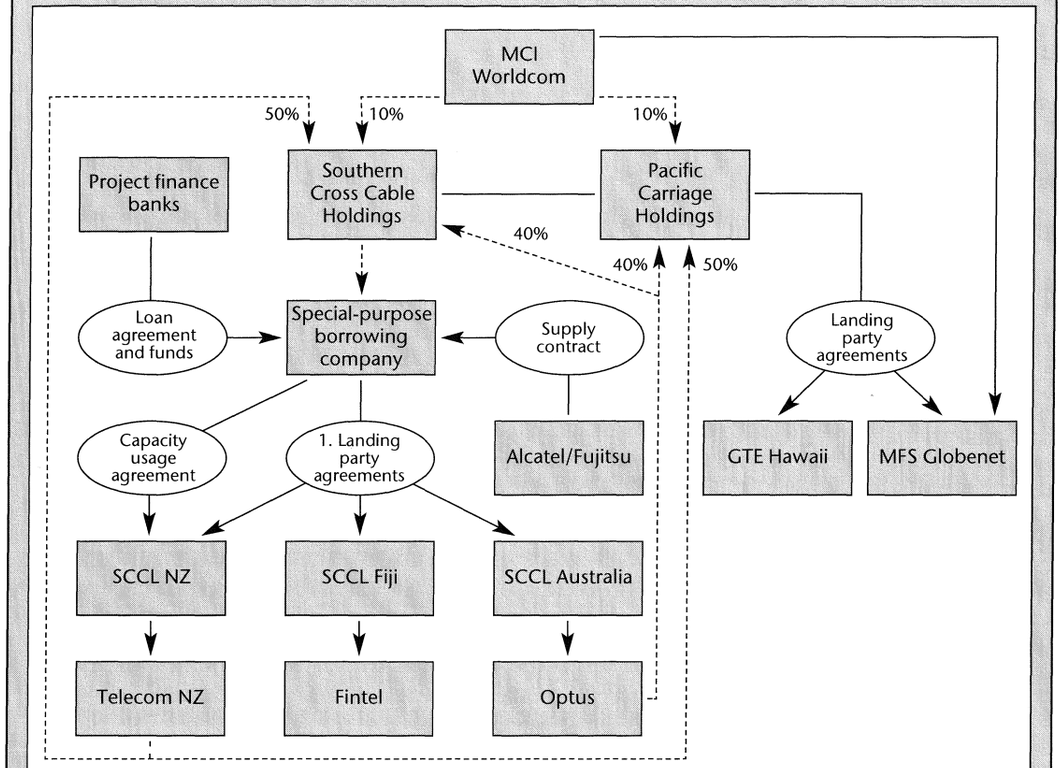
Summary

1. A sponsor company enters into a take-or-pay contract with a project.
2. A project company arranges a loan or lease with a lender or lessor and assigns the take-or-pay contract as security to the lender or lessor or to a security trustee acting for them.
3. Proceeds of the loan or lease are used to finance the construction of the property.
4. Take-or-pay contract payments are made to the trustee which, in turn, pays debt service to the lender(s) or lessor(s); any excess cash flow is paid to the project company.

Case study: Southern Cross Cable – Take-or-pay contract

The US$1.2 billion Southern Cross Cable transaction involves a high-capacity fibre-optic cable connection from Australia to the US via New Zealand, Fiji and Hawaii. The final system uses 29,600km of cable.

The objective was to secure US$900 million debt through pre-committed capacity contracts between the sponsors and the 'Landing Parties'. The financial plan includes a US$480 million tranche (backed by some US$640 million in pre-commitments for capacity usage) with the remaining US$420 million term debt and a US$20 million working-capital facility (available post-completion) subject to full market risk.



Summary

The special-purpose borrowing company enters into landing party agreements with its offtake clients, who underwrite part but not all of the cable capacity.

ed as a supply obligation or rent commitment and is disclosed under the commitments and contingent liabilities section of the footnotes to the balance sheet.[5]

Completion of the project

A guarantee of completion of the construction of a project to be financed by a take-or-pay contract is typically provided by a completion guarantee from the sponsor or some third-party. The completion guarantee covers cost over-runs and guarantees the project will be completed in a certain time frame and perform in accordance with specifications. The completion guarantee runs to both the construction lenders and to the term lenders.

Advantages

1. A take-or-pay contract has a less negative impact on the sponsor's credit than a guarantee.
2. The advantage over other advances is that an advance has an immediate impact upon the cash

and the balance sheet of the sponsor. The project may also be of such a size that an advance would be greater than the sponsor could handle or afford to provide.

3. The sponsor's take-or-pay obligation does not appear as debt on its balance sheet, yet provides the necessary credit support.
4. The take-or-pay obligation of the sponsor is outside loan covenants restricting debt or leases.
5. The supplier may be able to keep the borrowing off its balance sheet by borrowing on a non-recourse basis through a subsidiary which uses the take-or-pay contract to support the borrowing.
6. Costs and cost of service segregated for rate-making purposes.
7. The project might not be financed in absence of outside credit support.

Disadvantages

1. A take-or-pay contract results in a somewhat higher borrowing cost.
2. The sponsor lacks absolute control over the facility.
3. The take-or-pay contract shows as an indirect liability in the sponsor obligor's balance sheet footnotes.
4. The transaction is complex.

(xi) Take-or-pay PURPA contracts

Many energy projects are structured to qualify under PURPA (Public Utility Regulatory Policies Act 1978) which requires electric public utilities to purchase power from the project. In many cases it is necessary to have the project certified under PURPA by the FERC (Federal Energy Regulatory Commission) as a qualifying facility to exempt the project from regulation under the Public Utility Holding Company Act. Some of these contracts fix the electricity rate at some price, perhaps with escalation built in. Other similar projects float rates with the utilities' avoided cost, which is usually a complex calculation of the utilities' cost of producing energy. The avoided cost may take into account the cost of building new capacity as well as fuel costs. Since avoided costs can move upwards or downwards, a stream of revenue is not assured which makes them a risky sort of take or-pay contract. Sometimes collars can be negotiated to limit upwards or downwards movements to help alleviate this problem. Also, the political risk of interference by local public utility commissions is always present.

(xii) Nuclear fuel purchased by a nominee trust or corporation supported by hell-or-high water contract to purchase energy

The sponsor, an electric utility, has a need for a nuclear fuel. A nominee trust or nominee corporation (Corporation X) is formed by persons friendly to the utility, such as its attorneys or its investment bankers. The utility is not the beneficial owner of the trust and does not own stock in Corporation X. The utility and Corporation X then enter into an energy contract or lease agreement, similar to a take-or-pay contract, whereby the utility agrees to pay for the energy (or nuclear fuel) as it is used or burned. The energy contract provides minimum payments sufficient to provide for an amortisation of the principal and interest which must be paid by Corporation X in order to finance the fuel. These payments are unconditional and must be paid 'come hell or high water'.

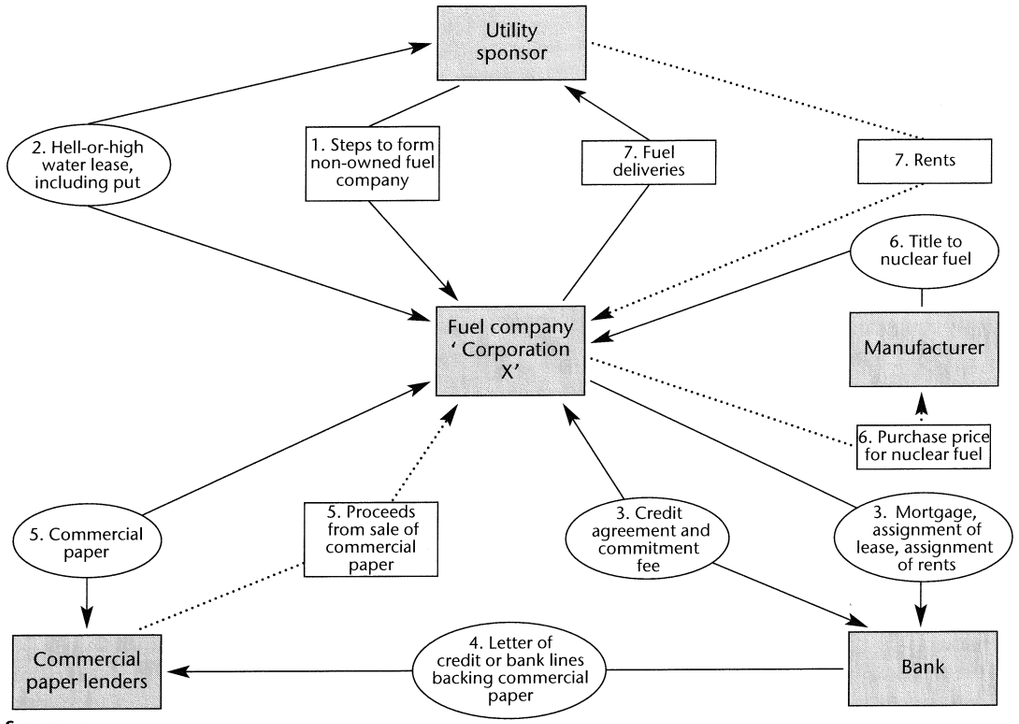
Corporation X then pledges the fuel, the rents and the lease agreement, with its unconditional requirement for minimum payments by the utility as security for back-up lines of bank credit sufficient to purchase the fuel. As further credit support for the bank line of credit, the arrangement between the parties may provide for lenders to put the fuel to the utility during the term of the lease at a price which will ensure that the loans to finance the fuel can be paid off.

The back-up bank lines may take various forms. They may be lines of credit pledged to support commercial paper. They may be evidenced by a letter of credit which is used to issue commercial paper. They should be for a term of years or include an evergreen roll-over with sufficient notice to permit alternative arrangements in the event of termination.

The utility may furnish whatever management is required for Corporation X under a management contract. Corporation X prices its lease with a spread over its cost of funding so as to realise a profit for administering the transaction.

The utility also has an option to purchase the unused fuel at various termination values throughout the term of the lease. The objective of the utility is to tap new credit sources at the lowest possible price. Another objective may be to structure the financing of the fuel advantageously for rate base purposes or as a segregated cost. Until FAS 13, another objective was to show the lease in a footnote to the balance sheet or to treat the lease as a supply contract entirely off-balance sheet.

Exhibit 27.9: Purchase supported by hell-or-high water contract



Summary

1 A utility sponsor causes a fuel company or trust, Corporation X, to be formed.
2. The utility enters into a hell-or-high water lease or contract for nuclear fuel, which includes a put, whereby the fuel company can put the fuel back to the utility.
3. The fuel company enters into a loan agreement with the bank; the fuel company gives the bank a mortgage on the nuclear fuel and assigns the lease and all rights under the lease to the bank as security for the loan.
4. The bank issues a letter of credit or a line of credit dedicated to backing commercial paper to be issued by the fuel company.
5. The fuel company issues commercial paper and receives the proceeds.
6. The fuel company uses the proceeds from the commercial paper to pay for the nuclear fuel. Title to the nuclear fuel is conveyed to the fuel company.
7. Fuel company delivers fuel to the Utility, and the Utility pays 'rents' for the fuel.

The same structure can be used to finance other types of fuel such as coal piles or stored oil. Moreover, such arrangements for financing coal piles or stored oil stand a much better chance of being off-balance sheet than nuclear fuel. Acceptances have also been used to finance other types of fuel.

Rate base, tax, credit and debt rate

The amount paid for the energy is a segregated cost. The fuel inventory may or may not be in the rate base at the time of financing.

The lease is not tax-oriented. Corporation X does not claim tax benefits for accelerated depreciation. Nuclear fuel can be written off as it is burned or used. The Internal Revenue Service has not permitted accelerated depreciation for burn-off of nuclear fuel. The purchase options and puts destroy tax-oriented lease aspects of such an arrangement in any event.

The bank providing the bank line or letter of credit looks to the electric public utility using the fuel as the credit supporting the transaction. The investors in the commercial paper look to the utility and the bank for payment.

The debt rate for the commercial paper is based on the bank letter of credit or back-up credit lines. Other factors including the utility's credit, the override charge by Corporation X and the commitment fee charged by the bank for its bank lines or letter of credit enter into

the overall cost of the financing. The amount charged for the commitment fee depends upon the bank's opinion of the utility's credit.

Balance sheet and loan covenants

Nuclear fuel leases, heat supply contracts and burn-up contracts for nuclear fuel are all considered to be leases. Paragraph 64 of FAS 13 indicates such contracts were included in the definition of leases because nuclear fuel constitutes a depreciable asset. Thus, nuclear fuel contracts are treated as capital leases.

On the other hand, FAS 13 indicates that a contract to supply coal or oil, supported by a take-or-pay contract, will not constitute a lease. The distinction is that coal and gas do not constitute a depreciable asset.

The obligation under the contract may not fall within the scope of loan covenants restricting debt.

Advantages

1. Low cost borrowing through use of commercial paper without curtailing the utility's ability to issue commercial paper in its own name.
2. May be outside loan covenants restricting debt.
3. Cost segregating for rate-making purposes.
4. A project financing expands the utility's ability to borrow.
5. May not be included in interest coverage formula.
6. May be used to achieve a rate base objective.
7. May have less impact on debt rating than a loan.

Disadvantages

1. Will be on-balance sheet as a capital lease.
2. A floating interest rate for a medium-term financing.
3. Subject to the ability to issue commercial paper, which may force a fallback to much more expensive bank lines.

(xiii) Pipeline project financing supported by through-put agreement of users

A highly leveraged pipeline company with limited credit seeks to finance a pipeline project by arranging a borrowing based on the assignment to the lender of a through-put contract from sponsors seeking transportation of a product.

Under a through-put contract a group of sponsors of a pipeline enter into a long-term contract to ship certain minimum amounts of gas, oil, or refined product through a pipeline at periodic intervals at fixed prices determined by formula, but in total sufficient to pay debt service and operating expense of the pipeline. Each sponsor is unconditionally obligated to ship a certain minimum amount during each time period. If any sponsor fails to ship during a time period, the sponsor must nevertheless pay for a minimum shipment. A sponsor who pays but does not ship during a particular time period may receive a credit against future shipments in excess of his future obligated shipments.

A sponsor who does not ship during a certain period may not be required to pay if other revenues are sufficient to service debt and pay operating expense. However, if revenues are insufficient to service debt and pay operating expenses, the co-sponsors are unconditionally obligated to make up the deficiency in proportion to ownership. The deficiency obligations between the owners may be varied, based on factors such as past usage. However, the sponsors have the unconditional obligation to provide sufficient revenues to cover operating expenses and to pay the pipeline creditors. In the case of insolvency of one sponsor, the other sponsors become liable for the insolvent sponsor's obligations. The obligation of sponsors is often joint and several under a through-put contract. A typical project might include pipelines, refineries reforming units or distribution systems.

Rate base, tax and credit

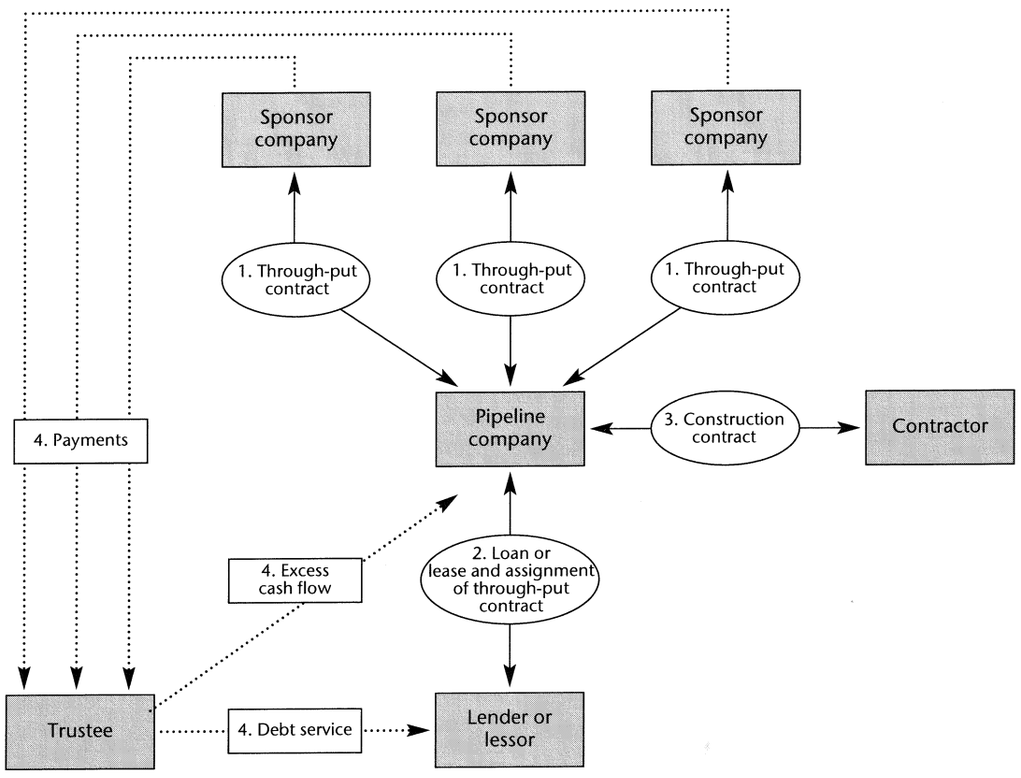
The cost of the project is included in the project company base, if applicable. The cost of service to the sponsor company is segregated and usually passed through to the consumer under approved rate structures. As regards income tax, depreciation deductions are claimed by the pipeline company. The obligations of the sponsors support the project. The debt rate is determined by the strength of the sponsors' credit.

Loan covenants and balance sheet

If the borrowing to finance the project is structured as subordinated debt or as a non-recourse loan, or is housed in an unrestricted subsidiary, the pipeline company may avoid senior debt and lease restrictions.

A through-put contract constitutes a long-term contract for services and may not fall within the scope of covenants limiting debt or leases. It constitutes an indirect obligation and is disclosed under the commitments and contingent liabilities section of the footnotes to the balance sheet.[6]

Exhibit 27.10: Through-put contract to support a borrowing



Summary

1. Three sponsor companies enter into a through-put contract with a pipeline company.
2. The pipeline company enters into a loan or lease with a lender or lessor and assigns the through-put contract as security to the lender or lessor (or to a security trustee acting for them).
3. Proceeds from the loan are used to build the pipeline.
4. Payments under the through-put contract are paid to the trustee; the trustee uses those payments for debt service and pays the excess cash flow to the pipeline company.

Variation

A transportation contract for transportation by ship of gas or oil for public utilities may be structured to contain many of the characteristics of a through-put contract, including clearly segregated cost of service for rate-making purposes. Such a contract may be used to support the financing of the ship or ships used to provide such transportation.

Completion of the project

A guarantee of completion of the construction of a project to be financed by a through-put contract is typically provided by a completion guarantee from the sponsor or some third-party. The completion guarantee covers cost over-runs and guarantees the project will be completed in a certain time frame and perform in accordance with specifications. The completion guarantee runs to both the construction lenders and to the term lenders.

Advantages

1. The obligation is off-balance sheet except for footnotes.
2. The obligation is outside loan covenants restricting debt or leases.
3. Capital is preserved for other uses.
4. Economies of a large-scale project are achieved by combining and concentrating financial resources and technical skills.

5. An essential facility is built without the sponsor-participant being required to pay the entire cost of the project.
6. Costs are segregated for rate-making purposes.
7. Credit sources are preserved for other uses.

Disadvantages

1. Higher borrowing cost.
2. Lack of absolute control over facility.

(xiv) Coal port financing supported by throughput agreement of users

Assume that several European and Japanese companies (coal purchasers) are interested in providing better coal loading facilities at a US port. Since they, in effect, pay for the coal at mine site and must absorb transportation costs, they are interested in financing the facility at the lowest possible price.

Tax-free industrial revenue bonds may be issued for the full cost of such a port facility and the coal purchasers arrange for the project to be financed using industrial revenue bonds, either alone or in conjunction with a leveraged lease.

The coal purchasers do not wish to jointly or severally guarantee the bonds, but are willing to enter into long-term unconditional through-put or tolling agreements to use the facility at certain prices and volumes with escalation. These contracts are pledged to support the bonds.

However, the credit of the coal purchasers is not well known in the United States. The coal purchasers or their parent companies are strong in their home countries but they do not wish to disclose financial information in the United States.

In order to make the bonds marketable and to obtain the best possible credit rating, the coal purchasers arrange for a letter of credit to back their obligations.

The characteristics, advantages and disadvantages of this method of financing are similar to the previously discussed use of a through-put contract to finance a pipeline, except that here a letter of credit is used to back up the obligations of the coal purchasers under the through-put contract.

This enables the coal purchasers to gain entrance to the debt markets in the United States at the best possible rates using a through-put indirect guarantee, without the necessity of their parents making disclosures or having to comply with US securities laws.

(xv) Take-or-pay contract to avoid government regulations

The Electric Commission of New South Wales needed to raise A$1.4 billion for new construction. However Australia has restrictive provisions on financing which may be arranged by Australian provinces. A loan council composed of representatives of the federal government and the various provinces establishes controls on the size, timing and maturity of all state issues and state agency issues. These controls effectively limit the amount of debt available to the provinces and their agencies. These controls prevented the Electric Commission from incurring additional debt.

In order to circumvent the loan council, the Electric Commission of New South Wales established a project company to hold title to its Eraring Power Plant. The Electric Commission then entered into a long-term take-or-pay contract with the project company. The Electric Commission then sold the project company for about A$1.4 billion to a group of 14 investors consisting of financial institutions and banks. The investors put up A$200 million as equity and borrowed A$1.250 billion in a syndicated Euro-currency loan secured by an assignment of the proceeds of the take-or-pay contract. The loan and equity investment will eventually be repaid from proceeds of the take-or pay contract.

Thus, the Electric Commission successfully raised A$1.4 billion for new construction without having to comply with controls established by the loan council. (Salomon Brothers was instrumental in arranging this transaction.)

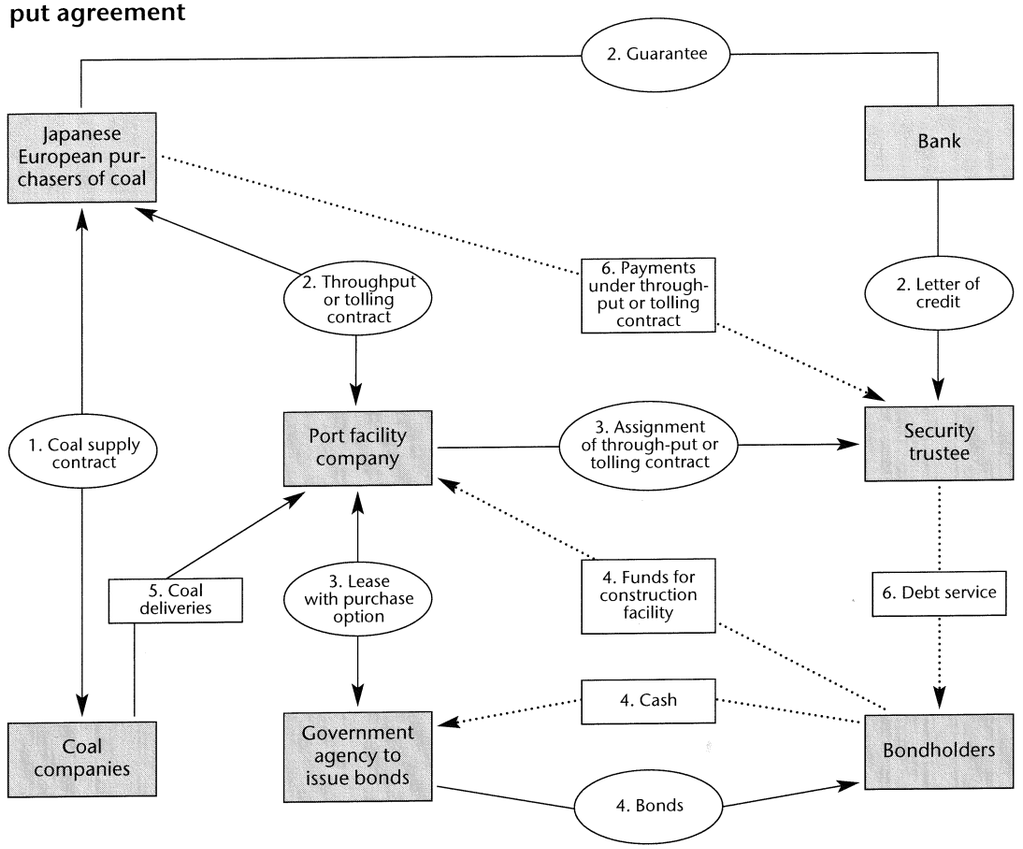
(p) Terms of a long-term take-or-pay, or put or-pay, contract

A long-term take-or-pay contract for coal is typical of take-or-pay contracts for various raw materials or services used in project financings. Such a contract can generally be described as a long-term contract to purchase certain minimum amounts of coal at set time intervals and at set prices with escalation.

The seller is usually motivated to enter into such a contract to provide a guaranteed stream of revenue which can be used to finance the construction or expansion of a mine.

Such contracts are complex and reflect a variety of factors and concerns that the buyer and seller must take into consideration. The buyer and the seller have different objectives. The seller wants an assured source

Exhibit 27.11: Coal port financing using IRBs supported by a letter of credit and through-put agreement



Summary

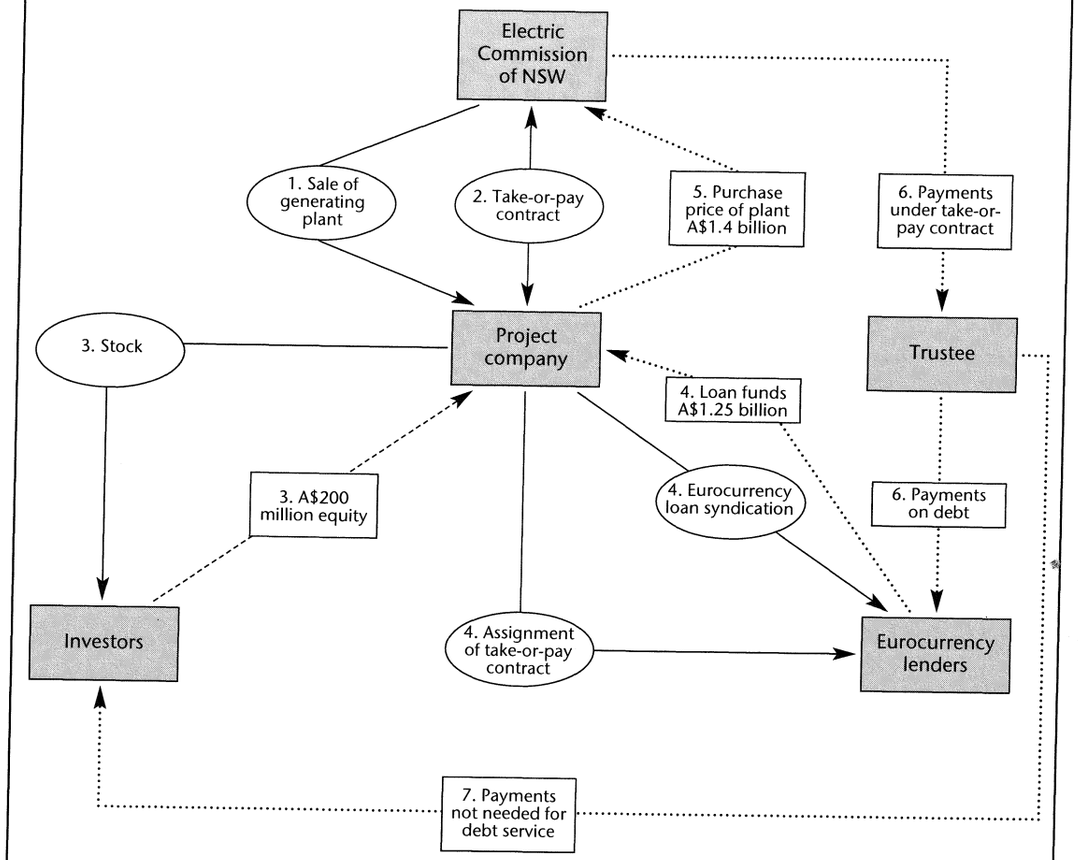
1. Coal companies and certain Japanese and/or European companies (coal purchasers) enter into a contract whereby the coal companies are to supply coal to the coal purchasers under a long-term contract.
2. The coal purchasers enter into a long-term through-put or tolling contract with the port facility company. Their obligation is backed by a letter of credit.
3. The port facility company arranges to finance the facility with the appropriate government agency and assigns the through-put/tolling contract along with a security interest in the facility to a trustee as security for the bonds.
4. The funds to finance the coal port facility are raised through a tax-free industrial revenue bond.
5. Coal deliveries commence.
6. Payments to the trustee under the through-put/tolling contract begin and debt service is paid.
7. As a variation, a leveraged lease using the bonds as leveraged debt could be used to finance the equipment portion of the port facility.

of revenue. The buyer wants an assured supply of coal at a reasonable price. The seller expects to realise a reasonable profit over the term of the agreement. Negotiations of long-term coal supply agreements therefore, are aimed at balancing these different objectives.

(i) Amount of coal to be delivered under the contract

The seller under a long-term coal contract will be much more comfortable with a fixed tonnage contract in which the seller is simply obligated to deliver certain minimum amounts of coal at set time intervals over the life of the agreement. Ideally, revenues from this fixed tonnage will be sufficient to cover debt service and operating expenses so that additional tonnage which might be produced can be sold at market prices.

Exhibit 27.12: Sale of electric generating plant to project company with take-or-pay contract supporting debt and equity



Summary

1. A project company is formed by the Electric Commission of New South Wales, which then agrees to sell to the project company the Eraring Generating Plant for about A$1.4 billion.
2. The Electric Commission enters into a long-term unconditional take-or-pay contract to purchase electricity from the project company at rates which will service debt and provide a return of the equity for the A$1.4 billion investment.
3. Stock of the project company is sold to investors for A$200million.
4. A loan syndication is arranged for A$1.25 billion secured by an assignment of the take-or-pay contract and the plant.
5. The sale of the generating plant of the project company is completed for A$1.4 billion.
6. Power is furnished by the project company to the Electric Commission and payments are made through a trustee to service the debt and repay the equity.
7. Funds not needed to service debt are paid to the investors.

On the other hand, the take-or-pay obligor is concerned that the seller be required to deliver coal sufficient to meet the requirements of the particular facility for which the coal is being furnished. This is the trade-off in a take-or-pay contract. Users of coal do not like to give long-term conditional take-or-pay obligations. Suppliers of coal do not like to enter into requirements contracts. Each party must, nevertheless, make such a commitment in order to get the other party to agree to the contract.

However, where the seller undertakes to provide coal to meet the requirements of a particular facility, the contract typically will contain some upside overall limitation of the amount of coal which the seller actually has

to deliver. Since the buyer of coal is concerned with the heat value per unit of coal, the overall limitations on coal deliveries is usually expressed in terms of BTUs. Under a requirements contract, the size of the facility for which coal is to be furnished is also usually agreed upon, since it would be unfair for the buyer to arbitrarily increase its requirements by expanding the generating capacity of an electric generating unit, for example.

(ii) Deliveries

The title to coal under most contracts passes at the mine site when loaded on the railroad cars. Coal is weighed at point of delivery. The coal is sampled and analysed at the point of weighing by a neutral third-party to determine its quality. Moisture content is determined and the seller is not responsible for any loss of BTU value per unit of weight which occurs during shipment from water contamination.

Coal is sold f.o.b. at the point of loading. Risk of loss shifts to the buyer when the coal is loaded at the mine. Where coal is sold to overseas users, the title may pass at shipboard and the coal is sold f.o.b. at that point. Transportation charges are the responsibility of the buyer.

Both the buyer and the seller usually desire coal shipments to be made at constant periodic intervals. The seller will want to be paid on a shipment basis. From the seller's standpoint, the mine can operate more efficiently with the constant use of labour and efficient constant use of machinery. From the buyer's standpoint, the buyer is assured sufficient coal to supply its needs without necessarily accumulating large inventories or paying for coal before it is needed.

(iii) Dedication of coal reserves

The purchaser of coal under a take-or-pay contract will usually want the seller to dedicate sufficient coal reserves to meet its obligations under the contract. Such a dedication is backed up by recordable liens or options to purchase, so that any purchaser of the coal property at distress sale, bankruptcy or otherwise will acquire the reserves subject to the obligation to provide the purchaser with coal at a set price. The purchaser may reserve the right to take possession of the coal property and operate the mine.

(iv) Interruptions in production

Both the seller and the purchaser are concerned with factors which result in a temporary interruption of the ability of the supplier to furnish coal. The seller will not want the buyer to have a right to terminate the contract in the event of a temporary interruption of production. The purchaser will want to be assured of an uninterrupted supply of coal. These concerns can be covered by obligating the seller to provide coal of like quality from other sources and requiring the purchaser to accept such coal during temporary production interruptions. The contract should spell out when, if ever, production interruption is of such length that the parties may terminate or assert other remedies.

(v) Quality

The quality of the coal to be sold under the contract can be described in terms of various characteristics including any of the following factors:

- sulphur content;
- BTU value;
- moisture content;
- ash content; and
- other chemical properties.

The parties can provide price adjustments for failure to meet BTU values or moisture content or similar values that effect the weight to heat content of the coal. However, sulphur content to meet environmental regulatory standards presents more difficult problems. Either the buyer or the seller might agree to blend coal with a high sulphur content with coal with a low sulphur content. However, coal that is unusable because of a high sulphur content may result in the seller not being able to perform under the contract. This in turn may give the purchaser the right to terminate and seek damages for any increased expense incurred in finding coal from other sources. Since regulatory agencies have on occasion changed standards for sulphur content of coal, this might give rise to a *force majeur* termination. From the standpoint of lenders to a coal mine which are relying on proceeds from the take-or-pay contract for debt service, terminations for any cause can be a disaster. Lenders will want to shift the risk of such *force majeur* termination to the purchaser.

(vi) Price adjustments

Most long-term coal supply take-or-pay contracts contain various provisions for price adjustments based on

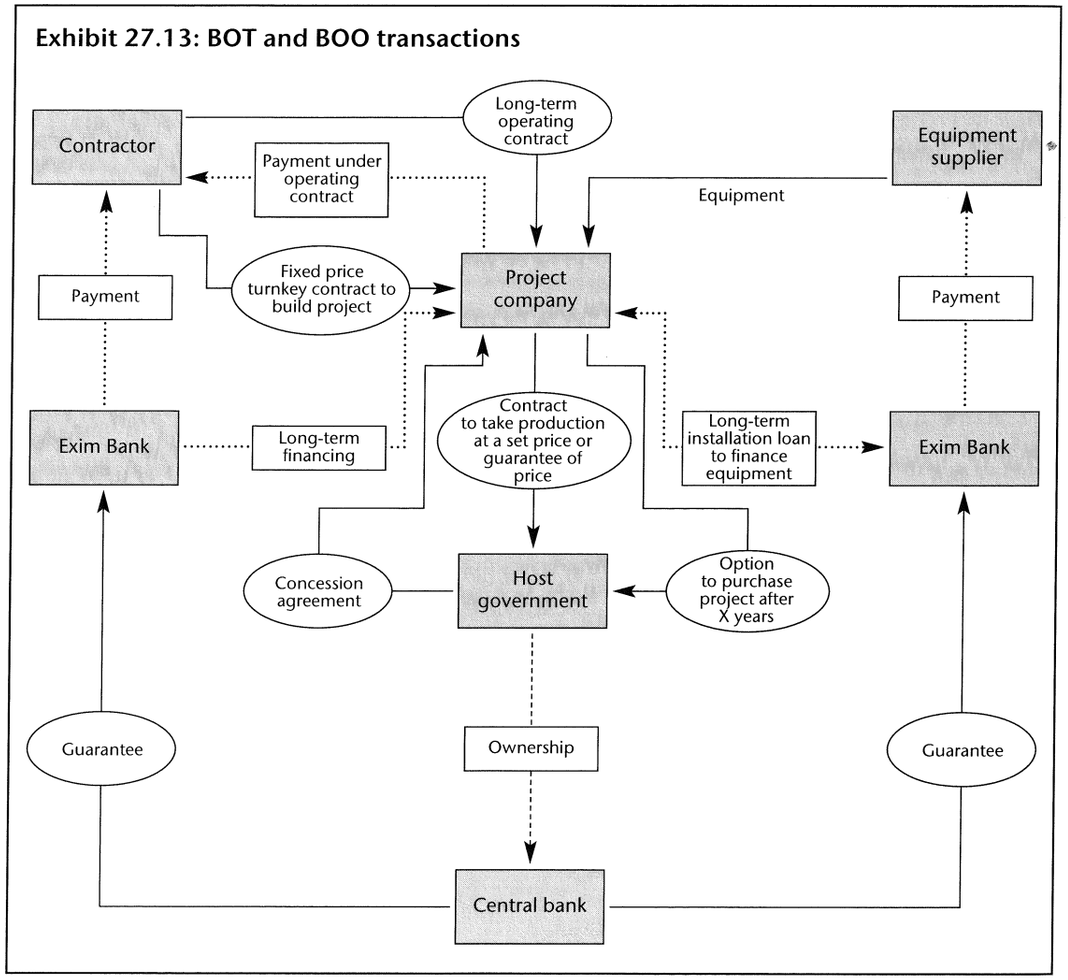
such factors as BTU content, productivity and overhead expenses. Some contracts are also priced on a cost-plus arrangement where the user takes the entire output of a mine and the seller is simply seeking a fixed return on its investment. This discussion refers to contracts with escalators for various factors rather than cost-plus arrangements.

The calorific adjustment is basic to most modern coal supply agreements. This adjustment provides that the price of the coal will be increased or decreased, based upon the BTU value per pound of coal delivered. The calorific adjustment can result in a higher price for the coal, as well as a lower price. This adjustment is figured by multiplying the base price for the coal times the percentage that the BTU value of the coal sold during a particular period is of the BTU value of the coal called for by the contract. It is expressed as a formula as follows:

$$\text{Base price} \times \left[\frac{\text{BTU value of coal sold}}{\text{BTU value of coal called for by the contract}} \right]$$

The purpose of the formula is to give the purchaser the heat value it bargained for per pound of coal and to compensate the seller for that heat value. Sellers (or buyers) sometimes bargain for a BTU value in the contract which they know to be probably above (or below) the coal to be delivered in order to take advantage of

Exhibit 27.13: BOT and BOO transactions

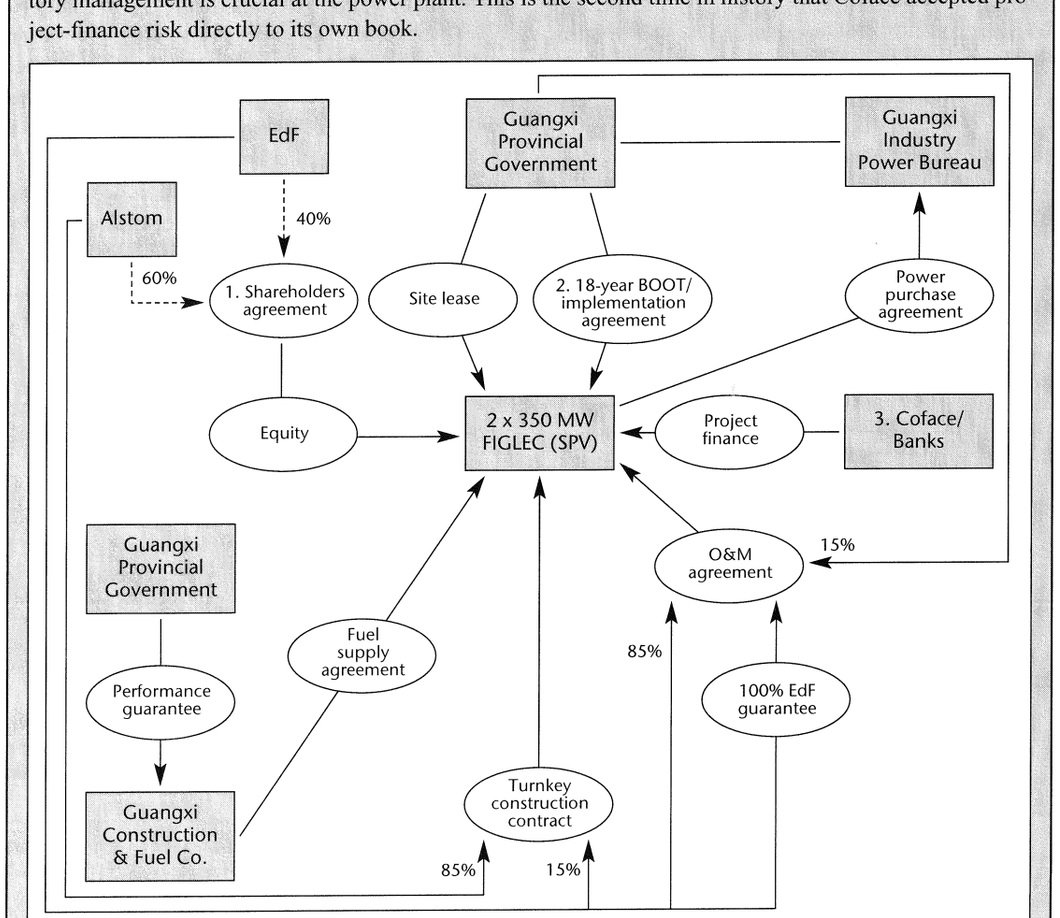


Case study: The China Laibin B – BOT transaction

The Laibin B project is often regarded as an example of how a BOT concession in China should run. Significant work was done in advance of the tender to map out the contractual arrangements for all sides in order to maximise the project finance outcome. The important State Planning Commission in Beijing had a hand on the tiller at all times to provide a format for future BOT transactions. In a deliberate move, Laibin B is not located in one of the more advanced provinces in China, thus making it a pioneering structure.

A highly transparent international tender was conducted to select the French concessionaires.

The ability of the foreign parties to own 100 per cent during the concession period is notable. Yet the power plant relies on the local parties for fuel (coal) and for power offtake under a power-purchase agreement (PPA). Changes in the Renminbi-US dollar foreign exchange rate are passed through the tariff in the PPA. Naturally, without minimum and maximum coal quantities in the fuel supply agreement, coal inventory management is crucial at the power plant. This is the second time in history that Coface accepted project-finance risk directly to its own book.



Summary

1. Electricité de France and Alstom enter into a shareholder agreement to establish a wholly foreign-owned special purpose company for the project.
2. The Guangxi government issues an 18-year BOOT concession (which includes the construction period).
3. The French ECA, Coface, supports the equipment sales and French investor/operator in the project.

price escalation or reduction. Contracts often provide for a dead band in pricing, which is a range above and below the contractual BTU value which does not call for price adjustments.

Coal contracts often contain pass-through provisions for expense items which are agreed to be the responsibility of the purchaser. These include increases in labour costs, fuel costs, rents and royalties, insurance costs and federal and state taxes applicable to the property.

Contracts also provide for escalation of various other overhead items such as materials and supplies, depreciable equipment and administrative expenses. These expenses are typically adjusted using applicable published indices.

Some contracts contain certain adjustments for productivity. However, productivity factors other than those included in escalations discussed above are not common.

(vii) Overview of contract

The foregoing is intended only to raise examples of some of the points which have to be carefully negotiated between the purchasers and the sellers in take-or-pay or put-or-pay contracts. The important thing to remember from the standpoint of project financing is that take-or-pay or put-or-pay contracts for a commodity such as coal are complex. Though such contracts may be relied upon to provide a stream of revenue to pay operating expenses and service debt careful examination of the terms of the contract, price adjustments under the contract, termination rights of the parties, as well as the ability of the operator to perform, is necessary.

(q) Build own and transfer (BOT) or build own and operate (BOO) transactions

BOT and BOO stand for 'build, own and transfer' and 'build, own and operate', respectively. BOT and BOO types of structures have been promoted in connection with a number of potential projects in Turkey and other developing countries. The BOT and BOO structures are variations of take-or-pay contracts or throughput contracts discussed earlier in this chapter. Exhibit 27.13 illustrates the structures of BOT and BOO contracts. BOOT transactions are build, own, operate and transfer, a variation of a BOT transaction.

Notes and references

1. See Chapters 10 and 28 for a list of agencies.
2. In 1995 OPIC was providing support to 58 projects in Eastern and Central Europe, including Russia, the Czech Republic, Slovakia, Hungary, Poland and Romania. OPIC has also provided funding and guarantees for several private investment funds for Russia and Central and Eastern Europe.
3. FAS 47 defines a take-or-pay contract as follows:
   '*Take-or-pay contract*. An agreement between a purchaser and a seller that provides for the purchaser to pay specified amounts periodically in return for products or services. The purchaser must make specified minimum payments even if it does not take delivery of the contracted products or services.'
4. FAS 47 defines a through-put contract as follows:
   '*Through-put contract*. An agreement between a shipper (processor) and the owner of a transportation facility (such as an oil or natural gas pipeline or a ship) or a manufacturing facility that provides for the shipper (processor) to pay specified amounts periodically in return for the transportation (processing) of a product. The shipper (processor) is obligated to provide specified minimum quantities to be transported (processed) in each period and is required to make cash payments even if it does not provide the contracted quantities.'
5. FAS 47 provides the following example for financial reporting of a take-or-pay contract:
   A subsidiary of F Company has entered into a take-or-pay contract with an ammonia plant. F's subsidiary is obligated to purchase 50 per cent of the planned capacity production of the plant each period while the debt used to finance the plant remains outstanding. The monthly payment equals the sum of 50 per cent of raw material costs, operating expenses, depreciation, interest on the debt used to finance the plant and a return on the owner's equity investment.
   F's disclosure might be as follows:
   To assure a long-term supply, one of the company's subsidiaries has contracted to purchase half the output of an ammonia plant through the year 2005 and to make minimum annual payments as follows, whether or not it is able to take delivery (in thousands):

19X2 through 19X6 (US$6,000 per annum)	US$30,000
Later years	120,000
Total	150,000
Less: Amount representing interest	(65,000)
Total at present value	85,000

Notes and references *continued*

In addition, the subsidiary must reimburse the owner of the plant for a proportional share of raw material costs and operating expenses of the plant. The subsidiary's total purchases under the agreement were (in thousands) US$7,000, US$7,1000 and US$7,200 in 19W9, 19X0 and 19X1, respectively.

6. FAS 47 gives the following example of a through-put contract:
   27. C Company has entered into a through-put agreement with a natural gas pipeline providing that C will provide specified quantities of natural gas (representing a portion of capacity) for transportation through the pipeline each period while the debt used to finance the pipeline remains outstanding. The tariff approved by the federal Energy Regulatory Commission contains two portions, a demand charge and a commodity charge. The demand charge is computed to cover debt service, depreciation and certain expected expenses. The commodity charge is intended to cover other expenses and provide a return on the pipeline company's investment. C Company must pay the demand charge based on the contracted quantity regardless of actual quantities shipped, while the commodity charge is applied to actual quantities shipped. Accordingly, the demand charge multiplied by the contracted quantity represents a fixed and determinable payment.
   28. C's disclosure might be as follows:
   C Company has signed an agreement providing for the availability of needed pipeline transportation capacity through 199O. Under that agreement, the company must make specified minimum payments monthly. The aggregate amount of such required payments at December 31, 19Xl, is as follows (in thousands):

19X2	US$5,000
19X3	US$5,000
19X4	US$5,000
19X5	US$4,000
19X6	US$4,000
Later years	US$26,000
Total	US$49,000
Less: Amount representing interest	US$9,000
Total at present value	US$40,000

In addition, the company is required to pay additional amounts depending on actual quantities shipped under the agreement. The company's total payments under the agreement were (in thousands) US$6,000 in 19W9 and US$5,500 both in 19X0 and in 19X1.

Political risk insurance

Project sponsors and suppliers typically look to government sources for political risk insurance in the United States. The Overseas Private Investment Corporation (OPIC) was created as a government agency to provide insurance and financing for projects and construction in 'less developed friendly countries and areas'. Its purpose is to promote economic growth in developing countries by encouraging US private investment in those nations.[1] Other industrial countries have similar government agencies which provides political risk insurance (see Exhibit 28.1).[2]

Political risk insurance is available from private companies as well as government sources. The coverage and amounts of private insurance available vary from time to time. Generally, the rates are high and the amounts of insurance coverage available are limited. However, the willingness of private insurance companies to insure against political risks is growing, and the availability and terms of such insurance for a project should be investigated where the need arises. American International Group (AIG) with offices in New York and London, and Commonwealth Investment Guarantee Agency (CIGA) in London, are active in providing this coverage.

A discussion of various forms of political risk insurance offered by various governmental agencies is beyond the scope of this chapter. The discussion is limited to OPIC because its coverage is similar to that offered by other major industrial countries.

However, a brief comparison of coverage available from various government agencies is shown in Exhibit 28.2.

Exhibit 28.1: Government agencies providing political risk insurance

Australia	Export Finance and Insurance Corporation	EFIC
Austria	Osterreichische Kontrollbank AG	OKB
Belgium	Office National du Ducroire	OND
Canada	Export Development Corporation	EDC
France	Compagnie Française d'Assurance pour le Commerce Exteriéur	COFACE
	Banque Française du Commerce Exteriéur	BFCE
Fed. Republic of Germany	Treuarbeit Aktiengesellschaft	TREUARBEIT
India	Export Credit & Guarantee Corporation Limited	ECGC
Israel	The Israel Foreign Trade Risk Insurance Corporation Limited	IFTRIC
Japan	Export Insurance Division, Ministry of International Trade and Industry	EID/ MITI
Korea	The Export-Import Bank of Korea	EIBK
Netherlands	Nederlandsche Credietverzekering Maatschappij NV	NCM
New Zealand	Export Guarantee office	EXGO
Norway	Garanti-Instituttet for Eksportkreditt	GIEK
South Africa	Credit Guarantee Insurance Corporation of Africa Limited	CGIC
Sweden	Exportkreditnamnden	EKN
Switzerland	Geschaftsstelle für die Exportrisikogarantie	GERG
United Kingdom	Exports Credits Guarantee Department	ECGD
United States	Export-Import Bank	EXIM

Exhibit 28.2: A brief comparison of coverage available from various government agencies

	ECGD	*COFACE*	*Hermies*	*EID/MITI*	*EDC*	*OPIC*
Performance/bid bonds	yes	yes	yes	yes	yes	yes
Exchange fluctuation	no	yes	yes	yes	no	no
Inflation	yes	yes	no	no	no	no
Liberal foreign content rules	yes	yes	yes	no	no	no
Special construction coverages	no	no	no	yes	yes	yes

OPIC insurance programme

OPIC insures eligible US investors in qualified projects in less-developed friendly countries or areas against loss due to specific political risks. There is no requirement that the project in which the insured investment is made be a project owned or controlled by US investors. However, the law requires that insurance be issued only to eligible investors. OPIC may thus insure an investment by an eligible investor in a project controlled by foreign interests, but it is only the investment which is insured, not the entire project. Eligible investors are defined as:

- citizens of the United States; or
- corporations, partnerships, or other associations created under the laws of the United States, or any state or territory of the United States, which are substantially beneficially owned by US citizens; or
- a foreign business at least 95 per cent owned by investors eligible under the above.

The risks that OPIC statute authorises it to insure against are:

1. Inability to convert into dollars local currency received by the investors as profits or earnings or return of the original investment.
2. Loss of investment due to expropriation, nationalisation, or confiscation by action of a foreign government.
3. Loss due to war, revolution, insurrection or civil strife (politically motivated violent acts including terrorism and sabotage).

OPIC programmes are available to cover US private investments in over 90 countries which have been determined to be less-developed friendly countries and areas, and with which the United States has agreements for the operation of the OPIC programme. The list of eligible countries is available from OPIC on request.[3]

OPIC insures investment only in countries with which there is an inter-government agreement, which provides that the host government must approve the issuance of OPIC insurance for the project.

OPIC policy is to insure new investment only. OPIC requires that the insured bear the risk of loss of at least 10 per cent of the total investment of the insured and its affiliates in the project. As a result, OPIC will cover only up to 90 per cent of a proposed investment.

OPIC insurance covers investment and rights under related securities or contracts. In most instances, insurance is also available for retained earnings and interest which may accrue on the insured investment. OPIC may issue insurance commitments equal to 270 per cent of the initial investment: 90 per cent represents the investment itself, and 180 per cent is for standby commitments to cover earnings or interest, as accrued. The duration of the insurance coverage may be for as long as 20 years, depending on the nature of the investment.

1. Inconvertibility coverage

OPIC inconvertibility coverage is designed to assure that earnings, capital, principal and interest, and other eligible remittances such as payments under service agreements, can continue to be transferred into US dollars to the extent transferable under exchange regulations and practices in effect at the time the insurance was issued. The blockage which entitled the insured to exchange local currency for dollars through OPIC may be either active (eg, failure of authorities denying access to foreign exchange on the basis of new, more restrictive regulations), or passive (eg, failure of authorities to act within a specified period – usually 60 days – on an application for foreign exchange). The insurance also protects against adverse discriminatory exchange rates but is not designed to protect against devaluation of the foreign currency.

2. Expropriation insurance

OPIC insurance contracts define the insurable event of expropriation action to include not only classic nationalisation of a project or the taking of property, but also a variety of situations which constitute creeping expropriation. An action, 'taken, authorised, ratified or condoned' by the project host country government is considered to be expropriatory if it has a specified impact on either the properties or operations of the foreign enterprise, or on the rights or financial interests of the insured investor. Insurance contracts typically provide that for an action to be considered expropriatory it must continue for at least six months. Important limitations in the definition of expropriatory action include exceptions for proper regulatory or revenue actions taken by host governments and actions provoked or instigated by the investor or foreign enterprise.

In the event of expropriatory action, compensation by OPIC is based on the original amount of the insured investment, adjusted for retained earnings (or losses) and accrued interest (and for any prior recoveries of investment) as of the date of expropriation. The coverage does not permit an equity investor both to retain his ownership interest and to be compensated by OPIC for government actions resulting in lost profits or reduced investment values.

3. War, revolution and insurrection insurance

Compensation is provided under war, revolution and insurrection coverage (war coverage) for loss due to bellicose actions occurring within the project's host country. There is no requirement that there be a formal declaration of war. Coverage extends to losses from actions taken to hinder, combat or defend against hostile action during war, revolution or insurrection. Coverage is also available for civil strife (including politically-motivated terrorism and sabotage) for an additional premium.

Insurance of equity investment, certain kinds of investment, and construction contracts covers specific covered property. The basic measure of compensation is the original cost of the covered property. Compensation is limited to the insured's proportionate interest in the assets of the foreign enterprise. Business income coverage is available for an additional premium.

4. Levels and cost of coverage

OPIC insurance contracts generally require the insurance premium to be paid annually in advance. Premiums are computed for each type of coverage on the basis of a contractually stipulated maximum insured amount and a current insured amount which may, within the limits of the contract, be elected by the investor on a yearly basis. The current insured amount represents the insurance actually in force during any contract year.

The difference between the current insured amount and maximum insured amount for each coverage is called the standby amount. A major portion of the premium is based on the current insured amount, with a reduced premium rate being applicable to the standby amount. For expropriation and war coverage, the insured must maintain current coverage at a level equal to the amount of investment risk.

The base rates shown in Exhibit 28.3 have been in effect in the past for different kinds of projects.

5. Availability, extent of coverage and claims

(a) Term

The term of an insurance policy may extend a maximum of 20 years. For loans, leases, and transactions covered by the contractors and exporters program, the term is generally equal to the duration of the underlying contract or agreement.

(b) Co-insurance

OPIC will insure 90 per cent of an eligible investment. OPIC requires by statute that investors bear the risk of loss of the remaining 10 per cent. The only exception to this requirement is loans and leases from financial institutions to unrelated third parties, which may be insured for 100 per cent of principal and interest.

Exhibit 28.3: Base rates

Manufacturing/services projects
Annual base rates per US$100 of coverage

Coverage	*Current*	*Standby (non-equity investments)*
Inconvertibility	30¢	25¢
Expropriation	60¢	25¢
Political violence*		
Business income	45¢	25¢
Assets	60¢	25¢

*Discounted rates may be available for combined business income and assets political violence coverage.

Institutional loans and leases
Annual base rates per US$100 of coverage

Coverage	*Covered Amount**	*Undisbursed Principal*
Inconvertibility	45¢	20¢
Expropriation	40-90¢	20¢
Political violence	40-70¢	20¢

*Covered amount is the amount of disbursed principal plus accrued interest, less principal repaid to date.

Oil and gas
Annual base rates per US$100 of coverage

*Coverage**	*Exploration*	*Development/ production*	*Standby*
Inconvertibility	30¢	30¢	25¢
Expropriation	40¢	US$1.50	25¢
Political violence (assets)	75¢	75¢	25¢
Interference with operations	40¢	40¢	25¢

*Rates shown are for current amounts.

Natural resources (except oil and gas)
Annual base rates per US$100 of coverage

Coverage	*Active/ current*	*Standby (non-equity investments)*
Inconvertibility	30¢	25¢
Expropriation	90¢	25¢
Political violence		
Business income	45¢	25¢
Assets	60¢	25¢

Contractors and exporters coverages
Annual base rates per US$100 of coverage

Coverage	*Current*	*Standby*
Assets		
Inconvertibility	30¢	25¢
Expropriation	60¢	25¢
Political violence	60¢	25¢
Bid bonds	50¢	25¢
Performance, Advance payment, and other guaranties	60¢	25¢
Disputes	70¢	25¢

These base rates may be increased or decreased by up to one-third, depending on the risk profile of the specific project. The rates for natural resource and hydrocarbon projects or large projects (total project cost of US$50 million or of insured investment of US$25 million) may vary from these rates.

OPIC insurance contracts, except for those covering institutional loans and certain service contracts, contain provisions which allow for an increase in the initial coverage rate by up to 50 per cent during the first 10 years of the contract period and another 50 per cent during the second 10 years of the contract period.

6. Coverage for contractors' and exporters' guaranties

Insurance coverage is available for a wide range of businesses, including those providing such services as construction, engineering, hospital management, and systems management, and such goods as turbines, computers, telecommunications and drilling equipment.

OPIC insures against wrongful calling by a government buyer of bid, performance, advance payment, customs and other guaranties (often issued in the form of standby letters of credit). A wrongful calling is one not justified by the terms of the contract.

OPIC provides up to 90 per cent of the amount if the applicable disputes resolution procedure: (a) results in an award which is not paid; (b) is frustrated by the foreign buyer; (c) yields an award to the buyer which is the result of fraud, corruption or duress, or is contradicted by substantial evidence in the written record; or (d) would be futile.

The US Export-Import Bank also offers insurance coverage for political risks associated with an underlying construction or service contract.

7. Special programmes for mineral and energy projects

OPIC also offers highly flexible and innovative coverage for investments in mineral exploration and development (including processing, where it is an integral part of a development project), and in oil and gas exploration, development and production, under terms and conditions tailored to the special needs and concerns of investors in these kinds of projects. Their coverage should be investigated on a case by case basis.

8. Institutional lenders

Debt coverage is available to institutional lenders whose payment stream is interrupted because of certain political acts occurring in the country of the borrower. An expropriatory action occurring in the project country is compensable if it directly causes a default on a scheduled payment of principal or interest for a period of three months (or for one month in the case of a subsequent, consecutive default). A default caused by an act of political violence is compensable if it causes default on a scheduled payment for a period of one month. Compensation is paid in the amount of the insured portion of the defaulted instalment. Loans made by financial institutions to unrelated third parties may be insured for 100 per cent of principal and interest.

9. Leasing

OPIC offers political risk insurance for operating and capital leases, including cross-border and international leases. The policy for assets leased under an operating lease provides coverage for up to 90 per cent of the costs incurred by the lessor to get the asset on location and operating (the asset cost, plus duties, freight, insurance and installation). Coverage for capital leases is available for up to 90 per cent of the stream of payments due under the lease agreement.

OPIC's insurance provides coverage against: (a) the inability to convert into dollars local currency received as lease payments; (b) loss due to expropriation, nationalisation or confiscation by action of the host government (including government actions to prevent re-possession and re-export); and (c) loss due to political violence.

Coverage is available as well for equity investments in and loans to offshore leasing companies.

Notes and references

1. See Appendix D for detailed discussion of OPEC programs.
2. See Appendix E for political risk coverage by the US Eximbank.
3. The address of OPIC is: 1100 New York Ave., N.W. Washington, D.C., United States. The OPIC website is: http://www.opic.gov.

Reserves-oriented financing

Reserves-oriented financing[1] is based on the collateral value of oil reserves, gas reserves and mineral reserves. Some types of reserves-oriented financing are recourse to the borrower and resemble a loan secured by a mortgage on real estate. In other types of reserves-oriented financing, the lender looks solely to the value of the reserves based on a conservative market price for production and the ability and undertakings of an operator as the source of funds for repayment of debt. Where a loan can be arranged on such a non-recourse basis, a project financing has been arranged.

Many of the structures used in reserves-oriented financing were developed in part as tax avoidance schemes in the 1950s and 1960s. As the tax laws were changed to do away with perceived unjustified tax advantages, the structures nevertheless survived because of their usefulness in financing and particularly in achieving project financing objectives. This discussion will trace the early history of some of these structures to provide some perspective in their development.

1. Production loans

Production loans are widely used to finance the development of reserves. In a production loan, an operator simply borrows money under a loan agreement, evidenced by a promissory note and secured by mortgage on the reserve and a security interest in the production.

Production loans are sometimes arranged as a line of credit against which the operator may borrow and repay so long as the total amount outstanding at any one time does not exceed a borrowing base. Usually the borrowing base is determined by a pre-agreed percentage of reserve values as verified from time to time by petroleum engineers and is subject to overall limits.

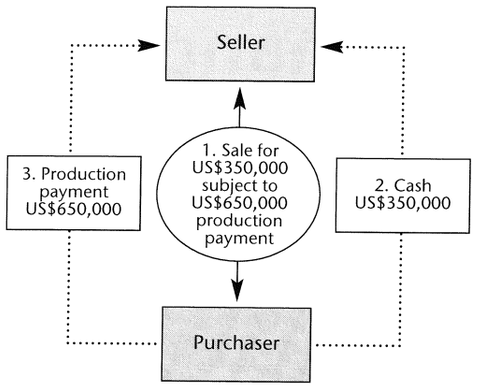
These types of loans are sometimes called borrowing base loans. The liability of the borrower may be evidenced by a single note in the maximum amount which may be borrowed, or it may be evidenced by notes in the amounts actually outstanding.

2. Non-recourse production loans

A non-recourse production loan resembles a production loan, except that the lender agrees to make a loan based solely on the security of the oil or gas or mineral reserves, the ability or undertaking of the operator to produce the reserves, and a security interest in the production and proceeds of production which can be sold at an adequate price to service the debt. More specifically, the lender relies on the following security and undertakings for repayment of its loan:

1. First mortgage and security interest in all reserves and assets involved in the project.
2. Assignment of all contractual rights of the borrower which relate to the project.
3. Placement of the project in a special project entity which will be restricted in liabilities other than to the lender.
4. An undertaking by the special project entity and the sponsor or reputable operator to construct, complete and operate the project to certain standards of efficiency. In other words, a completion guarantee.
5. A take-or-pay contract, unless the lender is satisfied that expected market prices and customers for the production will exist.

Exhibit 29.1: Loan secured by a reserved production payment



Summary

1. The seller sells a mineral property for US$350,000, subject to a production payment in the primary sum of US$650,000, plus an amount equal to an interest factor on the unliquidated balance of the production payment.
2. At the time of the sale, the purchaser pays US$350,000 in cash.
3. As production is produced, the purchaser makes production payments of US$650,000, plus the agreed upon interest factor on the unliquidated balance.

3. Production payments as collateral to obtain financing

A mineral production payment is a right to either a specified share of the production from a certain mineral property or a sum of money in place of production. Stated another way, a production payment is a conveyance by a mineral owner of certain undivided interests in minerals to be produced and sold in the future. Production payments can be precisely calculated. This makes the use of production payments attractive as security in financial transactions. The production payment frequently bears interest payable out of future production. In other words, the value of a production payment is the present value of the expected future stream of production payments discounted at some interest rate.

Loans based on production payments are one of the earliest forms of project financings. Like many financing structures first used for oil and gas production financing, the structures were originally devised to achieve certain income tax objectives. Although tax laws were changed to eliminate the real or imagined benefits of such arrangements, the structures survived because they were useful in arranging project financing.

A production payment is secured by an interest in the minerals in place. Payment is dischargeable only out of runs of oil or deliveries of gas or minerals accruing to certain property charged with production payments. It cannot be satisfied out of other production. The right to the production is for a shorter period than the expected life of the property. The owner of a production payment looks exclusively to proceeds from production for payment.

For a production payment to be valuable enough to use as collateral for a loan, the production payment must be from a proven mineral reserve.[2] An appraisal of the property must be obtained from one or more reputable appraisers, who analyse the kind and extent of the reserves. The feasibility of the production must be confirmed by an engineering study which analyses the economies of obtaining the production, expected quality of production, probable cost of production, probable markets, cash flows expected to be generated and cash needs. Expected market prices for production are obviously very important in structuring a production payment loan.

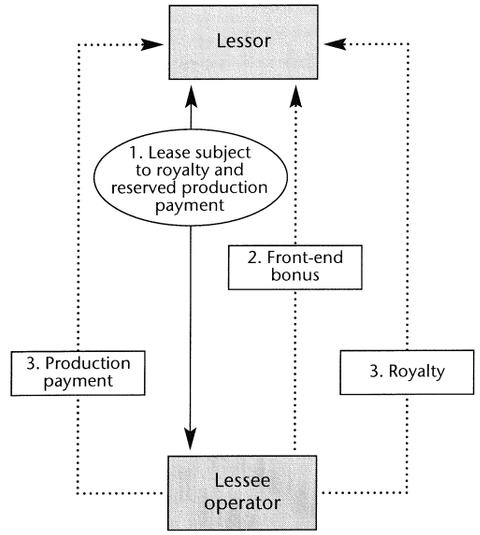
A loan secured by a production payment is self-amortising. Income from the sale of the oil, gas or other minerals is dedicated and used to pay back the loan.

Undertakings by an operator of good reputation and integrity are also needed if the production payment is to be used as collateral. Undertakings by the operator include a completion guarantee to complete the well or mine within certain time limits, to provide the necessary equipment and make the necessary expenditures to achieve completion and to pay any cost over-runs. Completion means the well or mine will be constructed in a manner to permit certain specified production rates and production of a specified quality. The operator also undertakes to protect the property and keep it free from liens.

Since the undertakings of the operator are considerable, the operator is usually the moving party seeking the proceeds of the loan secured by the production payment. Thus, the operator has the motivation and responsibility to perform.

Although potential production of oil, gas or minerals in the ground has some value, the confirmed existence of known quantities and qualities of such

Exhibit 29.2: Lease secured by a reserved production payment



Summary

1. Lessor enters into a lease of an oil or mineral property which is subject to a royalty and a reserved production payment.
2. The lessee pays a front-end bonus to the lessor.
3. As production is produced, lessee makes production payments and royalty payments to the lessor.

production, coupled with undertakings by an operator of good reputation to take the steps necessary to produce the product in a definite time frame, gives a production payment value as collateral.

(a) Example of a reserved production payment to finance a purchase of an oil or mineral property

A seller sells an oil and gas property it owns which is valued at US$1 million to a purchaser for US$350,000 in cash and reserves a production payment in the amount of US$650,000 plus interest. A typical project would be the sale of an operating interest in an oil or gas well or mineral property.

Income tax

The production payment is treated as a purchase money mortgage loan for tax purposes. The seller reports receipt of payments as consideration for a sale. Interest will be imputed if not stated. The seller cannot take depletion on the oil used to satisfy the payment.

The purchaser has a basis of US$1 million, will be taxed on the income from the well used to pay the production payments and is entitled to claim depletion.

Debt rate and balance sheet

The debt rate is negotiated between purchaser and seller. The obligation of the purchaser to pay the seller does not show as debt on the purchaser's balance sheet. It may show as a deferred liability. Covenants against debt are not affected.

Advantages

1. The loan is non-recourse except against production of the purchased property.
2. The production payment is outside loan covenants restricting debt or leases.
3. The purchaser's capital is preserved for other uses.

Disadvantages

1. The reserved production payment may result in a somewhat higher borrowing cost.
2. In certainty regarding future market prices may result in over collateralisation.

(b) Reserved production payment in a lease transaction

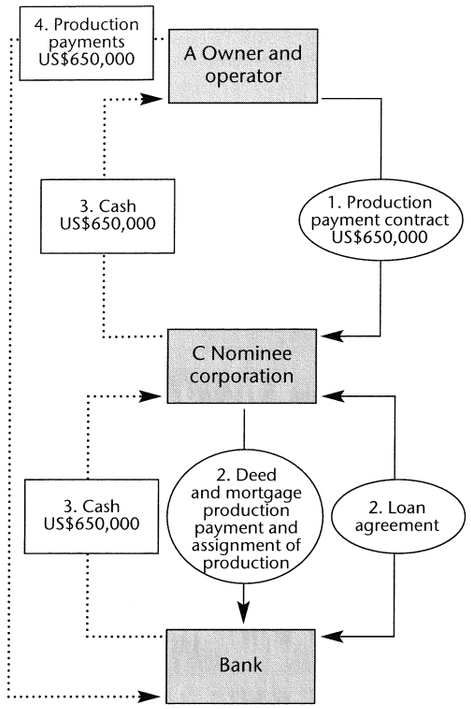
The owner-lessor leases an oil and gas property to an operator as lessee. Under the lease agreement, the lessee pays the lessor a front-end bonus of US$100,000, the lessor retains a one-eighth royalty and the lessor also retains a production payment of US$500,000. A typical project might be the lease of an oil or mineral property.

Tax consequences

The bonus and production payments are taxed as income to the owner-lessor. Production is taxed as it is sold. The owner-lessor is entitled to claim depletion.

The operator-lessee treats the production payment as a bonus paid the owner-lessor in instalments. The operator-lessee includes production payments in gross income and capitalises the payments as part of his depletable investment base in the lease. Any interest element in the production payment is excluded from taxable income of either the lessor or lessee and is treated as part of the production payment.

Exhibit 29.3: Carved-out production payment



Summary

1. An owner-operator sells a production payment contract to a nominee corporation for the primary sum of US$650,000, plus an amount equal to an interest factor on the unliquidated balance of the production payment.
2. The nominee corporation enters into a loan agreement with a bank, and secures its loan by a deed of trust and mortgage on the production payments and an assignment of the production accruing thereto.
3. The proceeds of the loan in the amount of US$650,000 are paid by the bank to the nominee corporation which, in turn, pays that amount to the owner-operator.
4. The owner-operator makes production payments directly to the bank which are sufficient to service principal and interest on the loan. (The interest factor on the production payment equals or slightly exceeds the loan interest.)

Debt rate, balance sheet and covenants

The debt rate is negotiated as part of production payment. A reserved production payment is probably not included under the lessee's loan covenants.

Advantages to lessee

1. The loan is non-recourse except against production of leased property.
2. The production payments is outside loan covenants restricting debt or leases.
3. Capital of the operator-lessee is preserved for other uses.

Disadvantage to lessor

1. A somewhat higher borrowing cost.

(c) Carved-out production payment (non-development) to raise capital

A, the owner of a producing property which he believes to be worth US$1 million, desires to raise US$650,000. A creates (carves out) a production payment with a principal amount of US$650,000 plus interest, taxes and certain expenses out of the producing property, which A then sells to C for US$650,000. A retains the residual. C is a nominally capitalised independent company. C borrows US$650,000 from a bank which secures its loan by a deed of trust, mortgage and assignment of proceeds of production accruing to the production payment. (Banks are not generally permitted to own real property which includes mineral interests and, therefore, cannot invest directly in production payments.) It is a method of borrowing against an oil, gas or mineral property on a non-recourse basis.

Income tax

Before the Tax Reform Act 1969, the owner, A, was taxed with the proceeds of the sale of the production payment in the year the sale price was received. (The owner was treated differently than in an ABC transaction because he retained an interest in the property.) This enabled an owner to use carve-out arrangements to shift taxable income from one year to another, to take advantage of tax loss carry-forwards, optimise depletion (computed property-by-property and not to exceed 50 per cent of net income) and use foreign tax credits. The artful taxpayer could avoid taxes indefinitely by skillful use of short-term carve-outs of 15 months or less.

After the Tax Reform Act 1969, Section 636 of the Internal Revenue Code treats carve-outs (except for development) for tax purposes as a secured loan on the property whereby A has borrowed US$650,000 from C. This change eliminated use of carve-outs for income tax shifting.

The proceeds of production accruing to the production payment (runs) constitute income to A who can claim depletion and intangible expense. Any interest element in the production payment is treated as interest expense and income to A and C respectively.

Debt rate

Depends on the value of the secured property plus whatever C is paid as a spread. With the change in tax laws, tax reasons no longer exist for avoiding guarantees and undertakings by the operator in order to induce the bank to make a loan to C or give a better interest rate. However, the operator wants to avoid such guarantees to avoid debt on its balance sheet.

Balance sheet

The sold production payment does not appear on A's balance sheet as debt. The sold production payment may be shown as a deferred liability on A's balance sheet. The debt of the purchaser C does not appear on A's balance sheet as debt.

Loan covenants

The sale of an existing asset might violate a loan covenant. The transaction is similar to placing a non-recourse mortgage on an unencumbered asset.

Advantages to owner

1. The borrowing is non-recourse except against production of property carved out.
2. The production payment is outside loan covenants restricting borrowing, but may constitute a disposition of an asset.
3. Capital is preserved for other uses.

Disadvantages to owner

1. A somewhat higher borrowing cost.
2. Not really a financing, but rather a sale of an asset, the present value of certain assured future production.

(d) Development carve-outs: pledged production payments dedicated to development of a property

A development carve-out is a method whereby an owner raises capital to develop an oil, gas or mining property in exchange for a stated amount payable out of production.

In one type of development carve-out, A, the owner of the mineral interest, estimates development costs and determines if such amount can be borrowed from a bank on the basis of an assignment of a production payment on a non-recourse basis. When this amount is determined, the production payment is sold to C, an independent and nominally capitalised company. C borrows the same amount from a bank and assigns to the bank a trust deed, mortgage and assignment of proceeds of production accruing to the production payment. The production payment must be sufficient to pay the principal amount of the loan, plus interest, local tax and a spread to C. C uses and dedicates the proceeds of the production payment to develop the property from which production is carved out. C reserves an interest spread for himself. Take-down of the loan may be over a period of time as development expense is incurred.

Another method is for the owner of the property to deal directly with a drilling company or mining company which agrees to drill the well or develop the mine on a basis whereby payment for materials and services will be from a production payment in the amount of the cost of the materials and services to be used in the development of the property from which the production payment is carved. If the risk is high or circumstances warrant, the drilling company (or mining company) may receive several dollars in production payments for each dollar expended. Ten-for-one arrangements were not uncommon in the early uncertain days of oil well development in the United States.

Development carve-outs may be used for developing an oil well or a mine, intangible drilling expenses or equipment used solely or principally for development of specific property charged with the production payment; mining equipment such as draglines, shovels and underground face equipment which can be used for production apparently do not qualify.

Income tax

The proceeds of the development production payment are not income to A, the property owner. He has no basis for and nothing to depreciate with regard to equipment financed by, a development production payment. C, the company acquiring the production payment, has as a basis the amount received (or expended) for equipment and services, treats production payments as income and is entitled to claim deple-

tion. C is not entitled to deduct intangible drilling costs or development expense in the year when such expense is incurred. Excess of proceeds over development costs are taxed as ordinary income to C, the developing company and as a loan repayment to A. The owner's ability to claim depletion is improved by elimination of depreciation deductions.

Debt rate

The debt rate is a function of the risk in the transaction plus what C is paid as a spread. At some point the risks in a transaction may become equity rather than credit and several dollars of production payments may be paid for each dollar of development cost.

Balance sheet

The property owner has no direct liability for the production payment loan of C or obligations of the developing company. The obligation to make the payment does not show as debt. The value of the assets of the property owner are adversely affected by the sale of the production payment which is a charge against the property. The obligation to make the production payment may be shown as a deferred liability.

Loan covenants

The sale of a production payment from an existing asset might violate a loan covenant. The non-recourse debt of C, or obligations of the developing company, would not be counted as debt for loan covenant restrictions.

Advantages to owner

1. Development costs are paid out of pre-tax income.
2. Borrowing is non-recourse except against production of property carved out.
3. The production payment is off-balance sheet as debt.
4. The production payment is outside loan covenants restricting borrowing, but may constitute a disposition of an asset.
5. Capital is preserved for other uses.

Disadvantage to owner

1. Higher borrowing cost (but paid out of pre-tax income).

(e) Wrap-around carve-out

A property owner desires to maximise the tax effects of a development carve-out by financing all development costs, but requires other capital for operating expense. A long-term carve-out wrapped around the development carve-out used to provide the additional capital needed. The loan secured by the wrap-around carve-out is taken down as required. Payback of the wrap-around commences after pay-back of the development carve-out is used to provide the addistics of the wrap-around carve-out are the same as traditional carved-out production payments. Typical projects include oil, gas or mining developments.

Income tax, debt rate, balance sheet and loan covenants

The characteristics of the development carve-out are the same as previously discussed. The characteristics of the wrap-around carve-out are the same as traditional carved-out production payments.

Advantage to owner

1. Combines the tax advantages of development carve-outs to the extent possible with a traditional carve-out, while preserving the off-balance sheet financing characteristics of each method.

(f) Use of income from unstable country production to finance development of stable country production

Form a corporation, which is not consolidated for tax purposes, to hold properties located in three countries of which one is politically stable and two are politically unstable. Borrow against the properties on a non-recourse basis for development purposes using, for example, a development carve-out arrangement. Use income from the unstable countries to finance development in the stable country. Typical projects include development of oil, gas and mineral deposits.

Income tax, debt rate, balance sheet and loan covenants

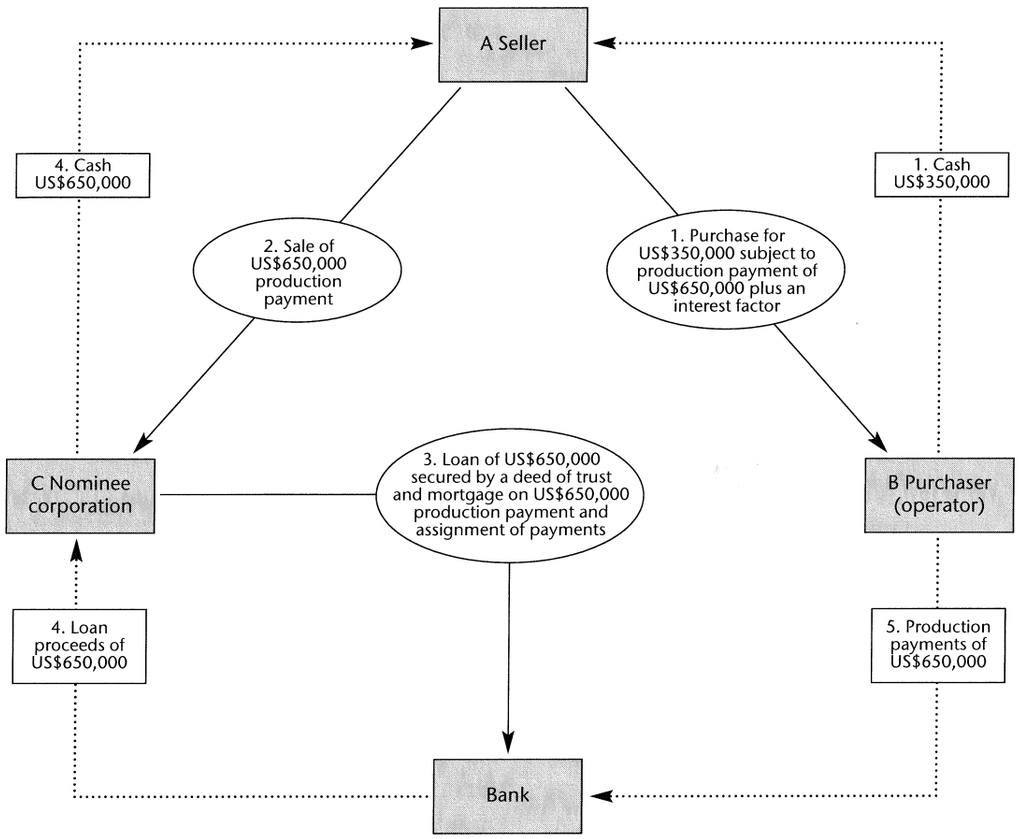
Arrange the transaction so that the project company is not taxed in the United States for income tax purposes. Avoid Sub-part F by less than 50 per cent ownership. Interest rates will be high for development loans in the unstable countries because of expropriation and political risk. Interest rates will be lower for the stable country. By combining and diversifying the collateral, the overall borrowing rate for the high risk countries can be definitely lowered. It is structured as

off-balance sheet development loans and structured as non-recourse loans outside loan covenants.

(g) The ABC deal: purchase of mineral-producing property by off-balance sheet financing

B desires to purchase an oil-producing property from A. A, the owner, is willing to sell the producing oil well for US$1,000,000. The value of the property is such that a bank is willing to lend US$650,000 on the basis of the value of the property alone and on a non-recourse basis. A sells the property to B, subject to a reserved production payment in the principal amount of US$650,000 plus an amount equal to interest expense on the outstanding balance of the production payment, taxes and certain agreed expenses. The sale price to B is US$350,000, which B pays A in cash. A

Exhibit 29.4: ABC production payment



Summary

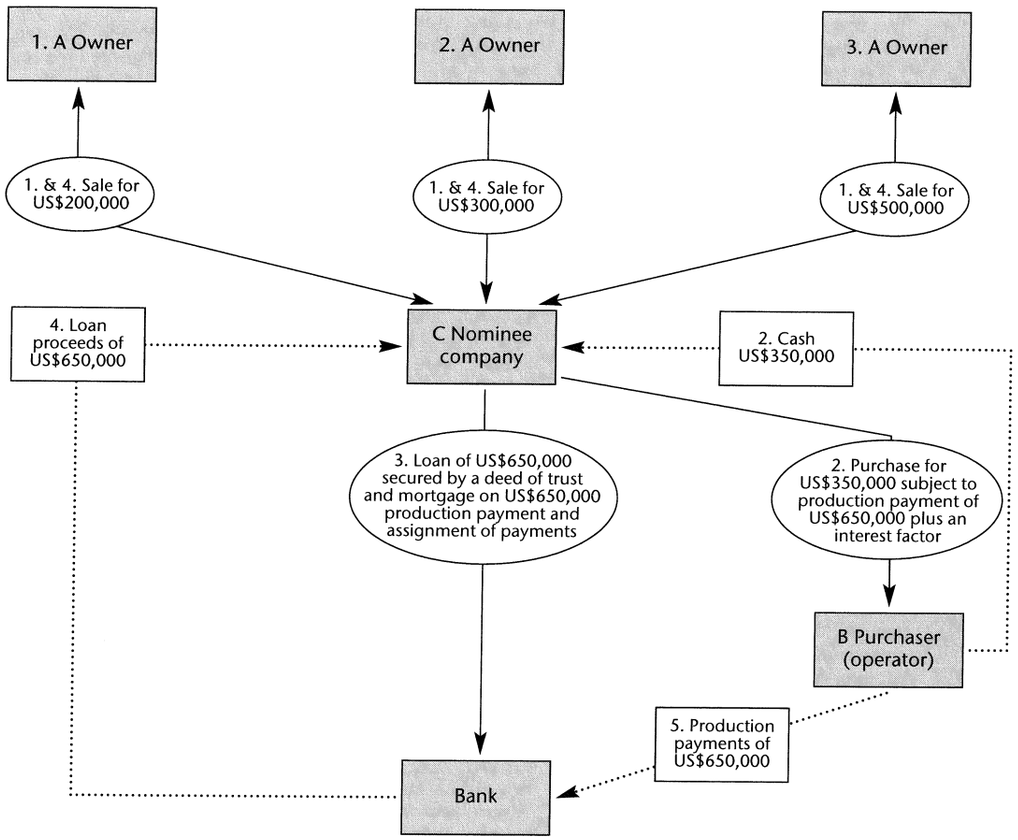
1. A, the owner of an oil-producing property, sells the property to an operator for US$350,000, subject to a production payment to be paid the seller by the purchaser of US$650,000, plus an interest factor on the unliquidated balance of the production payment.
2. A, the seller, sells the production payment to C, a nominee corporation, for US$650,000 to be paid in cash.
3. C arranges a bank loan for US$650,000 at a rate of interest below the interest factor or equivalent carried on the reserve payment, and secures the loan by an assignment of a deed of trust and mortgage on the production payment and an assignment of the proceeds of production accruing thereto.
4. The loan proceeds are paid by the bank to the nominee corporation and the nominee corporation pays the same amount to the seller.
5. The operator, B, makes the production payments of US$650,000 plus the interest factor directly to the bank, which are sufficient to service the principal and interest payments due on the loan.

sells the reserved production payment to C, an independent and nominally capitalised corporation, for US$650,000 cash, which C raises by borrowing US$650,000 from the bank which was willing to loan on a non-recourse basis. C is compensated by a spread between the interest on the production payment and interest on the loan. The bank secures its loan by deed of trust and mortgage on the production payment and an assignment of proceeds of production accruing to the production payment. A typical project would include purchase of an oil, gas or other mineral-producing property.

Income tax

Before the Tax Reform Act 1969, C rather than B was taxed on production accruing to the production payment. B deducted the operating expenses. B purchased the property with pre-tax dollars. The Tax Reform

Exhibit 29.5: ACB production payment



Summary

1. The owners of three oil-producing properties sell those properties to a nominee corporation.
2. The nominee corporation purchases the combined properties for US$350,000 cash, subject to a production payment in the primary amount of US$650,000, plus an amount equal to an interest factor on the unliquidated balance of the production payment.
3. The nominee corporation enters into a loan agreement with a bank at a rate of interest slightly below the interest factor or equivalent carried on the reverse payment, and secures the loan by a deed of trust and mortgage on the production payment and an assignment of the production accruing thereto.
4. The loan proceeds are paid by the bank to the nominee corporation and, in turn, paid to the respective owners.
5. The operator pays production payments plus the interest factor directly to the bank; such payments are sufficient to service principal and interest payments on the loan.

Act 1969 treated the production payment as a purchase money mortgage and taxed the production payments to B. A is taxed as a seller both before and after the 1969 Act. Prior to the Act the ABC arrangement was widely used because of tax advantages. Since that time it has been used simply to accomplish off-balance sheet financing.

Debt rate

The debt rate depends on the value of the secured property, plus whatever C is paid as a spread.

Balance sheet

Originally the production payment used to pay for the property did not show on B's balance sheet as debt. It may have been shown as a deferred liability. However, under FAS 19 the liability would show as debt.

Loan covenants

The production payment used to pay for the property does not affect B's loan covenants.

Advantages to purchaser

1. The borrowing is non-recourse except against production of property carved out.
2. The production payment is outside loan covenants restricting borrowing, but may constitute a disposition of an asset.
3. Capital is preserved for other uses.

Disadvantage to purchaser

1. Somewhat higher borrowing cost.

(h) The ACB deal: purchase of mineral-producing property by off-balance sheet financing

B desires to purchase oil-producing properties from several owners, A1, A2 and A3. They are willing to sell for US$1 million. A bank is willing to lend US$650,000 on the property on a non-recourse basis. At the closing, the sellers A1, A2 and A3 sell their properties to C for US$1 million cash. C is a nominally capitalised independent company. C reserves a production payment worth US$650,000 and raises US$650,000 by borrowing that amount from a bank, securing the loan by a deed of trust and mortgage on the production payment and an assignment of the proceeds of production accruing to the production payment. C sells the properties to B for US$350,000 subject to the reserved production payment and C applies the US$350,000 to the purchase price.

C might sell the production payment to D for US$650,000 as a variation, which D would use to borrow from a bank. This is called an ACBD deal.

Typical project would be the purchase of an oil, gas or other mineral-producing property from a number of owners.

Income tax

ABC and ACB transactions originated in the 1950s and 1960s to take advantage of tax laws favouring such arrangements. Before the Tax Reform Act 1969, C rather than B was taxed on production accruing to the production payment. B purchased the property with pre-tax dollars. After the Tax Reform Act 1969 production payments were taxed to B and the production payment was treated as a purchase money mortgage.

Debt rate

The debt rate depends on the value of the secured property plus whatever C is paid as a spread.

Balance sheet and loan covenants

The production payment used to pay for the property does not appear on B's balance sheet as debt. The production payment used to pay for the property probably does not affect B's loan covenants.

Advantages to purchaser

1. The borrowing is non-recourse except against production of property carved out.
2. The production payment is outside loan covenants restricting borrowing, but may constitute a disposition of an asset.
3. Capital is preserved for other uses.

Disadvantage to purchaser

1. Somewhat higher borrowing costs.

4. Advance payments for oil, gas or coal payments

Advance payments transactions involve the sale and the purchase of a mineral prior to its production. Typically the sale is to an independent entity which borrows funds necessary to make the advance purchase. The purchaser agrees to purchase the mineral

as it is produced. The purchase contract, the minerals and proceeds of the sale are assigned to the lender as security for the loans. As the mineral is produced and sold, the loan is repaid.

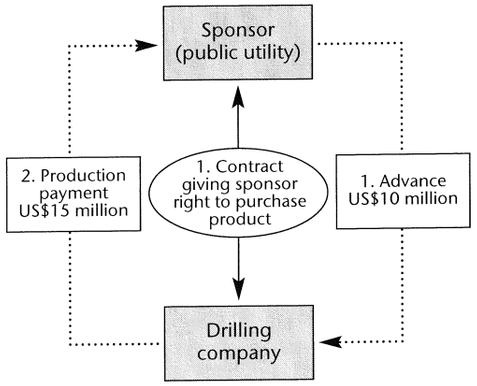
(a) Example of an advance payment for gas and oil

The sponsor, a public gas utility or pipeline, seeks a source of gas. A drilling company owns certain properties for development. The sponsor makes an advance of US$10 million to the drilling company to be used exclusively for exploration and development of a specified number of wells on certain of the drilling company's properties. The sponsor is to receive back US$15 million payable out of oil and gas production attributable to the wells and properties specified. The sponsor also acquires the right to purchase all gas from the properties, since its prime motive is to secure a source of gas for itself. The same arrangement might be made for oil or coal.

The drilling company can insulate itself from liability by placing the property to be developed in a subsidiary formed for purposes of the transaction. The property is developed using the advances which are repayable only out of production. Thus, the drilling company enjoys the benefits of a project financing repayable only out of production and non-recourse to the drilling company. While property is transferred to the project by the drilling company, the value of the property is greatly enhanced by development. Furthermore, in some cases advances might be used to acquire the property to be developed.

A typical project would be exploration and development of a source of gas, oil or coal.

Exhibit 29.6: Advance payment for production



Summary

1. A public utility sponsor makes an advance of US$10 million to a drilling company in return for the drilling company giving the utility the right to purchase the production from the property to be developed.
2. Production payments are made from proceeds of production in an amount equal to the advance, plus additional amounts to compensate the utility for the risk in making the advance.

Rate base, income tax, credit and debt rate

A utility sponsor may be permitted to include such an advance in its rate base. The drilling company is entitled to the tax benefits of ITC, depreciation, intangible drilling and development costs. For the credit and debt rate, the sponsor relies upon the ability of the drilling company. The cost of premium varies with the risk of developing the new source of supply.

Balance sheets and loan covenants

The obligation of the drilling company to repay the advance from production is debt under FAS 19. Before, such an obligation is usually shown as a deferred liability. The advance to the supplier shows as an asset. The borrowing to finance the advance shows as a liability.

This arrangement avoids restrictions on increasing senior debt and leases. However, the disposition of an asset occurs and that may be restricted by loan covenants.

Advantage to sponsor

1. The sponsor achieves a source of supply by joining forces with a company with the requisite technical skills and properties, thus avoiding the need to acquire such talent and properties.

Disadvantages to sponsor

1. Expensive. A direct impact on cash, balance sheet, debt ratings, earnings and rates.
2. In the case of natural gas, the federal government might re-allocate the sponsor's gas to areas of the country which are short of gas.
3. Market price of gas may change.

Advantages to supplier

1. Development costs are paid out of pre-tax income.

2. Borrowing is non-recourse except against production of property carved out.
3. The production payment may be outside loan covenants restricting borrowing, but may constitute a disposition of an asset.
4. Capital preserved for other uses.

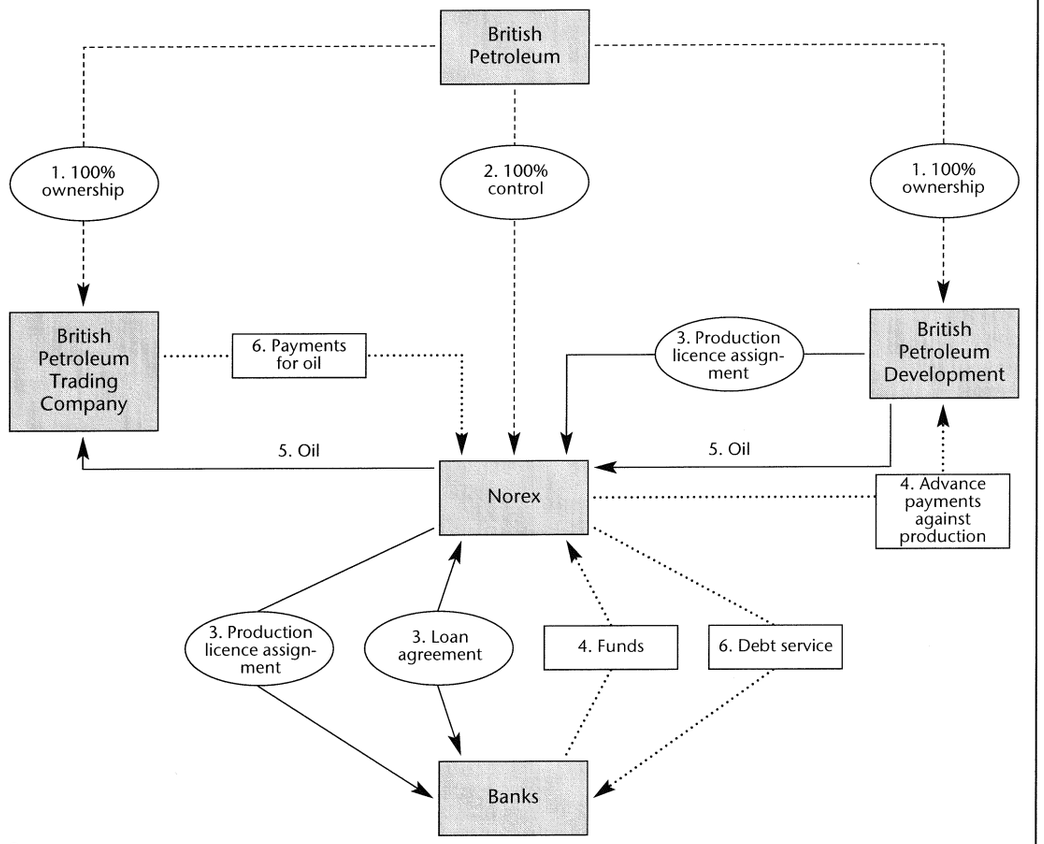
Disadvantage to owner

1. Higher borrowing cost (but paid out of pre-tax income).

(b) Forties Field in the North Sea

Lenders have made loans to one member of a joint venture for development of a North Sea production project being developed by several joint venturers. These kinds of loans are secured by all the rights of the borrower in the project, which include rights under operating agreements between the joint venturers and rights under the sales contracts. However, such loans present unusual risks and are usually only available where the reputation of the borrower or its parent is

Exhibit 29.7: Forties field in the North Sea



Summary

1. British Petroleum forms two entities, British Petroleum Trading Company and British Petroleum Development.
2. Norex is formed by British Petroleum as a special purpose company to arrange financing.
3. British Petroleum Development assigns its production licence to Norex, and Norex borrows from banks on the basis of an assignment of the production licence. (The production licence can be assigned only with consent, which is revocable. No mortgage could be assigned since the British government owns the oil and gas.)
4. Funds are advanced by banks under the loan to Norex which, in turn, advances such funds to British Petroleum Development against production.
5. Oil is produced by British Petroleum Development and is marketed by British Petroleum Trading Company.
6. British Petroleum Trading pays Norex for the oil and Norex services the debt.

of the highest calibre and the success of the project seems assured.

One of the largest production loan or advance payment scheme of all times was the original financing of the Forties Field in the North Sea. Nine hundred million dollars was advanced against the risk that the oil was there and that British Petroleum could produce the oil at reasonable costs. The usual security supports were not available to lenders. No mortgage or first lien on the oil in the ground (or sea) was available because the British Government owned the oil. The production licence could be assigned only with the consent of the government and such consent was revocable.

How many lenders understood the risks is open to conjecture. Fortunately, oil prices rose and the project has been successful.

Exhibit 29.8: Comparison of advance gas payment contract with carved-out development production payments

	Advanced gas payment resembling a traditional carve-out	*Carved-out development production payment*
Sponsor a gas utility	Yes	Yes
Typical project: development of a supply of gas	Yes	Yes
Advances by sponsor to finance well development	Yes	Yes
Use of advances	Unrestricted to timing, properties, use	Solely for development of property out of which production is carved
Number of properties	Can be several	Limited to one
Income tax treatment to sponsor	Advance is treated as a mortgage loan to drilling company. Interest portion of production is interest income	Sponsor has as a tax basis the amount expended for development and services, treats production payments as income and is entitled to claim depletion, if any
Income tax treatment to drilling company	Entitled to deduct depreciation and intangibles to extent paid. Taxed on income attributable to runs going to satisfy production payment; interest expense portion is treated as interest expense	Not entitled to deduct depreciation or intangible expense. Not taxed on income attributable to runs going to satisfy production payments

(c) Comparison of advance gas payment contract with carved-out development production payments

Advances for development of sources of gas, oil or coal closely resemble, or may be the same as, a traditional carve-out financing. In some cases such advances might be structured as development carve-outs to achieve more tax benefits (see Exhibit 29.8).

(d) Supplier project facility financing supported by user-sponsor's advances

An independent supplier of gas, crude oil, feedstocks or LNG, with limited credit and limited access to capital, finances a project facility by obtaining advances from a sponsor seeking a source of supply. A typical project might be storage facilities, refineries, reforming facilities, pipelines.

Rate base, income tax and credit

The sponsor may be permitted to include an advance in its rate base. The supplier gets tax benefits of depreciation. Credit is that of the supplier. The sponsor is relying on the ability of the supplier to produce the supply and the integrity of the supplier to invest the funds prudently.

Supplier's debt rate, balance sheet and loan covenants

The supplier's debt rate is negotiated. The interest rate usually does not reflect risk. On the other hand, the sponsor may get a price concession on the product or be compensated in some other way.

The advance will show on the supplier's balance sheet as debt. However, the advance may be structured as subordinated debt (subordinated to senior creditors and trade creditors).

The advance avoids restrictions on increasing senior debt or leases. The advance may be to an unrestricted subsidiary.

Terms of borrowing

The loan is repaid out of production. Accrued interest may also be paid out of production. The sponsor may get a discounted price. The sponsor receives the right to purchase production.

Sponsor's balance sheet

The advance to the supplier shows as an asset. Any borrowing to finance the advance shows as a liability.

Advantage to sponsor

1. The sponsor achieves a source of supply by joining forces with a company with the requisite technical skills and properties, thus avoiding the need to acquire such talent and properties.

Disadvantage to sponsor

1. An advance is expensive and has a direct impact on cash, balance sheet, earnings and rates.

Advantages to supplier

1. The borrowing is non-recourse except against production.
2. An advance is outside loan covenants restricting borrowing, but may constitute a disposition of an asset.
3. Capital is preserved for other uses.

Disadvantage to supplier

1. The advance may be at a somewhat higher borrowing cost than a loan.

Notes and references

1. See Gordon McKechnie (ed.) *Energy Finance*, Euromoney, 1983.
2. Production payment financing is largely confined to oil and gas production.

Drilling funds

1. Limited partnership drilling funds

Limited partnerships have long been an important source of funds for exploration and development of mineral properties. A great variety of limited partnership structures are used and some of these structures are discussed in this chapter.

It should be noted, however, that during the 1970s and 1980s, limited partnership drilling funds became popular as tax shelter investments for individuals. This unfortunately resulted in all kinds of ill-conceived (and in some cases border line fraudulent) limited partnership drilling funds which were aggressively sold by securities dealers and promoters throughout the United States. The collapse in oil and gas prices as well as in competence resulted in a great many individuals realising nothing but tax losses on these schemes. Despite this bad experience, legitimate limited partnership drilling funds continue to be a potential source of capital.

(a) Example of a limited partnership drilling fund

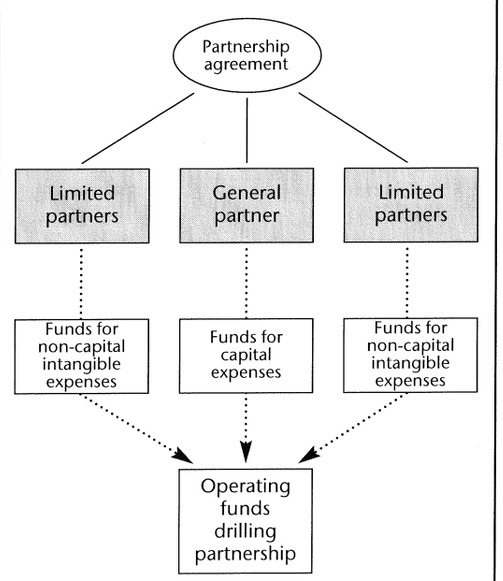
A sponsor seeks capital for exploration and development by forming a limited partnership within which the sponsor acts as general partner and individual investors are sought as limited partners.

Under this arrangement, limited partners pay all non-capital costs which can be deducted immediately. The general partner pays all capital costs. Since the non-capital costs (intangibles) are incurred in exploration and drilling the well, much of the risk of the success of the venture is on the limited partners. The general partner is liable only for capital expenses and these will not be incurred until the drilling is completed and tests indicate the likelihood of producing formations.

The general partner is entitled to a stated share of revenues from the well even though amounts which the general partner contributes for capital expenditures constitute a lesser percentage of total expenditures; 40 per cent for the general partner and 60 per cent for the limited partners is common (even though capital expenses by the general partner might be only 25 per cent of the total expenses). However, the limited partner may receive a higher allocation until payout.

A typical project would be exploration and development of oil and gas wells.

Exhibit 30.1: Limited partnerships to finance exploration and development



Income tax

Income tax benefits may be allocated in a partnership. In a typical limited partnership the limited partners pay and claim deductions for non-capital expenses (intangible) which are immediately deductible. The general partner pays the capitalised costs and claims ITC and depreciation.

The Internal Revenue Service has stated that a general partner must have at least 1 per cent of every item of partnership income, credit, gain, loss or deduction, and that the aggregate tax deduction in the first two years of a limited partnership should not exceed the equity capital invested.

Debt rate and balance sheet

Each partner raises its own capital. The liability of each limited partner is limited to its investment or subscription if it does not participate in the management of the partnership.

A general partner does not incur liability until wells are drilled and prospects looks good. This concept enables a drilling company to develop properties with most of the risk of opening new wells on the limited partners.

(i) Variation – two-tier partnerships

The two-tier partnership consists of a general partnership which invests in a limited partnership as a limited partner. In a limited partnership, the names of individual investors often have to be disclosed under recording statutes. This is not required for general partnerships. Hence, the general partnership is used to keep the names of investors confidential.

(ii) Variation – leveraged investment by limited partner

In this type of arrangement, a limited partner pays only a portion of the subscription price in cash, and finances the rest by borrowing from a bank under a loan arranged by the partnership. This bank loan is generally backed by a letter of credit issued by the investor's bank for the benefit for the lending bank.

(iii) Variation – leveraged production payment loans

A loan may be arranged by the limited partnership against the properties owned or operated by the limited partnership for the development stage of a property. The loan is a production loan, secured by reserves and proceeds from sales of production. The loan is non-recourse to protect the general partner. (The general partner probably cannot directly or indirectly guarantee or provide the debt.) Such non-recourse leverage provides more capital and permits more drilling. On the other hand, the investor has the risk of dry holes, the additional burden of debt service, and the risk that foreclosure will result in taxable income from forgiveness of indebtedness.

(iv) Variation – general partnership

A general partnership may be used in place of a limited partnership. Corporate general partners can limit their liability by using subsidiaries with limited capital as partners. Names of general partners do not have to be disclosed as is sometimes the case under limited partnerships. Limited liability companies with partnership characteristics can also be used.

Advantages to the general partner

1. The general partner raises capital needed for exploration and drilling without recourse to himself and with no impact on his balance sheet or loan agreements. Only when it appears the project will be successful does the general partner make his investment, and then he receives a share in production disproportionately large to his contribution (which is compensation for his contribution of technical skill).
2. Without such financing, the general partner might be unable to raise needed capital.
3. A new source of funds in the form of investments by individuals.
4. Financing costs are lower than a direct loan because individual partners can claim tax benefits.

(b) Discussion of special tax problems in oil and gas limited partnership drilling funds

In a typical limited partnership formed for the purpose of developing oil and gas wells, the limited partners pay and claim deductions for most non-capital expenses which are immediately deductible and which include intangible drilling costs. A general partner pays the capitalised costs and claims tax depreciation.

Under the tax laws, partnerships are generally permitted to allocate to different partners shares of partnership income and loss. However, the Internal Revenue Service may disallow special partnership allocations if the principal purpose of such allocations is the avoidance of tax. Revenue Ruling 68–139 indicates that a special allocation of intangible drilling costs to the partners who put up the capital (the limited partners) will be recognised unless examination discloses that the principal purpose of the allocation is the avoidance of tax.

The limited partnership drilling fund constitutes an important method of raising capital for oil and gas exploration. The structures developed may have application for developing other extractive resources. Although the drilling limited partnership structure has been used for many years as a method of raising capital for development of oil and gas wells, recent changes in tax regulations have resulted in some changes in their structure.

Care must be used to structure the limited partnership so that it will qualify as a partnership for tax purposes. Under the Internal Revenue Regulation (Section 301.7701–2 and –3), there are four major characteristics for distinguishing a corporation from a partnership:

- continuity of life;
- centralised management;
- limited liability.
- free transferability of interest.

If a limited partnership has not more than two of such characteristics, it will generally not be taxed as an association or corporation. On the other hand, if it has three or four such characteristics, it will probably be taxed as an association or corporation. As a practical matter, it is fairly easy to structure a limited partnership so as to avoid transferability, limited liability and continuity of life.

In addition to characteristics which distinguish a partnership from a corporation, a limited partnership must have certain operating characteristics for the Internal Revenue Service to rule that an organisation is a partnership for tax purposes.

The interest of all the general partners, taken together, in each material item of partnership income gain, loss, deduction or credit, must be equal to at least 1 per cent of each such item at all times during the existence of the partnership (Revenue Ruling 74–17). The 1 per cent rule is not difficult to meet. Rather, it is merely a snare for the unwary.

Another operating rule under the Revenue Procedure (Ruling 74–17) states that the aggregate deductions to be claimed by the partners as their distributive share of partnership losses for the first two years of operation of a limited partnership must not exceed the amount of equity capital invested in the limited partnership. According to unpublished rulings, the test will apparently be met if deductions during the limited partnership's first two taxable years do not exceed the full equity investment of a partner. If a drilling limited partnership was created in December 1978, on a calendar year basis, with an equity investment of US$100,000 by each of the limited partners, each such partner would need merely to represent that their respective deductions would not exceed US$100,000 each in the partnership taxable years 1978 and 1979.

This requirement tends to have more effect upon leveraged drilling funds than unleveraged funds. It would not apparently affect the unleveraged drilling funds in which the partner rolls over his interest after one year, which might be accomplished, for example, by the partner taking a deduction equal to his investment in the first year and then selling his interest in completed wells for a significant amount in the second year. The test also refers to total equity capital invested by all the partners, which means that one or more partners might exceed the maximum deduction with respect to their investment without adversely affecting the partnership as a whole, so long as the entire partnership did not exceed the maximum deduction requirement.

This requirement may also be met by having the partners agree to a large partnership capital base with additional contributions, if necessary, which will be at least equal to the excess of deduction over investments. Such additional contributions could be invested in interest-bearing securities pending use by the partnership, and eventually be distributed back to the partners. Another solution where a problem might result from a leveraged drilling fund, would be to have the partners borrow the additional funds personally in their own names on a non-recourse basis secured by their respective partnership interests.

Still another requirement of Revenue Procedure Ruling 74–17 states that a creditor who makes a non-recourse loan to the limited partnership must not have or require, at any time as a result of making the loan, any direct or indirect interest in the profits, capital or property of the limited partnership, other than as a

secured creditor. In other words, equity kickers are prohibited which eliminates the former commonly-used device of a non-recourse loan by the general partner of a publicly-held limited partnership to the limited partners. Such a loan will now be treated as a capital contribution.

Subject to meeting the foregoing requirements and delays in obtaining tax rulings of any kind on drilling limited partnerships, this device remains an important means of obtaining capital (ie, project financing) for oil and gas development.

2. POGO plan[1]: financing offshore exploration through a newly formed controlled subsidiary

The sponsor desires to raise funds for financing offshore exploration. The sponsor forms a subsidiary corporation with two classes of stock, and purchases all the class A voting common stock. The subsidiary then sells units consisting of class B non-voting stock and subordinated debentures convertible into the class B stock. The sponsor retains over 80 per cent voting control through class A stock. If there is a default by the subsidiary on payment of principal or interest on the debentures, they are convertible into the sponsor's stock based on the then current market value.

The sponsor files consolidated tax returns during the early years to get the benefit of operating losses generated by the subsidiary. Later, the distinction between class A stock and class B stock ends and voting control is reduced to 40 per cent at the time the subsidiary is expected to generate profits. (The Internal Revenue Service has refused to rule on this use of two classes of stock.)

The subsidiary raises additional capital by selling production payments on developed properties.

A typical project would be gas, oil, or mining exploration, where prospects are favourable enough to permit sale of securities.

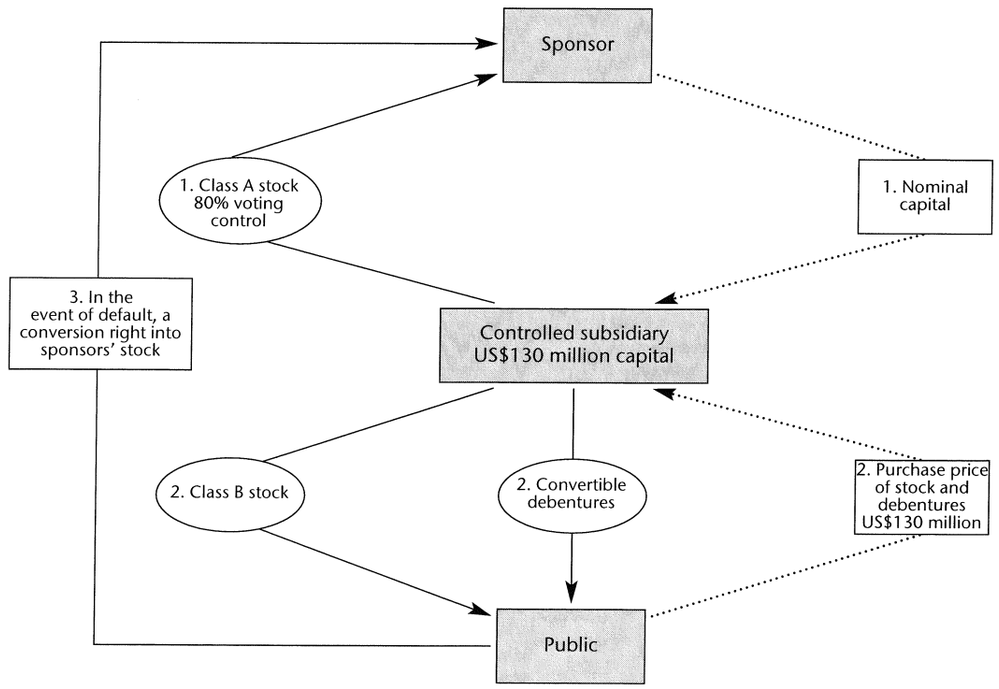
Income tax and debt rate
Sponsor gets deduction of early expenses through 80 per cent ownership control. The debt rate is a function of the market's acceptance of the security.

Balance sheet
On-balance sheet as a consolidated subsidiary during the start-up period. Debt of the subsidiary will then show on the parent's balance sheet. A one-line reporting of investment after reduction in ownership. The conversion feature will dilute per-share earnings of parent.

Loan covenants
Must have freedom to form and contribute substantial capital to a new corporation.

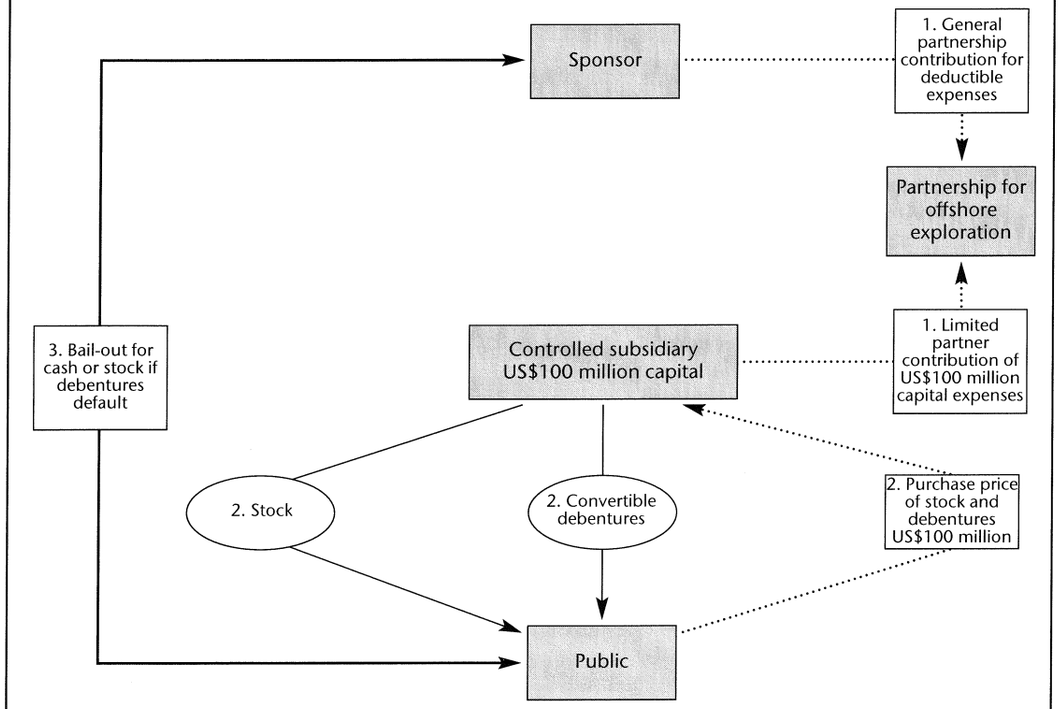
Advantages to sponsor
1. Obtains tax deductions in early years.
2. Financing is off-balance sheet, after control is reduced to less than 50 per cent.
3. Financing is non-recourse except for possible conversion.
4. Capital is preserved for other uses.
5. Economies of a large-scale project are achieved by combining and concentrating financial resources and technical skills.

Exhibit 30.2: POGO plan



Summary
1. The sponsor forms a subsidiary and provides nominal capital to obtain 80% of the class A voting stock.
2. The controlled subsidiary sells units consisting of class B non-voting stock and convertible subordinated debentures (convertible into class B stock) to raise US$130 million.
3. If there is a default by the subsidiary on payment of principal and interest on the debentures, they are convertible into the sponsor's stock based on the then current market value.

Exhibit 30.3: POGO-type subsidiary and limited partnership



Summary
1. Sponsor enters into a partnership agreement with a controlled subsidiary; the sponsor is a general partner claiming deductible expenses and the controlled subsidiary is a limited partner claiming capital expenses.
2. The controlled subsidiary raises capital of US$100 million by issuing stock and convertible debentures to the public. The capital contribution by the limited partner is used for offshore exploration.
3. The sponsor agrees to bail out the debentures for cash or its stock in the event that the debentures default.

6. The project as carried on by the controlled subsidiary might be too large for the sponsor to undertake using its own resources.

Disadvantages to sponsor

1. Possible conversion dilutes earnings per share of sponsor.
2. Debt of the subsidiary is consolidated for financial accounting purposes during the time that 50 per cent control is retained.
3. Obligations of the sponsor must be disclosed in a footnote to the balance sheet.

3. Combination of POGO-controlled subsidiary and limited partnership

Sponsor seeks to raise funds for offshore exploration using the POGO approach, but in a manner whereby the subordinated debt will not show up on its balance sheet. The sponsor forms a corporation which sells units to the public consisting of stock and subordinated debentures. The sponsor does not retain ownership of any stock or debentures. The subsidiary then becomes a limited partner in a partnership in which the sponsor is the general partner. Under the partnership, the sponsor provides funds for exploration and development and is entitled to the tax deductions for such expenses.[2]

The debentures have a bail-out feature which permits the debenture holders to receive cash or sponsor's stock in the event of a default on the debentures. The sponsor guarantees also the interest on the debentures. A typical transaction would be an oil or mining exploration where the prospects are favourable enough to permit sales of securities.

Income tax, debt state and balance sheet

Sponsor deducts exploration and development expenses. The debt rate is a function of the market's acceptance of the security. Debentures of the subsidiary are not on the sponsor's balance sheet. The interest guarantee is a contingent liability to the sponsor. The conversion feature dilutes the stock of the sponsor.

Advantages

1. The sponsor obtains tax deduction in the early years.
2. The financing is off-balance sheet except for possible conversion or guarantee in the event of default which must be disclosed in a footnote.
3. Capital is preserved for other uses.
4. Economies of a large-scale project are achieved by combining and concentrating financial resources and technical skills.
5. The project as carried on by the controlled subsidiary might be too large for the sponsor to undertake using its own resources.

Disadvantages

1. Possible conversion dilutes earnings per share of the sponsor.
2. Obligations of the sponsor must be disclosed in a footnote to the balance sheet.

Notes and references

1. POGO is an acronym for Pennzoil Offshore Gas Operators, Inc., which originated the POGO plan financing offshore exploration. The POGO structure served as a model for several similarly structured companies.
2. This was essentially a Tenneco Offshore Company financing.

Sales, acquisitions and mergers, and leveraged buyouts

Sales, acquisitions and mergers

When considering raising capital for project financings, attention should be given to the possibility of sales of existing assets, a merger, or an acquisition as a means of improving the financial position of the borrower.

Companies should always be alert to opportunities to dispose of properties or operations which do not have the growth and profit potentials presented by new project opportunities. The present value of the potential cash flow from properties under consideration for disposition should be compared with the present sale value of such properties. The effect upon the balance sheet, debt service, interest coverage and ratios should be considered. Apart from improving the working capital and financial statement by such dispositions, management time may be freed to work on more productive ventures. Significant reductions in the selling company's overheads may result. Getting rid of marginal operations is not as easy task. However, few successful companies tolerate marginal operations where the same capital can be better employed elsewhere.

A merger or acquisition of companies or properties for stock can sometimes be used as a method of improving the overall financial strength of the acquiring company. Properties of the acquired company may be used as collateral for additional borrowings. The balance sheet of the acquiring company may be substantially improved and the overall borrowing capacity of the combined companies or properties greatly increased.

Acquisitions of the interests of other parties in joint venture projects of the acquiring company may sometimes be accomplished by stock securities with warrants. The borrowing capacity of the project may then be improved as a result of greater concentration of control in one party. Book-keeping, management and overhead expenses may be saved as a result of elimination of partners or investors in projects by the primary owner or sponsor.

The barriers removed as the European Community develops will give rise to increased merger and acquisition activity in Europe in the years ahead.

Eastern Europe offers opportunities for acquisitions that utilise project finance principles.

The subject of sales of properties or mergers and acquisitions to raise capital is a very broad one. The possibility of such a method of raising capital in connection with project financing is mentioned very briefly here because it warrants consideration along with other alternatives.

Leveraged buyouts of companies

Leveraged buyouts (LBOs) and management buyouts (MBOs) of companies and divisions of large companies are often accomplished as fairly pure project financings in which lenders are willing to advance funds for the purchase of a company or division on the basis of the security of the underlying assets and the projected EBITDA (cash flows) available to service debt.

In many LBOs or MBOs equity funds provided by the promoters are fairly modest as compared to the funds required for the acquisition.

In some MBO cases this modest capital contribution is justified by the unique expertise of the management team and the 'sweat equity' they will contribute to making the company successful. These are typically buyouts of large company divisions that no longer fit in the parent's strategic plans. In other cases, pure MBOs may be buyouts by employees of closely held companies owned and controlled by individuals who because of old age or other reasons are retiring from the business. (The term LBO is used hereafter to refer to both LBOs and MBOs.)

In LBO cases the modest equity requirement is a tribute to the astuteness of the sponsor purchasers in locating an acquisition with characteristics which permit an advantageous LBO to be structured in which lenders provide most of the cash required for the acquisition.

Many LBOs are structured as a combination of inside management people and outside investors who combine their talents and expertise to structure a successful LBO.

Still another type of common LBO takes the form of an acquisition by one company of another company in a similar line of business where economics of scale and synergies result in enhanced free cash flow of the combined entity sufficient to finance the acquisition.

The willingness of the seller to provide financing subordinate to other lenders will have a material effect on structuring a LBO.

Essential to a LBO is excellent management who will be mainly concerned with reducing debt to more easily manageable levels. A lender to an LBO company does not want an empire builder in charge.

Leveraged buy-outs are used by companies, private investors and managers of spun-off companies to finance acquisitions. typically, those purchasers have limited financial resources and need to maximise the leverage of their capital through projected free cash flows (EBITDA) and/or asset-based financing using the acquired assets.

The usual ingredients for a leveraged buy-out are:

1. The unit to be acquired must have a consistent history of positive cash flow.
2. The assets of the borrower (including value as a going concern) must have a liquid value which exceeds the amount of the senior debt.
3. The lender must be able to monitor the cash flow and the changing value of pledged assets during the loans.

1. Cash is king

Cash is king in structuring a LBO, which are often fairly pure project financings in which the acquisition debt is to be serviced and retired from the cash flows generated by the business.

Cash projections (EBITDA) and financial projections are discussed in Chapters 2, 4, and 8. These projections, their validity under close scrutiny, comprise the most important information in analysing, entering into or lending to a LBO.

Special attention must be paid to contingencies as well as know requirements (capital expenditures and debt service) for future cash flows.

An equity investor with a deep pocket and a reputation for supporting his investment in the case of difficulty is comforting to lenders. An equity investor with little in the transaction (except its own fees perhaps) is less comforting because of the lack of an equity stake and the inability or reluctance such an investor may have to injecting new capital should the need arise. Lenders are not being paid for the equity risk and do not want to be forced to assume that risk.

2. Debt structures

Simply stated, the capital and debt structures in LBOs and MBOs usually fall into the following pattern:

- Equity (common stock);
- Subordinated debt (mezzanine debt);
- Senior secured debt; and
- Working capital loan.

However, the capital debt structure of a typical LBO or MBO typically may involve several tiers of debt or equity, such as the following:

- Common stock;
- Preferred stock (pic interest);
- Preferred stock;
- Subordinated debt (with warrants for common stock);
- Subordinated debt;
- Senior secured bank debt;
- Asset-based finance (inventory and accounts receivable);
- Equipment leases;
- Working capital debt; and
- Trade credit.

These financial instruments were discussed in earlier chapters. Needless to say, debt structures in LBOs and MBOs are limited only by the imagination of the sponsor and the appetite of the market for such financial instruments.[1]

3. Senior debt

The senior debt for a LBO (like most project financings) is usually subdivided further into:

a. secured debt;
b. unsecured debt (with a negative pledge) or a subordinated loan; and
c. a revolving loan for current needs.

The providers of senior debt for LBOs are usually banks or insurance companies or finance companies. Such senior debt often has the following characteristics:

- For a term of four to eight years, amortising to a balloon payment.
- Interest may be fixed or floating, but usually is floating.
- The borrower has early payout rights.
- The senior debt comprises 50 to 70 per cent of the capitalisation.
- The lenders do not get an equity kicker.
- The risk is palatable to cash flow lenders – not balance sheet lenders.
- The senior debt has financial covenants which ensure cash flow will be used to retire debt.

Revolving loans are for working capital and current needs rather than for the acquisition of assets. A revolving loan is secured by current assets of the acquired unit, such as accounts receivable and inventory. The amount of the loan is based on a percent of the face value of current assets which represents their quick liquidation value. Since the amount of the inventory and accounts receivables varies with seasonal and other factors, the amount of the revolver varies. The loan can increase as well as decrease. There is no amortisation schedule and the borrower pays down the loan as business conditions permit.

A revolver which automatically renews each year is called an evergreen revolver. If a revolver is not renewed, the balance is typically then paid over a period of time like a short-term loan.

4. Unsecured and subordinated debt

The subordinated debt (mezzanine financing) for LBOs is usually a significant layer of capitalisation consisting of 40 to 80 per cent of total capitalisation. Such debt is provided by finance companies, risk capital companies, asset-based finance divisions of banks or insurance companies. It may also be provided by the selling company and perhaps be payable out of future earnings.

Unsecured debt and subordinated debt generally has the following characteristics in a LBO:

- The debt is subordinated to senior debt but not necessarily other debt.
- For a term of five to 15 years (longer than senior debt).
- May include warrants or be convertible to common or is sold with common stock at a bargain price.
- Carries a higher interest rate than senior debt.
- May be zero coupon or stripped interest instruments.
- Interest may be fixed or floating.

In large LBOs, publicly issued so-called junk bonds have been used to finance such acquisitions. These bonds are much preferable to the promoters of the LBO because:

1. They do not contain restrictive covenants such as would be required in private placements.
2. The interest rate requirement is low in relation to the risk.
3. Often, equity kickers such as stock warrants or convertible features are not required.

US savings and loan associations have been big buyers of these bonds. (During the early 1980s, the savings and loan associations were permitted to invest in such securities as junk bonds. Almost immediately, many S&Ls commenced using government insured deposits to invest in junk bonds. They did this in pretty much blind reliance upon the investment banks to monitor the borrower's current and future viability.)

5. Equity

The equity in a LBO is common stock purchased by

the promoters – the key executives and managers – or the ultimate owner if it is a company acquiring the target company. In a LBO the equity may be only 10 per cent or less of real capitalisation.

In recent years there have been a proliferation of large investment funds formed for the purpose of investing equity in LBOs.

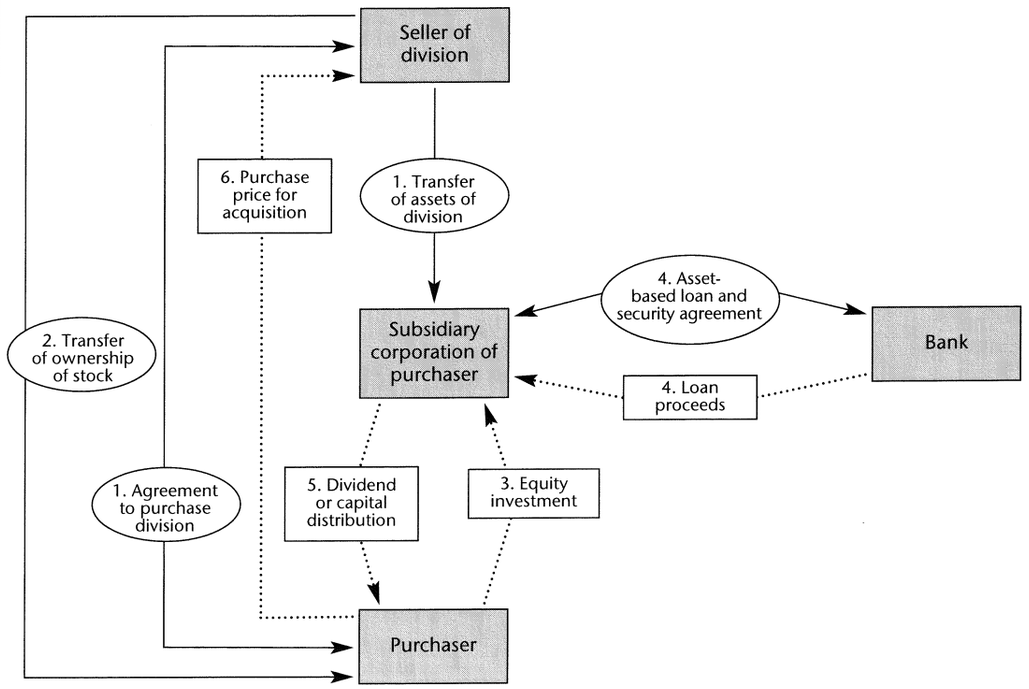
6. Structures in a project finance situation

There are two basic structures which might be used for leveraged buy-outs. In the first structure, the purchaser arranges for the acquired entity to be housed in a subsidiary. In the second structure, the acquired entity is merged into the acquiring company. In either case, an asset based financing similar to that described above can be used.

(a) Leveraged buy-out housed in a subsidiary

1. Purchaser and seller agree to a purchase of a division of seller.
2. At a simultaneous closing, the following events take place:
   (a) The bank and subsidiary sign an asset based loan and security agreement which covers the acquired assets.
   (b) Loan proceeds are advanced to the subsidiary by the bank.
   (c) The subsidiary pays a dividend (or makes a capital distribution) to the purchaser.

Exhibit 31.1: Leveraged buy-out housed in a subsidiary



Summary
1. Seller agrees to the sale of a 'division' to purchaser. Assets of division transferred to a subsidiary of seller.
2. Stock ownership in subsidiary is transferred by seller to owner, subject to receipt of purchase price (a simultaneous closing).
3. Purchaser makes an equity investment in the subsidiary.
4. The subsidiary borrows funds from a bank sufficient to cover the purchase price.
5. The subsidiary pays a dividend or makes a capital distribution sufficient to pay the purchase price to the purchaser.
6. Purchaser pays the seller the purchase price (all this occurs at a simultaneous closing).

(d) The purchaser:
   (i) makes an equity investment in the subsidiary; and
   (ii) pays the purchase price to the seller.

The seller transfers the assets of the sold division to the subsidiary. (If a subsidiary of the seller had been sold, the stock of the subsidiary would have been transferred to the purchaser.)

(b) Leveraged buy-out in which the acquired subsidiary or division is merged into the acquiring corporation

1. The seller and purchaser enter into a contract whereby the purchaser is to acquire seller's subsidiary or division for a price.
2. At a simultaneous closing, the following events take place:
   (a) The bank and subsidiary sign an asset based loan and security agreement, which covers the acquired assets as well as other assets of the purchaser.
   (b) The loan proceeds are advanced to the purchaser by the bank.
   (c) The purchaser pays the purchase price to the seller.
   (d) The seller transfers title to the stock and/or assets to the purchaser.

7. Retention of key personnel

The purchasers in any leveraged buyout should also be concerned about retention of the key management of an acquired company. Typically this problem is addressed by providing the key members of management a piece of the action either through founder's stock, options for stock, and/or incentive plans based upon a share of the profits.

8. Valuation of an acquisition

Appraisals can be very complex and involve everything from the value of underlying fixed assets, intangible assets, stock multiples of similar companies to discounted cash flows. Such appraisals are all very instructive and valuable in reaching an investment or lending decision.

However, arriving at a value for a company or a division being acquired in a LBO or MBO is usually directly related to EBITDA. The initial question an investor or lender usually asks is: 'What is the price multiple of free cash flow (EBITDA)?'

Different industries or lines of business support different multiples of cash flow. A comparison of multiples for similar companies is obviously very important in determining the value of a company targeted for acquisition.

The liquidation value of the fixed assets in a forced sale is very important if such assets have significant value.

Also, such factors as prevailing interest rates at the time of an acquisition as well as general economic conditions will affect the multiple.

9. Due diligence in the analysis of a proposed acquisition

Investors or lenders to a LBO or MBO acquisition being financed largely as a project financing dependent upon future cash flows to service interest and repay debt, must conduct a thorough due diligence investigation of the company. This investigation supplements and must support, and be consistent with the financial projections for the entity proposed to be acquired.

If the entity proposed to be acquired or financed has had a discrete history, the due diligence and credit examination falls into a familiar pattern. If, however, the acquisition has been operated as a division or subsidiary with overlapping accounting and accountabilities, the task is more difficult.

The following is a sample due diligence checklist for the analysis of a prospective acquisition. Not all items on the list will be available or appropriate in many cases. However, where an item is not available. that fact should be noted and the reason it is not available.

It obviously is not possible to construct a checklist applicable to all circumstances. Additional items to the example checklist are certainly appropriate. The list is only intended as a starting place for construction of a due diligence questionnaire which must be tailored to a particular acquisition situation.

Industry reports and analyses

1. Industry reports, describing prospects for the relevant markets.
2. Recent analyses of the company or any subsidiaries and their business prospects, prepared by invest-

ment bankers, engineers, management consultants, accountants or others, including market studies, credit reports and other types of reports, financial or otherwise.
3. Detailed list of all competitors and estimated market share for each.

Corporate documents

1. Charter documents
   a. Certificate of incorporation, as amended to date.
   b. Bylaws.
   c. Long form good standing and tax certificates in state of incorporation.
   d. List of jurisdictions in which each company is qualified to do business or is otherwise operating.
   e. Form of stock certificates.
2. Corporate minutes and related materials for the last five years
   a. Minutes of board of directors' meetings.
   b. Minutes of shareholders' meetings.
   c. Minutes of committees of the board of directors.
   d. Materials (including financial projections) distributed to members of board of directors and committees thereof in connection with meetings.
3. Loan documents
   a. All documents and agreements evidencing borrowings, whether secured or unsecured, including loan and credit agreements, promissory notes and other evidence of indebtedness and all guarantees.
   b. Bank letters or agreements confirming lines of credit, including covenants thereto.
   c. Loans and guarantees of third party obligations.
   d. Credit agreements and indentures.
   e. Correspondence with lenders, including all compliance reports submitted by the company or its independent public accountants.
4. Lease agreements
   a. Financing leases and sales, and lease-back agreements.
   b. Conditional sale agreements.
   c. Equipment leases.
   d. Correspondence with landlords.
5. Capital stock
   a. Securities authorised and outstanding.
   b. Covenants of preferred stock, if any.
   c. Agreements relating to the purchase, sale or issuance of securities, including warrants.
   d. Agreements relating to voting of securities and restrictive share transfers.
   e. Agreements relating to pre-emptive rights.
   f. Shareholder list indicating ownership by class of stock of all shares of the company.
   g. Agreements relating to registration rights, if any.
6. All patents, trademarks, copyrights, licenses and other intellectual property rights and applications therefore and assignment and ownership documents relating thereto held by the company or its employees.
7. Personnel
   a. Employment contracts.
   b. Consulting contracts.
   c. Contracts with unions, including collective bargaining agreements.
   d. Loans and guarantees to directors, officers or employees.
   e. Employee benefits, including vacation pay and severance policies.
   f. Employee stock option plans.
   g. Employee size, turnover, absentee history and distribution reports.
   h. Personnel manuals.
8. ERISA (if applicable)
   a. Pension and profit-sharing plans.
   b. Multi-employer plans.
   c. Deferred compensation plans.
   d. Other employee benefit plans.
   e. Actuarial valuation reports for the last three years for each pension plan including multi-employer plans, to which the company currently contributes.
   f. Any estimates of withdrawal liability that have been performed for the company that relate to multi-employer plans.
   g. Current listing of benefit changes adopted or intended to be adopted by each of the pension plans since the last actuarial valuation.
   h. Audited financial report for the last two years for each pension plan.
   i. List of any non-qualified pension plans or employee compensation agreements showing the individuals covered, a description of the benefits provided, and the actuarial methodology and assumptions used for expense purposes.
   j. Census of all employees showing date of birth, date of hire, sex, job classifications and current salary.

   k. Defined contribution plans including audited financial report (for two years) and results of any tests performed for top-heavy status determination.
9. Management salaries, bonuses, and incentive pay.
10. Organisation chart
   a. Management structure.
   b. Officers' and directors.
11. Status of legal proceedings
   a. Schedule of all material pending litigation.
   b. Litigation, claims and proceedings settled or concluded.
   c. Litigation, claims and proceedings threatened or pending.
   d. Consent decrees and injunctions.
   e. Regulatory compliance.
   f. Questionable payments.
   g. Attorney's letters to auditors.
   h. Environmental proceedings not covered elsewhere.
12. Compliance with laws
   a. Citations and notices received from government agencies.
   b. Pending investigations and governmental proceedings.
   c. Government permits and consents including Environmental Protection Agency, United States Department of Agriculture, state, local or foreign government regulatory approvals or applications for such approvals.
   d. Reports to and correspondence with government agencies.
13. Real property
   a. Deeds.
   b. Leases or subleases of real property.
   c. Zoning variances.
   d. Easements, restrictions and other encumbrances.
   e. Recent property surveys.
   f. Title insurance policies.
   g. Legal description of all real property owned.
14. Sales and marketing and contracts
   1. Sales commission plan, if any.
   2. Sales allowance and return policies
   3. Warranty or consignment policies.
   4. Other agreements, as applicable.
      a. Marketing agreements, including sales agent, dealer and distributor agreements, original equipment manufacture (OEM) agreements and pricing agreements.
      b. Government contracts and subcontracts.
      c. Supply agreements.
      d. Purchase and requirements contracts.
      e. Joint venture and partnership agreements.
      f. License agreements.
      g. Franchise agreements.
   h. Management, service and tax sharing agreements.
   i. Construction agreements and performing guarantees.
   j. Advertising agreements.
   k Agreements associated with acquisition and disposition of companies, significant assets or operations.
   l. Secrecy, confidentiality and non-disclosure agreements.
   m. Commission, brokerage and agency agreements.
   n. Contracts outside the ordinary course of business.
   o. Samples of forms of purchase orders and invoices.
   p. Indemnification contracts and similar arrangements for officers and directors.
   q. Intercompany documents relating to the relationship and conduct of business among the company, its corporate parent or significant shareholders and any subsidiary or affiliated companies, and any of their divisions, departments or affiliated entities.
   r. Agreements with insiders including interested director transactions and stock options granted to officers and directors.
   s. Form of product warranties of the company.
   t. All other agreements material to the business of the company.
   5. Schedule of major suppliers and customers, setting forth annual dollar amounts purchased or sold.
   6. Structure of purchasing organisation, purchasing practices and accountability.

Insurance

1. Personal property.
2. Real property, including hazardous waste and flood, if required.
3. General liability.
4. Business interruption.
5. Workers' compensation.
6. Product liability.

7. Key man insurance.
8. Automobile insurance
9. Loss experience for the last three to five years for property, general liability, business interruption, workers' compensation, product liability, automobile fleet and any other insurance coverages.

Group insurance and welfare benefits

1. Comprehensive listing of all welfare/insurance programmes including post-retirement life and health insurance, if applicable.
2. Summary plan description for all programmes.
3. Descriptions of insurance financing arrangements for all programmes.
4. Claim experience and premium history for the last three years for all programmes.
5. Current listing of any medical claims in excess of, or anticipated to be in excess of US$50,000.
6. A separate listing of any non-qualified or executive medical reimbursement programmes showing the individuals covered and a description of benefits offered.

Environmental/OSHA compliance

1. A list of all waste treatment, storage or disposal sites relating to the operations of the company.
2. Copies of any permits received under the Resource Conservation and Recovery Act (RCRA) or financial compliance filings made thereunder.
3. Copies of any notices of violations or warnings received from any authoritative body.
4. Information as to generation of hazardous wastes as defined in Section 3002 of RCRA. What kinds and where have these wastes been stored or disposed? What is the annual volume of waste generated?
5. Written estimates, if available, of future expenditures for environmental programs and their effect on the company's business (prepared for the internal purposes or filed with governmental agencies).

Product development

1. R&D cost by project for the last three years and projections for the next three years.
2. Sources of outside R&D funds including any joint venture agreements.

Manufacturing inputs and costs

1. Five-year historical analysis of per-hour direct wage rate and fringe benefit cost.
2. Five-year historical analysis of manufacturing productivity by equivalent unit of measurement.
3. Three-year historical analysis of components of fixed overhead and fixed burden rate.
4. Three-year historical analysis of components of variable overhead and variable burden rate.

Financial information

1. Balance sheets and income statements for the last five years as included in the consolidated financial statements of the company.
2. Quarterly balance sheets and income statements for the last two years as included in the consolidated financial statements of the company.
3. Balance sheet and income statement for the most recent fiscal quarter as included in the consolidated financial statements of the company.
4. Budget for current fiscal year.
5. The most recent available general ledger(s).
6. A chart of accounts.
7. Inventory valuation and pricing policies.
8. Accounts receivable analysis and aging as of the most recent practicable date.
9. Accounts payable analysis and aging, including trial balance as of the most recent practicable data.
10. Most recent business plan of the company (ie, five-year plan) including projected financial statements.
11. Copies of the calendarised business plans for the last three years.
12 Firm sales order backlog data for the last three years through the most recent practicable date.
13. A copy of the accounting policy and procedures manual.
14 A summary of changes in accounting principles or estimates made in the last five years that had the effect of increasing or decreasing earnings.
15. Copies of accountants' management letter comments for the last three years.
16. Correspondence with independent accountants.
17. Reports and studies prepared by outside consultants on the company's business or financial condition.
18. Reports and materials prepared for the board of directors or committees thereof.
19 A summary of all extraordinary and non-recurring expenses for the last five years.
20. A summary of bad debt experience for the last five years and most recent fiscal quarter and management's explanation.

21. The most recent available aged inventory summary (preferably by location).
22. A summary of obsolete inventories written off during the last five years and management's explanation.
23. A summary of book to physical adjustments for the last three years including management explanations.
24. A fixed asset listing by location including date of acquisition, cost, useful life and accumulated depreciation.
25. A summary by location of significant acquisitions and disposals of property, plant and equipment for the last three years.
26. Appraisals of fixed assets or tax assessment valuations.
27. List of all material contracts in progress, including total contract price, costs incurred to date, estimated cost to complete and estimated profit margin.
28. A list of all open sales and purchases commitments, including terms.
29. List of accounting costs of all land and buildings.
30. Three-years historical analysis of scrap factor or reject rate.
31. As of the most recent practicable date, an analysis listing the components of:
    a. other income (expense)
    b. prepaid expenses
    c. deferred chartes
    d. other assets
    e. accrued liabilities
    f. other liabilities.
32. An analysis of the following expenses for the past three fiscal years and the most recent fiscal quarter:
    a. warranty
    b. research and development
    c. advertising and promotion
    d. bonus and profit sharing
    e. pension
    f. repairs and maintenance
    g. workers' compensation
    h. post-retirement benefit obligations.

Tax matters

1. Federal, state and local tax returns for the last three years for all corporate entities.
2. Audit adjustments proposed by the Internal Revenue Service and state and local tax authorities since 1986.

Projections

1. Assumptions underlying sales projections, including unit volumes and prices, product line extensions or cutbacks, new product introductions, industry demand and projected economic cycles.
2. Assumptions underlying cost of sales and gross profit projections, including raw material costs, direct and indirect labour, and variable and fixed manufacturing overhead.
3. Assumptions underlying operating expense projections.
4. Assumptions underlying balance sheet projections

Miscellaneous

1. Press clippings and releases relating to the company or its subsidiaries, if any, for the past five years.
2. Company newsletters, if any.
3. List of all miscellaneous benefit programmes including educational assistance, jury duty, employee service awards, company discounts, etc., including the approximate annual cost of each programme.
4. Any salary administration studies that have been performed.
5. List of key employees who have left the company during the last two years.
6. Work safety reports that have been performed.
7. Any other documents or information which, in your judgement, are significant with respect to the business of the company or which should be considered and reviewed in making disclosures regarding the business and financial condition of the company to prospective investors.

Notes and references

1. Greed is always the unknown factor in motivating various lenders and investors in LBOs and MBOs.

ESOPs – employee stock ownership plans

Employee stock ownership plans are similar to corporate pension and profit-sharing plans and trusts. While ESOPs are controlled by the Employee Retirement Income Security Act and must be established by a company for the exclusive benefit of its employees, they have a number of characteristics which make them attractive in accomplishing project financing objectives for a tax-paying sponsor.

Specifically, ESOPs can be used as the means of transferring ownership of closely held firms which for one reason or another do not wish to go public, or cannot go public, or merge. These have been used to achieve or assist in financing leveraged buyouts. ESOPs also can be used to cash out individual shareholders, their estates and corporate shareholders, and they can be used to fund acquisitions and to finance new projects.

There are currently about 8,000 employee stock ownership plans, according to the National Centre for Employee Ownership. Half of them are stock plans, in which the employers contribute stock every year to a trust for employees. The companies get tax deductions for the value of the stock contributed.

The other half are leveraged ESOPs; they borrow money to buy stock either from the company or on the market. The companies contribute money every year to the plans, which use the money to retire the debt. Both principal and interest on ESOPs loans are tax deductible. However, principal payments are limited to 25 per cent of payroll per year.

Although ESOPs do not in themselves constitute pure project financings, they can be used in some circumstances to accomplish many of the objectives of a project financing to obtain a maximum use of a tax shelter and leveraged debt.

ESOPs differ from profit-sharing plans and trusts in a number of ways:

1. An ESOP may invest most of its assets in stock or property of its corporate sponsor, whereas most pension and profit-sharing trusts may not invest more than 10 per cent of their assets in their sponsor company stock.
2. ESOPs are permitted to leverage (borrow funds for) investments in the sponsor company stock or other investments. This practice is discouraged by the Internal Revenue Service in the case of pension and profit-sharing trust. Interest on such loans is 50 per cent tax exempt which result in interest costs of about 90 per cent of conventional rates.
3. Corporate contributions can be made to an ESOP regardless of the profitability of the sponsoring corporation. The only limitation is that the contribution cannot be an amount larger than 25 per cent of the payroll of eligible employees and even this amount may be larger in certain cases. On the other hand, contributions to profit-sharing plans must come from profits.
4. Sponsors of ESOPs are permitted to contribute stock of the sponsor to the ESOP and take a tax deduction equal to the fair market value of the stock contributed. only cash can be contributed to a profit-sharing trust.
5. Distributions by an ESOP to the employee participants must be in stock of the sponsor company, whereas profit-sharing plans usually distribute cash.

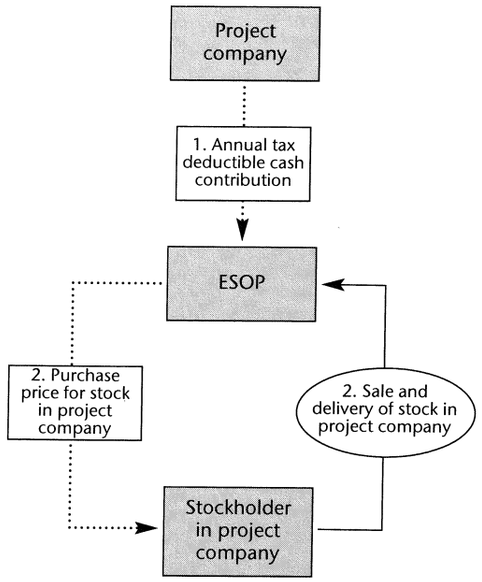
An ESOP cannot create debt capacity which does not already exist. However, an ESOP for a company paying federal income taxes can either substantially increase debt capacity or permit a much more rapid repayment of debt out of pre-tax dollars.

Specific benefits available through use of an ESOP by a tax-paying sponsor are:

1. Employee morale and loyalty is improved.
2. A company can reduce its interest costs to around 90 per cent of conventional debt interest costs.
3. The employer gets a tax deduction without ever putting out any cash when it contributes stock to the ESOP: 100 per cent of ESOP funds may be invested in sponsor company stock.
4. Debt can be serviced using pre-tax dollars. US$1 million debt can be repaid with US$1 million rather than having to earn US$1.5 million (or more) pre-tax to repay it.
5. Corporations can accomplish acquisitions using pre-tax dollars.
6. Corporations can accomplish divestitures by making it possible for buyers to take over with pre-tax dollars.
7. Major or minor stockholders can be cashed out using pre-tax dollars. Taxes on the profits from the sale of stock to an ESOP can be deferred if the money is invested in other stocks and bonds. And when an estate sells to a stock ownership plan, 50 per cent of the profits are tax exempt.
8. ESOPs can tender for shares to avoid a take-over.
9. ESOP provide a market for company stock, even though it is closely held.
10. Taxes paid in prior years may be recovered by a tax carry-back where taxable income in the current year is not sufficient to absorb the deduction.
11. Payments of both principal and interest on stock ownership plan loans are tax deductible, as are dividends paid on shares held by an ESOP trust that have not yet been allocated to employees. Also, some of the usual limits on using net operating-loss carry-forwards when a company changes hands don't apply if an ESOP purchases at least 50 per cent of a company.

These advantages must be weighed against the disadvantage of dilution. By issuing new stock the value of all shares is reduced. A shift or dilution of control might occur over a period of time.

Exhibit 32.1: Use of an ESOP to cash out a shareholder



Summary

1. Project company makes an annual tax deductible contribution to its ESOP which is equal to 25% of payroll.
2. The ESOP uses its cash to purchase stock of the project company from stockholders of the project company.

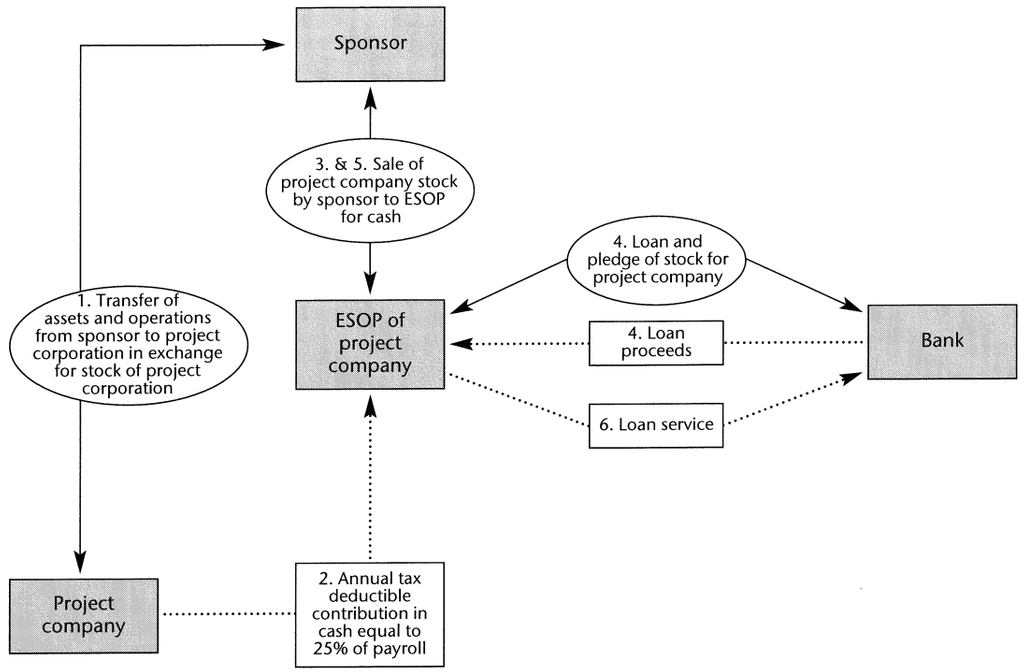
ESOPs often also contain puts which enable retiring employees to put distributed stock to the ESOP for cash.

1. Securitised ESOP loans

If, for example, a company using a conventional ESOP loan has decided to sell, say 20 per cent of its stock to the employee trust with the purchase price payable over seven years, it borrows the current value of that 20 per cent stake and gives the borrowed funds to the ESOP to buy the stock. The company then pays the loan over seven years (or a shorter term if the company prefers). The shares of stock are allocated to employees as the loan is paid off. (An ESOP loan can be either to the company setting up the plan or to the plan with a guarantee from the company.)

A disadvantage is that the ESOP loan adds a significant load of debt to the company. While this may not be a problem for a privately held company, it may

Exhibit 32.2: Use of an ESOP to divest a profitable division



Summary

1. Sponsor company establishes a project company by transferring assets and operations of one of its profitable operating divisions to the project company in exchange for its stock.
2. Project company establishes an ESOP and makes annual tax deductible contributions in cash to the ESOP equal to 25% of payroll.
3. The ESOP uses cash to purchase stock in the project company from the sponsor.
4. The ESOP borrows from a bank using stock of the project company as security for the loan.
5. The loan proceeds are used to purchase additional stock of the project company from the sponsor for cash.
6. The ESOP pays the loan from earnings.

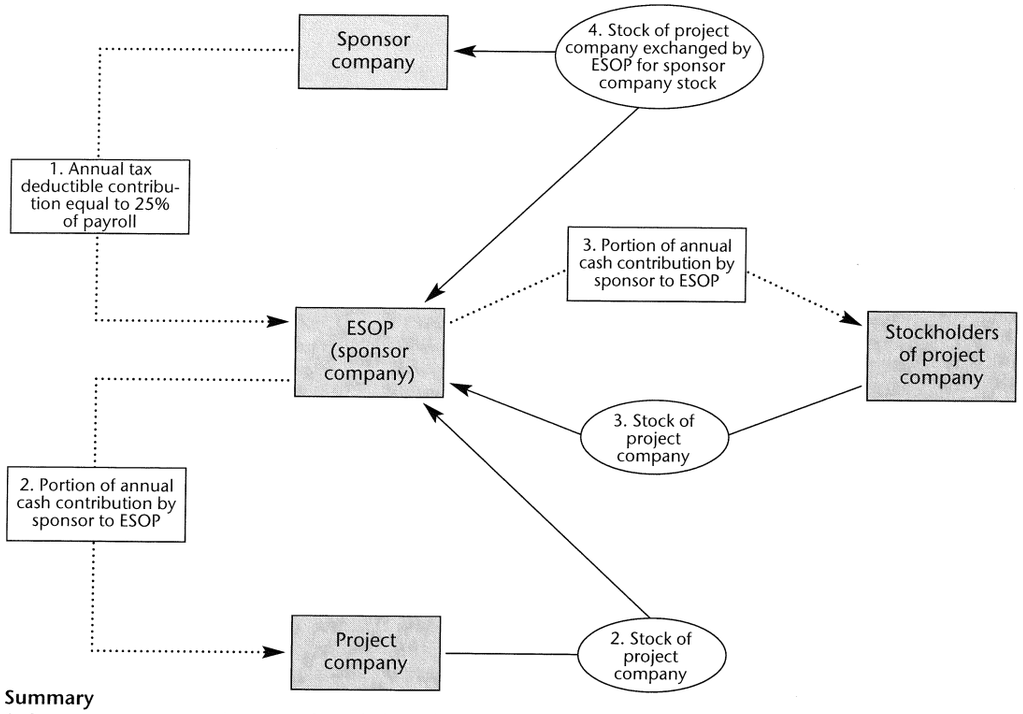
be a serious drawback for a public company due to the accounting treatment of ESOP debt. This requires the ESOP debt to be shown on the company's balance sheet even though the ESOP's equity is not shown until it is allocated.

In order to obtain the best possible interest rate, banks specialising in ESOP loans have come up with some interesting structures. Securitising employee stock ownership plan loans is one method used to make it easier for investors to use such loans as tax-advantaged investments. Bankers Trust calls its securitised ESOP loans 'Fresops', for floating rate ESOP notes. The Bankers Trust Fresops are seven-year notes for which the interest rate is reset monthly. Buyers have the option to put them back to the issuers every month. If an investor runs out of tax room for the 50 per cent tax deduction on the interest income from the ESOP he can put the note back to the issuer and switch to some other investment.

Fresops, or similar securitised short-term loans, carry a lower interest rate than traditional ESOP loans. Where as the usual ESOP loan is in the range of 90 per cent of conventional finance interest rates, the securitised short-term loans are in the range of 80 per cent of conventional financing rates. They are more attractive to investors because:

(a) buyers can get out of the investment if their tax positions change, so they are willing to accept lower interest rates. They do not need the premiums they usually get for committing to long-term tax-exempt investments;

Exhibit 32.3: Use of an ESOP to acquire a project company



Summary

1. Sponsor company makes annual tax deductible contributions equal to 25% of payroll to its ESOP.
2. The ESOP uses its cash to purchase stock of the project company from the project company.
3. In the alternative, the ESOP uses cash to purchase stock of the project company from other stockholders of the project company.
4. The ESOP exchanges stock of the project company for stock of the sponsor company.

(b) buyers treat Fresops as 30-day instruments rather than as seven-year notes, so they are priced at the low end of the yield curve. Banks have lower return-on-asset objectives on one-month investments than on seven-year loans;

(c) securitised notes are less costly for bank to fund because they do not have to hold reserves against the 30-day investments, as in the case of seven-year loans.

2. Use of an ESOP to cash out a shareholder sponsor from a project company

A project company is owned either by an individual shareholder or a corporate shareholder. The shareholder wishes to cash out his or its investment. The project company is profitable and has a substantial payroll. The project company establishes an ESOP and makes annual contributions to the ESOP equal to 25 per cent of its payroll. The ESOP, in turn, purchases the project company stock from the stockholder sponsor for its fair market value and uses the proceeds from the cash contributions to pay for the stock.

The stockholder sponsor, thus, receives cash for his or its stock and pays capital gain tax on such sale. Depending upon the amount of stock sold, the stockholder sponsor may retain control over the project company after the sale is completed. The project company uses pre-tax cash to contribute to the ESOP, whereas dividends paid directly to the sponsoring stockholder would be after-tax and subject to ordinary income tax for an individual shareholder, or an effective tax of about 8 per cent when received by the corporate stockholder.

Had the stockholder sold stock directly to the project company, the transaction might be treated as a dividend. If the sale was made to an outsider, anything less than majority control might be difficult if not impossible to sell at a reasonable price.

3. Use of an ESOP to divest a profitable division

The sponsor transfer the assets and operations of a profitable division to a newly established project corporation in exchange for all of the stock of a project corporation.

The project corporation established an ESOP and makes annual tax deductible contributions in cash to the ESOP equal to 25 per cent of payroll. The ESOP then uses the cash to purchase project company stock from the sponsor. Further purchases of the stock held by the sponsor can be financed through a bank loan by the ESOP and pledge of the project company stock.

4. Use of an ESOP to acquire a project company or to increase stockholdings in a project company with pre-tax dollars

The sponsor company desires to acquire or increase its stockholdings in a project company. Sponsor company makes a tax contribution to its ESOP, equal to 25 per cent of its eligible payroll. The ESOP then uses such cash to purchase stock either from the project company or from stockholders of the project company willing to sell their shares. The ESOP then exchanges the acquired stock of the project company with the sponsor company for sponsor company stock equal in fair market value to the project company stock.

Advantage

1. The sponsor company acquires stock of the project company using pre-tax dollars to pay for such stock.

Disadvantage

1. The stock of the sponsor company is further diluted by issuance of shares to the ESOP in exchange for the project company stock.

5. Use of an ESOP to raise capital through a loan to the ESOP which is repaid in pre-tax dollars

The project company needs capital for expansion. The credit of the project company is such that it could borrow from a bank. A sale of stock by the project corporation is not a feasible alternative because of lack of a market and the reluctance of the owners of the project company to diminish their control.

The project company sells stock in itself to the ESOP for US$1 million. The ESOP, in turn, pledges this stock in the project corporation to a bank as security for a loan for US$1 million. The proceeds of the loan are used to pay the project corporation for the stock. Annual tax-deductible cash contributions equal to up to 25 per cent payroll are made by the project company to the ESOP which uses this cash contribution to make principal and interest payments on the bank loan used to finance the purchase of the stock. The stock is delivered back to the ESOP upon completion of the repayment of the loan.

In the event the annual contribution possible is in excess of the amount needed to service the bank debt, a portion of the contribution could be in cash and a portion of the contribution could be in stock of the project company.

Advantages

1. The project company finds a market for its stock and raises needed cash through the stock sale.
2. Effective control is not immediately disturbed, assuming the ESOP is the only other stockholder.
3. Additional cash is generated from tax benefits created by deduction for the annual contributions of cash or stock. The debt is repaid from pre-tax profits, which would not be the case if the project corporation borrowed directly.

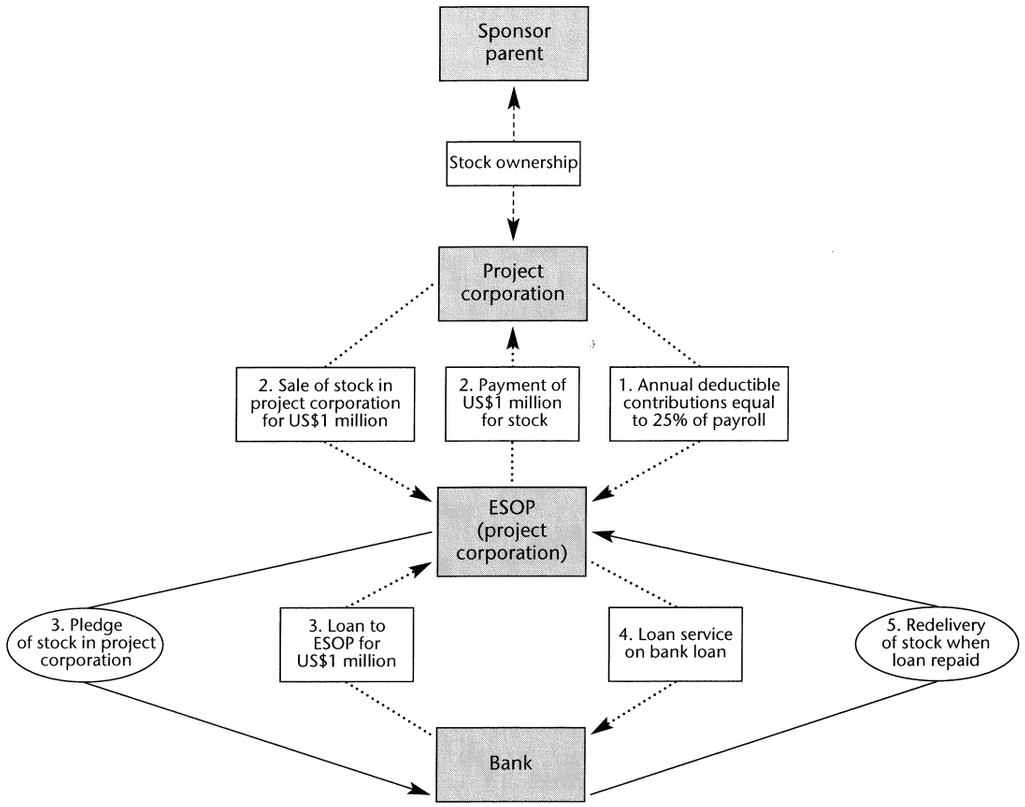
Disadvantage

1. Over a period of time, the original owner(s) would lose control of the project company.

6. Use of an ESOP to permit repayment of a bank loan by the ESOP's sponsor company using pre-tax dollars

The project corporation needs US$1 million for plant expansion, and arranges a bank loan for that amount. The project company makes annual tax deductible cash contributions to its ESOP, which are equal to 15 per cent of its payroll. The project company then sells to

Exhibit 32.4: Use of an ESOP to raise capital through a loan



Summary

1. The project company makes annual deductible contributions to its ESOP in cash equal to 25% of payroll.
2. The project company sells stock in the project corporation to its ESOP for US$1 million; the ESOP uses the cash contributions it previously received to pay the project company the US$1 million purchase price.
3. The ESOP borrows US$1 million from a bank and pledges stock from the project corporation as security for the loan. These loan proceeds are used to purchase additional stock in the project company.
4. As future contributions are made to the ESOP by the project company, those funds are used to repay the bank debt.
5. The bank redelivers the pledged stock when the loan is repaid.

its ESOP for cash shares of its own stock for fair market value. The number of shares sold is such that the entire annual cash contribution to the ESOP is used to pay for the shares in cash. This cash received by the project company is then used to service the principal and interest payments on the bank debt.

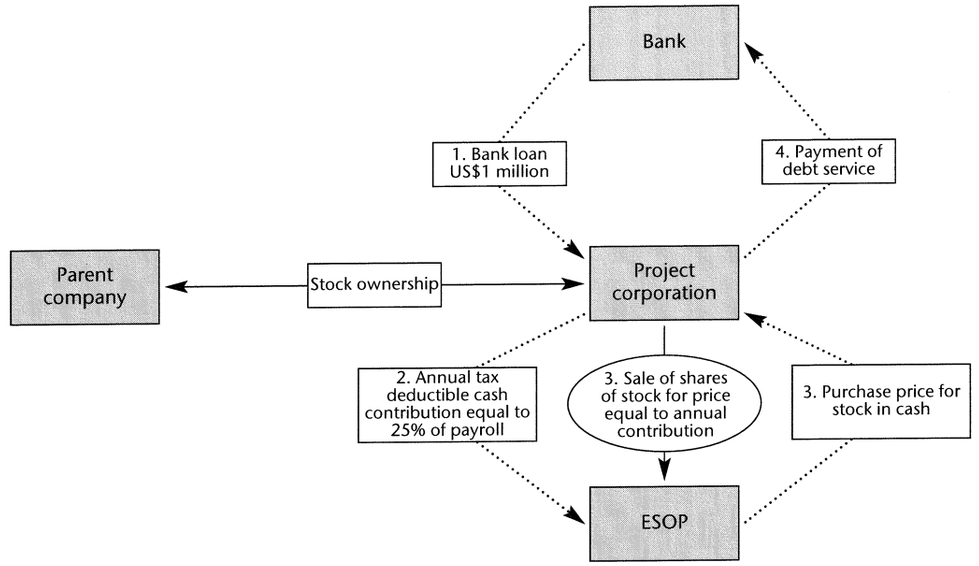
Disadvantages

1. The project company repays bank debts with pretax dollars which it has already deducted.
2. The project company claims interest deductions on the outstanding bank debt.
3. The project company is able to sell stock at fair market value for cash, whereas a sale to a third party might be difficult to arrange.
4. The parent of the project company retains control.
5. Over a period of time, the parent of the project company would lose control if this practice continued.

7. Converting debt to equity in a leveraged buyout

Wesray used an innovative technique to solve a problem involved in selling a highly leveraged company,

Exhibit 32.5: Use of an ESOP to permit repayment of a bank loan



Summary

1. Project company borrows US$1 million from a bank.
2. The project company makes a tax deductible cash contribution equal to 25% of the payroll which is approximately equal to the amount of the bank loan.
3. Using the cash contribution, the ESOP purchases for cash stock of the project corporation.
4. Project company repays the bank debt.

Avis Inc., to an employee-stock ownership plan. Banks were asked to participate in a one-day US$l billion bridge loan. That loan was used to pay off Avis' high coupon debt and convert it to equity on Avis' books.

Employee stock ownership plans can only buy stock. By converting the debt to equity, the ESOP was then able to pay for the new, higher equity value of the company. In effect, employee stock ownership plan financing with a lower interest rate was substituted for the high coupon debt.

That lowered Avis' debt service and allowed the employee stock ownership plan to pay more for Avis than other possible buyers.

Glossary

Accreting swap
A swap in which the notional principal amount increases at a predetermined way over time.

Account party
In a commercial letter of credit, the party instructing the bank to open a letter of credit and on whose behalf the bank agrees to make payment. In most cases, the account party is an importer or buyer, but alternately, may be a construction contractor or a supplier bidding on a contract.

Accounts payable
Money owed to suppliers. Also called payables and trade payables.

Accounts receivable
Money owed by customers. Also called receivables and trade credit.

Accrual accounting
A method of accounting in which revenue is recognised when earned and expenses are recognised when incurred without regard to the timing of cash receipts and expenditures (cf. cash accounting).

Accrued interest
Interest earned but not collected. Interest earned, but not paid, since the latest payment date.

Accrued interest
Interest due from the issue, or from the last coupon date to the present on an interest-bearing security, or from the last payment date on a loan.

Acid test or quick ratio
Current assets, less inventories, divided by current liabilities.

Acres
Pronounced 'ay-kers', a short way of saying ACRS.

ACRS
An acronym for accelerated cost recovery system. Now replaced by MACRS – modified cost recovery system.

ADR
Asset depreciation range. Refers to regulations under the Internal Revenue Code (Section 167(m)) which permit shorter or longer than MACRS guideline class life to be used for tax depreciation where MACRS is not applicable. Capital equipment may be depreciated over a period which may be up to 20 per cent more or less than the applicable class life, rounded to the half-year.

Advance payment guarantee
An arrangement whereby a person employing a contractor makes funds available to the contracting party for purchase of equipment and organisational expense necessary to get the construction under way.

Advised letter of credit
A commercial letter of credit whose authenticity has been verified by a bank, generally in the beneficiary's location. This bank then advises the beneficiary of the authenticity of the letter of credit but does not take on any payment obligation.

Affiliate
A corporation which directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with another corporation.

Affiliated corporation
See Affiliate.

After-tax cash flow
Total cash generated by an investment annually, defined as profit after-tax plus depreciation, or equivalently, operating income after tax plus the tax rate times depreciation.

After-tax real rate of return
Money after-tax rate of return minus the inflation rate.

Agent
A firm that executes orders for or otherwise acts on behalf of another party (the principal) and is subject to its control and authority. The agent may receive a fee or a commission for its services.

Agreement among (by) underwriters
A legal document forming underwriting banks into a syndicate for a new issue and giving the lead manager the authority to act on behalf of the group.

AIBD
Association of International Bond Dealers, sets market trading rules for the secondary market in Eurobonds.

Airmail transfer
A type of remittance. Airmail delivery is used to send instructions requesting the transfer of funds from one bank to another.

All-in cost
Total costs, explicit and other.

All-in rate
An interest rate on a loan which includes the cost of compensating balances, commitment fees and any other charges.

Allocated costs
Costs, systematically assigned or distributed among parties, products, departments, or other elements.

American option
An option that can be exercised at any time prior to its formal expiration date.

Amortisation
The gradual reduction of any amount over a period of time. A general term which includes various specific practices such as depreciation depletion, write-off or intangibles, prepaid expenses, and deferred charges; or general reduction of loan principal. Gradual repayment of a debt over time. Repayment through the operation of a sinking or purchase fund.

Amortising swap
A swap in which the notional principal amount decreases in a predetermined way over the life of the swap.

AMT
An acronym for alternative minimum tax, which is a separate federal income tax imposed on corporations and individuals where their alternative minimum tax exceeds their regular corporate tax. Alternative minimum tax is computed after adjustments to regular corporate taxable income.

AMTI
Alternative minimum taxable income. The amount of income which is used to compute alternative minimum tax.

Annual report
A yearly report to shareholders by a corporation containing financial statements (balance sheets, income statement, source and application, and funds statement), auditor's statement, president's letter, and various other information.

Annuity
A level stream of cash flows for a limited number of years (cf. perpetuity).

Arbitrage
A general term for transactions involving moving capital from one market to another, from one security to another or from one maturity to another, in the hope of realising a higher yield or capital gain.

The simultaneous purchase and sale of the same commodity in two different markets in order to profit from price discrepancies between the markets. Economists believe the elimination of intermarket price differentials through arbitraging renders markets more efficient.

ARM
An adjustable rate mortgage. A type of mortgage in which the interest rate is periodically adjusted as market interest rates change.

Asset-backed securities
Securities collateralised by a pool of assets. The process of creating securities backed by assets is referred to as asset securitisation.

Asset turnover ratio
A broad measure of asset efficiency, defined as net sales divided by total assets.

Assignment
A transfer of legal title.

Association of International Bond Dealers
The AIBD sets market trading rules for the secondary market in Eurobonds.

At-risk rules
Federal tax laws that prohibit individuals (and some corporations) from deducting tax losses from equipment leases in excess of the amount that they have at risk.

At-the-money option
An option with an exercise price equal to or near the current price of the stock of the underlying futures contract.

Auditor's statement
A letter from the auditor to the company and its shareholders or investors in which the accounting firm certifies the propriety of the methods used to produce the firm's financial statements.

Average collection period
The number of days required, on average, to collect accounts receivable.

Average life
Average life is the weighted average of the maturities of a given loan.

Average payment period
The number of days, on average, within which a firm pays off its accounts payables.

Average rate currency option
An option that has a payoff that is the difference between the strike exchange rate for the underlying currency and the average exchange rate over the life of the option for the underlying currency. Also called an Asian currency option.

Average rate of return (ARR)
The ratio of average net earnings to average investment.

B2B companies
Companies using the internet to offer or to provide business to business transactions involving goods or services.

B2C companies
Companies using the internet for transactions with consumers or individuals, as opposed to other businesses.

Back bond
A Eurobond created out of the exercising of a warrant. Also known as a virgin bond.

Back-to-back letter of credit
A letter of credit issued on the strength of another letter of credit (backing credit). It is, in effect, an extension of the terms and conditions of the backing credit. To qualify as a back-to-back credit, the terms must be identical with those of the backing credit except for any or all of the following features: the beneficiary's name; the account party; the amount, which cannot be more than that of the backing credit; the validity date; and the insurance amount.

Balance of payments
Payments to and receipts of a country as compared to payments by a country for a certain time period.

A double-entry bookkeeping record of transactions between a country and its trading partners during a particular period of time.

Balance reporting
A computerised service offered by banks to clients that allows clients to obtain daily balance information on their different bank accounts.

Balance sheet
An accounting statement that displays the assets, liabilities and equity of a company.

Balloon payment
Where a term loan is amortised in equal periodic installments except for the final payment, which is substantially larger than the other payments, the final payment is known as a balloon payment.

Bank branch
A separate banking unit that is part of a United States or foreign bank. Not a separate corporation or subsidiary.

Bank discount rate
Yield basis on which short-term non-interest-bearing money market securities are quoted. A rate quoted on a discount basis understates bond equivalent yield. That must be calculated when comparing return against coupon securities.

Bank draft
An international transfer of funds using an instrument that is much like a cheque in use and appearance.

Bank line
A line of credit granted by a bank to a customer.

Bank wire
A computer message system linking major banks. It is not used for effecting payments but as a mechanism to advise the receiving bank of some action that has occurred, such as the customer's payment of funds into that bank's account.

Bankers' acceptance
A form of credit created when a bank accepts a time draft drawn on itself. By accepting a draft, the bank is obligated to pay the face amount at a specified time in the future, usually six months or less after the acceptance of the draft. In many situations, a seller of merchandise can sell the acceptance for an amount less than face value and have use of funds until repayment on the maturity date of the acceptance.

Bankruptcy
A legal condition in which an individual's or company's assets are assumed by a federal court official and the company is operated and/or its assets are used to pay off creditors.

Bareboat charter
A net lease of a ship.

Bargain purchase option
A provision that allows a party, at its option, to purchase an asset for a price that is sufficiently lower than the expected fair market value at the time such option becomes exercisable so that the exercise of the option appears, at the inception of the lease, to be reasonably assured.

Barter
Known also as countertrade, it entails the settlement of trading accounts by a method of indirect swap and has become increasingly important in trade between East and West and with currency starved Third World nations.

Barter has become of increasing importance in Latin America since that continent's debt servicing problems in the 1980s. It obviates the need to dip into precious foreign exchange reserves.

Base rate
Floating interest rates on bank loans in the United States are quoted on the basis of the prime rate or the base rate of the lender.

Base rent
Rental paid during the base term of the lease.

Base lease term
The basic term of the lease used by the lessor in computing payout and relied on by the lessee as the minimum time period during which the lessee will have the use and custody of the equipment.

Basic term
Same as base term.

Basis
In the futures market, the difference between the cash price and the futures price.

Basis point
One one-hundredth of a percent, typically used in expressing rate or yield differentials.

Basis risk
The risk between two different instruments used to index the floating-rate side of a swap transaction. For example, if one swap is written at 11 per cent fixed against six-month Libor and the offsetting swap is written at 11 per cent against six-month certificates of deposit (CD), then there is a risk that over time the spread between Libor and CDs will vary, resulting in a gain or loss for either party. In hedging, the risk that the hedger takes that the basis will change because the futures will be mispriced relative to the cash price.

Basis swap
An interest rate swap from one floating instrument into another floating instrument in the same currency, undertaken to eliminate or minimise basis risk.

Bear market
A declining market or a period of pessimism when declines in the market are anticipated.

Bearer bond
A bond for which the only evidence of ownership is possession.

Bearer security
A security whose owner is not registered on the books of the issuer. A bearer security is payable to the holder.

Belgian Dentist
Individuals who buy Eurobonds are personified by the 'Belgian Dentist', as representing a typical rich individual investor who is seeking a safe home for surplus funds which will generate tax free income.

Bid and ask price
Bid is the highest price a prospective buyer is prepared to pay at a given time for the tradeable unit of a specific security; asked is the lowest acceptable price to a prospective seller of the same security. Collectively, the two prices represent a quotation and the difference between them is the spread.

Bid bond
A bond to ensure that a party awarded a contract will accept the award and perform the contract. A financial guarantee given in support of the obligation of a bidder to sign a contract if he is successful in his bid.

Bid price
The price offered.

Bid rate
The rate at which a dealer is willing to purchase foreign currency in the spot or forward market.

Bills
Government debt securities issued on a discount basis by the US Treasury for periods of one year or less (Treasury bills).

Bill of lading
A document issued by a transportation company giving evidence of the movement of the goods from one location to another. The bill of lading is a receipt for the goods and a contract for their delivery and in some forms represents the title to the goods.

Black/Scholes formula
An option pricing formula based on the assumption that a riskless hedge between an option and its underlying stock should yield a riskless return. Black/Scholes asserts that option value is a function of the stock price, strike price, stock return volatility, riskless interest rate, and option term.

Blocked accounts
In a foreign exchange context, deposits maintained in a country which does not allow exchange into another currency or removal of the deposits from the country.

Blocked currency
A currency whose convertibility or transferability is restricted, in part or whole, by government regulations. There are generally considered to be three categories of currency: convertible, semi-convertible and non-convertible. Blocked currency belongs in the latter two categories.

Bond
A bond is a negotiable note or certificate which evidences indebtedness. It is a legal contract sold by one party, the issuer, to another, the investor, promising to repay the holder the face value of the bond plus interest at future dates. Bonds are also referred to as notes or debentures. The term note usually implies a shorter maturity than bond. Some bond issues are secured

by a mortgage on a specific property, plant, or piece of equipment. (See also Debenture.)

Bond house
A firm which underwrites, distributes and deals in bonds as one of its primary activities.

Bond rating
An appraisal by a recognised bond rating service of the soundness of a bond as an investment.

Bond warrants
Warrants attached to bonds (or other securities) buy further bonds with the same or a lower coupon in the future are called bond warrants. The investor is given the benefits if interest rates fall before he receives money from the sale of the warrants. This warrant or option reduces the overall cost of borrowing by the original issuer.

Bonus
In connection with Euronotes, an acronym for Borrowers option for notes and underwritten standby. Refers to global commercial paper which are non-underwritten Euronote issuance programmes sold on a global basis with the book moving from time zone to time zone to provide 24-hour coverage. Same as global note facility.

BOO
Build, own and operate type project financings.

BOOT
Build, own, operate and transfer type project financings.

Book-entry securities
The US Treasury and federal agencies are moving to a book-entry system in which securities are not represented by engraved pieces of paper but are maintained by financial institutions in computerised records of the securities they own as well as those they are holding for customers.

Book value
The value at which an item is reported in financial statements.

Book value of project
Assets minus liabilities.

BOT
Build, own and transfer type project financings.

Bought deal
A Eurobond issue which is fully underwritten on fixed terms and conditions by the Lead Manager. A bought deal occurs when the Lead manager offers to launch an issue with a specified price and coupon.

Bracketing
The group of underwriters in a syndication. The major investment banking firms come first, but they can be elsewhere. Other brackets are determined by participating underwriters' size and capacity to place securities.

Break-even analysis
Analysis of the level of sales at which a firm or product will just break even.

Bridge financing
Interim financing of one sort or another.

Broker
Brokers are intermediaries who trade in a variety of financial instruments including foreign exchange, equities, commodities, bullion or insurance on behalf of their clients and who charge a fee – or commission – for this service and advice. Brokers fulfil an important function in the market by bringing together buyers and sellers in an efficient manner.

A broker brings buyers and sellers together for a commission paid by the initiator of the transaction or by both sides.

Bull market
A period of optimism when increases in market prices are anticipated.

Bulldog bond
A foreign bond, denominated in sterling and issued in the UK domestic bond market in London is known as a Bulldog bond.

Bullet loan
A term loan with periodic instalments of interest only with the entire principal due at the end of the term as a final payment. The final payment on a balloon loan is sometimes referred to as a bullet.

Burn-up contract
Another name for a nuclear fuel lease.

Business risk
Risk due to uncertainty about investments outlays, operating cash flows and salvage values without regard to how investments are financed (cf. financial risk).

Buy-back
Another term for a repurchase agreement.

Buy on close
To purchase traded security or a futures contract at the end of the exchange's trading day at a price within the closing range. Buy on opening is the opposite arrangement.

Cable transfer
A type of remittance. Funds are transferred from one bank to a named party at another bank, using electronic transmission.

Call
An option to purchase an asset at a set price at some particular time in the future.

Call money
Interest-bearing bank deposits that can be withdrawn on 24-hour notice. Many Eurodeposits take the form of call money.

Call option
A contract sold for a price that gives the holder the right to buy from the writer of the option, over a specified period, a specified property or amount of securities at a specified price.

In a bond or loan, the call option gives the borrower a refinancing option if interest rates fall below the call option interest rate. The borrower will pay a higher coupon for this right.

Call price
The price at which an issuing firm may call in its bonds. Usually the call price is set above the par value. In the case of convertible bonds, a call price is a feature used to force conversion into common stock.

Call procedure
An indenture provision preventing a security (usually a bond or preferred stock) from being redeemed earlier than a certain time after its issue. Thus a 10-year bond might not be callable for the first five years after its issue.

Callable bond
A bond that the issuer has the right to redeem prior to maturity by paying some specified call price.

Canadian roll-over note
Typically a fixed rate five-year note expected to be renewed after five years at the then current interest rate.

Cap
An agreement between two parties whereby one party, for an upfront premium, agrees to compensate the other at designated times if the underlying (ie, a designated price or rate) is greater than the strike level.

Capital
The amount invested in a venture.

Capital appreciation
The upward change in the value of an asset from one date to another.

Capital appreciation bonds
Zero-coupon bonds sold at par or better.

Capital budget
List of planned investment projects.

Capital budgeting
A method for evaluating, comparing and selecting projects to achieve the best long-term financial return.

Capital cost recovery allowances
Tax depreciation deductions.

Capital expenditures
Long-term expenditures for plant and equipment.

Capital gains
Profits from the resale of assets that have been held for investment. Prior to the tax reduction act of 1986 in the United States, capital gains were taxed at a lower rate than profits from operations.

Capital impairment rule
A requirement in most states limits the payment of cash dividends. This is to protect the claims of creditors in case of insolvency.

Capitalised lease
A lease is classified and accounted for by a lessee as a capital lease in the United States if it meets any of the following criteria:

a. the lease transfers ownership to the lessee at the end of the lease term;
b. the lease contains an option to purchase property at a bargain price;
c. the lease term is equal to 75 per cent or more of the estimated economic life of the property (exceptions for used property leased towards the end of its useful life); or
d. the present value of minimum lease rental payments is equal to 90 per cent or more of the fair market value of the leased property less related ITC retained by the lessor. (In the UK, a subjective test is substituted for d.)

Capitalised leases
Capitalising a lease (not already capitalised under FAS 13) is the same as finding its debt equivalent. The principal portion of a lease (the capitalised value) can be determined by discounting all remaining lease payments at the appropriate lease rate. In analysing a company's financial statements in which leases are not capitalised, a simple method of estimating the capitalised value of such a company's leases is to take the rents for a representative year's leases and multiply this number first by the estimated average lease term and then by two-thirds to give the debt equivalent.

Capital structure
The financing mix of a firm. The more debt in relation to equity, the more financial leverage or gearing the firm is said to have.

Capped FRNs
A floating rate security with an upper limit on coupon reset rate. These are FRNs which pay a normal floating rate note coupon up to a set maximum rate. If rates rise beyond that, the coupon is fixed at the capped rate. Capped floating rate notes are mainly issued by banks.

Capped FRN
A floating rate note with a maximum rate of interest.

CARS
Pass through securities collateralised by automobiles.

Carve-out
An exception to a general rule or provision or covenant.

Refers to a production payment carved out of a larger production payment, or a right to a specified share of production from a certain mineral property.

Carved-out production payment loan
A loan secured by a carved-out production payment.

Cash accounting
A method of accounting in which changes in the condition of an organisation are recognised only in response to the payment or receipt of cash.

Cash budget
A plan or projection of cash receipts and disbursements for a given period of time.

Cash cow
Company or product that generates more cash than can be productively reinvested in that particular company or product.

Cash cycle
The number of days between the purchase of raw materials and the collection of sales proceeds for finished goods.

Cash flow
Reported profits plus depreciation, depletion and amortisation. Net income, depreciation and amortisation during the period analysed. A measure of a company's liquidity, consisting of net income plus non-cash expenditures (such as depreciation charges). In a credit analysis, cash flow is analysed to assess the probability that debt retirement commitments can be met without refinancing, that regular dividends will be maintained in the face of falling earnings, or that plant and equipment can be modernised, replaced or expanded without increasing the equity or debt capital.

Cash market
This term has been used to denote the market in which commodities, T-bills and other debt securities are traded, for immediate delivery, against cash.

Cash turnover
The number of times a firm's cash is collected in a year.

CBO
Collateralised bond obligation.

CEDEL
One of the two major organisations in the Eurobond market which clears, or handles, the physical exchange of securities and stores securities. Based in Luxembourg, the company is owned by several shareholding banks and operates on a non-profit basis.

Central bank
The official government-owned bank in a foreign country.

Certificate of deposit (CD)
A negotiable, interest-bearing, instrument evidencing a time deposit with a commercial bank on which the bank pays principal at maturity. Interest may be paid at intervals or at maturity. Large denomination CDs are typically negotiable.

CHIPS
An acronym for the Clearing House Interbank Payments System, a computer system operated by New York banks to settle international payments. Using CHIPS, checks are cleared, other instruments are exchanged and net balances are settled among banks. Most Eurotransactions are cleared and settled through CHIPS rather than over the Fed wire.

CIRCUS
Combined interest rate and currency swap.

Claw back
A British term to describe a taxpayer paying back to the government an amount equal to tax benefits previously claimed, such as depreciation deductions.

Clean letter of credit
A letter of credit payable upon presentation of a draft, not requiring the presentation of documents.

Clearing house
Facility through which transactions executed on the floor of an exchange are settled. Also assures the proper conduct of an exchange's delivery system and the adequate financing of trading.

Clearing house funds
Payments made through the New York Clearing House's computerised Clearing House Interbank Payments System. Clearing house debits and credits used to be settled in Fed funds on the first business day after clearing. Since October 1981, these debits and credits have been settled on the same day in Fed funds.

Clearing member
Member of an exchange's clearing house or professional association. Trades executed by non-members must typically be registered and settled through a clearing member.

Clip and strip bonds
In this type of bond, the principal and coupon portion of the bonds may be split apart and sold separately.

CLO
Collateralised loan obligation.

Closed-end lease
A true lease in which the lessor assumes the risk of depreciation and residual value. The lessee bears little or no obligation at the conclusion of the lease. Usually a net lease in which the lessee maintains, insures and pays property taxes on the equipment. The term is used to distinguish a lease from an open-end lease, particularly in automobile leasing.

Closing documents
The final documents designed to complete a business transaction.

COFACE
Compagnie Francaise d'Assurance pour le Commerce Exterieur. The trade finance agency for France.

Co-generation facility
A plant which produces steam to generate electricity and residual steam or heat for other uses.

Collar swap
A swap of fixed rate dollars against floating rate dollars with the latter having a maximum and minimum rate.

Collateral
Assets pledged as security under a loan or lease, to assure repayment.

Collecting bank
A bank, generally in the vicinity of the buyer, that acts as an agent for the remitting bank. The collecting bank demands payment from the buyer and handles the funds received as instructed; generally, the funds are sent back to the remitting bank.

Co-manager
A member of the management group of a securities offering other than the lead manager(s).

Commercial bank
A bank that both accepts deposits and grants loans and, under certain stipulations in some countries such as the United States, pays interest on checking accounts.

Commercial mortgage pass-throughs
Pass-through securities collaterised by commercial mortgages.

Commercial paper
An unsecured promissory note with a fixed rate and fixed maturity of no more than 270 days. Commercial paper is normally sold at a discount from face value.

Commercial risks
Out-of-pocket costs that go to the financial health and soundness of the project. Construction costs, equipment costs, over-run exposure, raw material supply cost, energy supply cost, operating costs and contracts for a sale of product or services.

Commission
Fee charged by brokers for handling sales or trades or for arranging transactions.

Commission FSC
A leveraged lease in which an affiliate of the owner participant is a foreign sales corporation and provides services to the owner participant, thereby becoming entitled to certain tax benefits.

Commission house
Firm that buys/sells actual commodities of futures contracts for customer accounts. Income is generated through commissions charged to customers.

Committed loan facility
A legal commitment undertaken by a bank to lend to a customer. A line of credit.

Commodity bonds
Bonds with interest rates or par value tied to the price of a certain commodity.

Commodity swap
A swap in which the exchange of payments by the counterparties is based on the value of a particular physical commodity such as oil.

Common equity
The value of common stock issued by the firm. Common stockholders are the junior equity owners and are the last to receive payment in case of insolvency.

Common stock
Securities representing ownership of a corporation. Classification of stock which is junior to other classes stock. (See common equity.)

Compensating balances
A banking practice in the US whereby the lending bank requires the borrower to maintain deposit balances equal to specified percentage of the loan amount and/or the commitment. In addition to charging interest on loans, banks frequently require a borrower to maintain demand-or-time-deposit balances at the bank in proportion to the amount of funds borrowed, or the amount of the commitment, or both. The compensating balance requirement raises the effective cost of borrowing if the borrower maintains above the amount the borrower would normally retain on deposit.

Compound interest
Interest resulting from the periodic addition of simple interest to principal, the new base thus established

being the principal for the computation of interest for the following period. Interest returns are compounded by reinvesting one period's income to earn additional income the following period.

Compound value
The end-period value of a sum earning a compounded return.

Concentration
In banking terms, the centralisation of a cash pool.

Conditional sale
A transaction for the purchase of an asset in which the user, for federal income tax purposes, is treated as the owner of the equipment at the outset of the transaction.

Conditional sale lease
A lease which in substance is a conditional sale (sometimes called a money-over-money lease or a lease intended as security).

Confirmed letter of credit
A letter of credit in which the issuing bank's obligation to pay is backed by a second bank. The confirming bank agrees to pay if the terms of the letter of credit are met, regardless of whether the opening bank pays.

Conglomerate diversification
Ownership of operations in a number of functionally unrelated business activities.

Consortium banks
A merchant banking subsidiary set up by several banks that may or may not be of the same nationality. Consortium banks are common in the Euromarket and are active in loan syndication.

Consortium project
A project structured by two or more parties as a partnership or joint venture.

Constant-dollar accounting
System of inflation accounting in which historical-cost items are restated to adjust for changes in the general purchasing power of the currency.

Constant purchasing power
The amount of a currency required over time to purchase a stable basket of physical assets.

Consumer price index (CPI)
An index measure of inflation equal to the sum of prices of a number of assets purchased by consumers weighted by the proportion each represents in a typical consumer's budget.

Contingent liability
A contingent liability is a liability which may arise sometime in the future, may never arise and is dependent upon some factor other than the passage of time. Examples of this kind of liability are potential legal rulings against the company or contract payments due in the future. The notes to financial statements should include a description of contingent liabilities.

Contingent rentals
Rentals in which the payment of rents are dependent on some factor other than the passage of time.

Contingent swap
A swap in which terms are predetermined but which is activated by the action of a third party, such as the exercising of a warrant. Also known as an option swap.

Continuous tender panel
In connection with Euronotes, a panel which has characteristics of both a sole-placing agency and a tender panel. The CTP agent agrees on the issue price (the strike offered yield or SOY) with the issuer and underwriting banks may request protection on their national allocations at the agreed price. Such allocations are calculated pro rata to their underwriting commitments but are only exercisable to the extent that the CTP agent has not presold the issue tranche. The SOY can change during the bidding period and underwriters may be able to increase their initial allocations by bidding at or under the SOY.

Conversion premium
The difference between the current price of a firm's stock and the conversion price of a convertible security.

Conversion price
The price at which a convertible security may be exchanged for common stock.

Conversion ratio
The number of shares of stock for which a convertible security can be exchanged. It is calculated by dividing the par value by the conversion ratio.

Conversion ratio
The current market price of a firm's stock multiplied by the conversion ratio.

Convertible bond
A bond containing a provision that permits conversion into other securities of the issuing entity, typically common stock at some fixed exchange ratio.

Convertible currency
A currency which can be freely exchanged into foreign currency or gold without government central bank restrictions or authorisation. Major currencies like the dollar, the Deutschmark, yen and sterling are now fully convertible and are the lifeblood of international trade. To be truly convertible, a currency must have adequate foreign exchange reserves or gold to support possible demand on the currency. Alternatively, it must enjoy the confidence of global money markets.

Convertible debt
Debt convertible to other equity or debt issues of the issuer upon the happening of certain events and/or at the option of the lender.

Convertible security
A feature of certain bonds, debentures or preferred stocks which allows them to be exchanged by the owner for another class of securities; in accordance with the terms of the issue.

Corporate financing vehicle
A special purpose corporation interposed between corporation or a partnership and a debt investor in order to create a corporate obligation within the meaning of laws and regulations restricting investments of insurance companies and other investors in certain kinds of obligations.

Corporate taxable equivalent
The rate of return required on a par bond to produce the same after-tax yield to maturity that the premium or discount bond quoted would provide.

Corporation X
A special purpose independent corporation with nominal capital which is a party to a project financing for purposes of holding title as a nominee or acting as a conduit of funds.

Cost company
A corporation with nominal capital which holds title to a mineral interest and production facilities, in which the shareholders agree to take product in proportion to their ownership. For tax purposes, the corporation files an information return and its shareholders report their pro rata shares of income and deductions. Sometimes used to describe a joint venture which has elected not to report federal income tax as a partnership, but instead will flow through expenses and revenues to joint venturers.

Cost of capital
The rate a firm must pay to investors in order to induce them to purchase the firm's stock and/or bonds.

Cost of debt
Yield to maturity on debt; frequently after tax, in which event it is one minus the tax rate times the yield to maturity.

Cost of goods sold (cost of sales)
The sum of all costs required to acquire and prepare goods for sale.

Countertrade
Known also as barter, it entails the settlement of trading accounts by a method of direct swap and has become increasingly important in trade between East and West and between currency starved Third World nations. It has become of increasing importance in Latin America since that continent's debt servicing problems in the early 1980s. It obviates the need to use precious foreign exchange reserves.

Coupon
The annual rate of interest on the bond's face value that a bond's issuer promises to pay the bondholder. One of a series of actual certificates attached to a bond, each evidencing interest due on a payment date.

Coupon rate
The rate of interest received by a bondholder on an annual, bi-annual or quarterly basis.

Covenant
A loan covenant is agreement by a borrower to perform certain acts, such as the timely providing of financial statements, or to refrain from certain acts such as incurring further indebtedness beyond an agreed level.

Covered interest arbitrage
Investing dollars in an instrument denominated in a foreign currency and hedging the resulting foreign exchange risk by selling the proceeds of the investment forward for dollars.

Covered option
An option whereby the seller, or writer, owns the underlying stock, as against uncovered options, or naked options, where the option is written against cash or other margin.

Cross-border leasing
A lease transaction in which the lessee is located in one country and the lessor is located in another country.

Cross-border loans
Cross-border loans consist of loans in which a bank in one country lends to the borrower in a separate country. Also refers to a syndicate of banks from one or more countries loaning to a project or borrower in another country.

Cross-collaterised pooled financing
Pooled securities allowing recourse to other mortgages or security interests in the pool.

Cross-currency interest rate swap
A swap that combines the features of single currency interest rate swaps and currency swaps.

Cross-currency loans
Cross-currency loans refer to a bank in one country making a commercial loan to a borrower in the same country or in a second country using the currency of a third country.

Cross-hedge
Hedging a risk in a cash market security by buying or selling a futures contract for a different but similar instrument.

Cross-hedging risk
When cross hedging, the risk that the price movement of the underlying of the futures contract may not accurately track the price movement of the asset, currency, or commodity whose risk is to be hedged.

CRTs
Abbreviation for the cathode-ray tubes used to display market quotes.

Cumulative preferred stock
Preferred stock containing the requirement that any unpaid preferred dividends accumulate and must be paid in full before common dividends may be distributed.

Currency basket
This occurs where a selection of currencies (the basket) is combined to create a common unit. In such cases, the value of each currency is usually weighted according to various economic criteria, such as, the foreign component of a country's total trade, its gross national product and importance in world trade. Examples are the 10-component European Currency Unit (ECU) and the Special Drawing Right (SDR) which comprises the dollar, yen, Deutschmark, sterling and French franc.

Currency option
A currency option entitles the holder to buy or sell a certain amount of foreign currency at a specific price until a specific date. It differs from a future or forward purchase or sale of exchange in that the forward or future contract implies an obligation to buy or sell currency, while the option confers a right which need not be exercised. To the seller, or writer, the option is a contingent obligation to buy or sell currency at a stated price until a specific date. From the seller's viewpoint, the option differs from a forward or future purchase or sale of currency because he cannot know whether the option will be exercised.

Currency swap
A swap in which the parties sell currencies to each other subject to an agreement to repurchase the same currency in the same amount, at the same exchange rate, and at a fixed date in the future.

Current asset
Any asset which will turn into cash within one year.

Current expenditures
Short-term expenditures that are completely charged to income in the year in which they occur.

Current liability
Any liability which is payable within one year.

Current maturity
Current time to maturity on an outstanding note, bond, or other money market instrument; for example, a 10-year note one year after issue has a current maturity of nine years.

Current portion of long-term debt
That portion of long-term debt which is payable within one year.

Current ratio
Current assets divided by current liabilities (a liquidity measure).

Current yield
The Current yield measures the annual income return on a particular security. Expressed as an annual percentage the current yield is defined and calculated as follows:

$$\text{Current yield (\%)} = \frac{\text{Coupon}}{\text{Net price} \times 100}$$

The net price is expressed as a percentage of the security's market price and excludes accrued interest.

Cushion bonds
High-coupon bonds that sell at only a moderate premium because they are callable at a price below that at which a comparable non-callable bond would sell. Cushion bonds offer downside protection in a falling market.

Daily adjustable securities
Puttable long-maturity bonds with coupon rate adjusted daily.

Daily sales in cash
A measure of management's control of cash balances, defined as cash divided by sales per day.

Dealer
A securities dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his own account.

Debenture
An obligation secured by the general credit of the issuer rather than being backed by a specific lien on property.

Debt (liability)
An obligation to pay cash or other goods or to provide services to another.

Debt capacity
The total amount of debt a company can prudently support, given its earnings expectations and equity base.

Debt/capitalisation ratio
The ratio of a firm's debt to its capitalisation. The higher this ratio, the greater the financial leverage and the risk.

Debt/equity ratio
The ratio of a firm's debt to its equity. The higher this ratio, the greater the financial leverage of the firm.

Debt leverage
The amplification in the return earned on equity funds when an investment is financed partly with borrowed money.

Debt securities
IOUs created through loan-type transactions such as: notes, commercial paper, bank CDs, bills, bonds and other instruments.

Debt service
Payments of principal and interest on a loan.

Deep discount bond
Similar to a zero coupon bond, except that the coupon rate is substantially under market at time of issuance. The bonds are purchased at less than par value and the investor realises a return on the difference between the issue price and par value.

Default
Failure to make timely payment of interest or principal on a debt security or to otherwise comply with provisions of a bond indenture or loan agreement.

Default premium
The increased return on a security required to compensate investors for the risk the company will default on its obligation.

Defeasance
In loans and leases and swaps, a substitution of a lump sum payment for the present value of a stream of payments.

Defeased lease
A lease in which the rents, purchase option and other obligations of the lessee have been defeased by the lessee depositing funds with a third party who agree to pay such obligations when due.

Deferred coupon bonds
Bonds in which the interest payment is postponed to some date prior to maturity.

Deferred tax liability
An estimated amount of future income taxes that may become payable from income already earned but not yet recognised for tax reporting purposes.

Deficiency agreement
An agreement to guarantee revenues will be received or expenses paid to make up a shortfall needed to pay debt.

Demand deposit
A bank deposit that may be withdrawn by the depositor at any time without prior notice of intended withdrawal.

Demand line of credit
A bank line of credit that enables a customer to borrow on a daily or an on-demand basis.

Department of Commerce
A department of the US government, the Department of Commerce does not directly finance, insure, or guarantee receivables from foreign sales or investments. It does, however, offer a wide range of services designed to provide information on the following areas: location of overseas buyers, agent/distributor services, customer introduction and project displays, East-West trade matters, publications to assist overseas business activities, export licensing requirements, foreign trade zone usage and location and selection of an export management company. Some of these informational services are organised programmes and include the Trade Opportunities Program, World Traders Data Report Service and the Foreign Buyers Program.

Depletion
An income tax deduction figured as a percent of the gross income received from the sale of natural resources, computed property-by-property, but not to exceed 50 per cent of net income. Percentage depletion deduction varies for various minerals.

Depreciation
The allocation of an asset's cost, for tax or management purposes over a period of time based on its age.

Derivatives
Financial arrangements whose returns are linked to, or derived from, some underlying stock, bond, commodity or other asset. They come in two basic types: options and 'forward-type' derivatives, which include forwards, futures and swaps. They may be listed on exchanges or negotiated privately between institutions.

Derivative securities
Trade like normal bonds, but their returns are determined by, or derived from, other factors than plain old interest rates. For instance, returns on 'structured notes' may vary in line with changes in stock prices, commodity prices, foreign-exchange rates or two different interest rates. Returns on mortgage derivatives involve bets on the rate at which homeowners will repay mortgages and often act like leveraged interest rate options.

Devaluation
A formal government action which has the effect of decreasing the value of its own national currency by reducing the equivalent value in gold, special drawing rights, US dollars or other currencies is a devalu-

ation. However, devaluation is only possible where fixed exchange rates exist.

Development bank
A lending agency that provides assistance to encourage the establishment of productive facilities in different countries.

Development carve-out
A portion of the production payment estimated to cover the development costs (intangible expenses) of an oil or gas well or mine. In the case of an oil well, most of the expenses up to installation of the 'Christmas tree'.

Development carve-out loan
A loan secured by a development n carve-out.

Direct bid facility
In Euronotes, a provision in tender panel facilities whereby members may make unsolicited bids to the issuer for particular note amounts or maturities.

Direct collection
A service offered by a bank on a case basis to sellers with high volumes of collection activity in order to expedite processing and thus accelerate payment. The remitting bank provides the collection forms which the seller, rather than the bank, prepares and mails, with any accompanying documentation, to the overseas collecting bank. Copies of the collection form are sent to the remitting bank for control and for follow-up if payment is not received.

Direct financing lease
A lease classification for a financing lessor in which the lease meets any of the criteria defining a capital lease and for which (a) collectibility of the minimum lease payments is reasonably assured; and (b) there exists no important uncertainties as to costs yet to be incurred by the lessor under the lease.

Direct lease
A lease in which the lessor provides the entire purchase price for the leased asset from the lessor's own funds.

Direct paper
Commercial paper sold directly by the issuer to investors.

Direct placement
Selling a new issue not by offering it for sale publicly but by placing it with one or several institutional investors.

Direct reduction loan
A loan in which the interest portion of the periodic payment is computed for the amount of the principal base outstanding for that period. The new principal base is then established by subtracting the remaining portion of the loan payment amount that was not designated as interest.

Disbursement
A term used in accounting and finance to indicate the actual paying out of cash.

Discount bond
A bond selling below par.

Discount note
A note sold on a discount basis; the standard form of a Euronote.

Discount securities
Non-interest-bearing money market instruments that are issued at a discount and redeemed at maturity for full face value; for example, US Treasury bills.

Discount window
A facility provided by the US Federal Reserve Bank enabling member banks to borrow reserves against collateral in the form of government securities or acceptable paper.

Discounted cash flow
A cash flow occurring some time in the future which has been discounted by a given discount factor on a compounded basis; the present value of a future cash flow.

Discounted note
An instrument of indebtedness specifying the full repayment amount at par or face value. The current proceeds of the note are thus less than the face value, the difference representing the interest portion or the discount amount.

Discounted rate of return
The effective periodic rate that would equate the present value of an investment with the accumulated present values of a stream of future cash flows, each appropriately discounted by the periodic rate.

Discounted value
The computation of the present value of a given stream of future cash payments.

Disintermediation
The investing of funds that would normally have been placed with a bank or other financial intermediary directly into debt securities issued by ultimate borrowers; for example, into bills or bonds.

Dividend
A return on an investment in stock, usually in the form of cash or stock.

Dividend yield
The annual dividend payment divided by the market price of a share of the stock.

DM
Deutschmarks (German marks).

Documentary letter of credit
A letter of credit that requires documents to accompany the draft or demand for credit.

Documented discount notes
Commercial paper backed by normal bank lines plus a letter of credit from a bank stating that it will pay off the paper at maturity if the borrower does not. Such paper is also referred to as LOC (letter of credit) paper.

Dollar price of a bond
The percentage of face value at which a bond is quoted.

Domestic bonds
Domestic bonds are bonds issued by a borrower in its country's own domestic bond market.

Domestic International Sales Corporation (DISC)
A US corporation that has been granted a limited tax deferral on a portion if its profits from export sales of products that are manufactured in the United States. The tax incentive authorises a DISC parent corporation to defer indefinitely 50 per cent of the taxes due on net income derived from export sales. US exporters who incorporate sales subsidiaries as a DISC can use the tax savings generated by the deferral as a reinvestment either in the exporter's business, in certain Eximbank obligations, or in certain other types of investments related to the production and export of US goods.

Double-declining balance method
A method that uses a constant rate (usually double the straight-line ratio) to depreciate the book value of an asset.

Double-dip lease
A lease that uses significant tax or funding incentives from two sources, usually situated in two countries.

Down-under bonds
Euro-Australian dollar bond issues and Euro-New Zealand dollar bond issues.

DRA
Deficit Reduction Act 1984.

Draft
A written order, much like a cheque in appearance, used as a formal order for payment in a business transaction.

Drawee
The party named on a cheque or draft from whom payment of the draft is expected.

Drawer
The party who orders, in a bill or draft, that money be paid over to a third party by the drawee.

Dual convertible bond
A bond convertible into more than one type of instrument, at the option of the investor.

Dual currency account
An account kept by a bank in one country with a bank in a second country. The bank in the first country keeps the account in both its currency and the other country's currency.

Dual currency bonds
Interest on dual currency bonds is paid in one currency and the principal is repaid in a different currency with the rate of exchange fixed when the issue is launched.

Dual-currency yen bonds, etc.
A bond in which interest is paid in yen and principal is paid in other currency at a specified exchange rate.

Due from account
A bank's deposit account maintained in another bank.

Due to account
A deposit account maintained by one bank for another bank.

Dun & Bradstreet
A firm that rates the creditworthiness of many borrowers and generates financial ratios for many industry groups.

Dutch auction
An auction in which the lowest price necessary to sell the entire offering becomes the price at which all securities offered are sold.

E-commerce
Business conducted by electronic data transferring.

EBIT
Abbreviation for earnings before interest and taxes.

EBRD
European Bank for Reconstruction and Development based in London and focused on eastern Europe and the former Soviet Union.

ECGD
Exports Credits Guarantee Department of the United Kingdom.

ECICS
Export Credit Insurance Corporation of Singapore.

ECU
European Currency Unit. It is an average of 10 currencies and tends to be less volatile than some of its constituent currencies.

ECU warrants
Publicly offered and listed options on ECU.

EDC
Export Development Corporation. The trade finance agency for Canada.

EKN
Exportkreditnamden. The trade finance agency for Sweden.

ERG
ERG Geschaftsstelle fur die Export-risikogarantie. The trade finance agency for Switzerland.

Earnings
The excess of revenues over all related expenses for a given period of time. Sometimes used to describe income, net income, profit or net profit.

Earnings per common share
The net income of a company, minus any preferred dividend requirements, divided by the number of outstanding common shares.

Earnings per share
Same as earnings per common share.

Earnings yield
Earnings per share divided by stock price.

Economic life of property
The estimated period during which the property is expected to be economically usable by one or more users, with normal repairs and maintenance, for the purpose for which it was intended at the inception of the lease.

Edge act subsidiary
A subsidiary established under Section 25(a) of the US Federal Reserve Act passed on December 24, 1919 with the title 'Banking Corporations Authorised to do Foreign Banking Business'. Regulation K governs operations of Edge Act Corporations. Their purpose is to aid in financing and stimulating international trade.

Efficient market
A market in which asset prices instantaneously reflect new information.

Eligible acceptance
A banker's acceptance that meets US Federal Reserve requirements related to its financing purpose and term. Most business transactions eligible for acceptance financing arise out of the importation or exportation of goods to or from the United States or between two foreign countries. Other eligible transactions include the domestic or foreign storage of readily marketable staples, goods that are either under sales contract or expected to move into a channel of trade within a certain time period and the domestic movement of goods. In the case of storage, the bank creating the acceptance must hold the title documents for the goods to be stored for the entire storage period. In the case of domestic shipment, when the bank is asked to accept a draft, it must have evidence that the shipment did take place, when it was made and what the merchandise was. The bank usually has a copy of the bill of lading or invoice for this purpose. Financing for transactions that meet these criteria generally costs less than financing for ineligible acceptances.

End-taker
The user taking the product produced by a project. The term is often used in connection with a take-or-pay contract.

EPS
Earnings per share.

Equity
Net worth; assets minus liabilities. The stockholder's residual ownership position.

Equity kicker
A share of ownership interest in a company, project or property, or a potential ownership interest in a company, project or property in consideration for making a loan. The kicker may take the form of stock, stock warrants, purchase options, a percentage of profits, or a percentage of ultimate ownership.

Equity warrants
Equity warrants may be included with either bonds or equity issues. An equity warrant gives the holder the right to buy shares in the company at a fixed price at some time in the future. The lower the exercise price for the shares, the more valuable the warrants will be, because the holder has a greater chance of exercising his rights profitably.

Equivalent bond yield
The annual yield on a short-term, non-interest-bearing security calculated so as to be comparable to yields quoted on coupon securities.

ERTA
Economic Recovery Tax Act 1981.

ESOT
Employee stock ownership trust. ESOTs are used to provide deferred compensation to employees. Since ESOTs are permitted to invest in stock or property owned by the corporation sponsoring the ESOT. Banks lending to ESOTs sometimes can treat a portion of the interest income as free from federal tax.

Euro CDs
CDs issued by a US bank branch or foreign bank located outside the United States. Almost all Euro CDs are issued in London.

Euro-commercial paper (ECP)
A non-underwritten or uncommitted note issuance programme in which one or more dealers place the issuer's paper.

Eurodollar CD futures contract
A futures contract in which the three-month Eurodollar CD is the underlying instrument. The contract traded on the CME involves US$1 million of face value; the Liffe involves £500,000. Both contracts are traded on an index price basis. The index price basis in which the contract is quoted is equal to 100 minus the annualised futures Libor rate.

Euro French Franc Bonds
A Euro French Franc bond is a bond denominated in francs but issued outside the French domestic market.

Euro lines
Lines of credit granted by banks (foreign or foreign branches of US banks) for Eurocurrencies.

Eurobond
A Eurobond is any bond in any currency issued out-

side a borrower's domestic market and sold to international investors by a group of international banks. Eurobonds have no domestic market. A note or bond issued in Europe. Eurobonds are bearer instruments. Eurobonds are not registered in the United States and can not be originally sold to a US investor. Eurobonds may be denominated in any major currency. They are truly international instruments.

Euroclear
One of the two major organisations in the Eurobond market which clears, or handles the physical exchanges of securities and stores securities. (The other is Cedel.)

Euroclear Belgium
Euroclear is the major international clearing house for the Eurobond market. It is owned by 125 investment institutions and brokers worldwide and offers four interrelated services. Clearance provides buyers and sellers of internationally traded securities with a confidential, efficient and economic means of settling transactions.

Settlements are completed by computerised book entry in 23 different currencies irrespective of the location of the parties to the trade.

Eurocurrency
A Eurocurrency refers to any currency – European or otherwise – domiciled outside its country of origin. The most obvious example is the Eurodollar which accounts for over 70 per cent of the Eurocurrency market. Other examples, however, are the euro, EuroDeutschmarks, Euroyen, Eurosterling and so on. Collectively, they comprise the Euromarkets and derived this appellation from the presence of dollars in Europe after the war; Euromarkets could apply equally to Deutschmarks held in Singapore or Swiss francs in Hong Kong. The Euromarkets grew rapidly in the 1970s because US banks found it an attractive way of circumventing reserve requirements by holding dollars abroad.

Eurocurrency deposits
Deposits made in a bank or bank branch that is not located in the country in whose currency the deposit is denominated. Dollars deposited in a London bank are Eurodollars; German marks deposited there are Euromarks.

Eurodeutsche Mark Bond
A Eurodeutsche Mark bond is a bond denominated in marks but issued outside the German domestic market.

Eurodollar
US dollars held by a non-resident of the United States usually in the form of a deposit with a commercial bank. Any US dollar denominated deposit held at a bank outside the United States in a US bank branch or a foreign bank outside the United States.

Eurodollar bonds
A Eurobond denominated in dollars.

European Currency Unit
A basket of 10 European currencies used by the European Monetary System to set values for its parity grid and for certain central bank dealings. The ECU is gradually becoming used for commercial banking transactions reflecting its growing international acceptance. The ECU tends to be less volatile than some of its constituent currencies. It affords exchange rate stability which is attractive to companies trading overseas.

European option
An option that can only be exercised at the expiry date.

Eurosterling bond
Eurosterling bond is a bond denominated in pounds but issued outside the UK domestic market.

Euroyen bond
A Euroyen bond is a bond denominated in yen but issued outside the Japan domestic market.

Evergreen loan
A term loan that renews automatically, usually year to year, unless specifically terminated by either party.

Evergreen renewal
A renewal of a true lease at the end of the base term and any fixed renewal terms based on an appraisal of the value and remaining life that is made shortly before the conclusion of the fixed term and renewals. The lessee can renew the lease for a term that is consistent with a remaining useful life at the end of the renewal term of at least 20 per cent of the original useful life. Stated another way, the lease term can be renewed

such that the sum of the base term and fixed rate renewals do not exceed 80 per cent of the reappraised useful life.

Exchange controls
Restrictions that are applied by a country's monetary authority, or central bank, to limit the convertibility of the local currency into other specific foreign currencies.

Exchange rate
The price at which one currency trades for another.

Exchange traded currency options
Options traded in organised markets whose participants are committed to quoting both buy and sell prices.

Ex-dividend
Without dividend; refers to a share of stock purchased after a dividend was declared.

Exempt securities
In the United States, instruments exempt from the registration requirements of the Securities Act 1933 or the margin requirements of the Securities and Exchange Act 1934. Such securities include commercial paper and private placements.

Exotic options
Include a wide variety of options with unusual underlying assets or peculiar terms and conditions. For instance, returns on rainbow options depend on the amount by which one asset outperforms another. Quanto options involve rights to buy a foreign asset at both a set price and a set exchange rate.

Exotic swaps
Complex swaps whose returns are derived from formulas that may include numerous indexes or financial assets, such as both interest rates and oil prices. In some exotic swaps, the difference between two indexes may be multiplied or 'leveraged', amplifying potential gains – and losses.

Expected returns
The future revenue which investors anticipate will be received from their investments.

Export credit incentive programmes
The governments of most of the world's industrial and trading nations sponsor trade support programmes that are designed to promote the host country's exports. The programmes usually include a variety of short-, medium- and long-term financing, guarantee, or insurance programmes in which governments share both commercial and political risks ranging from currency inconvertibility and bankruptcy to war, riot and revolution.

Export-Import Bank of the United States (Eximbank)
An independent, self-sustaining and wholly owned agency of the US government that aids in financing and facilitating US exports. The Eximbank supplements and encourages, but does not compete with, private capital. Its assistance falls into four categories: a medium-term guarantee programme, a direct loan and financing guarantee programme, a discount loan programme and a cooperative financing facility programme. The Eximbank guarantees commercial banks and reinsures the Foreign Credit Insurance Association against all political risks and substantial parts of commercial risks taken on both insurance programmes and commercial bank guarantee programmes.

Extended term agreement
An agreement to renew a lease, commonly used to describe a guaranteed renewal of a lease by a third party.

Extension swap
Extending maturity through a swap; for example, selling a two-year note and buying one with a slightly longer current maturity.

Face value
The maturity value of a bond or other debt instrument. Sometimes referred to as the bond's par value or nominal value.

FAD note
Fixed-at-disbursement notes fix the interest rate at time of disbursement, based upon reference to some index.

FAS 13, etc.
Technically: Statement of Financial Accounting Standards No. 13, Accounting for Leases: Financial

Accounting Standards Board, Stamford, Connecticut, November 1976, which sets forth financial accounting standards on accounting for leases. Other financial standards are identified with other numbers.

FASB
Financial Accounting Standards Board.

FCIA
Foreign Credit Insurance Association.

FSC
Foreign Sales Corporation under US tax law, to promote exports through certain tax benefits. Sometimes used in lease transactions

Fed
Short for Federal Reserve Board.

Fed wire
A computer wire transmission service established by the Federal Reserve to link member banks and to the Fed to facilitate the movement of funds of member bank accounts at the Fed.

Fed funds
See Federal Funds.

Federal funds
Non-interest bearing deposits held by member banks at the Federal Reserve. The term is used to denote 'immediate available' funds in the clearing sense. US dollar funds that are transferred between banks through the Federal Reserve system and are credited for use immediately or on the same day. Payments in Fed funds are good (can earn interest) on the day payment is made.

Federal funds rate
The rate of interest at which Fed funds are traded. This rate is influenced by the Federal Reserve through open-market operations.

Federal Reserve System
The US federal government agency that exercises monetary policy through its control over banking system reserves.

Federal Reserve Board of Governors
The governing body of the US Federal Reserve System. The seven members are appointed by the president for long and staggered terms.

Fiduciary
An individual, corporation, or association, such as a bank or trust company, to whom certain property is given to hold in trust, according to the trust agreement.

Finance lease
A capital lease. A financing device whereby a user can acquire use of an asset for most of its useful life. Rentals are net to the lessor; and the user is responsible for maintenance taxes and insurance. Rent payments over the life of the lease are sufficient to enable the lessor to recover the cost of equipment plus interest on its investment. A finance lease may be a true lease or a conditional sale. At one time the Internal Code authorised a unique type of lease called a finance lease. The lessor in a finance lease could claim tax benefits even though the lease contained a purchase option equal to 10 per cent or more of the purchase price. Also, special purpose or limited use property could be leased under a finance lease. Such finance leases were repealed by the TRA.

Financial leverage
The use of debt of finance investments.

Financing statement
A notice of a security interest filed under the Uniform Commercial Code.

Finite-life real estate investment trust
Portfolio of real estate equities with a specific date by which the portfolio must be liquidated.

First-in, first-out (FIFO)
A method of inventory accounting in which the oldest item in inventory is assumed to be sold first (as contrasted to last-in, first-out).

First-loss provision
A guarantee that is measured by some percentage of the total liability. The guarantor suffers the first loss up to that amount.

First user
The person that first places equipment into service. Certain tax benefits associated with original ownership of new equipment flow to the owner at the time of first use.

'Fish or Cut Bait' Provision
Where a technical default occurs and is not remedied, this provision requires the indenture trustee to take some action.

Fixed assets to total debt ratio
This ratio is a measure of the amount of fixed assets owned by a company which are available to reduce the company's debt in a possible liquidation. Obviously, the higher this ratio, the higher the protection to creditors.

Fixed cost
Any cost which does not vary over the observation period with changes in volume.

Fixed currency
A currency whose official exchange value in terms of gold or other currencies is maintained by the central bank or monetary authority of the concerned country and does not vary. Although most exchange rates are now floating rates, they will usually fix them against the dollar.

Fixed-income security
Any security which promises an unvarying payment stream to holders over its life.

Fixed rate bond
A fixed rate bond pays the same rate of interest to investors throughout its life and has a final maturity date.

Fixed rate of interest
An interest rate established at the time a loan is made or liability incurred and remains unchanged throughout the term of the loan or liability.

Fixed rate loan
A loan on which the rate paid by the borrower is fixed for the life of the loan.

Floating currency
A currency whose rate of exchange is allowed to fluctuate according to the forces of supply and demand. All currencies are subject to some degree of central bank intervention to soften the effects of market forces. Conversely, governments also manipulate their domestic economies to boost their currencies.

Floating interest rate
An interest rate which fluctuates during the term of a loan and which is adjusted upwards or downwards during the term of a loan in accordance with some index of short-term rates.

Floating rate notes
A floating rate note issue has no fixed rate of interest. The coupon is set periodically according to a predetermined formula tied to short-term interest rates in the appropriate market. Usually refers to floating rate notes issued in Europe, although all kinds of floating rate instruments are issued in the United States. The holder may have the right to demand redemption at par on specified dates.

Floating rental rate
Rental rate under a lease which is subject to upward or downward adjustments during the lease term, as short-term interest rates change. Usually an interest rate index is used as a reference for change.

Floor
An agreement between two parties whereby one party, for an upfront premium, agrees to compensate the other at designated times if the underlying (ie, a designated price or rate) is less than the strike level.

Floor broker
Any person who, in or surrounding any pit, ring or other place provided by a contract market for the assembly of persons similarly engaged, executes for another any orders for the purchase or sale of any commodity for future delivery and receives a prescribed fee or commission.

Floor trader
Member of an exchange who normally executes his own trades by being personally present in the pit or place for futures trading; also known as a local.

Floored FRN
A floating rate note with a minimum of interest.

Footings
The bottom line of an institution's balance sheet; total assets equal total liabilities plus net worth.

Foreign bond
A bond issue for a foreign borrower offered in the domestic capital market of a particular country and denominated in the currency of that country. They may also be sold to international investors as well as domestic investors.

Foreign Credit Insurance Association (FCIA)
An unincorporated consortium of over 50 leading US insurance companies that cooperate with the Eximbank to cover commercial and political risks for short-term and medium-term export credit transactions. Policies are issued in relation to transactions in two broad categories: those involving multiple sales and those involving single sales. The policies for multiple sales transactions require the insured to include a representative spread of his foreign sales. The policies for single sales transactions are written for each transaction.

Foreign currency futures
A formal contract to sell or to buy a certain amount of foreign currency at a specified rate for delivery at a future time.

Foreign currency option
A contract that gives the purchaser the right to buy or sell a fixed amount of currency at a fixed rate on or before a specified expiration date.

Foreign draft
A draft drawn by any bank or other drawer in one country on a bank or other drawee in another country. It may be in any currency.

Forex
Foreign exchange.

Foreign exchange
The currency of foreign countries; and the process of converting the currency of one country to that of a second country.

Foreign exchange exposure management
The strategies adopted and actions taken by companies to minimise the possibilities of loss in transactions involving foreign exchange.

Foreign exchange rate
The price at which the currency of one country can be bought with the currency of another country.

Foreign exchange risk
The risk that a long or short position in a foreign currency will have to be closed out at a loss, due to an adverse movement in the relevant exchange rate. The long or short position which may arise out of a financial or commercial transaction.

Foreign leasing
As used in international leasing foreign leasing refers to a lease in which the lessor is an entity domestic to the lessee's country but is owned by an entity located outside the lessee's country.

Foreign source income
Income earned overseas (net of depreciation and other expenses allocable to such income) as reported for US federal income tax purposes.

Foreign tax credit
A credit against taxes in one country for taxes paid to another country on the same income.

Forward contract
Contract between two parties to exchange a currency at a set price on a future date. Differs from a futures contract in that most forward commitments are not actively traded or standardised and carry the risk from the creditworthiness of the other side of the transaction.

Forward fed funds
Fed funds traded for future delivery.

Forward market
A market in which participants agree to trade some commodity, security, or foreign exchange at a fixed price at some future date. Unlike futures and options, trading in forward markets does not occur on organised exchanges but through the forex traders of financial institutions. Forward currency contracts are not

transferable instruments and settlement is usually expected to be through actual delivery of currencies. Also known as Forwards.

Forward premium
The difference between the spot and forward values of a currency. Also known as Discount Premium.

Forward rate
The rate at which forward transactions in some specific maturity are being made; for example, the dollar price at which DM can be bought for delivery three months hence.

Forward rate agreement
A customised agreement between two parties (one of whom is a dealer firm – a commercial bank or investment banking firm) where the two parties agree at a specified future date to exchange an amount of money based on a reference interest rate and a notional principal amount.

Forward swap
A forward contract on swap. The terms of the swap are set today, but the parties agree that the swap will begin at a specified date in the future.

Forward transaction
A foreign exchange transaction in which currency is bought or sold at a fixed rate of exchange for delivery at some specified time in the future. Generally, an amount is added or subtracted from the current rate of exchange to account for premium or discount, respectively.

FRNs
Floating rate notes, similar to Eurobonds but with a floating interest rate.

FSC lease
Foreign sales corporation lease.

Full-coupon bond
A bond with a coupon equal to the going market rate and consequently selling at or near par.

Full-payout lease
For FAS 13, a lease that qualifies as a direct financing lease or a sales type lease. The definition of a full payout lease depends on the context in which the term is used. Generally, the term full-payout lease refers to a lease in which the cash flows from firm rents and an estimated conservative residual value will return to the lessor an acceptable return on investment and the cost of the leased equipment after payment of the cost of financing and overhead.

Full-service lease
This type of lease obligates the lessor to provide maintenance, repair and insure the leased equipment. The lessor also pays the property taxes. Full-service leases are nearly always true leases in which the lessor owns the equipment at the end of the lease.

Fungibility
Futures/options contracts (or bearer instruments, securities or goods) that are substitutable, interchangeable and equivalent. For example, the fundability (interchangeability) of listed options, by virtue of their common expiration dates and strike prices, permits buyers and sellers to close out their positions on different exchanges, such as Chicago Mercantile Exchange Singapore International Monetary Exchange Eurodollar futures.

Future value
The value of an initial investment after a specified period of time at a certain rate of interest.

Futures contract
An legal agreement between a buyer (seller) and an established exchange or its clearing house in which the buyer (seller) agrees to take (make) delivery of something at a specified price at the end of a designated period of time. The price at which the parties agree to transact in the future is called the futures price. The designated date at which the parties must transact is called the settlement or delivery date.

Future market
A market in which contracts for future delivery of a commodity or a security are bought and sold. Different exchanges specialise in particular kinds of contracts. The exchange generally acts as a middleman, guaranteeing payment in case either buyer or seller defaults. In return, both sides of the trade put up collateral, which is adjusted daily, to back their obligations. Exchanges

where financial futures options are traded: Amsterdam – European Options Exchange; Auckland – New Zealand Futures Exchange; New York – American Stock Exchange, New York Cotton Exchange and New York Futures Exchange; Chicago – Chicago Board of Trade, Chicago Mercantile Exchange and Chicago Board Options Exchange; Hong Kong – Hong Kong Futures Exchange; Kansas City – Kansas City Board of Trade; London – London International Financial Futures Exchange (Liffe), London Stock Exchange; Paris – Marche a Terme d'Instruments Financiers (Matif); Philadelphia – Philadelphia Stock Exchange; Rio de Janeiro – Bolsa Brasileira de Futuros; San Francisco/Los Angeles – Pacific Stock Exchange; Singapore – Singapore International Monetary Exchange (Simex); Sydney – Sydney Futures Exchange, Australian Options Market; Tokyo – Tokyo Stock Exchange.

Futures option
An option that gives the buyer the right to buy from or sell to the writer a designated futures contract at a designated price at any time during the life of the option.

Gearing
Debt to equity ratio.

General creditor
Unsecured creditor.

General obligation bond
Municipal securities secured by the issuer's pledge of its full faith, credit and taxing power, as contracted to an industrial revenue bond which is dependent upon revenue generated by a particular facility.

General partnership
A partnership in which all partners have unlimited liability for future.

Glass-Steagall Act
A 1933 Federal Act requiring the separation of commercial and investment banking.

Global commercial paper
Non-underwritten Euronote issuance programs which are sold on a global basis with the book moving between time zones for 24-hour coverage.

Global note facility
A facility whereby the medium term underwriting commitment of banks which are parties to the facility is available to back up both the issue of US commercial paper and Euronotes. Should the issuer be unable to roll over US commercial paper, his failure will trigger off a Euronote issuance process by tender panel. Bridging finance between the time of a failed US commercial paper roll-over and provision of funds from the Euronote facility is provided by a Swingline.

Go-around
When the Fed offers to buy securities, to sell securities, to do repo, or to do reverses, it solicits competitive bids or offers, as the case may be, from all primary dealers.

Golden parachute
A generous termination agreement for upper management which takes effect if control of a company firm shifts.

Goodwill
The intangible assets of a firm, calculated at the excess purchase price paid over book value.

Grantor trust
A trust used as the owner trust in a leveraged lease transaction, with only one equity participant. The Internal Revenue Code refers to such a trust as a grantor trust. With more than one equity participant the grantor trust is usually treated as a partnership.

Grantor Underwritten Note
Called a GUN. In connection with Euronotes, a floating rate note (FRN) facility similar to a Euronote facility whereby a group of banks (grantors) commit to purchase any notes put back to them by investors on any FRN interest rate fixing date. Any put notes thus accumulated are then auctioned out to the market between the grantors.

Green shoe
Over-allotment option granted by the company to the managing underwriter of a stock offering to purchase an additional 10 to 15 per cent of the offering if needed. For IPOs there is a Green shoe option in almost every deal.

Greenmail
The practice of a purchaser acquiring a large percentage of a company's stock and then threatening to take over the company unless management buys the purchaser out at a premium.

Grey market
In the Eurobond market, the trading in the bonds from the date that the issue announced, on what is known as an 'if, as and when issued' basis, is called the grey market.

Gross lease
Opposite of a net lease. The lessor pays property tax, insurance and maintenance costs on a gross lease of equipment.

Guideline lease
A lease which qualifies as a true lease in Revenue Procedure 75–21.

GUN
An acronym for grantor underwritten note. In connection with Euronotes, a floating rate note facility similar to a Euronote facility whereby a group of banks (grantors) commit to purchase any notes put back to them by investors on any FRN interest rate fixing date. Any put notes thus accumulated are then auctioned out to the market between the grantors.

HERMES
HERMES Kreditversicherungs AG. The trade finance agency for Germany.

Haircut
A discount.

Hard currency
A currency considered by the market to be likely to maintain its value against other currencies over a period of time and not likely to be eroded by inflation. A soft currency, on the other hand, is one whose value melts away as you hold it. Hard currencies are usually freely convertible. The most obvious hard currencies in recent times have been the US dollar, Deutschmark, yen, Swiss franc and sterling.

Harmless warrants
Warrants attached to a host bond that protect the issuer from the potential doubling of debt in the event of warrant exercise by allowing the issuer to call a corresponding amount of the host bond.

Heat supply contract
A nuclear fuel lease.

Hedge
A method whereby currency exposure (the risk of possible loss due to currency fluctuations) or commodity exposure is covered or offset for a fixed period of time. This is accomplished by taking a position in futures equal and opposite to an existing or anticipated cash or commodity position, or by shorting a security similar to one in which a long position has been established.

Hedging
See Hedge.

Hell-or-high-water clause
A requirement that an obligation, such as rent payments, be carried out 'come hell-or-high-water'. An unconditional, absolute obligation not subject to defence of non-performance by the other party to the contract.

High gearing
A high debt to equity ratio.

High-low debt
Debt with higher payments early in the term.

High-low rent
A lease in which rents are higher early in the term.

Hire-purchase agreement
Same as conditional sale lease.

Historical-cost depreciation
Depreciation based on amount originally paid for asset.

Host bond
A Eurobond issue carrying warrants.

Hurdle rate
Minimum acceptable rate of return on investment.

IDC
Intangible drilling costs.

IFC
International Finance Corporation, a subsidiary of the International Bank for Reconstruction and Development (World Bank).

Inbound lease
A cross-border lease from a foreign lessor to a US lessee.

Incipient default
An event or condition that, after the giving of notice or the lapse of time, or both, would become an event of default under a lease or a mortgage, entitling the lease to be terminated or the mortgage to be foreclosed.

Income
Earnings.

Income statement
A report of a company's revenues, associated expenses and resulting income for a period of time. The profit and loss statement.

Income warrant
A debt warrant that carries interest on its issue price.

Incremental borrowing rate
The interest rate which a person would expect to pay for a certain loan at a certain time.

Incubators
High risk seed capital investment companies that offer small amounts of capital and consulting services to start-up companies, usually involved in e-commerce.

Indemnitee
A term used to describe the class of persons entitled to indemnification under the general indemnity and general tax indemnity provisions of an agreement.

Indemnity agreement
When used in the context of a leveraged lease, an agreement whereby the owner participants and the lessee indemnify the trustees from liability as a result of ownership of the leased equipment.

Indemnity clauses
Refers to the indemnity provisions in a lease or loan.

Indenture of a bond
A legal statement spelling out the obligations of the bond issuer and the rights of the bondholder.

Indenture trustee
An indenture trustee holds the security interest in property for the benefit of the lenders.

Indexed loan
A loan with debt service repayment tied to some standard which is calculated to protect the lender against inflation and/or currency exchange risk.

Indexed rate notes
A note with the interest rate set at take-down on the basis of an agreed interest rate index.

Industrial revenue bond
See Revenue bond.

Ineligible acceptance
An acceptance that does not meet the Federal Reserve eligibility requirements but that does offer advantages in certain financing situations.

Inflation premium
The increased return on a security or an investment which is required to compensate investors for expected inflation.

Initial margin requirement
For a futures contract, when a position is first taken, the investor must deposit a minimum dollar amount per contract as specified by the exchange.

Insider trading
Buying or selling of a company's securities by persons having access to non-public information relating to the company in question.

Institutional investors
Investors such as banks, insurance companies, trusts, pension funds foundations and educational, charitable and religious institutions.

Intangible assets
Intangible assets include such items or accounts as: goodwill, patents and patent rights, deferred charges and unamortised bond premium.

Intangible expenses
Development expenses of an oil or gas well or mine, which are deductible for income tax purposes in the year incurred.

Inter-creditor agreement
An agreement between the lenders to a company as to the rights of creditors in the event of default, covering such topics as collateral, waiver, security and set-offs.

Interest
Cash amounts paid by borrowers to lenders for the use of their money. Normally expressed as a percentage.

Interest Equalisation Tax
A tax applied on securities issues of foreign borrowers offered within the United States, intended to discourage such offerings. First applied in 1963, finally repealed in 1974. Significant Eurodollar loans came into widespread use partially as a result of IET.

Interest rate exposure
Risk of gain or loss to which a company is exposed due to possible changes in interest-rate levels.

Interest rate implicit in a lease
The discount rate which, when applied to minimum lease payments (excluding executory costs paid by the lessor) and unguaranteed residual value, causes the aggregate present value at the beginning of the lease term to be equal to the fair value of the leased property at the inception of the lease.

Interest rate swap
A swap in which two parties agree to exchange interest rate payments based on a notional principal amount, with typically one paying a fixed rate and the other generally paying a floating rate.

Interim rent
Daily rental occurring from delivery, acceptance and/or funding until a later starting date for a basic lease term. Often used when equipment delivers over a period of time.

Internally generated funds
Cash that a firm generates from retained earnings and depreciation.

International Primary Markets Association
A group which endeavours to standardise the way which new Eurobond issues are launched, encouraging common standards and greater disclosure. The London or Luxembourg stock exchanges will require the issuer to comply with its relevant listing procedures.

Inventory turnover ratio
A measure of management's control of its investment in inventory, usually defined as cost of goods sold divided by ending inventory.

Investment bank
A financial institution specialising in the original sale and subsequent trading of company securities.

Investment bank
A term applied to a financial institution (usually US) engaged in the issue of new securities and private placements including management and underwriting of issues as well as securities trading and distribution. The main function of an investment bank is to locate and collect funds for clients so they can finance new investment projects. Investment banks engage in buying and selling securities, such as stocks, bonds and mortgages. Investment banks also act as intermediaries between the corporation, who requires funds for such improvements as new equipment, new buildings, or plant expansions; and the investor, who wishes to invest his savings. Investment banks may promote a new industry, handle the finances of a corporation for expansion purposes, or act as brokers with other investment banking firms in the flotation of stocks and bonds.

IPO
Initial public offering.

IRC
Internal Revenue Code.

IRR
Internal rate of return.

Issuer-set margin
A letter of credit that cannot be changed or cancelled without the consent of all parties involved. Most letters of credit today are irrevocable; however, if not specifically labelled as such, letters of credit are understood to be revocable.

IRS
Internal Revenue Service.

Issuer set margin
A Euronote distribution system which permits the issuer to set the note margin, usually in relation to Libor, at which facility underwriters may opt to take a certain proportion of the notes pro rata to their commitments at the set margin. Notes not taken up or not sold by facility underwriters are placed with the facility arranger who also is allocated a fixed proportion of each issue.

ITC
Investment tax credit.

Japanese government yen bond futures
Japanese financial futures contracts.

Joint venture
Often used to describe any jointly owned corporation or partnership which owns, operates or constructs a facility project or enterprise. More specifically, an arrangement between two or more parties for the joint management or operation of a facility, project enterprise or company under an operating agreement which is not a partnership.

Junk bonds
High-risk bonds that have less than investment grade credit ratings.

Kamikazi bond
A term used to describe an alleged below market bid usually used by one competitor to describe an especially low bid by another competitor.

Kamikazi swap
A term used to describe large alleged below cost swaps of yen Euronote issues by Japanese banks or investment houses.

Keep-well letter
A form of guarantee in which the guarantor agrees to keep the recipient of the guarantee well, by injecting capital as needed. Sometimes called a maintenance of working capital guarantee. If properly worded, a keep well letter can be the equivalent to a formal guarantee.

Last-in, first-out (LIFO)
A method of inventory accounting in which the newest item in inventory is assumed to be sold first (cf. first-in, first-out).

Lead bank
The bank which negotiates a large loan with a borrower and solicits other lenders to join the syndicate making the loan.

Lead manager
In a new securities issue, the managing bank responsible for initiating the transaction with the borrower and for organising (or designating another to organise) the successful syndication and placement of the issue in the primary market.

League tables
These are tables which chart the amount of new issue business each bank in the Eurobond market has done. Banks believe that the higher they rank in the league tables and particularly the table of Lead Managers running the books, the better the chance they will have of winning new mandates themselves. The aim of most participants in the bond market is to achieve Lead manager status.

Lease
In an equipment lease, one party, called the lessor, provides equipment to a second party, called the lessee, for a fixed period of time for compensation.

Lease backed collateralised securities
Securities collateralised by leases on plant and equipment.

Lease-buy analysis
A financial analysis comparing the cost of leasing equipment with the cost of purchasing equipment.

Lease intended as security
A lease in which the lessee is considered the owner for both state law and federal income tax purposes. A conditional sale or installment purchase for income tax purposes.

Lease line
A lease line of credit similar to a bank line of credit that allows a lessee to add equipment to a lease, as needed, under the same basic terms and conditions, without negotiating a new lease.

Lease multiple
The number of lease payments due a lessor against which a lender is willing to lend. The lease multiple reflects the lender's assumptions as to interest rate, cash flow, yield, credit and other variables.

Lease rate
The equivalent simple annual interest rate implicit in minimum lease rentals. Not the same as interest rate implicit in a lease.

Lease term
The fixed, non-cancellable term of the lease includes, for accounting purposes, all periods covered by fixed rate renewal options which, for economic reasons, appear likely to be exercised at the inception of the lease and for tax purposes, all periods covered by fixed rate renewal options.

Lease underwriting
An agreement whereby a packager commits firmly to enter into a lease on certain terms and assumes the risk of arranging any financing.

Legal lending limit
A limit under the United States National Banking Act which states the total obligations to any national banking association of any person, co-partnership, association, or corporation shall at no time exceed 10 per cent of the amount of the capital stock of such association actually paid in and unimpaired and 10 per cent of its unimpaired surplus fund. There are numerous qualifications and exceptions to the limit.

Legal reserves
The portion of its deposits which a bank is required by law to maintain in the form of cash or readily available balances to meet the demands of the depositors.

Lessee
The user of equipment being leased.

Lessee's incremental borrowing rate
The interest rate which the lessee at the inception of the lease would have incurred to borrow over a similar term the funds necessary to purchase the leased assets. In a leveraged lease the rate on the bonds is normally used as the lessee's incremental borrowing rate.

Lessor
The owner of equipment which is being leased to a lessee or user.

Letter of credit
A guarantee limited as to time and amount.

Level payments
Equal payments over the term of a loan or lease.

Leveraged lease
A lease which meets the definition criteria for a direct financing lease, plus all of the following characteristics:

a. At least three parties are involved: a lessee, a lessor and a long-term creditor.
b. The financing provided by the creditor is substantial to the transaction and without recourse to the lessor.
c. The lessor's net investment typically declines during the early periods of the lease and rises during the later periods of the lease.

Liability
An obligation to pay an amount or perform a service.

Libor
The London Interbank Offered Rate of interest on Eurodollar deposits traded between banks. There is a different Libor rate for each deposit maturity. Different banks may quote slightly different Libor rates because they use different reference banks.

Lien
A security interest on property to secure the repayment of debt and the performance of related obligations.

Lifting a leg
Closing out one side of a long-short arbitrage before the other is closed.

Limited liability company
A special purpose corporation formed under state laws which permit the entity to have the characteristics of a partnership.

Limited partnership
A partnership consisting of one or more general partners, jointly and severally responsible as ordinary partners, by whom a business is conducted; and one or more limited partners, contributing in cash payments a specific sum as capital and who are not liable for the debts of the partnership beyond the funds so contributed.

Limited-use property
Same as special-purpose property.

Line of credit
A commitment of a bank to a borrower to extend a series of credits to the borrower under certain terms and conditions up to an agreed maximum amount for a specified period of time. In addition to loans of funds, a line of credit may include issuance of a succession of letters of credit, acceptances and/or discounting of a series of drafts, extension of multiple loans or advances and other forms of credit. The amount of credit, as well as the conditions under which it is provided, is established by agreement.

Liquid asset
A liquid asset is one that can be converted easily and rapidly into cash without a substantial loss of value.

Liquidation
The process of closing down a company, selling its assets, paying off its creditors and distributing any remaining cash to owners.

Liquidity
The ability to convert assets into cash. A measure of how easily assets can be converted into cash.

Liquidity ratio
Any ratio used to estimate a company's liquidity (such as the acid test or current ratio).

LLC
A limited liability company.

Loan certificates
Debt certificates, notes, or bonds issued to lenders to evidence debt.

Loan participant
A holder of debt evidenced by loan certificates, notes, or bonds.

Local currency
The official domestic currency (currency of issue) of any particular country.

Long bonds
Bonds with a long current maturity.

Long coupons
Bonds or notes with a long current maturity.

Long hedge
A hedge undertaken to protect against an increase in the price of an asset, a currency, or a commodity to be purchased in the cash market at some future time. Also called a long hedge.

Long position
A situation where the number of calls or puts in a given series of options that have been bought in an account exceeds the number sold as opposed to a short position, in which the number of calls or puts sold exceeds the number purchased.

Long-term debt
A borrowing for a long period of time, usually through bank loans or the sale of bonds. On a balance sheet, any debt due for more than one year is classified as long term.

Long-term lease
Generally refers to a capital lease.

Lookback currency option
An over-the-counter option where the option buyer has the right to obtain the most favourable exchange rate that prevailed over the life of the option.

Lowball bid
A bid to enter into or to arrange a lease or loan transaction that is purposely priced below market or with terms not acceptable from a tax or accounting standpoint, with a view to renegotiation of a higher price and/or more expensive terms at a later date. Once the bid has been awarded the other interested lessors may no longer be available. Typically, the lowball bidder raises the price or strengthens the terms when it is too late for the lessee to seek other leasing sources.

Low-high debt
Debt with lower payments early in the term.

Low-high rent
A lease in which rental payments are lower early in the lease.

LPN
Lender participation notes. Notes at less than market rates in which the lenders may participate in the equity rewards.

Macro factors
Factors that pertain to developments in the general economy and government fiscal policy.

MACRS
Modified accelerated cost recovery system. Tax depreciation permitted by the IRS. MACRS replaced ACRS.

Maintenance bond
A bond to provide funds for maintenance and repair of equipment or a facility. Maintenance bonds are used in connection with construction contracts to ensure that a contractor will repair mistakes and defects after completion of construction. The bond may be used in lieu of the contractor leaving a portion of the contract price on deposit with the employer to ensure performance.

Maintenance margin
For a futures contract, the minimum level (specified by the exchange) by which an investor's equity position may fall as a result of an unfavourable price movement before the investor is required to deposit additional margin.

Majority in interest of participants
The term typically used in loan indentures to indicate those persons that are entitled to instruct the indenture trustee to take action under the indenture.

Make-up agreement
Where a product contracted to be supplied cannot be provided from a certain project, a make-up agreement provides that the product will be supplied from some other source controlled by the sponsor.

Mandate
Authorisation from a borrower to proceed with arranging a financing.

Manufacturer's bills of sale
The bill of sale from the manufacturer or supplier of the property usually containing the manufacturer's warranty that the purchaser has received good title to the equipment being purchased by it.

Marginal cost of capital
The incremental cost of financing above a previous level.

Marginal tax rate
The tax rate that would have to be paid on an additional dollar of taxable income earned.

Market value
The price at which an item can be sold.

Master lease
A lease line of credit that allows a lessee to add equipment to a lease under the same basic terms and conditions without negotiating a new lease contract.

Maturity
The date on which a given debt security or any obligation to pay money becomes due and payable to the holder in full.

Medium-term note
A debt instrument with the unique characteristic that notes are offered continuously to investors by an agent of the issuer. Investors can select from several maturity ranges: nine months to one year, more than one year to 18 months, more than 18 months to

two years and so on up to 30 years. In the United States, medium-term notes are registered with the Securities and Exchange Commission under Rule 415 (the shelf registration rule) which gives a corporation the maximum flexibility for issuing securities on a continuous basis.

Merchant bank
A British term for a European form of investment bank which specialises not in lending out its own funds but in providing various financial services such as accepting bills arising out of trade, underwriting new issues and providing advice on project finance, acquisitions, mergers, foreign exchange and portfolio management. Merchant banks also act as intermediaries between the corporation which wishes funds for new equipment, new buildings, or plant expansions and the investor, who wishes to invest his savings. Merchant banks may promote a new industry, handle the finances of a corporation for expansion purposes, or act as brokers with other investment banking firms in the flotation of stocks and bonds.

Merger
The combining of two or more enterprises. Corporate mergers involve the exchange of securities or the issuance of new securities or both.

Mezzanine financing
An unusually structured subordinated loan transaction, usually with an equity kicker offered in order to get better terms from investors.

Micro factors
Factors that pertain to supply, demand and pricing.

Middle rate
In exchange rate terms, this is the median between a bid and an offer.

Mini/max FRN
A floating rate security with upper and lower bounds set.

Mini max FRN
An FRN with both minimum and maximum rates of interest.

Mismatched FRN
A floating rate security with coupon reset and coupon payment occurring at different frequencies.

Mismatch FRN
Under a mismatch FRN, the borrower sets its interest rate monthly and pays out the average for each six month rate as the rate for the period. Usually an FRN pays interest twice a year at the three month or six month rate. The payment under a mix-match FRN is still made half yearly, but the technique protects investors who have borrowed at the cheaper one month rate, to buy their FRNs.

MITI
The Ministry of International Trade and Industry. Export-Import Bank of Japan.

MOF
An acronym in Euronotes for multi-option facility. A MOF is broader than the typical underwritten Euronote facility (NIF) in that the banks' medium-term commitment is to backstop, not only the issuance of Euronotes but also a wide range of other short-term instruments, such as bankers acceptances and short-term advances in a variety of currencies.

MOF (Japan)
Ministry of Finance.

Monetary asset
Any asset having a value defined in units of currency. Cash and accounts receivable are monetary assets; inventories and plant and equipment are physical assets.

Money centre bank
See money market bank.

Money market
The market for shorter-term securities, generally those with one year or less remaining to maturity, handled by such financial institutions as commercial banks, savings banks, trust companies, insurance companies, stock brokerage firms, investment banks, investors, or mortgage banks. The market in which short-term debt instruments (such as bills, commercial paper and bankers' acceptances) are issued and traded.

Money market bank
A bank that is one of the nation's largest and consequently plays an active and important role in every sector of the money market.

Moody's
A credit rating agency.

More likely than not opinion
More likely than not opinions by attorneys indicate a better than even chance that some event will occur. This term is generally used in connection with individual tax shelter schemes to avoid fraud or negligence charges against a promoter.

Mortgage
A pledge or assignment of security of particular property for payment of debt or performance of some other obligation. The same as an indenture of trust or security agreement.

Mortgage bond
A bond secured by a lien on property, equipment, or other real assets.

Multi option facility
See MOF.

Multicurrency bonds
Bonds payable in more than one currency at the discretion of the investor.

Multicurrency clause
Such a clause in a Euro loan permits the borrower to switch from one currency to another on a rollover date.

Multicurrency loan
A loan made by a bank in one or more of several currencies.

Multilateral netting
A system generally offered by financial institutions to multinational corporations to cut down the number of transactions necessary to complete complex international payments.

Multinational corporation
A firm with significant operations outside its national borders and/or with subsidiaries or divisions in more than one country.

Multinational lending agencies
A number of trade support organisations are jointly owned by a group of countries and are designed to promote international and regional economic cooperation. In particular, these lending agencies have such goals as aiding the development of productive facilities and furthering social and economic growth in member countries. These include the following major multinational agencies:

- Asian Development Bank;
- Inter-American Development Bank;
- International Bank for Reconstruction and Development (The World Bank); and
- International Finance Corporation (IFC).

Municipal (muni) notes
Short-term notes issued by municipalities in anticipation of tax receipts, proceeds from a bond issue, or other revenues.

Municipals
Securities issued by state and local governments and their agencies.

Mutually exclusive alternatives
Two projects which accomplish the same objective, so that only one will be undertaken.

NCM
Nederlandsche Credietverzekering Maatschappij NV. The trade finance agency for the Netherlands.

Naked position
A long or short position that is not hedged.

Naked warrants
An issue of warrants without any host bond.

National banks
In the United States, national banks are federally chartered banks that are subject to supervision by the Comptroller of the Currency. State banks, in contrast, are state chartered and state regulated.

Negative carry
The net cost incurred when the cost of carry exceeds the yield on the securities being financed.

Negative pledge
Undertaking by a borrower not to offer improved security arrangements to other lenders without offering the equivalent security to the instant lender.

Negotiable instrument
Any written evidence of a payment obligation which may be transferred by endorsement or by delivery, such as checks, bills of exchange, drafts, promissory notes and some types of bonds or securities and of which the transferee may become a holder in due course.

Net income
Earnings.

Net lease
In a net lease, the rentals are payable net to the lessor. All costs in connection with the use of the equipment are to be paid by the lessee and are not a part of rental. For example, taxes, insurance and maintenance are paid directly by the lessee. Most finance leases are net leases.

Net-net lease
Same as net lease.

Net present value (NPV)
Present value of cash inflows less present value of cash outflows.

Net profit
Earnings.

Net profit margins
Net profits after taxes divided by sales.

Net sales
Total sales revenue less certain offsetting items such, as returns and allowances and sales discounts.

Net working capital
Current assets minus current liabilities, used as an indication of liquidity.

Net worth
Equity, shareholders' equity.

New-issues market
The market in which a new issue of securities is first sold to investors.

NIBOR
New York Interbank Rate, which a few bankers promote as a term equivalent to Libor.

NIF
Stands for: note issuance facility, which is general reference to describe for all types of underwritten Euronote facilities.

Nominal rate
A stated rate which is usually subdivided for compounding purposes, resulting in a higher effective rate.

Non-commercial risk
Risks such as: casualty risk, political risk, expropriation, acts of God, currency, convertibility, technological risks, failure of management. A non-commercial risk can usually be covered by insurance.

Non-convertible currency
Non-convertible currencies are those whose circulation is restricted by the local authorities and where the exchange rate is artificially set by those authorities (usually well above the inevitable local black market rate).

Non-dollar FRNs
FRNs in currencies other than the dollar such as Deutschmark and yen-denominated FRNs.

Non-payout lease
A lease in which cash flows from rents and nominal residual value are insufficient to cover the cost of financing and administration of the lease. The lessor relies on a renewal or release of equipment to recover its investment and realise a profit.

Non-performing loan
A loan on which interest or some payment due under the loan agreement is not paid as it accrues. Since banks are examined only periodically, a non-performing loan may or may not be classified.

Non-recourse debt
Debt without recourse to the sponsor of a project. Lender looks to the project or other interested parties for repayment.

Note
An instrument recognised as a legal evidence of a debt that is signed by the maker, promising to pay a certain sum of money, on a specified date, at a certain place of business, to the payee or other holder of the note. The difference, if any, between notes and bonds is normally that of maturity, notes having a shorter life.

Coupon issues with a relatively short original maturity are often called notes. However, US Treasury notes are coupon securities that have an original maturity of up to 10 years.

Note issuance facility
Called a NIF. A note issuance facility is a general reference used to describe all types of underwritten Euronote facilities.

Notional amount
The nominal or principal amount of a swap as measured in a base currency, usually US dollar.

NOW accounts
These are in effect checking accounts on which depository institutions (banks and thrifts) may pay a rate of interest. NOW stands for negotiable order of withdrawal.

OKB
Osterreichische Kontrollbank AD. The trade finance bank for Austria.

Offshore entity
A generalisation for an entity located outside the boundary of the country of origin.

Off-take
The product produced by a project.

Offering circular
Also called a Prospectus. The offering circular usually contains a complete description of the terms of the securities being offered, together with financial information relating to the borrower and any guarantor.

Off-taker
The user taking the product produced by a project. The term is often used in connection with take-or-pay contract.

Open-end lease
A conditional sale lease in which the lessee guarantees that the lessor will realise a minimum value from the sale of the asset at the end of the lease. If the equipment is not sold for the agreed residual value, the lessee pays the difference to the lessor. If the equipment is sold for more than the agreed residual value, the lessor pays the excess to the lessee. The lease is called an open-end lease because the lessee does not know the extent of its liability to the lessor until the equipment has been sold at the end of the lease. The lessee's liability is open-ended. The term open-end lease is commonly used in automobile leasing. Individual liability under open-end leases is limited by consumer protection laws.

Operating agreement
Used in mining joint ventures to describe the basic agreement between the joint venturers.

Operating lease
For financial accounting purposes, a lease which does not meet the criteria of a capital lease and does not have to be shown on the balance sheet by the lessee, although it will be reported in a footnote as a fixed charge. The term operating lease is also, used generally to describe a short-term lease whereby a user can acquire use of an asset for a fraction of the useful life of the asset. The lessor in such a lease may provide services in connection with an operating lease such as maintenance, insurance and payment of personal property taxes.

Operating profit margins
The rates of profits earned from operations, excluding taxes and interest from consideration.

Opportunity cost
The cost of pursuing one course of action measured in terms of the forgone return offered by the most-attractive alternative investment.

Optimal capital structure
The theoretical structure of debt and equity that results

in the lowest cost of capital and the maximum wealth of a firm.

Option
A contract in which the writer of the option grants the buyer of the option the right, but not the obligation, to purchase from or sell to the writer something at a specified price within a specified period of time (or at a specified date). The writer, also referred to as the seller, grants this right to the buyer in exchange for a certain sum of money, which is called the option price or option premium. The price at which the asset may be bought or sold is called the strike or exercise price. The date after which an option is void is called the expiration date.

Option put securities
Puttable bonds with detachable puts.

Option series
Type of options which are either entirely call options or put options on the same underlying security and all of which have the same strike price and maturity date.

Outbound lease
A cross-border lease in which a US lessor leases equipment to a foreign lessee for use by the foreign lessee.

Out-of-the-money
A call option is out-of-the-money when the strike price is markedly above the current price of the underlying futures contract. A put option is out-of-the-money when the strike price is markedly below the current price of same.

Over-the-counter (OTC) market
A market created by dealer trading as opposed to the auction market prevailing on organised exchanges.

Overseas Private Investment Corporation (OPIC)
A self-supporting US government corporation providing insurance and, in some cases, partial financing to US private investment in developing countries. In eligible countries, its insurance services provide political risk insurance to US investors for new capital investment and its financial services provide direct loans to new US investment projects. Medium-term and long-term loan guarantees are provided for the same projects. Criteria for financing state that the project must have at least 51 per cent private ownership and 25 per cent US ownership.

Owner trustee
In a leveraged lease, the primary function of the owner trustee is to hold title to the equipment for the benefit of the equity participants. Also sometimes called grantor trustee.

Ownership FSC
A lease in which a foreign sales corporation leases an asset to a foreign user. Stock of the FSC is owned by a trust. Beneficiaries of the trust are US owner participants, who enjoy certain tax benefits because of the FSC. Non-recourse loans are made to the trust. Lenders do not receive an assignment of the lease or a lien on the leased asset.

Paid-in capital
That portion of shareholders' equity which has been paid-in directly as opposed to earned profits retained in the business.

Paper
Money market instruments, commercial paper and other.

Paper gain (loss)
Unrealised capital gain (loss) on assets, based on a comparison of current market price and original cost.

Par
The principal amount at which the issuer of a debt security contracts to redeem that security at maturity. The face value.

Par bond
A bond selling at par.

Par value
An arbitrary value set as the face amount of a security. Bondholders receive par value for their bonds on maturity.

Pari passu
Instruments which rank equally in right of payment with each other and with other instruments of the same issuer.

Partly paid bond
In a partly paid bond, part of the purchase price is deferred so that only a relatively small portion, say 20 per cent, is payable on issue, with the balance being due in one or more instalments at later dates. If the investor fails to subscribe the subsequent calls, the bond is forfeit and the issuer benefits to the extent of the subscriptions abandoned.

Partnership
A voluntary contract between two or more persons to place their money, efforts, labour and skill in lawful commerce or business with the understanding that there shall be a proportional sharing of profits and losses between them.

Partnership
A business entity by two or more persons (or corporations) and conducted for a profit.

Partly paid FRN
After an initial payment for the first part of a floating rate security issue, the purchaser must subscribe to future parts of the issue.

Pass-through
A mortgage-backed security on which payment of interest and principal on the underlying mortgages are passed through to the security holder by an agent.

Pass-through trust
A trust used in public and in Rule 144A offerings of public debt in leveraged leases. The trustee typically is the indenture trustee. The trustee from proceeds from the sale of certificates to public purchasers purchases notes.

Payables period
A measure of a company's use of trade credit financing, defined as accounts payable divided by purchases per day.

Payback period
The amount of time required to recover the initial investment in a project.

Payee
Partly named on a cheque or draft as recipient of the payment.

Paying agents
Paying agents are appointed in different financial centres, to arrange for the payment of interest and principal due to investors under the terms of a bond issue. Paying agents are usually banks.

Payout lease
A lease in which the lessor expects to recover its investment, plus interest, over the life of the lease from any or all of the following: rentals, cash flow from tax benefits and a modest expectation of residual value.

PEFCO
See Private Export Funding Corporation.

Performance bond
A bond supplied by one party to protect another against loss in the event of default of an existing contract.

A bond to motivate a contractor to perform a contract. Some performance bonds require satisfactory completion of the contract. Other performance bonds provide for payment of a sum of money for failure of the contractor to perform under a contract.

Perpetual FRNs
A type of FRN which investors can (in theory) sell at close to par on coupon dates. Consequently investors are less concerned regarding the life of the bonds that are held. However, market prices for perpetual FRNs have been erratic.

Perpetuity
An annuity forever; periodic equal payments or receipts on a continuous basis.

Physicals
Actual commodity delivered to the contract buyer at the completion of a commodity contract in either the futures markets or the spot market such as corn, cotton, gold, coffee, oil, wheat and soya beans.

Pickle lease
A lease by a US lessor to a foreign lessee. (Named after the senator sponsoring the legislation authorising such transactions which restricted depreciation deductions.)

Placement
A bank depositing Eurodollars with or selling

Eurodollars to another bank is often said to be making a placement.

Plug
The unknown quantity in a pro forma forecast.

Point
100 basis points is equal to 1 per cent. However, 1 per cent of the face value of a note or bond is also called a point.

Poison pill
An anti-takeover defence in which a new diluting security is issued to existing shareholders if control of the firm is about to shift.

Pooling of interest
A merger that involves the combination of the assets, the liabilities and the equity positions of two companies. This method differs from the purchase approach, which involves goodwill on any excess payment over book value.

Precautionary UCC filings
A financial statement filing under the UCC perfecting the security interest of the lessor in leased equipment in the event the lease is deemed to be a security agreement under the UCC.

Preemptive rights
Shareholder rights to maintain their proportional share of their firm by subscribing proportionally to any new stock issue.

Preferred stock
A kind of equity whose owners are given certain privileges over common stockholders, such as a prior claim on the assets of the firm. Preferred stockholders may have no voting rights and are usually paid a fixed dividend.

Premium bond
A bond selling above par.

Prepayment
A payment made ahead of the scheduled payment date.

Present value
The current equivalent value of cash available immediately for payment or a stream of payments to be received at various times in the future. The present value will vary with the discount interest factor applied to future payments. The current value of a given future cash flow stream, discounted at a given rate.

Price earnings ratio
Current market price/annual earnings per share. The price earnings multiple is a measure of the stock market's judgement as to the future earning potential of a firm.

Pricing base
The mutually agreed upon basis for setting a rate of interest, such as the prime rate or Libor.

Primary market
The market for new issues during the syndication period is called the primary market. A bond issue remains in this primary stage until allotments have been made by the Lead manager.

Prime rate
The rate at which banks lend to their best (prime) customers. The all-in cost of a bank loan to a prime credit equals the prime rate plus the cost of holding compensating balances.

Prime Underwriting Facility
Called a PUF. A prime underwriting facility is the same as a RUF except that the maximum margin is expressed in relation to the US prime interest rate.

Principal
A sum on which interest accrues. Capital, as distinguished from income. Par value or face amount of a loan, exclusive of any premium or interest. The basis for interest computations. Another definition of a principal is a person who acts for his own account.

Private debt placement
A placement of debt securities to a limited number of sophisticated investors in the United States, as opposed to a public placement. SEC registration requirements are much easier in a private placement of debt.

Private Export Funding Corporation (PEFCO)
This corporation, in conjunction with US commercial banks and the Eximbank, provides a source of private capital for US exporting ventures. It was established for the purpose of mobilising non-bank funds for medium- and long-term loans to borrowers outside the United States for the purchase of US goods and services. PEFCO makes loans only when facilities are not available from traditional private sector sources on normal commercial terms and at competitive rates of interest. Accordingly, PEFCO extends loans with maturities that are longer than those available from US commercial banks; the loans are guaranteed fully by the Eximbank.

Private placement
The raising of capital for a business through the sale of securities to a limited number of well-informed investors rather than through a public offering. In the United States a private placement is a debt or securities issue offered to a limited number of sophisticated investors and not subject to the registration requirements of the US Securities Act 1933.

Private ruling
A ruling by the IRS requested by parties to a lease transaction that is applicable to the assumed facts stated in the opinion.

Pro forma statement
A financial statement prepared on the basis of some assumed events that have not yet occurred.

Processing agreement
As used in connection with project financing, a processing agreement is an agreement to pay for processing, through some type of processing plant, minimum amounts of some product in certain time frames at a certain price. Such an agreement is similar to a through-put agreement in that it provides cash flows to service debt and serves as an indirect guarantee for a project financing.

Production payment
A mineral production payment is a right to a specified share of the production from a certain mineral property (or a sum of money in place of production). The payment is secured by an interest in the minerals in place. Payment is dischargeable only out of runs of oil or deliveries of gas or minerals accruing to certain property charged with the production payment. It cannot be satisfied out of other production. The right to the production is for a period of time shorter than the expected life of the property. A production payment usually bears interest payable out of future production for payment.

Production payment loan
A loan secured by a production payment.

Profitability index
The ratio of the present value of future cash flows from a project to the initial investment in the project.

Project, as used in the term project financing
An economic unit capable of generating sufficient cash flow to conservatively cover operating costs and debt service for financing the project over a reasonable time period which is less than the economic life of the asset.

Proprietorship
An operation owned by one person and conducted for a profit.

Prospectus
Also called a offering circular. The offering circular contains a complete description of a loan offering or securities issue, including a complete statement of the terms of the issue and a description of the issuer, as well as its historical and latest financial statements. A prospectus for a public offering must be filed (in the US) with the SEC prior to the sale of a new issue.

Public issue
Newly issued securities sold directly to the public.

Public offering
Same as public issue.

Public utility property
As defined in the Internal Revenue Code, public utility property includes property used predominantly in the trade or business of furnishing or selling (a) electrical energy, water, or sewage disposal businesses, (b) gas or steam through a local distribution system, (c) telephone services or other communications services if furnished or sold by Comsat, or (d) transportation of gas or steam by pipeline if the rates for such furnishing or sale have been established or

approved by a state (or political subdivisions thereof), by an agency or instrumentality of the United States, or by a public service or public utility commission.

PUF
Prime underwriting facility. Same as a RUF except that the maximum margin is expressed in relation to the US prime interest rate.

Purchase option
An option to purchase property during a certain period of time or on the happening of certain events.

Put
An option one person has to sell an asset to another person at a set price at some established point in time in the future. A contract allowing the holder to sell some property to some person at a fixed price for a given period of time.

Put bond
A bond with an indenture provision allowing it to be sold back to the issuer at a prespecified price.

Put option (generally)
A contract sold for a price that gives the holder the right to sell to the writer of the contract, over a specified period, a specified property or amount of securities at a specified price.

Put options (in a bond)
In a bond or loan, a put option gives investors the chance to demand repayment early, affording them the opportunity to redeem low-coupon bonds at par and to reinvest elsewhere at higher rates. For this right in the future investors will have to accept a lower coupon today than that the coupon on a comparable instrument which does not incorporate a put option.

Put-or-pay contract
See supply-or-pay contract.

Quick ratio
Cash, accounts receivable, government securities and cash equivalents to current liabilities. This ratio nets out all current asset items of questionable liquidity such as inventories. This is a measure of how quickly a company can pay off short-term obligations without relying on the sale of relatively illiquid assets. A ratio 1:1 of at least is considered desirable.

Range forward contract
A forward exchange contract that specifies a range of exchange rates for which currencies are exchanged on the expiration date.

Rated, pooled non-recourse commercial mortgage
Publicly rated non-recourse real estate-backed bonds.

Rating
An evaluation given by Moody's, Standard & Poor's, or other rating services as to a security's credit worthiness.

Rating agencies
Agencies that study the financial status of a company and then assign a quality rating to securities issued by that firm. Standard and Poor's and Moody's are leading rating agencies that will rate project finance debt.

Recaptured depreciation
The selling price of a used asset minus the book value and capital gain (if any).

Red herring
A preliminary prospectus for a new securities issue containing all the information required by the Securities and Exchange Commission except the offering price and coupon of a new issue.

Refinancing
Repaying existing debt and entering into a new loan, typically to meet some corporate objective such as the lengthening of maturity or lowering the interest rate.

Refunding
Redemption of securities by funds raised through the sale of a new issue.

Registered bond
A bond whose owner is registered with the issuer.

Registration statement
A statement that must be filed in the United States with the SEC before a security is offered for sale. The statement must contain all materially relevant information relating to the offering. A similar type of statement is required when a firm's shares are listed.

Regulation Q
A Fed rule that limits interest rates that bank and thrifts can pay on certain types of deposits/investments. Deregulation has largely eliminated the regulation's effect.

Regulation T
A Fed rule that governs credit to brokers and dealers for security purchases.

Regulation U
A Fed rule that governs credit to brokers and dealers for security purchases.

Reinvestment rate
The rate at which an investor assumes interest payments or cash payments made on a debt security can be reinvested over the life of that security.

Relative value
In finance, the attractiveness, measured in terms of risk, liquidity and return of one investment relative to another or for a given instrument of one maturity relative to another.

Remittance
A transfer of funds from one place to another. A remittance may be any payment in full or in part on a debt or obligation. However, a remittance need not be payment of an obligation.

Renewal option
An option to renew a lease at the end of the initial lease term. In order to protect the tax characteristics of a true lease, a lessor's option to renew a lease of equipment from a lessor that is granted at the beginning of a lease must be at a price equal to the equipment's fair market value at the time the right is exercised.

Rent holiday
A period of time in which the lessee is not required to pay rents. Typically, the rents are capitalised into the remaining lease payments.

Required rate of return
The minimum future receipts an investor will accept in choosing an investment.

Requirements contract
A contract whereby a user of a product agrees to buy its requirements for a plant or operation from a supplier. There is no requirement to take a minimum amount or to pay if not delivered as in a take-or-pay contract.

Residual or residual value
In a lease, the value of equipment at the conclusion of the lease term. To qualify as a true lease for tax purposes, residual value at the end of the lease term must reasonably be expected to equal 20 per cent of the original cost.

Residual insurance
An insurance policy stipulating that equipment will have a certain residual value after the elapse of a certain period of time.

Restricted subsidiary
A subsidiary of a debtor company, the obligations of which are combined with the parent for purposes of determining compliance with loan covenants.

Retained earnings
Earned surplus. The amount of earnings retained and reinvested in a business and not distributed to stockholders as dividends.

Retention money bonds
A portion of the payments due under a construction contract are sometimes to be retained by the employer to cover costs of repair of unforeseen defects. The contractor can receive those payments immediately by furnishing the employer a bond for such payments.

Return on assets (ROA)
Net profits after taxes divided by assets. This ratio helps a firm determine how effectively it generates profits from available assets.

Return on equity (ROE)
Net profits after taxes divided by stockholders' equity.

Return on investment (ROI)
Net profits after taxes divided by investment.

Return on tangible net worth
The ratio of net income after tax to tangible net worth. The ratio measures the return on the money invested in the corporation by the owners. It should be viewed cautiously because different leverage policies can greatly distort this ratio, even underlying profitability has not changed.

Revaluation
A formal and official increase in the exchange rate of a currency that is made unilaterally by a country or through the International Monetary Fund.

Revenue bond
A municipal bond issued by a political subdivision of state or local government and secured by revenue from tolls, user charges, or rents derived from the facility financed. Municipal revenue bonds are not backed by the tax base or other assets of the municipality.

Revenue indexed collateralised securities
Mortgage-backed securities in which interest payments are augmented by a percentage of issuer's gross earnings.

Revenue ruling
A written opinion of the Internal Revenue Service requested by a party to a transaction which seeks a decision on one or more tax issues and which is applicable to assumed facts stated in the opinion. It may also refer to published IRS rulings with general applicability.

Revenues
Sales.

Revocable letter of credit
A letter of credit that can be changed or cancelled by the issuing bank or by any party involved until the time payment is made.

Revolver
See revolving credit agreement.

Revolving credit agreement
A legal commitment on the part of a bank to extend credit up to a maximum amount for a definite term. The notes evidencing debt are short-term, such as 90 days. As notes become due, the borrower can renew the notes, borrow a smaller amount or borrow amounts up to the specified maximum throughout the term of commitment. The borrower is usually required to maintain compensating balances against the commitment and pay a commitment fee on the average unused portion of the revolving credit. The term of a revolving credit agreement is generally for two years or longer. A revolving credit agreement is regarded as an intermediate loan.

Revolving letter of credit
A letter of credit that provides the beneficiary with a credit limit which can be reinstated to cover transactions involving repetitive shipments or needs.

Revolving line of credit
Same as revolving credit agreement.

Revolving underwriting facility
Called a RUF. A medium-term commitment by a group underwriting banks to purchase one, three or six month Euronotes at a fixed Libor-related margin should a sole-placing agent or tender panel fail to sell the notes to investors at or under that margin.

Right (stock right)
A security allowing shareholders to acquire new stock at a prespecified price over a prespecified period. Rights are generally issued proportional to the number of shares currently held and are normally exercisable at a specified price, usually below the current market. Rights usually trade in a secondary market after they are issued.

Risk
Instability; uncertainty about the future; more specifically, the degree of uncertainty involved with a loan or investment.

Risk adjusted discount rate
A discount rate which includes a premium for risk.

Risk aversion
An unwillingness to either bear any risk or to bear risk without compensation of some form.

Risk-free interest rate
The interest rate prevailing on a default-free bond in the absence of inflation.

Risk premium
An additional required rate of return that must be paid to investors who invest in risky investments to compensate for the risk.

ROA
Return on assets.

ROE
Return on equity.

ROI
Return on investment.

Roller-coaster swap
A swap in which the notional principal amount can rise or fall from period to period according to a borrower's cash flow structure.

Rollover term loan
Most term loans in the Euromarket are made on a rollover basis, which means that the loan is periodically repriced at an agreed spread over the appropriate, currently prevailing Libor rate.

RUF
Stands for revolving underwriting facility. A medium-term commitment by a group underwriting banks to purchase one, three or six month Euronotes at a fixed Libor-related margin should a sole-placing agent or tender panel fail to sell the notes to investors at or under that margin.

Rule 144A
A rule adopted by the US Securities and Exchange Commission in April 1990, that eliminates the two-year holding period of privately placed securities by permitting large institutions to trade such securities among themselves without having to register them with the SEC.

Rule 415
An SEC rule allowing shelf registration of a security which may then be sold periodically without separate registrations of each part.

Running the books, or book-running manager
The manager who has total control over an offering (usually appears on the upper left of the list of underwriters in a tombstone advertisement).

S&L
See savings and loan association.

SACE
Sezione Speciale per l'Assicurazione del Credito all'Esportazione. The trade finance agency for Italy.

Safe harbour lease
A lease clearly in compliance with Internal Revenue Rules is sometimes called a safe harbour lease. Historically, a safe harbour lease was a lease which met the criteria of Section 168(f)(8) of the Internal Revenue Code which was added by ERTA and amended by TEFRA and repealed by DRA.

Salvage value
The estimated selling price of an asset once it has been fully depreciated.

Sale and leaseback
A transaction in which an investor purchases assets from the owner and then leases such assets back to the same person. The lessee receives the sale price (and can return it to his capital) and continues to enjoy the use of the assets.

Sale-type lease
The same as a direct financing lease except that manufacturer or dealer profits are involved. A lease that meets the definitional criteria of a capital lease under FAS 13, plus two additional criteria: (a) collectibility of the minimum lease payment is reasonably predictable; and (b) no important uncertainties surround the amount of unreimbursable costs yet to be incurred by the lessor under the lease.

Samurai bond
A Samurai bond is a foreign bond denominated in yen and issued in the Japanese domestic bond market in Tokyo.

Samurai lease
A yen-denominated lease subsidised by MITI to

finance equipment located outside Japan. The Samurai lease is funded from domestic Japanese yen.

Sandwich
An agreement essentially between two parties with a third party in between the two parties, usually adding some value, such as a lease, sublease, for example.

Savings and loan association
In the US, a federal- or state chartered institution that accepts savings deposits and invests the bulk of the funds thus received in mortgages. In recent years savings and loan associations have been authorised and have engaged in some commercial lending including fixed-rate term loans.

Savings deposit
An interest-bearing deposit at a savings institution that has no specific maturity.

Sawtooth rents
Rents that vary throughout the term of the lease, usually to match debt payments and tax payments in a leveraged lease so as to lessen the need for a sinking fund.

Scale
A bank that offers to pay different rates of interest on CDs of varying maturities is said to post a scale. Commercial paper issuers also post scales.

SDRs
Special Drawing Rights. Credit extended by the International Money Fund to import countries. SDRs are exchanged only among central banks and are convertible into other currencies.

Seasoned issue
A public securities issue that has been well distributed and trades in well the secondary market.

Secondary market
After the initial distribution of bonds or securities, secondary market trading begins. New issue houses usually make a market in bonds or securities which they have co-managed. Other institutions, such as banks, investment banks and securities trading firms, generally act as market makers in a wide range of issues and instruments by quoting two-way prices and being prepared to deal at those prices.

Secured creditor
A creditor whose obligation is backed by the pledge of some asset. In liquidation, the secured creditor receives the cash from the sale of the pledged asset to the extent of his or her loan.

Security agreement
An agreement in which title to property is held as collateral under a financing agreement, usually by a trustee.

Securities and Exchange Commission (SEC)
An agency in the United States created by Congress to protect investors in securities transactions by administering securities laws and regulations.

Selling group
Those firms that are not members of the underwriting group who want to participate on a registered distribution.

Semi-convertible currency
Semi-convertible currencies can only be bought or sold through a central bank at specific fixed rates of exchange. Included are many Third World nations where transactions are limited to documented commercial deals.

Senior creditor
Any creditor with a claim on income or assets prior to that of general creditors.

Senior debt
Senior debt is generally defined as all debt, both short- and long-term, which is not subordinated to any other liability. This debt includes obligations to banks (revolving credit lines or term loans), to insurance companies and to other financial institutions. Rentals under leases are senior debt. In addition, most current liabilities such as account payable, accrued expenses and taxes payable are usually considered senior debt. If the financial statements do not specify whether the debt is senior or subordinated, conservative practice is to assume it is senior.

Sensitivity analysis
Analysis of impact on an economic analysis, plan or forecast of a change in one of the input variables.

Serial bonds
A bond issue in which maturities are staggered over a number of years.

Service lease
A short-term lease accompanied by service such as maintenance and insurance.

Settlement date
The date on which a trade is cleared by delivery of securities against funds. The settlement date may be the trade date or a later date.

Settlement limit
The total US dollar amount of foreign exchange contracts a bank authorises a customer to settle within a single day, under a credit agreement.

Settlement price
In futures and options accounts, the figure used to determine gains and losses. Settlement prices are used to determine gains, losses, margin calls and invoice prices for delivery.

Shareholders' equity
The book value of the net assets (total assets less total liabilities) is called shareholders' equity, or net worth. Accounts which comprise net worth are preferred stock, common stock, paid-in capital and earned surplus (retained earnings). Deferred accounts and reserve accounts such as reserve for pensions, while generally not thought of as true liabilities, are not considered equity.

Shell branch
A foreign bank branch, usually in a tax haven, which engages in Eurocurrency business but is run out of a head office.

Shogun lease
A cross-boundary loan (characterised as a lease or installment sale) offered by Japanese leasing companies, which can be utilised as leveraged debt in a leveraged lease or simply utilised as a private placement.

Shoguns
US dollar bonds issued in Japan.

Short
A market participant assumes a short position by selling a commodity or security he does not own.

Short bonds
Bonds with a short current maturity.

Short coupons
Bond or note interest payments with a short current maturity.

Short hedge
The sale of a future contract to hedge, for example, a position in cash, a commodity, securities or an anticipated borrowing need.

Short position
An individual who has sold a future or option contract to establish a market position and who has not yet closed out this position through an offsetting purchase.

Short sale
The sale of securities or commodities not owned by the seller in the expectation that the price of these securities or commodities will fall or as part of an arbitrage. A short sale must eventually be covered by a purchase of the securities or commodities sold.

Short-term debt
An obligation maturing in less than one year.

Short-term lease
Generally refers to an operating lease.

Sight draft
A draft calling for payment at first presentation, or at sight of the draft.

Simple interest
The charge for the loan of money or for a deferment of the collection of an account, computed by applying a rate (of interest) against the amount of the loan or account. Contrasts with compound interest in that only the principal earns interest for the entire life of the transaction.

Single-investor lease
Same as direct lease or direct financing lease.

Sinking fund
A fund of cash set aside for the payment of a future obligation. A bond sinking fund is a payment of cash to creditors.

Sinking fund
A reserve or a sinking fund established or set aside for the purpose or payment of a liability anticipated to become due at a later date.

Indentures on corporate issues often require that the issuer make annual payments to a sinking fund, the proceeds of which are used to retire randomly selected bonds in the issue. Another type of sinking fund permits the issuer to retire the bond by a market purchase.

Sinking fund rate
The rate of interest allocated to a sinking fund.

SNIF
Stands for short-term note issuance facility. A RUF with a tender panel placement facility. Otherwise structurally the same as a RUF.

Soft currency
A currency perceived by the market to be reasonably unlikely to maintain its value against other currencies over a period of time. The convertibility of soft currencies usually is, or may become, restricted.

Solvency
The state of being able to pay debts as they come due.

Sources and uses statement
A document showing where a company got its cash and where it spent the cash over a specific period of time. It is constructed by segregating all changes in balance sheet accounts into those that provided cash and those that consumed cash.

Sovereign risk
The special risk, if any, that attaches to an investment or loan because the borrower's country of residence differs from that of the investor's. Also referred to as country risk.

SPE
Acronym for special purpose entity, such as a trust, special purpose corporation, or limited liability company, formed for the purpose of holding title or acting as a conduit of funds. An SPE is thought to provide protection to lenders in the event of bankruptcy of the sponsor or lessor.

Special drawing rights
SDR. The currency of the International Monetary Fund (IMF) which is used to settle international balances; it represents a composite of five currencies weighted according to each country's share of world exports.

Special purpose corporation
An independent corporation with nominal capital which is a party to a project financing for purposes of holding title as a nominee or acting as a conduit of funds.

Special purpose property
Property that is uniquely valuable to the user and is not valuable to anyone else except as scrap. A lease of special-purpose property will not qualify as a true lease because the lessee controls the residual value. Also referred to as limited use property.

Specialised tender panel
In connection with Euronotes, a specialised tender panel is similar to a direct bid facility except that members of the STP are limited to a nucleus of houses with perceived note placement strength who are expected to make a market in the issuer's paper.

Sponsor
A party interested in supporting a project financing. A party providing the credit to support a project financing.

Spot market
The market for buying and selling a specific commodity, foreign currency or asset at the current price for immediate delivery. Markets in which goods, currencies, assets or commodities are sold for cash and delivered immediately, except in the spot market for foreign exchange, settlement is two business days ahead. Trades that occur in futures contracts expiring in the current month are also called spot market trades. The spot market tends to be conducted over-the-counter (via telephone trading) rather than on the floor of an organised commodity exchange. Known also as actual market, cash market or physical market.

Spot rate
The price prevailing in the spot market.

Spot transaction
A foreign exchange transaction in which foreign currency is bought at the current rate of exchange and delivered within two business days after the transaction date.

Standard & Poor's
A credit rating agency.

Standard deviation
The volatility of returns, or the average deviation from an expected value or mean.

Standby letter of credit
A letter of credit that provides for payment to the beneficiary when he presents a certification that certain obligations have not been fulfilled. For example, if a construction company does not complete work in time, the beneficiary (generally the building owner) can recover payment from the bank issuing the standby letter of credit.

Stepped appreciation on income-realisation securities
Zero-coupon bonds for an initial period, after which they are converted to interest-bearing securities.

Stepped FRN
A floating rate note where the spread changes with time on a preset basis.

Stock dividend
A dividend in the form of additional shares of stock, issued in lieu of a cash dividend. This type of dividend increases the common stock par value and capital surplus and is taken out of retained earnings.

Stock split
The issuing of more shares of stock to current stockholders without increasing stockholders' equity. It reduces the par value of common stock but does not alter the equity values in the balance sheet.

Stop out bid
In Euronote facilities, a method of tender panel bidding whereby one or more of the tender panel participants have an option to post a bid for all or part of an issue tranche at a price which other tender panel members must then better.

Stop payment order
Instructions issued to a bank which direct the bank not to honour a previously issued draft or check. The order must meet legal requirements.

Story credit
A credit that looks poor from the standpoint of its financial statements but that looks more favourable in light of the story about its prospects for the future.

Straddle
Strategy comprising an equal number of put options and call options on the same underlying stock, stock index, or commodity future at the same strike price and maturity date. Each option may be exercised separately, although the combination of options is usually bought and sold as a unit.

Straight debt
A standard bond issue or loan lacking any right to convert into the common shares of the issuer.

Straight letter of credit
A letter of credit in which the opening bank limits its promise to pay to the beneficiary.

Straightline depreciation
Depreciating an asset by equal dollar amounts each year over the life of the asset.

Strike price
The price at which an option to purchase can be exercised.

Striking price method
In connection with Euronotes where the issue price for the whole tranche is set at the level of the last accepted bid which caused the tranche to be filled. Notes are not priced at a sequential level from the most competitive bid upwards as in standard tender panel.

Strip debt
Debt arranged in tiers with different rates, maturities and amortisation to improve the borrowers' cost.

Structured note
A medium-term note created when the issuer simultaneously transacts in the derivative markets. The most common derivative instrument used in creating structured notes is a swap. Examples of structured notes are step-up notes, range notes and inverse floaters.

Subordinated creditor
A creditor holding a debenture having a lower priority of payment than other liabilities of the firm.

Subordinated debenture
Holders of this issue rank after those of holders of various other unsecured debts incurred by the issuer.

Subordinated debt
All debt (both short- and long-term) which, by agreement, is subordinated to senior debt. It does not include reserve accounts or deferred credits.

Subpart F income
Foreign income earned by a foreign corporation, which is subject to US income tax on the income tax return of a US stockholder owning more than 50 per cent of such corporation, even though such income is not distributed or paid to shareholders by such foreign corporation.

Suitcase bank
A bank doing business in a country through travelling representatives rather than through a branch or representative office.

Sum-of-the-digits amortisation
A method of amortising whereby the amount reduced each period is obtained by multiplying the total amount to be amortised by a fraction whose numerator is the digit representing the remaining number of amortisation periods and whose denominator is the sum of the digits representing the number of periods of amortisation.

Sum-of-the-digits depreciation
Depreciation method utilising sum-of-the-digits amortisation technique.

Supply-or-pay contract
A contract under which a supplier agrees to supply a raw material, product or service for a certain price to a stated period and agrees to pay for an alternative supply if it cannot perform.

Sushis
Eurobonds issued by Japanese entities that do not count against limits on holdings of foreign securities.

Swap agreements
Contract whereby two parties agree to exchange periodic payments. The dollar amount of the payments exchanged is based on a notional principal amount. There are four types of swaps: currency swaps, interest rate swaps, commodity swaps and equity swaps. (See also exotic options.)

Swap buy-back
A swap transaction that involves the sale of a swap to the original counterparty. Also called a close-out sale or cancellation.

Swap exchanges
In securities, selling one issue and buying another. In foreign exchange, buying a currency spot and simultaneously selling it forward. In liability swaps, exchanging fixed for variable liabilities.

Swap rate
The quoted fixed rate that the fixed-rate payer must pay in an interest rate swap.

Swap sale
A secondary swap market transaction in which a party that wishes to close out the original swap finds another party that is willing to accept its obligations under the swap. Also called a swap assignment.

Swap spread
The spread that the fixed-rate payer pays in an interest rate swap above the benchmark Treasury yield.

Swaps tender panel
In a Euronote facility, a further refinement of a tender panel whereby the issuer can ask for currency and for interest rate swaps on a particular note issue tranche.

Swaptions
An option on an swap. The buyer of this option has the right to enter into a swap agreement on predetermined terms by some specified date in the future. The buyer of a put or call swaption pays the writer a premium.

SWIFT
Acronym for Society for Worldwide Information and Funds Transfer. This international system and organisation has been established to move funds and information among member banks.

Swingline
Used in a global note facility or bonus to allow the issuer to move from the US commercial paper market to the Euronote market. Typically available for a maximum of seven days and priced in relation to US prime.

Switch
Sometimes used as a synonym for a swap; for example, buying a currency spot and selling it forward.

Sushi bond
A dollar issue undertaken by a Japanese company from Japan, designed to be bought by Japanese institutions.

Syndicate
A group of banks making a syndicated loan. A group of bond houses which act together in underwriting and distributing a new securities issue.

Syndicated bank loan
See Syndicated credit facility.

Syndicated credit facility
A syndicated credit facility is one in which a number of banks undertake to provide a loan or other support facility to a customer on a pro rata basis under identical terms and conditions evidenced by a single credit agreement. These facilities are generally floating rate in nature, with or without amortisation and the pricing will normally consist of a fixed spread over a short-term base rate (which base rate is adjusted periodically during the life of the loan), with commitment fees, agency fees, management fees, offsetting balances, security, etc., often included as well. Tenors may range from 1–12 years.

Syndicated loan
A commercial banking transaction in which two or more banks participate in making a loan to a borrower. Interest is typically paid on a floating rate basis linked to short-term interest rates in a particular currency.

Synthetic lease
An equipment lease that qualifies as an off-balance sheet operating lease for financial accounting purposes but as a loan or conditional sale for tax purposes, thus enabling the lessee to retain tax benefits associated with equipment ownership.

Tacar
A broker who arranges a transaction and disappears immediately upon collection of a fee. Stands for 'take a commission and run'.

Take-and-pay contract
A take-and-pay contract is sometimes used to describe a contract in which payment is contingent upon delivery and the obligation to pay is not unconditional, as in a take-or-pay contract.

Take-or-pay contract
A take-or-pay contract is a long-term contract to make periodic payments over the life of the contract in certain minimum amounts as payments for a service or a product. The payments are in an amount sufficient to service the debt needed to finance the project which provides the services or the product and to pay operating expenses of the project. The obligation to make minimum payments is unconditional and must be paid whether or not the service or product is actually furnished or delivered.

Taking a view
A London expression for forming an opinion as to where interest rates are going and acting on it.

Tangible expenses
Capital expenditures subject to depreciation and depletion in connection with an oil well or mine.

Tangible net worth
Tangible net worth is shareholders' equity adjusted for intangible assets. A conservative practice is to subtract intangible assets from stockholders' equity to more truly represent (in terms of physical assets) the amount of equity which shareholders have invested in

a company. Though intangible assets may have some value, this value is often quite different from the amount appearing on financial statements.

TAP basis
In the Eurocommercial paper market, the method of issuance whereby the dealer approaches the issuer for paper in direct response to particular investor demand rather than the issuer seeking bids from the dealer.

Tap issue
A Eurobond issue where the initial issue may be followed by subsequent issues within one programme.

Tap stocks
In the case of a tap stock issue, usually between one third and one half of an issue of bonds is issued in an initial tranche. Subsequent tranches are then issued at later dates at the option of the issuer. They are often placed on a best efforts basis, at prices reflecting market conditions at the time of the placement. These type of securities issued in the Eurobond market are similar in effect to shelf registrations in the US.

Tax-exempt bonds
Bonds issued by political subdivisions which bear interest exempt from US income tax.

TBT lease
A tax benefit transfer (TBT) lease was a type of safe harbour lease with little economic substance structured like a leveraged lease in which the lessee loans the lessor leveraged debt and the transaction was equivalent to a sale of tax benefits. TBT leases were repealed by ERTA although many continue in existence.

Tender acceptance facility
The same structure as an underwritten Euronote facility using a tender panel except that the short-term instruments under auction are bankers acceptances not Euronotes.

Tender bond
Another name for a bid bond.

Tender panel
In connection with Euronotes, a group, which includes Euronote facility underwriters and additionally appointed banks and dealers, who are invited to bid on an issuer's paper in an open auction format. Notes are awarded to bidders in sequential order from the most competitive bid upwards until the full tranche is allocated.

Term loan
A business loan with an original or final maturity of more than one year, repayable according to a specified schedule.

Through-put contract
Parties to a through-put agreement commit to ship certain minimum quantities of oil, refined products or gas at a fixed rate through a pipeline. Certain quantities have to be shipped in each period, such as a month or a year, to provide the cash flow to meet operating expenses and debt service of the pipeline company. In the event the product is not shipped and the pipeline company has insufficient cash to meet is expenses and debt service, the parties to the through-put agreement are unconditionally obligated to contribute additional funds in proportion to ownership. The through-put contract is similar to a take-or-pay contract and serves as an indirect guarantee for a project financing of the pipeline. Through-put agreements are also used in connection with processing plants where some product is put through the plant.

Time deposit
An interest-bearing deposit at a savings institution that has a specific maturity.

Time/usance draft
A draft calling for payment at some specified date in the future.

Tolling contract
Another name for take-or-pay contract.

Tombstone
An announcement placed in a financial newspaper or journal which announces a financing or performance of some financial service.

Total debt of tangible net worth ratio
Total debt (current debt, long-term senior and subordinated debt) ratio/net worth less intangible assets. The

measure of the relative amounts invested in a company by creditors and owners. A high ratio in comparison to industry norms indicates a greater dependence on outside financing and an unwillingness of the owners to risk their own capital. At some point, the risks of operations will shift primarily to the creditors. Leases should be capitalised in accordance with FAS 13 in computing this ratio.

Total debt and capitalised lease to tangible net worth and subordinated debt ratio
The purpose of this ratio is to assess the protection afforded to the senior creditors capital sources (and underlying assets) which will be satisfied only after senior creditors are reimbursed.

Trade acceptance
A draft drawn by the seller of goods on the buyer and accepted by the buyer for payment at a specified future date.

Trade account
An account in the balance of payments, also called the merchandise balance, that shows exports and imports of goods and services in the local currency.

Trade payables
Accounts payable in the normal operation of the business.

Trade financing programmes
See export credit incentive programmes.

Translation risk
A type of foreign exchange risk arising from the need to translate the assets and liabilities of a foreign subsidiary into the currency of the home country.

Translation agreement
In ship transactions, a transportation agreement for a term of years with characteristics of a take-or-pay contract or a through-put contract is often used to support a long-term character and/or the financing of the purchase of a ship. A long-term lease would have to be reported on a lessee's balance sheet under FAS 13, whereas a long-term transportation agreement would not.

Treasury bill
A non-interest-bearing discount security issued by the US Treasury to finance the national debt. Most bills are issued to mature in three months, six months, or one year.

True lease
A true lease is a lease in which the lessor possesses the attributes of ownership of the leased equipment.

A true lease is a transaction which qualifies as a lease under the Internal Revenue Code so that the lessee can claim rental payments as tax deductions and the lessor can claim tax benefits of ownership such as depreciation. The criteria for a true lease for purposes of obtaining a tax ruling under Revenue Procedure 75-21 are:

1. At the beginning of the lease, the estimated remaining useful life of the leased property at the end of the lease term must be equal to at least 20 per cent of the original cost of the leased property (excluding front-end fees, inflation and any cost to the lessor for removal).
2. At the beginning of the lease, the estimated remaining useful life of the leased property at the end of the lease term must be equal to at least 20 per cent of the original estimated useful life of the equipment and never less than one year.
3. The lessee must not have a right to purchase or release the leased property at the end of the lease term at a price which is less than its fair market value. The lessee must not have a right to purchase the equipment at less than its fair market value at any time such right is exercised.
4. At the beginning of the lease and at all times during the entire lease term, the lessor must have a minimum unconditional at risk investment equal to at least 20 per cent of the cost of the leased property (applicable in practice only to leveraged leases).

TRUF
An acronym for transferable revolving underwriting facility. In connection with Euronotes, whereby the banks' contingent liability to purchase notes in the event of non-placement is fully transferable.

Trust deed
In a loan, a contract defining the obligations of the bor-

rower and appointing a trustee to represent the interests of lenders. Also known as a trust indenture in the United States.

Trust indenture
See trust deed.

Trust receipt
A legal instrument allowing a party to receive custodial control over goods for a short, predetermined period of time and for a particular purpose. After this time, either the goods are paid for or custodial control is returned to the party acting as agent in the transaction, usually the collecting bank.

Trustee
A bank or other third party which administers the provisions of a trust agreement. In financing transactions these provisions may relate to a loan.

Turbo-FSC
A commission FSC that enhances tax benefits by failing to meet the requirements for qualified non-recourse debt.

UCC
The Uniform Commercial Code, which has been adopted by every state except Louisiana to govern commercial transactions.

UCC financing statement
A document filed with the county (and sometimes the secretary of state) to provide public notice of a security interest in personal property.

US dollar index contract
A futures contract on the dollar's trade-weighted value.

US Treasury bond futures contract
A futures contract in which the underlying instrument is US$100,000 par value of a hypothetical 20-year, 8 per cent coupon bond.

Underwrite
An arrangement under which a financial house agrees to buy a certain agreed amount of securities of a new issue on a given date and at a given price, thereby assuring the issuer the full proceeds of the financing.

Underwriter
A financial firm engaged in the business of underwriting securities issues.

A dealer who purchases new issues from the issuer and distributes them to investors. Underwriting is one function of an investment banker.

In a Eurobond offering the Lead managers and Co-managers act as underwriters for the issue, taking on the risk of interest rates moving against them before they have placed the bonds. Additional banks may be invited to act as sub-underwriters, so forming a larger underwriting group.

Underwriting syndicate
A group of investment banks that band together for a brief time to guarantee a specified price to a company for newly issued securities.

Undivided interest
A property interest held by two or more parties whereby each shares, according to their respective interest, in profits, expenses and enjoyment and whereby ownership of the respective interest of each may be transferred but physical partition of the asset is prohibited.

Uniform customs and practices for documentary credits
With reference to letters of credit, a publication issued by the Chamber of Commerce (publication #290, 1974 revision) which outlines the rules and guidelines involved in letter of credit transactions. These provisions are followed by most banks, unless there is an express agreement to the contrary.

Unrestricted subsidiary
A defined term in a loan agreement. Typically a subsidiary of a debtor company which is free from loan covenant limitations on amounts of debt and lease liability. However, the parent debtor company cannot guarantee the debt obligations of the unrestricted subsidiary and the total amount which the parent can invest in such a subsidiary is limited by loan covenant.

Unsecured loan
A loan made on the general credit of a borrower. The lender relies upon the borrower's balance sheet and the capability of the borrower's management to manage its assets and produce cash flows sufficient to repay the debt. No assets are pledged.

Use-or-pay contract
Another name for a take-or-pay contract or throughput contract.

Useful life
The period of time during which an asset will have economic value and be usable. The useful life of an asset is sometimes called the economic life of the asset.

VC or VCs
Venture capital companies and funds. High risk investors willing to accept high risk in return for high rewards. They concentrate today on e-commerce company start-ups and bio-chemical startups in the medical field. Their investments are in equity and equity related securities.

Variable duration notes
At the coupon payment date of a note, the holder elects either to receive payment or an additional note with identical terms.

Variable price security
A security, such as stocks and bonds, that sells at a fluctuating, market-determined price.

Variable rate CDs
Short-term CDs that pay interest periodically on roll dates; on each roll date the coupon on the CD is adjusted to reflect current market rates.

Variable-rate loan
Loan made at an interest rate that fluctuates with the prime, Libor or some other index.

Variation margin
For a futures contract, the additional margin necessary to bring the equity in the account back to its initial margin level.

Vendor financing
Financing offered by a manufacturer or dealer for its products.

Vendor lease
A lease offered by a manufacturer or dealer to its customers for financing its products. The manufacturer or dealer is the vendor.

Vendor leasing
The term used to describe vendor leases offered by a manufacturer, a dealer, or a third party leasing company under a working relationship between the third party leasing company and the manufacturer or dealer.

Venture capital
Risk capital in the form of equity investments or equity related debt securities extended to start-up or small going concerns.

Viking bond
The Scandinavian equivalent of a Yankee bond.

Volatility
The degree of fluctuations that occur away from a common denominator such as the mean, or average value, of a series of figures. The greater the volatility in returns, the higher the risk.

Warrant
An instrument allowing the holder to purchase a given security at a given price; for either a set period or into perpetuity.

Warrant bonds
A warrant bond gives the holder the right to buy something in the future, usually a share or a bond.

Wintergreen renewal
Similar to an evergreen renewal except that the renewal term is limited to a fixed period.

Working capital replenishment
An undertaking by an industrial company sponsor and/or parent to make liquid funds available to a special purpose subsidiary or company to enable such a company to keep its working capital at levels sufficient to service debt and meet operating expenses.

Wrap-around loan
A long-term loan structured with a short-term loan in such a manner as to postpone payments of principal (and sometimes interest) on the long-term loan until

the short-term loan is repaid. The combination short-term and long-term wrap-around may produce level debt service for both loans over the life of the long-term loan.

Yankee bond
A foreign bond issued in the US market, payable in dollars and registered with the SEC.

Yankee CD
A CD issued in the domestic market (typically in New York) by a branch of a foreign bank.

Yen-Yankees
Yen bonds issued in US market.

Yield
Rate of return on a loan, expressed as a percent and annualised.

Yield curve
The relationship between yield and current maturity is depicted in graphic form as a yield curve. This curve plots yield on the vertical axis and maturity on the horizontal axis. A normal yield curve slopes upward from left to right, from short maturities to long maturities.

Yield to maturity
The rate of return yielded by a debt security held to maturity when both interest payments and the investor's capital gain or loss on the security are taken into account.

Zaiteku
A Japanese term for making money purely from financial operations.

Zero-balance account
A type of corporate checking account used by firms to provide centralised cash control and decentralised disbursement control. The primary characteristic of a zero-balance account is that the account always maintains a balance of zero. As checks drawn against a zero-balance account clear, the total dollar amount accumulates and results in a debit total. At the close of the business day, a transfer of funds is made from a master account of the corporation to cover this debit total and to return the account to a zero balance.

Zero-coupon bonds
A bond which does not pay interest. The security is sold at a discount and its yield interest rate is determined by a rise in value per unit of time. Its maturity value equals par.

Zero-coupon convertible
Zero coupon bond with option to convert to common stock or other security.

Zero-coupon note
See zero-coupon bond.

Zero-coupon swap
A swap in which the fixed-rate payer does not make any payments until the maturity date of the swap but receives floating-rate payments at regular payment dates.

Appendix A:

Statement of Financial Accounting Standards No. 47 Disclosure of long-term obligations, March 1981

Summary

This Statement requires that an enterprise disclose its commitments under unconditional purchase obligations that are associated with suppliers' financing arrangements. Such obligations often are in the form of take-or-pay contracts and throughput contracts. This Statement also requires disclosure of future payments on long-term borrowings and redeemable stock. For long-term unconditional purchase obligations that are associated with suppliers' financing and are not recognised on purchasers' balance sheets, the disclosures include the nature of the obligation, the amount of the fixed and determinable obligation in the aggregate and for each of the next five years, a description of any portion of the obligation that is variable, and the purchases in each year for which an income statement is presented. For long-term unconditional purchase obligations that are associated with suppliers' financing and are recognised on purchasers' balance sheets, payments for each of the next five years shall be disclosed. For long-term borrowings and redeemable stock, the disclosures include maturities and sinking fund requirements (if any) for each of the next five years and redemption requirements for each of the next five years, respectively.

Introduction

1. The Board has received requests to consider the subjects of accounting for **project financing arrangements**[1] and accounting for **take-or-pay contracts**, **throughput contracts**, and other unconditional purchase obligations typically associated with project financing arrangements. Some have stated that certain of those arrangements and contracts result in acquisitions of ownership interests and obligations to make future cash payments that should be recognised as assets and liabilities on participants' balance sheets. others consider such arrangements and contracts to result in commitments or contingent liabilities that should not be recognised on balance sheets.

2. The Board currently has on its agenda three topics that are part of the conceptual framework for financial accounting and reporting and that pertain to those requests:

a. Accounting recognition criteria for elements, which will address the types of transactions, events, and circumstances that should lead to recognition in financial statements of items that qualify as assets, liabilities, revenues, expenses, etc., under the definitions of elements of financial statements.[2]
b. Measurement of the elements of financial statements, which will consider how assets, liabilities, and other elements should be measured.
c. Funds flows, liquidity, and financial flexibility, which will determine the kinds of information that

should be reported to facilitate assessments of an enterprise's flow of funds, liquidity, and ability to obtain cash to adapt to unexpected difficulties or opportunities.

The Board believes that the questions raised in paragraph 1 can be addressed more readily after further work is completed on some or all of those conceptual framework projects.

3. The arrangements and contracts discussed in paragraph 1 and in the remainder of this Statement are sometimes recognised on balance sheets. If they are not recognised on balance sheets, they often are disclosed in the notes to financial statements. If disclosed, the disclosure sometimes quantifies the enterprise's rights and obligations. As an interim measure, pending further work on those conceptual framework projects identified in paragraph 2, the Board has concluded that unconditional purchase obligations associated with financing arrangements should be disclosed and quantified. The Board also has concluded that enterprises should disclose future cash payments in a manner similar to existing disclosures of capital lease obligations for long-term borrowings and capital stock with mandatory redemption requirements. This Statement provides standards of disclosure.

4. Appendix A provides additional background information and the basis for the Board's conclusions. Appendix C illustrates applications of this Statement.

5. The Board has concluded that it can reach an informed decision on the basis of existing data without a public hearing and that the effective date and transition specified in paragraph 11 are advisable in the circumstances.

Standards of financial accounting and reporting

Definition and scope

6. An unconditional purchase obligation is an obligation to transfer funds in the future for fixed or minimum amounts or quantities of goods or services at fixed or minimum prices (for example, as in take-or-pay contracts or throughput contracts). An unconditional purchase obligation that has all of the following characteristics shall be disclosed in accordance with paragraph 7 (if not recorded on the purchaser's balance sheet) or in accordance with paragraph l0(a) (if recorded on the purchaser's balance sheet):

a. Is non-cancellable, or cancellable only
   (1) Upon the occurrence of some remote contingency or
   (2) With the permission of the other party or
   (3) If a replacement agreement is signed between the same parties or
   (4) Upon payment of a penalty in an amount such that continuation of the agreement appears reasonably assured
b. Was negotiated as part of arranging financing for the facilities that will provide the contracted goods or services or for costs related to those goods or services (for example, carrying costs for contracted goods)
c. Has a remaining term in excess of one year.

Future minimum lease payments under leases that have those characteristics need not be disclosed in accordance with this Statement if they are disclosed in accordance with FASB Statement No. 13, Accounting for Leases.

Unrecorded obligations

7. A purchaser shall disclose unconditional purchase obligations that meet the criteria of paragraph 6 and that have not been recognised on its balance sheet. The disclosures shall include:

a. The nature and term of the obligation(s).
b. The amount of the fixed and determinable portion of the obligation(s) as of the date of the latest balance sheet presented in the aggregate and, if determinable, for each of the five succeeding fiscal years (paragraph 8).
c. The nature of any variable components of the obligation(s).
d. The amounts purchased under the obligation(s) (for example, the take-or-pay or throughput contract) for each period for which an income statement is presented.

Disclosures of similar or related unconditional purchase obligations may be combined. These disclosures may be omitted only if the aggregate commitment for all such obligations not disclosed is immaterial.

8. Disclosure of the amount of imputed interest necessary to reduce the unconditional purchase obligation(s) to present value is encouraged but not required. The discount rate shall be the effective initial interest rate of the borrowings that financed the facility (or facilities) that will provide the contracted goods or services, if known by the purchaser. If not, the discount rate shall be the purchaser's incremental borrowing rate at the date the obligation is entered into.

Recorded obligations and redeemable stock

9. Certain unconditional purchase obligations are presently recorded as liabilities on purchasers' balance sheets with the related assets also recognised. This Statement does not alter that accounting treatment or the treatment of future unconditional purchase obligations that are substantially the same as those obligations already recorded as liabilities with related assets, nor does it suggest that disclosure is an appropriate substitute for accounting recognition if the substance of an arrangement is the acquisition of an asset and incurrence of a liability.

l0. The following information shall be disclosed for each of the five years following the date of the latest balance sheet presented:

a. The aggregate amount of payments for unconditional purchase obligations that meet the criteria of paragraph 6 and that have been recognised on the purchaser's balance sheet.
b. The combined aggregate amount of maturities and sinking fund requirements for all long-term borrowings.
c. The amount of redemption requirements for all issues of capital stock that are redeemable at fixed or determinable prices on fixed or determinable dates, separately by issue or combined.

Effective date and transition

11. This Statement shall be effective for financial statements for fiscal years ending after June 15, 1981. Earlier application is encouraged. The disclosures required by paragraph 7(d) need not be included in financial statements for periods beginning before the effective date of this Statement that are being presented for comparative purposes with financial statements for periods after the effective date.

> The provisions of this Statement need not be applied to immaterial items.

This Statement was adopted by the affirmative votes of six members of the Financial Accounting Standards Board. Mr Morgan dissented.

Mr Morgan dissents to issuance of this Statement because he believes it is not needed. In his opinion, conscientious preparers and auditors will disclose the existence of unconditional purchase obligations associated with financing arrangements if there is a reasonable possibility that a payment will be required without the purchaser receiving an asset of comparable value in return. Such disclosure seems to be required by FASB Statement No. 5, Accounting for Contingencies; if Statement 5 is ambiguous in that regard, an Interpretation would be sufficient. Mr Morgan does not believe that there is a need for specific disclosure requirements for unconditional purchase obligations associated with financing arrangements, particularly if there is only a remote possibility that payment will be required without the purchaser receiving an asset of comparable value in return. Also, Mr Morgan believes that the disclosure of obligations for each of the next five years may convey a notion of a contractual period longer than is realistic. He believes that such agreements are renegotiated frequently in practice.

Mr Morgan also disagrees with mandating disclosure of next-five-year repayment requirements on long-term borrowings and redemption requirements on redeemable stock. He does not recall any requests to the Board to consider such disclosures.

Mr Morgan's preference would be to delay action on this Statement until completion of the Board's conceptual framework project on accounting recognition criteria. That project could provide the Board a basis to conclude that unconditional purchase obligations should be recorded on the balance sheet disclosed in the notes to financial statements, or both.

The members of the Financial Accounting Standards Board:

Donald J. Kirk, Chairman
Frank E. Block
John W. March
Robert A. Morgan
David Mosso
Robert T. Sprouse
Ralph E. Walters

Appendix A to FAS 47

Background information and basis for conclusions

12. As noted in the introduction, the FASB was asked to consider accounting for project financing arrangements. The particular requests related to whether the unconditional purchase obligations and indirect guarantees of indebtedness of others typical of project financing arrangements result in participants acquiring ownership interests and obligations to make future cash payments that should be recognised as assets and liabilities on their balance sheets. The Board concluded, as noted in paragraph 2, that those accounting questions could be answered better after further progress is made on the conceptual framework for financial accounting and reporting.

13. Paragraphs 40 and 41 of FASB Concepts Statement No. 1, objectives of Financial Reporting by Business Enterprises, state one objective of financial reporting.

> Financial reporting should provide information about the economic resources of an enterprise, the claims to those resources (obligations of the enterprise to transfer resources to other entities and owners' equity), and the effects of transactions, events, and circumstances that change resources and claims to those resources. . . .
>
> Financial reporting should provide information about an enterprise's economic resources, obligations, and owners' equity. That information helps investors, creditors, and others identify the enterprise's financial strengths and weaknesses and assess its liquidity and solvency. Information about resources, obligations, and owners' equity also provides . . . direct indications . . . of the cash needed to satisfy many, if not most, obligations. . . . Many obligations are direct causes of cash payments by the enterprise, and reasonably reliable measures of . . . future net cash outflows are often possible for those . . . obligations.

Existing accounting for and disclosure of unconditional purchase obligations associated with financing arrangements are inconsistent among enterprises and often fail to satisfy that objective of financial reporting. In addition, as noted in paragraph 1, the unconditional purchase obligations discussed in this Statement have some of the characteristics of liabilities. Accordingly, as an interim measure pending a decision on whether the obligations should be recognised on purchasers' balance sheets, the Board decided that disclosures of unconditional purchase obligations associated with financing arrangements should be expanded and standardised to satisfy that objective of financial reporting.

14. On March 31, 1980, the FASB released an Exposure Draft, Disclosure of Guarantees, Project Financing Arrangements, and other Similar obligations (March Exposure Draft). The FASB received l02 letters of comment on the March Exposure Draft. Based on the comments received, the content of the March Exposure Draft was separated into two documents that were exposed concurrently for comment on November 14, 198O: a revised Exposure Draft, Disclosure of Unconditional obligations, and a proposed Interpretation, Disclosure of Indirect Guarantees of Indebtedness of others.

15. The Board received 67 letters of comment on the revised Exposure Draft. Certain of the comments received and the Board's consideration of them are discussed in paragraphs 16-22.

16. Some respondents stated that the revised Exposure Draft did not distinguish clearly between the unconditional obligations that would have been required to be disclosed and the unconditional obligations that would have been excluded. The distinction between long-term purchase commitments and take-or-pay contracts was of particular concern. other respondents suggested that the Board should limit the disclosures to

unconditional obligations with clear financing elements. Based on those comments, the Board reconsidered the scope of this Statement. The Board's accounting recognition criteria project will consider criteria for balance sheet recognition of all contractual rights and obligations, whether or not unconditional and whether or not associated with financing arrangements. With respect to most contractual rights and obligations, the Board believes existing disclosures are adequate until the fundamental accounting concepts are resolved. Unconditional purchase obligations associated with financing arrangements, however, have many similarities to borrowings and to lease obligations, and the Board believes that existing disclosures often fail to adequately inform readers of the significance of those obligations. Accordingly, this Statement establishes standards of disclosure for unconditional purchase obligations associated with financing arrangements.

17. Some expressed concern that this Statement might impose on purchasers a burden of determining whether a supplier has used an unconditional purchase obligation to arrange financing without the purchaser's direct involvement or knowledge. The Board believes that, for most arrangements covered by this Statement, financing considerations are an integral part of negotiating the terms of the unconditional purchase obligation. There is no intent to require a purchaser to investigate whether a supplier used an un-conditional purchase obligation to help secure financing, if the purchaser would otherwise be unaware of that fact.

18. Some respondents believe that FASB Statement No. 5, Accounting for Contingencies, already provides for adequate disclosure of unconditional purchase obligations associated with financing arrangements. They state that quantification of the obligation should be required only if a loss under the contract is reasonably possible. As stated in paragraph 13, however, the Board believes that existing disclosures of unconditional purchase obligations often fail to provide adequate information about an enterprise's economic resources and claims to those resources. Statement 5 contains requirements pertaining to accounting for and reporting loss contingencies, but does not otherwise address long-term unconditional obligations that are not required to be disclosed as loss contingencies but that nevertheless impose significant future financial commitments for which cash must be available.

19. Some respondents stated that the disclosures required by this Statement might be misleading to readers of financial statements because the obligations are disclosed but the associated benefits are not disclosed. Some respondents described the approach of the revised Exposure Draft as a liquidation perspective rather than a going-concern approach. The Board has not included explicit requirements to disclose associated benefits because the expected benefits may be difficult to quantify and may not be assured on realisation. Paragraph 7(a) of this Statement requires a description of the nature of the obligation, and each of the first three illustrations in Appendix C describes the obligation and the associated benefit (access to processing facilities, availability of needed pipeline capacity, and an assured supply of ammonia, respectively). The lack of explicit requirements to disclose associated benefits does not preclude an enterprise from describing those benefits.

20. Several respondents noted that the requirements in Statement 13 to disclose future lease obligations apply to leases with initial or remaining terms in excess of one year and suggested conforming the requirements in this Statement. The Board has adopted that suggestion both to conform with Statement 13 and to reduce the costs of applying this Statement by eliminating the need to review short-term unconditional purchase obligations.

21. The revised Exposure Draft and this Statement require quantification of the fixed and determinable portion of unrecorded purchase obligations and description, but not quantification, of the variable portion of unrecorded obligations. Several respondents noted that the variable portion is similar to contingent rentals on leases. They suggested that the purchases made in each period for which an income statement is presented should be disclosed, similar to the disclosure of contingent rental expense, to help readers of financial statements estimate future payments under the variable portions. The Board adopted that suggestion.

22. Paragraphs 7 and 10(a) of this Statement require purchasers to disclose future payments under long-term unconditional purchase obligations associated with financing arrangements, and Statement 13 requires lessees to disclose future payments under capital and operating leases. The Board believes it would be anomalous to require those disclosures but not to require disclosures of maturities and sinking fund requirements on long-term borrowings and of mandatory redemption requirements on capital stock that are similarly relevant in assessing future cash requirements. This Statement, therefore, includes standards of disclosure pertaining to long-term borrowings and capital stock with mandatory redemption features. Those standards are substantially the same as disclosures currently required by Regulation S-X of the Securities and Exchange Commission for publicly held enterprises.

Appendix B to FAS 47

Glossary

23. For purposes of this Statement, certain terms are defined as follows:

a. *Project financing arrangement.* The financing of a major capital project in which the lender looks principally to the cash flows and earnings of the project as the source of funds for repayment and to the assets of the project as collateral for the loan.[3] The general credit of the project entity is usually not a significant factor, either because the entity is a corporation without other assets or because the financing is without direct recourse to the owner(s) of the entity.
b. *Purchaser's incremental borrowing rate.* The rate that, at the inception of an unconditional purchase obligation, the purchaser would have incurred to borrow over a similar term the funds necessary to discharge the obligation.
c. *Take-or-pay contract.* An agreement between a purchaser and a seller that provides for the purchaser to pay specified amounts periodically in return for products or services. The purchaser must make specified minimum payments even if it does not take delivery of the contracted products or services.
d. *Throughput contract.* An agreement between a shipper (processor) and the owner of a transportation facility (such as an oil or natural gas pipeline or a ship) or a manufacturing facility that provides for the shipper (processor) to pay specified amounts periodically in return for the transportation (processing) of a product. The shipper (processor) is obligated to provide specified minimum quantities to be transported (processed) in each period and is required to make cash payments even if it does not provide the contracted quantities.

Appendix C to FAS 47

Illustrations of the application of this Statement to common arrangements

Example 1

24. B Company has entered into a throughput agreement with a manufacturing plant providing that B will submit specified quantities of a chemical (representing a portion of plant capacity) for processing through the plant each period while the debt used to finance the plant remains outstanding. B's processing charges are intended to be sufficient to cover a proportional share of fixed and variable operating expenses and debt service of the plant. If, however, the processing charges do not cover such operating expenses and debt service, B must advance additional funds to cover a specified percentage of operating expenses and debt service. Such additional funds are considered advance payments for future throughput.

25. B's unconditional obligation to pay a specified percentage of the plant's fixed operating expenses and debt service is fixed and determinable, while the amount of variable operating expenses that B is obligated to pay will vary depending on plant operations and economic conditions.

26. B's disclosure might be as follows:

To secure access to facilities to process chemical X, the company has signed a processing agreement with a chemical company allowing B Company to submit l00,000 tons for processing annually for 2O years. Under the terms of the agreement, B Company may be required to advance funds against future processing charges if the chemical company is unable to meet its financial obligations. The aggregate amount of required payments at December 31, 19X1 is as follows (in thousands):

19X2	US$ 10,000
19X3	10,000
19X4	9,000
19X5	8,000
19X6	8,000
Later years	100,000
Total	145,000
Less: Amount representing interest	(45,000)
Total at present value	US$100,000

In addition, the company is required to pay a proportional share of the variable operating expenses of the plant. The company's total processing charges under the agreement in each of the past 3 years have been US$12 million.

Example 2

27. C Company has entered into a throughput agreement with a natural gas pipeline providing that C will provide specified quantities of natural gas (representing a portion of capacity) for transportation through the pipeline each period while the debt used to finance the pipeline remains outstanding. The tariff approved by the Federal Energy Regulatory Commission contains two portions, a demand charge and a commodity charge. The demand charge is computed to cover debt service, depreciation, and certain expected expenses. The commodity charge is intended to cover other expenses and provide a return on the pipeline company's investment. C Company must pay the demand charged based on the contracted quantity regardless of actual quantities shipped, while the commodity charge is applied to actual quantities shipped. According, the demand charge multiplied by the contracted quantity represents a fixed and determinable payment.

28. C's disclosure might be as follows:

C Company has signed an agreement providing for the availability of needed pipeline transportation capacity through 1990. Under that agreement, the company must make specified minimum payments monthly. The aggregate amount of such required payments at December 31, 19X1 is as follows (in thousands):

19X2	US$ 5,000
19X3	5,000
19X4	5,000
19X5	4,000
19X6	4,000
Later years	26,000
Total	49,000
Less: Amount representing interest	(9,000)
Total at present value	US$40,000

In addition, the company is required to pay additional amounts depending on actual quantities shipped under the agreement. The company's total payments under the agreement were (in thousands) US$6,000 in 19W9 and US$5,500 both in 19X0 and 19X1.

Example 3

29. A subsidiary of F Company has entered into a take-or-pay contract with an ammonia plant. F's subsidiary is obligated to purchase 50 per cent of the planned capacity production of the plant each period while the debt used to finance the plant remains outstanding. The monthly payment equals the sum on 50 per cent of raw material costs, operating expenses, depreciation, interest on the debt used to finance the plant, and a return on the owner's equity investment.

30. F's disclosure might be as follows:

To assure a long-term supply, one of the company's subsidiaries has contracted to purchase half the output of an ammonia plant through the year 2005 and to make minimum annual payments as follows, whether or not it is able to take delivery (in thousands):

19X2 through 19X6 (US$6,000 per annum)	US$30,000
Later years	120,000
Total	150,000
Less: Amount representing interest	(65,000)
Total at present value	US$85,000

In addition, the subsidiary must reimburse the owner of the plant for a proportional share of raw material costs and operating expenses of the plant. The subsidiary's total purchases under the agreement were (in thousands) US$7,000, US$7, l00, and US$7,2O0 in 19W9, 19X0, and 19X1, respectively.

Example 4

31. D Company has outstanding two long-term borrowings and one issue of preferred stock with mandatory redemption requirements. The first borrowing is a US$100 million sinking fund debenture with annual sinking fund payments of US$10 million in 19X2, 19X3, and 19X4, US$15 million in 19X5 and 19X6, and US$20 million in 19X7 and 19X8. The second borrowing is a US$50 million note due in 19X5. The US$30 million issue of preferred stock requires a 5 per cent annual cumulative sinking fund payment of US$1.5 million until retired.

32. D's disclosures might be as follows:

Maturities and sinking fund requirements on long-term debt and sinking fund requirements on preferred stock subject to mandatory redemption are as follows (in thousands):

	Long-term debt	*Preferred stock*
19X2	US$10,000	US$1,500
19X3	l0,000	1,500
19X4	l0,000	1,500
19X5	65,000	1,500
19X6	15,000	1,500

Notes and references

1. Terms defined in the glossary (Appendix B) are in boldface type the first time they appear in this Statement.
2. The question of when rights and obligations that arise under contracts should be recognised as assets and liabilities in financial statements is addressed in an FASB Research Report, Recognition of Contractual Rights and Obligations, prepared by Professor Yuji Ijiri of Carnegie-Mellon University as part of the accounting recognition criteria project. The Research Report discusses several possible recognition points, including initiation of the contract, delivery of the contracted goods or services, and payment for those goods or services.
3. Compare this definition to the definition in the first paragraph of Chapter 1, which has remained unchanged from the first edition of this treatise.

Appendix B:

FASB Interpretation No. 34
Disclosure of indirect guarantees of indebtedness of others
An interpretation of FASB Statement No. 5, March 1981

Introduction

1. The Board has been asked to clarify the disclosures that are required of indirect guarantees of indebtedness of others. Paragraph 12 of FASB Statement No. 5, Accounting for Contingencies, requires disclosure of guarantees of indebtedness of others:

> Certain loss contingencies are presently being disclosed in financial statements even though the possibility of loss may be remote. The common characteristic of those contingencies is a guarantee, normally with a right to proceed against an outside party in the event that the guarantor is called upon to satisfy the guarantee. Examples include (a) guarantees of indebtedness of others.... The Board concludes that disclosure of those loss contingencies, and others that in substance have the same characteristic, shall be continued. The disclosure shall include the nature and amount of the guarantee. Consideration should be given to disclosing, if estimable, the value of any recovery that could be expected to result, such as from the guarantor's right to proceed against an outside party.

Interpretation

2. An indirect guarantee of the indebtedness of another arises under an agreement that obligates one entity to transfer funds to a second entity upon the occurrence of specified events, under conditions whereby (a) the funds are legally available to creditors of the second entity and (b) those creditors may enforce the second entity's claims against the first entity under the agreement. Examples of indirect guarantees include agreements to advance funds if a second entity's income, coverage of fixed charges, or working capital falls below a specified minimum.[1]

3. The term *guarantees of indebtedness of others* in paragraph 12 of Statement 5 includes indirect guarantees of indebtedness of others as described in paragraph 2 of this Interpretation.

Effective date and transition

4. This Interpretation shall be effective for financial statements for fiscal years ending after June 15, 1981. Earlier application is encouraged.

This Interpretation was adopted by the affirmative votes of six members of the Financial Accounting Standards Board following submission to the members of the Financial Accounting Standards Advisory Council. Mr Morgan dissented.

Mr Morgan dissents to issuance of this Interpretation because he believes that it is not needed. In his opinion, paragraph 12 of Statement 5 already requires disclosure of indirect guarantees of indebtedness of others.

One of the examples that paragraph describes is 'guarantees of indebtedness of others' without explicitly referring to 'indirect' guarantees. However, the paragraph's main point is that contingencies based on guarantees shall be disclosed, and it states that '. . . disclosure of these loss contingencies, and others that in substance have the same characteristic, shall be continued' (emphasis added).

Mr Morgan believes new financial accounting pronouncements should be issued only when GAAP is to be changed or expanded and should be avoided when earlier pronouncements seem clear to most concerned parties but lack the specificity that some parties desire. A trend toward more and more specificity in financial accounting pronouncements would seem to be a trend toward substituting the Board's judgement in place of the judgement of preparers and attestors who are most familiar with the pertinent facts and circumstances.

The members of the Financial Accounting Standards Board:

Donald J. Kirk, Chairman
Frank E. Block
John W. March
Robert A. Morgan
David Mosso
Robert T. Sprouse
Ralph E. Walters

Appendix A to FASB Interpretation 34

Background information

5. The FASB released an Exposure Draft of a proposed Statement on March 31, 198O titled Disclosure of Guarantees, Project Financing Arrangements, and other Similar obligations (March Exposure Draft), that would have amended Statement 5 to explicitly include in paragraph 12 both unconditional obligations and indirect guarantees of indebtedness of others. The FASB received 102 letters of comment on the March Exposure Draft. Based on the comments received, the content of the March Exposure Draft was separated into two documents that were exposed concurrently for comment on November 14, 1980: a proposed Interpretation, Disclosure of Indirect Guarantees of Indebtedness of others, and a revised Exposure Draft, Disclosure of Unconditional obligations.

6. The Board received 51 letters of comment on the proposed Interpretation. Certain of the comments received and the Board's consideration of them are discussed in paragraphs 7-l0.

7. Some respondents stated that disclosure of indirect guarantees should not be required unless loss is probable. The approach suggested by those respondents would require an amendment of Statement 5, which requires disclosure of guarantees even though the possibility of loss may be remote. The Board does not believe those respondents have presented evidence sufficient to warrant an amendment.

8. Some respondents suggested that enterprises regulated on an individual-company-cost-of-service basis should be exempted from the requirements of this Interpretation. They state that payments required under indirect guarantees usually would be recovered through the rate-making process, and no loss would result. Statement 5 requires disclosure of guarantees, however, even though the possibility of loss may be remote. The fact that the possibility of loss is remote for those regulated enterprises does not distinguish them or provide a basis for exemption.

9. Some respondents requested clarification of the definition of an indirect guarantee and the difference between direct and indirect guarantees of indebtedness of others. Both direct and indirect guarantees of indebtedness involve three parties: a debtor, a creditor, and a guarantor. In a direct guarantee, the guarantor states that if the debtor fails to make payment to the creditor when due, the guarantor will pay the creditor. If the debtor defaults, the creditor has a direct claim on the guarantor. Under an indirect guarantee, there is an agreement between the debtor and the guarantor requiring the guarantor to transfer funds to the debtor upon the occurrence of specified events. The creditor has only an indirect claim on the guarantor by enforcing the debtor's claim against the guarantor. After funds are transferred from the guarantor to the debtor, the funds become available to the creditor through its claim against the debtor.

l0. The proposed Interpretation stated at a general partner's responsibility for the indebtedness of a partnership is an indirect guarantee. Several respondents suggested deleting that sentence for various reasons. A creditor has a direct claim against the general partners of a debtor partnership and, accordingly, a general partner's responsibility for the indebtedness of a partnership is not an indirect guarantee as discussed in paragraph 9. The Board, therefore, deleted the sentence.

Notes and references

1. Disclosure of an indirect guarantee is not required by this Interpretation if it is otherwise disclosed in an entity's financial statements.

Appendix C:

Risk analysis of a project loan using a risk classification system

The purpose of this appendix is:

1. To offer some general guidelines to lenders for classifying and comparing loan risks.

2. To provide borrowers with background on the decision-making process which takes place (or should do) when loans are decided on.

Some banks use a risk classification system for analysis, comparison and pricing of loans. In theory, the greater the risk, the higher the pricing. However, in the final analysis, competition and the desire for business determine pricing and terms. Nevertheless, comparing loans, pricing and terms through use of a risk classification system provides an objective starting point for appraising risk and commencing negotiations for a project loan.

The definition of credit risk in a project loan in its broadest sense is: the possibility of failure to obtain liquidation of the loan according to its original terms. This could entail the possibility of a loss of all, or some portion of, principal or earned interest or the deferral of either.

There are, however, other ancillary project loan risks. These include: the possibility of a work-out; the need to advance additional funds to reinforce the original loan; a conversion of principal and/or interest to another form of obligation or security; and even a simple modification of the original loan terms. The element of risk attaches to a project loan subject to a successful work-out with full recovery, because such a loan still entails an opportunity loss from excessive demands on loan officer and senior management time, legal and collection expense, the risk of litigation and possible damage to the lender's reputation.

Since risk assessment is largely a function of judgement, there are limits to the degree of uniform results which can be expected. However, it is possible, through a risk classification system, to at least ensure that the same risk-related factors will be considered by all bank lending officers for all loans, even though the degree of applicability of each factor will vary from case to case.

A risk classification system is designed to assist the lending officers in assessing the degree of risk inherent in an existing or prospective credit. Since risk should be a major variable in loan pricing and loan terms, such a classification can also be a useful standard in arriving at pricing decisions and loan terms commensurate with the risk of loss. Such a classification will also be helpful when comparing project financing loans with conventional loans to established companies.

The classification system does not replace judgement. The lending officer is provided with a relatively comprehensive description of risk criteria, and must

determine in each case which factors are relevant and to what degree they are operative.

Although the risk classification criteria (discussed later) focus essentially on the characteristics of the borrower, the purpose of the system is to classify loans. However, in most cases, classification of the borrower will also classify the loan.

On the other hand, in a number of instances there will be circumstances (eg, guaranty, collateral, loan terms) which will give rise to a different rating for a project loan than for the borrower. In limited instances, where two or more loans have been made to the same borrower under different terms, split classifications may be appropriate.

The risk classification grid which follows is intended to ease the application of risk criteria to specific project loans. It would be extraordinary for a given borrower to fall within the same risk classification on all the criteria listed.

Obviously the borrower's financial condition should receive primary consideration when appraising credit risk and its ability to repay a loan, and live up to the terms of the loan agreement. If there is any doubt about the loan being repaid, the loan should not be made. The risk classification analysis is aimed at determining the ancillary risks and the effect such risks should have in appraising the desirability of a loan, and the pricing and terms of the loan.

Risk classification criteria

Principal factors

a. Industry
   (1) structure and economics
   (2) maturity
   (3) stability

b. Company
   (1) general characteristics
   (2) management
   (3) financial condition
   (4) capital sources
   (5) financial reporting

Risk classification modifiers

1. Agreement
2. Collateral
3. Guarantees

A. Criteria

a. Industry
   (1) Structure and economics
      (a) competition (monopoly, oligopoly, etc.);
      (b) role of regulation and legislation;
      (c) importance and stature of industry in the economy;
      (d) degree of control exercised by industry participants over demand and selling prices;
      (e) industry's economic dependency on other industries or governments.
   (2) Maturity
      (a) stage of industry's life cycle;
      (b) ease of entry;
      (c) rate of capacity additions.
   (3) Stability
      (a) sensitivity to business cycles;
      (b) sensitivity to credit cycles;
      (c) supply/demand balance;
      (d) vulnerability to technological innovation;
      (e) vulnerability to production and distribution changes;
      (f) susceptibility to changes in consumption patterns;
      (g) mortality rate.

b. Company or project
   (1) General characteristics
      (a) position and role in industry hierarchy (eg, Leader);
      (b) absolute size and size relative to industry standards by sales, assets, profits;
      (c) market share;
      (d) scope, in terms of both markets and products;
      (e) diversification of revenue sources;
      (f) reputation and record of accomplishment;
      (g) control over availability and price of supplies and raw materials;
      (h) vulnerability to uncontrollable or unpredictable events (eg, acts of God);
      (i) product characteristics – differentiation, substitutes, patents, brand loyalty, etc.
   (2) Management
      (a) industry experience;
      (b) managerial breadth and qualifications;
      (c) managerial depth and turnover rate;
      (d) calibre and structure of board;
      (e) management controls and forward planning;
      (f) management reputation.

   (3) Financial condition
      (a) debt and capitalisation ratios;
      (b) liquidity ratios;
      (c) cash flow and coverage ratios;
      (d) profitability ratios;
      (e) quality of assets;
      (f) quality of earnings.
   (4) Capital sources
      (a) equity:
         i. access to both public and private markets or just private;
         ii. degree of public ownership;
         iii. breadth of ownership;
         iv. liquidity and stability of market for equity securities; v. market demand for company's stock.
      (b) Long-term debt:
         i. access to both public and private markets or just private;
         ii. bond rating(s);
         iii. investment demand for company's issues.
      (c) Commercial paper:
         i. commercial paper rating;
         ii. existence of back-up lines;
         iii. investment receptivity and secondary market liquidity.
      (d) Commercial bank relationships:
         i. size and stature of lead bank;
         ii. dependence on single or few banks;
         iii. strength of relationships.
      (e) Investment banker:
         i. stature and size of investment banking firm;
         ii. scope, size and financial condition.
   (5) Financial reporting
      (a) Acceptability and soundness of accounting practices;
      (b) reputation and stature of audit firm;
      (c) quality of the audit opinion.

B. Modifiers

1. Agreement
   a. Type:
      (1) current line;
      (2) revolving credit;
      (3) term loan;
      (4) other.
   b. Security provisions.
   c. Repayment or amortisation provisions.
   d. Restrictive covenants.
   e. Lender position in credit (lead bank, uninfluential position).
   f. Quality and reputation of other lenders.
2. Collateral
   a. Type:
      (1) certificates of deposit:
         (a) lender;
         (b) other bank.
      (2) short-term governments;
      (3) long-term governments;
      (4) municipals;
      (5) corporate bonds;
      (6) equity securities:
         (a) common stock;
         (b) preferred stock.
      (7) accounts receivable;
      (8) inventories:
         (a) finished goods;
         (b) in-process;
         (c) raw materials;
         (d) commodities.
      (9) fixed assets:
         (a) real property;
         (b) plant;
         (c) equipment.
   b. Valuation considerations:
      (1) securities:
         (a) marketability: national exchange, OTC, market demand;
         (b) price stability;
         (c) registration;
         (d) quality of obligor;
         (e) transaction costs;
      (2) accounts receivable:
         (a) type of receivables (corporate, government, individual);
         (b) quality of debtors;
         (c) warranties, contingencies;
         (d) audit;
      (3) inventories:
         (a) marketability;
         (b) conversion costs and sales commissions;
         (c) obsolescence risk;
         (d) perishability risk;
         (e) physical location;
         (f) audit.

(4) fixed assets:
(a) physical condition;
(b) marketability;
(c) sales commissions;
(d) movement expenses;
(e) conversion costs;
(f) transferability of title (legally, practically);
(g) physical location;
(h) liens or assignments;
(i) obsolescence risk.

c. Legal considerations
(1) UCC filings versus dominion over collateral;
(2) perfection of liens;
(3) conflicting liens.

3. Guarantees
a. Collateralised or uncollateralised.
b. Enforceability.

Description of risk classifications

Highest quality – 1

This category is reserved for those few firms which are truly outstanding, by any criteria. They will be leaders in mature industries which are exceptionally strong, probably monopolistic or oligopolistic, and which are essential to the important world economies. Their industries will further be virtually invulnerable to external forces, including regulation and legislation, technological innovation, business and credit cycles, and changes in patterns of production or consumption. The firms themselves will be dominant in their industries, large by absolute and relative standards, innovative and imaginative in R & D, production and marketing. Generally multinational in scope, they will have unsurpassed reputations for superior performance, and will have both breadth and depth of customers, products, and suppliers. By any test, they will possess exceptional financial strength, will have virtually continuous access to all public and private debt and equity markets, and all obligations will have the highest possible ratings. Finally, these firms will have extraordinary managerial talent, with worldwide recognition for managerial expertise and leadership capacity.

Highest quality – 2

Firms in this category will also be of the highest quality, but by somewhat more normal standards. They will be highly regarded major participants in strong, healthy industries, probably oligopolistic, which are highly important to the economy. Their industries will have demonstrated great resilience to external forces, especially business and credit cycles, and will have a favourable outlook on supply/demand balances, regulation and legislation, etc. These firms will be among the largest in their industries, will have reputations for product excellence, and will be innovative and imaginative in several key areas. They will be multinational or national in scope, will have excellent reputations for performance, and will have a broad base of customers, products and suppliers. Their financial condition ratios will be substantially better than industry averages, they will have unqualified access during normal times to public and private debt and equity markets, and their obligations will have excellent independent ratings. Their managements will have considerable industry experience, excellent managerial qualifications, unusual depth and recognised leadership.

Good quality – 1

This category is intended for above average firms in strong, healthy industries. Their industries will generally be characterised by limited competition, moderate to substantial importance in the economy, and considerable maturity. The industries will further be fairly resilient to external forces (economic cycles, technological change, consumption and distribution pattern changes, etc.), and will have a supply/demand balance generally favourable to participants. The firms will be well regarded, either as one of the larger participants or of growing importance. They will generally be national or exceptionally strong regional firms with no major dependence on a single product or service and with minimal problems. Financial condition ratios will be somewhat above industry averages, profits will be generally increasing, they will have some excess debt capacity, and will have fairly unrestricted access to debt and equity markets during normal times. Further, they will have good bank relationships, a good credit record, and good credit ratings. Their managements will have broad industry experience, strong depth, and will be quite professional in approach. The firms will have clearly demonstrated their capacity to survive difficult times.

Good quality – 2

This category is intended for the large proportion of average firms in sound industries. Their industries will be noted for normal competition among numerous firms, moderate importance in the economy, in which regulation is not highly detrimental. The industries will be mature beyond shake-out, and without major growth problems. They will be stable during normal economic conditions, supply and demand will be in approximate balance, and they will have modest vulnerabilities to other external forces. The firms will be held in normal regard in their industries, they will be of medium size with adequate market shares, and they will probably have some normal business problems. Their financial condition ratios will be average for the industry, they will have followed a policy of maintaining excess debt capacity during normal times, and will have a record of fairly steady earnings performance, with profit margins typical for the industry. They will have limited access to debt and equity markets, sound banking relationships, and a good credit record. Finally their managements will be professional, and will have adequate managerial qualifications and broad industry experience.

Good quality – 3

This category is for below average, yet healthy, firms in competitive industries. Their industries will be characterised by many firms engaged in unrestrained but not destructive competition, moderate importance in the economy, in which regulation and legislation may be somewhat detrimental. The industries will typically have matured beyond their peak, but are not yet declining, will exhibit some instability in economic downturns, may have excess supply during recession, and are moderately vulnerable to other external forces. The firms will be held in normal regard in their industries, they will be of medium to small size with modest to average market shares, and normal business problems. They will probably be regional in scope, with fair protection from erosion of market. Financial condition measures will be at or slightly below industry averages, they will have some excess debt capacity except during rapid and unanticipated rapid economic expansions or contractions, and their access to debt and equity markets will be somewhat uncertain. They will, however, have pretty good banking relationships, a relatively clean credit record, and fair credit ratings. Their managements will have adequate industry experience, but may lack depth or breadth in some areas. The firms will have limited capacity to survive difficult times, but are basically healthy businesses.

Fair quality

This category is intended for marginal firms in fragmented, intensely competitive industries. Their industries will be characterised by somewhat destructive competition among many competitors, possibly heavy-handed and detrimental regulation, modest importance in the economy, and some immaturity. The industries may be subject to growing pains or in decline, entry will be relatively easy, and they will be somewhat vulnerable to external forces, especially economic cycles and technological changes. The mortality rate will likely be fairly high, substantial excess capacity may exist, and the industry may be highly dependent on. another industry for supplies or sales. The firms in this category will typically be undistinguished in their industries, probably smaller than industry average, with a small and somewhat unstable market share. They will generally be local or semi-regional in scope, with limited products, and beset with some serious operating problems. Their financial condition ratios may be significantly below industry averages, stretched, but still acceptable. Assets will be largely illiquid, the firms will generally be undercapitalised, will rely on debt financing, and will have unstable and uncertain earning power. They will have relatively few sources of finance, perhaps dependence on a single bank, but a good credit record. Credit ratings will generally be weak or non-existent. Their managements will have limited industry experience, perhaps some functional deficiencies, limited depth, and a board of modest influence. However, they will be honest by all outward signs. These firms will have uncertain futures, but should survive with some encouragement and assistance.

Risk classification criteria grid

Industry characteristics	*Highest quality – 1*	*Highest quality – 2*	*Good quality – 1*	*Good quality – 2*	*Good quality – 3*	*Fair quality**
Structure and economics	Monopoly or tight oligopoly with minimal competition	Oligopolistic with limited or restrained competition	Limited number of firms with moderate competition	Diminishing degree →	Numerous firms engaged in unrestrained competition	Highly fragmented with unhealthy competition
	Regulatory and/or legislative environment supportive as a result of a strong lobby	Regulatory and/or legislative environment supportive, or at least not restrictive	Diminishing degree →	Regulation insignificant or neutral	Regulatory and/or legislative environment mildly unfavourable	Regulation and/or legislation heavy handed and detrimental
	Essential industry	Major industry	Important industry	Moderately important industry	Fringe industry of modest importance	Non-essential industry subject to sharp demand decline
	Seller has substantial control over demand and price	Seller has some price discretion and is able to influence demand	Diminishing degree →	Supply, demand and price are determined by an auction-type free market	Diminishing degree →	Buyer controls both demand and price
	No interdependence on any other single industry	Diminishing degree →	Normal supply and sales interrelationships but no concentrated interdependence	Diminishing degree →	Limited interdependence on another industry	Exceptional dependence on another industry
Maturity	Mature industry approaching or at, but not past, peak of life cycle	Diminishing degree →		Maturing industry past shake-out stage and beyond major growth problems	Maturing industry just completing shake-out stage or fully matured but not yet in significant decline	Immature or overly mature industry subject to growth problems, shakeout or decline
	Prohibitive barriers to entry	Strong entry barriers with very few new entrants	Diminishing degree →	Moderate entry barriers with some regular entry	No entry barriers	Exceptionally easy entry
Stability	Not affected by the business cycle	Generally regarded as well insulated against recession	Sales and profits moderately affected by recession confined to small part of industry	Sales and profits sensitive to recession but actual losses	Could have trouble during a serious recession	Highly cyclical characterised by boom and bust periods
	Not susceptible to production or distribution changes	Has initiated and benefited from such changes	Such changes as do occur do not threaten the industry	Diminishing degree →	Susceptible only to unanticipated revolutionary changes	Highly susceptible to production or distribution changes
	Favourable supply/demand imbalance at all times	Favourable supply/demand imbalance except during recession	Supply and demand in balance except during serious recession	Supply and demand in balance during normal times	Some excess capacity even during normal times	Chronic unfavourable supply/ demand imbalance reflecting substantial excess capacity
	Mortality rate zero	Negligible mortality rate	Failures confined to newest, smallest firms and limited exclusively to internal factors	Diminishing degree →	Mortality rate moderate compared to other industries and stable, or somewhat lower but increasing	High mortality rate, perhaps reflecting some external factors
	Not susceptible to change in consumption patterns or introduction of substitute products	Significant control over changes in consumption patterns	Pattern changes evolve only over extended periods permitting ample response	Pattern changes sometimes unpredictable but industry has good record of response	Pattern changes difficult to predict creating some uncertainty	Dramatic revolutionary changes occur in consumption patterns rendering adequate response highly uncertain

Risk classification criteria grid *continued*

Industry characteristics	*Highest quality – 1*	*Highest quality – 2*	*Good quality – 1*	*Good quality – 2*	*Good quality – 3*	*Fair quality**
Company characteristics						
General	The leader in its industry	Highly regarded major factor	Diminishing degree →	Held in normal regard	Undistinguished stature	Poor reputation
	Highly dominant and influential within its industry	Co-operation important to the successful promulgation of new initiatives within industry – has veto power	Co-operation of most firms in this category required to promulgate new initiatives but no single firm has veto power	Diminishing degree →	Incapable of independent action. Reacts to initiatives of others	Diminishing degree →
	One of the very largest in terms of sales, profits and assets	Diminishing degree →		Medium-sized	Diminishing degree →	Small
	One of the largest market shares	Diminishing degree →	Either one of larger market shares or one growing significantly	Average market share for the industry	Slightly below average or declining market share	Small market share
	Generally national or multinational in scope	Diminishing degree →	National or exceptionally strong regional firm	Diminishing degree →	Generally a local or regional firm	Diminishing degree →
	Well-diversified revenue sources	Diminishing degree →	No major dependence on a single product or service	Diminishing degree →	Significant dependence on limited revenue sources	Single product line or captive supplier
	Unexcelled reputation for performance	Regarded as a trouble free company	May have minor problems	May have normal business problems	Has more than average share of business problems	Frequently encounters serious business problems and experiences significant swings in results
	Substantial control of availability and price of supply sources	Moderate supply control	No supply control but supplier competition assures fair prices and adequate availability	Diminishing degree →		Supplies subject to periodic shortage. Occasional rationing and strong supplier price control
	Invulnerable to uncontrollable events or natural disasters	Decentralisation would greatly soften the impact of such occurrences	Diminishing degree →		Uncontrollable events or natural disasters could have a serious but not fatal impact	Such occurrence could be fatal
	Highly differentiated product. Few comparable substitutes. Strong patent protection or consumer franchise. Excellent quality reputation.	Diminishing degree →	Some differentiation possible. Comparable substitutes limited, perhaps by product complexity. Some brand loyalty and good quality reputation	Diminishing degree →	Non-differentiable product with a number of comparable substitutes available. Good quality reputation	Non-differentiable product with many comparable or better substitutes. No brand loyalty and mediocre product quality
Management	Extensive industry experience under a wide variety of conditions	Diminishing degree →				Limited experience in the industry without extensive exposure to normal industry problems

Risk classification criteria grid *continued*

Industry characteristics	*Highest quality – 1*	*Highest quality – 2*	*Good quality – 1*	*Good quality – 2*	*Good quality – 3*	*Fair quality**
Management	Excellent managerial qualifications reflected in performance. partly measured by rating in previous risk classification categories	Diminishing degree →				Adequate managerial qualifications with some deficiencies
	Unusual management depth with succession in all functional areas provided for internally	Diminishing degree →		Adequate management depth with each critical function covered with at least one qualified successor	Insufficient depth with some outside recruiting necessary to fill vacancies in secondary functions	Depth a problem with vacancies in key spots causing serious exposure
	Active Board of Directors composed of nationally recognised business leaders serves as strong check on management	Diminishing degree →		Some outside directors of moderately important stature exercise average control over management	Outside directors, if any, not an effective check on management	Inside Board which does not discharge normal responsibilities
	Tight comprehensive management control system	Same →	Very good, timely control system	Soundly designed system provides adequate management control and information	Control system functions but has technical short-comings. Some risk of controls failure in limited instances	Controls are weak; system is largely reactive and reportive; major overhaul is desirable
	Established reputation for unquestioned integrity	Same →				No reason to question management integrity, although reputation is not widely known.
Financial condition	Liquidity, capitalisation and coverage ratios at or near the top for the industry	Ratios substantially above industry average, at least in top quartile	Ratios close to but not below industry average	Ratios around industry average	Ratios slightly below industry average	Ratios stretched but still acceptable, certainly not below third quartile
	Profit margins at or near the top of the industry	Diminishing degree →		Profit margins normal for industry	Diminishing degree →	Chronic under-performer
	High-quality earnings steadily increasing at a sustainable rate	Record of steady results with above average sustainable up trend	Diminishing degree →		Earnings at least moderately trending upward, although there may be some moderate variability	Earnings record is unimpressive but has demonstrated earning power
	Substantial excess debt capacity at all times	Diminishing degree →		Consistent policy of moderate excess debt capacity	Diminishing degree →	Under-capitalised, relies heavily on debt
	Soundly valued, high quality assets	Diminishing degree →				Assets of questionable quality difficult to value
Capital sources (1) Equity	Access to the equity market under all market conditions	Could sell stock except during severe market decline	Able to sell stock under normal market conditions	Able to sell stock only during bull markets	Little likelihood of successful stock sale under most conditions	Company's circumstances render sale of equity unfeasible

Risk classification criteria grid *continued*

Industry characteristics	*Highest quality – 1*	*Highest quality – 2*	*Good quality – 1*	*Good quality – 2*	*Good quality – 3*	*Fair quality**
Capital sources (1) Equity	Widely held ownership with nationwide distribution	Same →		Some ownership concentration, perhaps regionally oriented	Relatively closely held	Very closely held
	Market for stock highly liquid and relatively stable under almost all circumstances. Traded on NYSE	Traded on major exchange	Traded on a secondary exchange	Traded OTC with some dealer support	Thin OTC market with no dealer support	No quotes available
	Strong market demand with active trading at almost all times	Good investor interest under most market conditions	Investor interest reflects general market conditions	Investor interest sporadic	Little investor interest	No investor interest
(2) Long-term debt	Able to sell long- term debt, relatively advantageously under all market conditions in public or private markets	Only severe credit conditions would impair good reception in public or private market. Could still sell even then at a wider spread	Able to sell debt publicly or privately under normal credit market conditions	Access to institutional market during most credit market conditions and public market during credit expansion	Questionable access to other than the commercial bank market but generally accommodated	No access to additional long-term debt
	Debt would be rated AAA to high AA	Debt would be rated AA to high A	Debt would be rated solid A	Debt would be rated low A to high BBB	No rating or speculative rating	No rating
	Securities have strong investor appeal	Securities command good investor interest except in weak markets	No undue selling effort required in normal markets	Selling effort generally required and appeal limited to certain categories of investor	Securities have very limited appeal	Not applicable
(3) Commercial paper	Access to the commercial paper market at all times	Able to sell paper during all except most extreme market contractions	Able to at least renew outstanding paper during all except most extreme market contractions	Able to sell paper under normal conditions	Might not be able to renew maturities during market contractions	Commercial paper market an uncertain source of funds or company is unsuited to the issuance of commercial paper
	Prime commercial paper rating (A1, Pl)	Same →	Medium commercial paper rating (A2, P2)	Low commercial paper rating (A3, P3)	Below A3, P3	Not rated
	Maintains 10 (1%) backup lines	Same →				
	Dealers maintain a secondary market and investor receptivity is high	Same →	Average dealer support and investor interest	Considered a relatively inactive name in the market	No secondary market and limited investor interest	Not applicable
(4) Commercial bank relations	Excellent long-standing relationships with many large banks including several in Top 10	Same →	Good relationships with several large banks; lead bank is well-known, respected, probably Top 10	Good relationships with a few banks of moderate size and influence including at least one large money-centre bank	Satisfactory relationship with a bank of medium size and influence, and access through corres-pondent system to a large money-centre bank	Fair relationship with a bank of modest size and influence

Risk classification criteria grid *continued*

Industry characterisitics	*Highest quality – 1*	*Highest quality – 2*	*Good quality – 1*	*Good quality – 2*	*Good quality – 3*	*Fair quality**
(4) Commercial bank relations	Maintains commitments substantially in excess of maximum anticipated needs	Same →	Maintains commitments in excess of anticipated needs	Diminishing degree →		Uses credit lines extensively. nominal excess commitments
(5) Investment banker relationship	Working relationship with major bracket firm. In sound financial condition with a reputation for integrity and performance	Same →	Some annual contact with active better known firm	Contact as needed with generally well-regarded firm	Dormant relationship with investment banker of modest local or regional stature	No investment banker
Financial reporting	Follows sound accounting practices considered normal for the industry	Same →				Follows aggressive accounting practices considered unusual for the industry
	Big 8 audit firm	Same →	Big 8 or highly reputable audit firm	Same →		Audit firm of unascertainable quality and reputation
	Clean audit opinion	Same →				Qualified opinion exceptions not serious

Risk classification modifiers

	Favourable	Neutral	Unfavourable
Agreement	Exceptionally strong agreement. Provides lender with recourse under virtually any material deterioration in either the borrower's condition or collateral. Stringent affirmative and negative covenants (working capital, net worth, debt ratios, liens, leases, dividends). Exceptional flexibility in the event of default.	Standard agreement. Provides lender with recourse in the event of serious deterioration in either the borrower's condition or collateral. Covenants of normal rigour. Moderate flexibility in the event of default.	Weak agreement. Lender has recourse only in the event of default or very serious deterioration in borrower's condition. Covenants are loose, lacking in rigour or nonexistent. Little flexibility in the event of default.
Collateral	High quality, conservatively valued; generally, valuation has been determined or verified by an independent source. Highly liquid; usually a strong secondary market exists. Physically in possession of lender or readily obtainable.	Fair quality, value uncertain. Illiquid, or liquidation problems anticipated. Difficulties anticipated in obtaining possession.	
Guarantees	High quality guarantor. Enforceable guarantee.	Fair or marginal quality guarantor. Enforceability questionable.	

Appendix D:

Overseas Private Investment Corporation (OPIC)[1]

The Overseas Private Investment Corporation, located in Washington, D.C., is a United States Government agency which encourages US private investment in developing countries through its loan, guarantees and other programs. In 1995, OPIC listed 140 countries which are potentially eligible for OPIC loans and guarantees.

For projects sponsored by US small business or cooperatives, financing may be provided through direct loans. These loans generally range in amount from US$2 million to US$10 million.

Loan guaranties, which typically are used for larger projects, range in size from US$10 million to US$75 million, but in certain instances can be as high as US$200 million.

Under both financing techniques, the borrower approaches OPIC to analyse and structure financing for an overseas project. OPIC determines the appropriate terms of borrowing and, where a guaranty is sought rather than a direct loan, may assist in identifying institution willing to provide the necessary funds.

Guaranties are issued to US financial institutions more than 50 percent beneficially owned by US citizens, corporations, or partnerships. Foreign institutions that are at least 95 percent US owned are also eligible. Typical funding institutions include insurance companies, pension funds and commercial banks.

These lenders are fully protected by the full faith and credit of the United States of America. OPIC-guaranteed loans are classified as eligible US government securities for insurance companies and many other institutional investors. As a result, funding is available through fixed or floating interest rate obligations at approximately the same rates as those obtained by other US government agencies.

OPIC supports, finances and insures projects that have a positive effect on US employment, are financially sound, and promise significant benefits to the social and economic development of the host country.

Eligible projects

Investments by OPIC clients may take many forms, including:

- conventional equity investments and loans;
- construction and service contracts;
- production sharing agreements;
- leases;
- various contractual arrangements such as consigned inventory, licensing, franchising, and technical assistance agreements; and
- other special agreements that investors may devise.

US economic contribution

To receive OPIC support, projects must demonstrate a potential for positive effects on the US economy. OPIC weighs the balance-of-payments and employment effects on the US economy of every project it

considers supporting. Such factors as the level of US procurement, net financial flows, and net project exports to the United States are taken into consideration.

Assistance is denied to projects that are likely to have a negative effect on US employment or trade. OPIC will not support a 'runaway plant,' ie, the substitution of existing US facilities with a foreign plant to produce for the same US or export markets. OPIC will decline to assist projects that are likely to have an adverse effect on the US balance of payments. OPIC assistance need not be tied to the procurement of US goods or services, but assistance may be denied in cases where a preponderance of the procurement is from other industrialised countries. OPIC encourages US procurement, particularly from US small business, wherever possible.

OPIC has a statutory mandate to support projects that are responsive to the development needs of the host country, and that foster private initiative and competition. The contribution of the proposed project to the economic and social development of the host country will be carefully examined and will include such factors as:

- increased availability of goods and services of better quality or at lower costs;
- development of skills through training;
- transfer of technological and managerial skills;
- foreign exchange earnings or savings:
- job creation;
- host country tax revenues; and
- stimulation of other local enterprises.

OPIC must also review host government agreements or concessions. If a project is given monopoly rights or other competitive advantages for more than five years, special justification for OPIC involvement is required. OPIC will provide guidance to assist sponsors in submitting the necessary information.

Investment finance

OPIC implements its finance program through direct loans and loan guaranties that provide medium to long-term funding to ventures involving significant equity and/or management participation by US businesses.

Rather than relying on sovereign or sponsor guaranties, OPIC provides project financing, which looks for repayment from the cash flows generated by projects. Therefore, OPIC carefully analyses the economic, technical, marketing and financial soundness of each project. There must be an adequate cash flow to pay all operational costs, service all debt, and to provide the owners with an adequate return on their investments. To the extent that such project financing is appropriate, sponsors need not pledge their own general credit beyond the required completion undertakings. In ventures where project financing is impractical, OPIC will consider more conventional secured lending techniques.

OPIC can provide medium and long-term project financing in countries where conventional financial institutions often are reluctant or unable to lend on such a basis. Since its programmes support private sector investments in financially viable projects, OPIC does not offer concessionary terms usually associated with government-to-government lending, nor does it typically offer financing of export sales unrelated to long-term investments in overseas business. OPIC will not participate in projects that can secure adequate financing from commercial sources.

Financing plan

Investors must be willing to establish sound debt to equity relationships that will not jeopardise the success of the project through insufficient equity or excessive leverage. The financial structure will vary with the nature of a specific business and will be affected by the variability of expected cash flows. Experience indicates that ample levels of equity contributions are essential for a project to succeed.

The financing plan should provide funds to meet all costs including feasibility studies, organisational expenses, land, construction, machinery, equipment, training and market development expenses, interest payments during construction, start-up expenses including initial losses, and adequate working capital.

Completion agreement

In recognition of possible cost overruns and early operating problems, and despite careful planning and allowance for contingencies in the financial plan, OPIC, like other limited recourse lenders, normally requires that the principal sponsors enter into an agreement under which they are obligated to guarantee payment of debt service to OPIC prior to project completion. The definition of project completion includes certain financial and operating tests, as well as physical completion. The sponsors must have the financial capability to perform their obligations under this agreement.

Loan terms

The repayment schedule of a direct or guaranteed loan will reflect the purpose of the loan and projected level of cash flows to be generated by the project, which must be sufficient to meet interest and principal payments and to provide for an adequate return to equity investors. The terms of such loans, therefore, will typically provide for a final maturity of five to fifteen years following a suitable grace period during which only interest is payable.

Interest rates on OPIC loans will vary with OPIC's assessment of the financial and political risks involved. They will also depend upon changes in interest rates in long-term capital markets in the United States.

Interest rates on guaranteed loans are comparable to those of other US Government-guaranteed issues of similar maturity and are subject to OPIC approval. For loan guaranties, OPIC charges the borrower a guaranty fee which typically averages two to four percent per annum on the outstanding principal amount, depending upon commercial and political risk assessment. In certain cases, OPIC will adjust its guaranty fee to include an income-sharing provision.

With the exception of convertible subordinated promissory notes, OPIC expects that its creditor participation will be on a senior basis, *pari passu* with the holders of other senior debt, and that it will share in a first lien on fixed assets and any other appropriate collateral. A host government guaranty normally is not required by OPIC.

Consistent with commercial lending practices, up-front, commitment, and cancellation fees are charged, and reimbursement is required for related out-of-pocket expenses, including fees for outside counsel and for the services of experts or consultants.

Application procedures

The sponsor of a potential project interested in obtaining financing should submit a Preliminary Application for Financing (OPIC Form 115) and a business plan for the proposed project to OPIC.

The business plan should establish general eligibility and give OPIC the basis on which it can respond to the amount and basic terms of the requested financing. It should include:

- a general description of the project;
- the identify, background and the audited financial statements of the project's proposed principal owners and management;
- planned sources of supply, anticipated output and markets, distribution channels, competition, and the basis for projecting market share;
- a summary of project costs and sources of procurement of capital goods and services;
- a proposed financing plan, including the amount of the proposed OPIC participation, and financial projections;
- pro forma financial statements of the proposed project and accompanying assumptions; and
- a brief statement of the contribution the business is expected to make to local economic and social development.

The data prepared and submitted by sponsors to substantiate sources of raw material, technical feasibility, and market demand are carefully analysed together with the financial forecasts.

Investment insurance

OPIC provides political risk insurance to US investors, contractors, exporters and financial institutions involved in international transactions.

OPIC insurance can cover the following political risks:

- *Currency inconvertibility* – inability to convert profits, debt service and other remittances from local currency into US dollars;
- *Political violence* – loss of assets or income due to war, revolution, insurrection or politically motivated civil strife, terrorism and sabotage.

OPIC has specialised insurance programmes for:

- financial institutions
- leasing
- oil and gas
- natural resources
- contractors and exporters

Currency inconvertibility

Currency inconvertibility coverage compensates investors if new currency restrictions prevent the conversion and transfer of remittances from insured investments. Currency restrictions may take the form of new, more restrictive foreign exchange regulations or a failure by exchange control authorities to act on an application for hard currency.

OPIC inconvertibility coverage insures earnings, returns of capital, principal and interest payments, technical assistance fees, and other similar remittances related to insured investments in eligible projects.

The coverage does not protect against the devaluation of a country's currency. Rather, OPIC insures investors against the consequences of conversion restrictions that occur after an insurance contract is issued.

Expropriation

Expropriation coverage protects against the nationalisation, confiscation, or expropriation of an enterprise, including creeping expropriation - government actions that for a period of at least six months deprive an investor of fundamental rights or financial interests in a project. The coverage excludes losses due to lawful regulatory or revenue actions by host governments and actions provoked or instigated by the investor or foreign enterprise.

For equity investments, compensation is based on the book value of the investment as of the date of expropriation. For loans, payment is based on outstanding principal and accrued interest. With some limited exceptions, OPIC covers total expropriation only; to receive compensation, an investor must assign to OPIC all rights to an insured investment.

Insurance for specialised risks peculiar to a specific project may be available upon request and will be rated on a case-by-case basis. Coverage for expropriation of funds only – unlawful host government retention of foreign exchange intended to be remitted as investment earnings – may be purchased in conjunction with currency inconvertibility coverage.

Insurance may be available to cover losses resulting from the unlawful breach of specific host government obligations identified by the US investor at the outset as vital to the successful operation of the project. Coverage is available on a case-by-case basis and will be individually rated.

Political violence

Political violence coverage compensates for property and income losses caused by violence undertaken for political purposes. Declared or undeclared war, hostile actions by national or international forces, civil war, revolution, insurrection, and civil strife (including politically-motivated terrorism and sabotage) are all examples of political violence covered by OPIC. An investor may choose to insure for all these risks or to exclude civil strife. Actions undertaken primarily to achieve labour or student objectives are not covered.

OPIC pays compensation for two types of losses – business income losses and damage to tangible property. An investor may purchase one or both coverages.

Business income coverage

Business income coverage (BIC) protects the investor's share of income losses resulting from damage to the insured property caused by political violence. With an 'off-site' rider, OPIC also may compensate for income losses resulting from damages to specific sites outside the insured facility, such as a critical railway spur, power station, or supplier.

Compensation is based on what the project would have realised in net income but for the damage, plus the project's continuing, normal operating expenses which must be paid during the time the damage is being repaired. OPIC also will pay for expenses that reduce the business income loss, such as renting a temporary facility. Compensation is paid until productive capacity can reasonably be restored, not to exceed one year.

Exhibit 1: Base rates

Manufacturing/services projects
Annual base rates per US$100 of coverage

Coverage	*Active/ current*	*Standby (non-equity investments)*
Inconvertibility	30¢	25¢
Expropriation	60¢	25¢
Political violence*		
Business income	45¢	25¢
Assets	60¢	25¢

Discounted rates may be available for combined business income and assets political violence coverage.

Institutional loans and leases
Annual base rates per US$100 of coverage

Coverage	*Covered amount**	*Undisbursed principal*
Inconvertibility	45¢	20¢
Expropriation	40-90¢	20¢
Political violence	40-70¢	20¢

*Covered amount is the amount of disbursed principal plus accrued interest, less principal repaid to date.

Oil and gas
Annual base rates per US$100 of coverage

*Coverage**	*Exploration*	*Development/ production*	*Standby*
Inconvertibility	30¢	30¢	25¢
Expropriation	40¢	US$1.50	25¢
Political violence (assets)	75¢	75¢	25¢
Interference with operations	40¢	40¢	25¢

* Rates shown are for current amounts.

Natural resources (except oil and gas)
Annual base rates per US$100 of coverage

Coverage	*Active/ current*	*Standby (non-equity investments)*
Inconvertibility	30¢	25¢
Expropriation	90¢	25¢
Political violence		
business income	45¢	25¢
assets	60¢	25¢

Contractors and exporters coverages
Annual base rates per US$100 of coverage

Coverage	*Current*	*Standby*
Assets		
Inconvertibility	30¢	25¢
Expropriation	60¢	25¢
Political violence	60¢	25¢
Bid bonds	50¢	25¢
Performance, advance payment, and other guaranties	60¢	25¢
Disputes	70¢	25¢

Assets coverage

Assets coverage compensates for loss of or damage to tangible property caused by political violence. Compensation is based on the investor's share of the adjusted cost of the property or replacement cost. Adjusted cost is defined as the least of the original cost of the item, the fair market value at the time of loss, or the cost to repair the item. OPIC may pay replacement cost up to twice the investor's share of the lost or damaged property's original cost, provided the property is actually replaced within three years.

Election of coverages and premium base rates

The base rates shown in Exhibit 1 may be increased or decreased, usually by not more than one-third, depending on the risk profile of the project. Once established, the rates are fixed for the life of the contract. OPIC insurance contracts generally require that premiums be paid annually in advance.

Availability, extent of coverage and claims

Term

The term of an insurance policy may extend a maximum of 20 years. For loans, leases, and transactions covered by the contractors and exporters program, the term is generally equal to the duration of the underlying contract or agreement.

Co-insurance

OPIC will insure 90 per cent of an eligible investment. OPIC requires by statute that investors bear the risk of loss of the remaining 10 per cent. The only exception to this requirement is loans and leases from financial institutions to unrelated third parties, which may be insured for 100 per cent of principal and interest.

Notes and references

1. This discussion reflects written material prepared by OPIC in describing its products and services.

Appendix E

Export-Import Bank of the United States

Project finance loans, guarantees and programmes[1]

The Export-Import Bank of the United States is committed to establishing a world class programme in limited recourse project finance. As developing nations turn away from sovereign guaranteed borrowing, Ex-Im Bank's project financing programme will assist US exporters to compete in new international growth industries such as the development of private power and other infrastructure. For example, the World Bank estimates that developing nations will require more than US$200 million per year during the 1990s to upgrade their infrastructure, much of which will be financed on a limited recourse basis. While such a financing structure has been used successfully in the past for oil and gas, mining, and power projects, recent emphasis around the world on infrastructure privatisation has also opened up the telecommunications and other sectors to this type of financing.

Project finance

The term 'Project Finance' refers to the financing of projects that are dependent on the project cash flows for repayment as defined by the contractual relationships within each project. These projects do not rely on the typical export credit agency security package which has recourse to a foreign government, financial institution or established corporation to meet a reasonable assurance of repayment criteria. By their very nature, projects rely for successful completion on a large number of integrated contractual arrangements.

Ex-Im Bank project finance

In its recognition of the growing importance of project finance as a major component to the success of US exporters, Ex-Im Bank has implemented the following changes:

- *Project finance division established in June 1994.* A project finance division has been formed and is operational. To enhance its expertise, Ex-Im Bank hired two experts in project finance to lead the division. In addition, the project finance division includes three loan officers with project finance experience.
- *Clear information requirements.* The requirements for submission of an acceptable project finance application are contained in the attachment.
- *Maximum support possible.* Where appropriate, Ex-Im Bank will offer the maximum support allowed within the rules of the OECD Arrangement, to include:
  - Financing of interest accrued during construction related to the Ex-Im Bank financing facilities.
  - Allowance of up to 15 per cent foreign content in the US package.
  - Financing of host country local costs of up to 15 per cent of the US contract value.
  - Maximum repayment term allowed under the OECD guidelines.
- *No size limitation.* There are no minimum or maximum size limitations.

- *Flexible coverage.* Any combination of either direct loans or guarantees for commercial bank loans with political risk only or comprehensive coverage are available for a given project. During construction, Ex-Im Bank will only provide guarantees to cover the political risks of political violence, expropriation, and transfer risk related to the project.
- *Flexible equity arrangements.* There are no predetermined equity requirements. Ex-Im Bank will review and determine the appropriate equity structure on a case-by-case basis. Equity sponsor's ownership position cannot be transferred without Ex-Im Bank's consent.
- *Ex-Im Bank exposure fee commensurate with risk.* Exposure fees will vary depending on the risk assessment of the project.
- *Environmental considerations.* Ex-Im Bank's environmental procedures will apply.
- *Rapid case processing.* With the help of outside financial consultants, Ex-Im Bank will give a preliminary indication of support, called a Preliminary Project Letter (PPL), 45 days from the date evaluation begins by the outside consultant. Should the project be sufficiently developed, the sponsor may proceed directly to a final commitment from the PPL, as determined by the Project Finance Division.
- *Financial consultants.* Ex-Im Bank has arranged for firms to act as advisers on specific project finance cases. The firms are: JP Morgan & Co., Morgan Stanley & Co., PMD International, Inc., Schroders, and Taylor-DeJongh, Inc.

Application process

- *Submission.* The project finance application must include submission of:

  1) the standard Ex-Im Bank Application Form; and
  2) five copies of the materials listed in the Attachment. These materials should be directed to the address indicated on the Application Form and marked 'Project Finance Application'.

- *Preliminary review.* Ex-Im Bank will review the material submitted within five to 10 business days from the date that the application is received by the project finance division This review will determine if the application includes the required information to proceed with an evaluation.
- *Incomplete applications.* If the application presented is determined to be incomplete by the project finance division, it will be returned to the applicant with an explanation of its deficiencies. If the application is not determined to be suitable for limited recourse project financing but could still be considered for another form of Ex-Im Bank financing, it will be forwarded to the appropriate division and the applicant notified.
- *Choice of financial consultant.* For applications proceeding to an evaluation, a financial consultant will be selected by Ex-Im Bank from the preapproved group. Determination of the specific financial consultant will depend on several factors including:

  1) geographic and sector expertise, and
  2) availability to meet project deadlines.

- *Evaluation fee.* Before the financial consultant begins its review, the applicant will be required to pay an evaluation fee and execute a contract with Ex-Im Bank. No evaluation by the financial consultant will commence without payment of the fee.
- *Other fees.* For most projects, Ex-Im Bank will require, either in conjunction with other lenders or for its own use, the advice of independent outside legal counsel, independent engineers, and insurance advisers. In addition, there may be other fees associated with conducting proper due diligence. Payment for these and any other fees will be the responsibility of the project sponsors or the applicant.
- *Preliminary project letter.* Assuming the evaluation process is satisfactory, the Project Finance Division will issue a PPL. The PPL will indicate that Ex-Im Bank is prepared to move forward on a financing offer and the corresponding general terms and conditions. These terms and conditions will be based upon the information available at the time of application.

  The evaluation and issuance of the PPL will be completed within 45 days of commencement of the evaluation.
- *Evaluation Post-PPL.* After issuance of the PPL, Ex-Im Bank will work with the applicant to proceed to a Final Commitment. On a case-by-case basis, Ex-Im Bank may continue to utilise the financial consultant.

For more information contact:

US toll free telephone number 1-800 565-EXIM
Worldwide telephone number (202) 565-3946
Bulletin board service (202) 565-3826
Faxback 1-800 565-EXIM, press 1, press 2

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Project finance division

Project criteria and application Information requirements

I. General project

- The project should have long-term contracts from creditworthy entities for the purchase of the project's output and the purchase of the project's major project inputs such as fuel, raw materials, and operations and maintenance. Such contracts should extend beyond the term of the requested Ex-Im Bank financing.
- The project should contain an appropriate allocation of risk to the parties best suited to manage those risks. Sensitivity analysis should result in a sufficient debt service coverage ratio to ensure uninterrupted debt servicing for the term of the debt.
- Total project cost should be comparable to projects of similar type and size for a particular market.
- Product unit pricing and costs should reflect market based pricing.
- Devaluation risk needs to be substantially mitigated through revenues denominated in hard currencies, revenue adjustment formulas based on changing currency relationships, or other structural mechanisms.

Information required

1. Summary of all aspects of the project, as contained in an independently prepared feasibility study and/or a detailed information memorandum, prepared by a qualified party. To include description, location, legal status, ownership, and background on key elements of the project structure, such as status of agreements, licenses, local partner participation and financing.
2. Draft agreements must be available for key elements of the project, including supply and off-take agreements.
3. A breakdown of anticipated project costs through commissioning, including interest during construction and working capital requirements, by major cost category and country of origin.
4. A summary of the anticipated project financing plan and security package, including the proposed source, amount, currency and terms of the debt and equity investments; the sources of finance in the event of project cost overruns; and description of escrow accounts. Information on the terms, security requirements, and status of financing commitments of other lenders to the project, if applicable, should be provided.
5. Projected annual financial statements covering the period from project development through final maturity of the proposed Ex-Im Bank financing, to include balance sheet, profit and loss, source and application of funds statements, and debt service ratios. Projections should include a sensitivity analysis for not only the expected scenario, but pessimistic and optimistic cases as well.

   This information should also be provided on a $3\ ^1/_4$″ computer diskette with the project's financial model in Lotus 123. The structure of the financial model should be in a format that is user friendly. Ex-Im Bank must be able to review and adjust the assumptions in the model.
6. Assumptions for the financial projections, including but not limited to the basis for sales volume and prices; operating and administrative costs; depre-

ciation, amortisation and tax rates; and local government policy on price regulation.

7. Market information, to include: 10 years of historical price and volume data; present and projected capacity of industry; product demand forecast with assumptions; description of competition and projected market share of the project as compared to the shares of the competition; identity and location of customers; and marketing and distribution strategy.
8. A description of the principal risks and benefits of the project to the sponsors, lenders, and host government.
9. A description of the types of insurance coverage to be purchased for both the pre- and post-completion phases of the project.

II. Participants

- Project sponsors, off-take purchasers, contractors, operators, and suppliers must be able to demonstrate the technical, managerial and financial capabilities to perform their respective obligations within the project.

Information required

1. Sponsors must provide a brief history and description of their operations, a description of their relevant experience in similar projects, and three years of audited financial statements, in English.
2. If the sponsors are part of a joint venture or consortium, information should be provided for all the participants. A shareholder's agreement should also be provided.
3. Off-take purchasers and suppliers should provide a history and description of operations, at least three years of audited financial statements, in English, and a description of how the project fits in their long-term strategic plan.
4. Contractors and operators must provide resumés of experience with similar projects and recent historical financial information.

III. Technical

- Project technology must be proven and reliable, and licensing arrangements must be contractually secured for beyond the term of the Ex-Im Bank financing.
- A technical feasibility study or sufficient detailed engineering information needs to be provided to demonstrate technical feasibility of the project.
- At this time, Ex-Im Bank is not prepared to accept project completion risk. Pre-completion, the applicant's financing structure may only utilise Ex-Im Bank's political-only guarantee programme.

Information required

1. Technical description and a process flow diagram for each project facility.
2. Detailed estimate of operating costs.
3. Arrangement for supply of raw materials and utilities.
4. Draft turnkey construction contract and description of sources of possible cost increases and delays during construction. Detailed description of liquidated damage provisions and performance bond requirements of these contracts should be provided.
5. Project implementation schedule, showing target dates for achieving essential project milestones.
6. A site-specific environmental assessment, highlighting concerns, requirements and solutions. The information to be provided should cover topics similar to that required by the World Bank and OPIC environmental assessment procedures.

IV. Host country legal/regulatory framework and government role

- Host government commitment to proceeding with the project needs to be demonstrated.
- Legal and regulatory analysis needs to demonstrate that the country conditions and the project structure are sufficient to support long-term debt exposure for the project through enforceable contractual relationships.
- Ex-Im Bank's relationships with the host government will be addressed on a case-by-case basis. An Ex-Im Bank Project Incentive Agreement (PIA) with the host government may be required. The PIA addresses certain political risks and Ex-Im Bank's method of resolution of conflict with the host government pertaining to these issues. Only certain markets will require a PIA.

Information required

1. A description of the host government's role in the project, and progress made toward obtaining essential government commitments to include authorisations from appropriate government entities to proceed with the project.
2. A definition of the control, if any, that the government will have in the management and operation of the project, and status of any assurances that the government will not interfere in the project's operation. If the government is also a project sponsor, these issues will be of particular importance.
3. Evidence of the government's current and historical commitment and policies for availability and convertibility of foreign currency.
4. Status and strategy for obtaining government undertakings to support any government parties involved in the project, to the extent that such undertakings are needed to provide adequate credit support for such entities.

Project finance fees

Interest rates

Under the direct loan option, Ex-Im Bank can offer the Commercial Interest Reference Rate (CIRR) in effect on the date of Ex-Im Bank's final authorisation of the transaction. This interest rate is subject to change on the 15th of each month and is determined by adding 100 basis points to the corresponding US Treasury interest rate.

Exposure fees – a two part fee system

Ex-Im Bank's exposure fee system is a two part fee system, corresponding to the pre-completion phase and the post-completion phase of the project. At final pricing, 1) the borrower will make its final decisions as to the coverages required (type and tenor), and 2) Ex-Im Bank will determine a final risk rating for each phase of the project. For project finance transactions, the pre-completion risk ratings are separated into low risk, medium risk, and high risk. These ratings correspond to the availability of political-only guarantee coverage during the pre-completion period. For the post-completion phase, the project risk ratings are segregated into letter grades from A to E, where A is low risk and E is high risk. An exposure fee corresponding to each of the two coverages (Fee no. 1 and Fee no. 2) will be applied based upon the corresponding risk rating.

Example – fee no. 1 for pre-completion coverage

For example, a borrower might decide that it wishes to take Ex-Im Bank political-only guarantee coverage for the pre-completion phase of a project. The construction period is three years and the risk rating for this period is low risk. Fee no. 1 of the two-part system would be derived from the attached exposure fee table based on these parameters. This fee would then be calculated on each disbursement and paid at the time of such disbursement to Ex-Im Bank. This fee could be 100 per cent financed during the construction period and this fee would be eligible for 100 per cent Ex-Im Bank coverage.

Example – fee no. 2 for post-completion coverage

To continue the example, a borrower might also decide that it wishes to have Ex-Im Bank provide a direct loan at completion to take out the construction period lenders. At the time of final authorisation, Ex-Im Bank would determine the risk rating for the post-completion phase of the project and the borrower and Ex-Im Bank would agree on the tenor of the term financing. For this example, the tenor is 10 years repayment and the risk rating is a C-. Fee no. 2 of the two part system would be derived from the exposure fee table based on these parameters. This fee would be known at the time of final authorisation, but would not be payable until construction is complete and the borrower has met all the conditions for initiating the Ex-Im Bank term financing. Fee no. 2 would be calculated upon a principal amount including all amounts eligible for conversion to Ex-Im Bank term period coverage. Fee no. 2 would be 100 per cent financeable as part of the Ex-Im Bank direct loan at the time of its payment.

If the borrower does not pay fee no. 2 when due, Ex-Im Bank coverage ceases.

All-in cost

As indicated above, both exposure fees are eligible for 100 per cent Ex-Im Bank financing coverage. In the example above, the commercial banks would finance fee no. 1 and Ex-Im Bank political-only coverage would be available to cover 100 per cent of this commercial financing of fee no. 1. Fee no. 2 would be 100 per cent financed by Ex-Im Bank's direct loan. Due to the 100 per cent financing of fee no. 1 and fee no. 2, Ex-Im Bank believes it is most appropriate to focus on an all-in cost for the entire Ex-Im Bank financing, including interest rate and the 100 per cent financed exposure

fees. In other words, the total annualised cost of the Ex-Im Bank interest rate and fees on a internal rate of return calculation basis is the appropriate calculation to be used for all comparison purposes.

When Ex-Im Bank is asked to provide a direct loan, we are largely indifferent to the split between the interest rate of the transaction versus the level of exposure fee, except for the lower limit of the interest rate being restricted by CIRR level as indicated above. For the example above, Ex-Im Bank would find it acceptable to have fees no. 1 and no. 2 defined as indicated above with the CIRR interest rate on the direct loan for the post-completion period. Alternatively, it would be acceptable for the financing costs to be divided into fee no. l paid during the pre-completion period, no fee no. 2 required, and an interest rate reflecting the all-in cost of fee no. 2 and the CIRR interest rate for the term period direct loan.

Adjustment to 'market'

At final authorisation Ex-Im Bank will consider, at its sole discretion, a review of the all-in cost of the proposed Ex-Im Bank financing versus similarly risk rated 'market' transactions. To the extent the all-in cost of the proposed Ex-Im Bank financing is higher than such comparable market transactions, Ex-Im Bank will lower its financing fees accordingly. To the extent such market transactions are higher on an all-in cost basis than the proposed Ex-Im Bank financing, then the cost of the Ex-Im Bank financing will remain unchanged.

This adjustment is only applicable for transactions in the higher risk categories (of the Ex-Im Bank risk rating system) and for transactions involving an Ex-Im Bank direct loan.

Multiple options

Ex-Im Bank will offer the borrower the ability to choose up to three different post-completion options. In addition to the direct loan option discussed in the example above, the borrower might also wish to retain two additional options for the post-completion period: 1) a comprehensive guarantee option and 2) a political-only guarantee option. Each of these three different options would be priced at the time of final authorisation. At the time of construction completion, fee no. 2 would be paid in an amount corresponding to the pre-determined amount associated with the chosen option (for the comprehensive coverages post-completion, the conditions for conversion would of course need to be satisfied).

The borrower (and their construction lenders) might view the preservation of the political-only guarantee coverage post-completion as an important contingency coverage. To the extent that the borrower is unable to achieve the conditions for conversion to the Ex-Im Bank comprehensive direct loan or guarantee coverage, the construction lenders would lose their takeout financing. The borrower and the construction lenders would negotiate this contingency in advance whereby the construction lenders' acceptance of this risk of not being taken out would be conditioned on the borrower preserving Ex-Im Bank political-only guarantee coverage post-completion for a certain number of years.

Commitment fees

Beginning 60 days after the date of the issuance of Ex-Im Bank's Final Commitment, the Commitment Fees would accrue on the undisbursed and uncancelled portion of each portion of the Ex-Im Bank coverage as follows:

Pre-completion political-only coverage:
$^1/_8$ of 1 per cent per annum

First post-completion option preserved:
$^1/_2$ per cent of 1 per cent per annum

Each additional post-completion option preserved:
$^1/_8$ of 1 per cent per annum

For example, if the borrower has chosen the maximum flexibility allowed under this programme, political-only coverage pre-completion and three post-completion options, it would pay the following commitment fees:

- $^1/_8$ of 1 per cent p.a. On the undisbursed pre-completion political-only guarantee, *plus*
- $^1/_2 + ^1/_8 + ^1/_8 = ^3/_4$ of 1 per cent p.a. On the undisbursed post-completion coverage.

To the extent that any coverage is eventually cancelled, any commitment fees accrued and paid are not refundable.

Commercial refinancing and cancellation of the Ex-Im Bank term period coverage

To the extent that, after financial closing and prior to a point approximately six months after project completion (but before the Ex-Im Bank term period coverage has commenced), the project is able to refinance commercially Ex-Im Bank's portion of the financing in a manner that would be economically advantageous to the project owners, Ex-Im Bank's post-completion coverage would not be required and fee no. 2 would not be payable to Ex-Im Bank. The intention of this feature is to allow the project flexibility to optimise the financing structure and maximise economic return. This could be particularly true for refinancing that could significantly extend the average life of the term loan beyond the Ex-Im Bank loan tenor and/or in situations where market interest rates have fallen below the interest rate fixed by Ex-Im Bank for the transaction.

Risk-sharing

In addition to project specific equity requirements, Ex-Im Bank will consider offers by project sponsors to provide risk-sharing with the intent to reduce the all-cost of the Ex-Im Bank financing. One form of risk-sharing is for a creditworthy entity guaranteeing to Ex-Im Bank that it will absorb a certain percentage of first loss or a certain percentage of *pari-passu* loss on the Ex-Im Bank debt in a project default situation.

Ex-Im Bank will only proceed with E rated transactions where some type of acceptable risk sharing is provided by a creditworthy project sponsor.

Project finance fee schedule

US$ Fee per US$100 of Ex-Im Bank Loan or Guarantee Coverage. Effective February 15, 1995

Pre-completion coverage
Political-only

Disbursement Period (years)	*Risk classification Low*	*Medium*	*High*
2	1.14	1.66	1.98
3	1.50	2.26	2.76
4	1.86	2.86	3.54

Post-completion coverage

Repayment term (years)	*Risk classification B*	*C*	*C-*	*D*	*D*
6	1.69	2.90	3.90	4.98	5.42
8	2.06	3.54	4.64	6.44	7.89
l0	2.44	4.19	5.48	7.86	l0.13
12	2.81	4.83	6.33	9.15	12.15

Notes and references

1. Fees are eligible for l00% Ex-Im Bank coverage.
2. Post-completion few for projects below a D- risk rating will be determined on a case-by-case basis by consultation with the project finance division.
3. Fee table should be used in conjunction with the attached project finance fee fact sheet.
4. During a transition period, for projects rated D or lower, Ex-Im Bank will take into account on a case-by-case basis competitor export credit agency risk premiums before determining final Ex-Im Bank fees.

Eligibility of costs for Ex-Im bank support project finance programme

Eligibility of Costs for Ex-Im Bank support of limited recourse project finance (Project Finance) transactions generally tracks the overall criteria developed and used for other Ex-Im Bank programmes. However, eligibility guidelines for project finance cases require further explanation since the coverage requested under these cases brings into focus cost categories and eligibility issues that are only occasionally seen in other Ex-Im Bank programmes.

The following explains the various Ex-Im Bank cost eligibility guidelines as they pertain to project finance cases. The criteria underlying these guidelines are based on assessments of whether the respective cost categories satisfy the two objectives of 1) consistency with Ex-Im Bank's policies, and; 2) the flexibility required to appropriately support project finance cases. Ex-Im Bank's engineering and environment division, with input from the project finance division, determines the eligibility of the various costs associated with a specific project. This determination is always subject to the receipt of proper supporting documentation (invoices, supplier's certificates, etc.) by Ex-Im Bank's credit administration division during the disbursement stage of the transaction.

In order to determine the level of Ex-Im Bank support for a given transaction, the total project cost must first be broken down according to major items in a form acceptable to Ex-Im Bank. An example of an acceptable project cost breakdown is provided as Attachment 'A'. Before Ex-Im Bank will consider an application for a final commitment, the project sponsors must submit a US acquisition list satisfactory to Ex-Im Bank setting forth the US and eligible foreign costs of all the US items of the particular project. An

example of a US acquisition list is provided as Attachment 'B'.

There are seven major guidelines used to determine the eligibility of costs associated with various elements of Project Finance transactions:

- foreign content
- reach-back
- related parties
- capital cost
- contingencies
- local cost
- progress payments

The guidelines and the manner in which they are applied, are explained as follows:

1. Foreign content guidelines

Foreign content guidelines for project finance transactions follow an item-by-item approach. To be eligible for support, an item must be shipped from the US and the foreign content of the item (cost of foreign-made components incorporated into the item in the US, which is the 'Eligible Foreign Content' of the item) must be less than 50 per cent of the cost to produce the item.

Once an item is determined to be eligible for support, Ex-Im Bank will finance either 85 per cent of the US contract price of the item, or 100 per cent of its US content (US contract price less eligible foreign content), whichever is less. The US contract price of an item excludes the cost of any foreign made items that are not deemed components of the US item. Inasmuch as multiple items are supplied to a project in Project Finance transactions, each item for which Ex-Im Bank support is requested will be reviewed for eligibility with respect to Ex-Im Bank's foreign content guidelines. The level of support for the items contained in the final 'Acquisition List' will be subject to the actual amount of foreign content which is verified by the supplier's certificate, a document which Ex-Im requires with each request for disbursement.

Services performed by US-based personnel employed by a company doing business in the US are treated in a similar manner. Each service 'task' described in a service contract constitutes an item. Eligible foreign content of services is limited to the costs of foreign personnel employed directly by the US company, travel on non-US carriers and *per diem* or related expenses incurred outside the US in the course of performing the US services. Legal services and fees for financial advisory services performed by banks or financial institutions that are directly related to the securing of financial support for a project are the only 'items' that are exempt from Ex-Im Bank foreign content guidelines. Finally, foreign shipping costs for items, as permitted under P.R.17 which is administered by the National Maritime Administration, are considered to be eligible foreign content with respect to items being shipped if these costs are included in the item's US Contract Price.

2. Reach-back guidelines

Although in its other programmes Ex-Im Bank only considers costs incurred after an application has been made to Ex-Im Bank as eligible for support, this is generally inappropriate in project finance applications. Discussions with Ex-Im Bank often precede the submission of project finance applications, and legitimate project costs generally accrue before an application to Ex-Im Bank can be completed. For this reason, a special 'Reach-Back' or eligibility cutoff date of six months prior to the filing of a formal and complete application has been established for project finance.

Where appropriate, Ex-Im Bank will retain flexibility with respect to this reach-back date. Applicants will be advised of this date once their application is formally accepted by the Project Finance division. Costs incurred before the reach-back date are not eligible for Ex-Im Bank financial support, and therefore must be funded through equity or financing from another participating bank. This guideline tracks the 'additionality' principle whereby Ex-Im Bank support and corresponding budget are applied only to exports which would not have gone forward without Ex-Im Bank support or the *bona-fide* anticipation of such support. Costs incurred before this period generally relate to exports already effected, which were not incurred conditional on Ex-Im Bank support. In addition, sunk costs such as the project exploration, feasibility and commercial viability studies undertaken at the project definition phase and before the established reach-back date will not be supported by Ex-Im Bank.

3. Related parties cost guidelines

Most project finance transactions contain elements of costs for services or products provided by a US supplier which also has ownership in the project. Ex-Im Bank provides support for such costs as long as there is evidence that the sale in question was negotiated and administered on an 'arms-length' basis. When parties to a contract are related to one another, Ex-Im Bank will presume that the contract is not arms-length.

In determining cost eligibility of a related parties contract, the sponsor or supplier may first be asked to provide evidence that the contract was negotiated on an arm's-length basis. It can usually be assumed that if the percentage of ownership between a supplier and buyer is not a controlling one, a negotiated sale may be arm's-length. However, when the ownership percentage is close to or greater than 50 per cent, Ex-Im Bank's engineering and environment division will review each cost element of a contract to determine which can be considered arms-length for purposes of Ex-Im Bank support Factors taken into account in the Ex-Im Bank determination include whether or not offers from other suppliers were solicited (thereby introducing competition), whether separate divisions of the company negotiated the contract on an independent basis, and whether the costs involved reflect market prices.

Fees including 'development fees' charged by a sponsor having ownership in a project are not considered eligible for Ex-Im Bank support. In certain instances, however, if a cost breakdown of such a fee shows that it covers the cost of certain project related services subcontracted to a US company, the engineering and environment division will review the costs to determine their eligibility for inclusion in the Ex-Im Bank supported portion of the project. For example, the cost reflecting an actual invoiced amount for engineering services subcontracted to a US company and undertaken within the reach-back period, represents an element of a fee which may be eligible for Ex-Im Bank support.

Engineering services undertaken directly by a sponsor may also be considered eligible when factors including competitive pricing elements and inter-company contractual controls of the service costs are evident. While certain *bona-fide* sponsor incurred costs (such as the salaries paid for the undertaking of required project services) may be eligible for support, actual fees associated with any related parties contract are not eligible for Ex-Im Bank support.

4. Capital cost guidelines

This straightforward guideline reflects the fundamental policy that Ex-Im Bank will limit its support of project finance transactions (as it does for all project related transactions) to only those items deemed to be 'capital cost' in nature. This means that pre-development costs incurred at the project definition stage, as well as costs incurred after the project is operational, such as O&M activities, will not be considered eligible for Ex-Im Bank financial support. Working capital costs are also considered ineligible for support. Only those capital cost items, such as equipment and services covered under an EPC contract, legal, financial and engineering services associated with the undertaking of the project, and items such as training and insurance during construction will be considered eligible for Ex-Im Bank support. Refer to the Sample Acquisition List, Attachment B, for examples of eligible capital cost items.

The costs of all pre-construction activity must be itemised so that Ex-Im Bank can establish whether they constitute a capital cost eligible for Ex-Im Bank support. Specific costs incurred in the project development stage may be considered eligible, if in Ex-Im Bank's determination a) they were incurred on an arm's-length basis, b) fall within the established reach-back period, and c) relate to final design, construction and related activities (such as acquisition of permits or finalisation of financial support). Investments made by sponsors to cover preliminary studies regarding the viability or feasibility of a project, especially related to decisions of sponsor participation, are not considered capital in nature.[2] (Usually such costs will have been incurred well before the established reach-back date.) Similarly, post-completion operating expenses should be met with project revenue, and will not be considered eligible for support.

5. Contingency cost guidelines

Generally, amounts for contingencies associated with EPC contracts or major supply contracts which do not exceed 10 per cent of the total contract price, will not be questioned by Ex-Im Bank at the application stage and thus will be considered eligible. However, prior to any Ex-Im Bank disbursement, these amounts will be reviewed by the engineering and environment division to ascertain whether they are technically appropriate and necessary to successfully complete the

project. Also, input from the lender's independent engineer will be used in the determination. Contingency related items must also be fully described and are subject to the other eligibility criteria described in this paper. In no case will disbursements be made for unused contingency.

Only those contingencies associated with eligible project supply contracts will be considered for financial support by Ex-Im Bank. The appropriateness of the request, and the nature of the project and related project risks, will always be the principle factor by which Ex-Im Bank will determine the eligibility at the application stage of a contract contingency allowance. Ex-Im Bank considers 'Owner's Contingencies' as an element of the equity portion of a project, and hence ineligible for financial support. Contingencies associated with related party contracts will be reviewed on a case-by-case basis to determine eligibility.

6. Local cost guidelines

As a special project finance programme feature, Ex-Im Bank will generally support eligible local costs to an amount of up to 15 per cent of the US contract price associated with the project. This support is in addition to the normal support of 85 per cent of the US contract price. To be eligible for Ex-Im Bank support the local costs must represent goods and services produced and procured within the host country and they must be included within the scope of supply of a US supplier's contract, the US contract price of which is being supported by Ex-Im Bank. At the disbursement stage, Ex-Im Bank requires evidence that local costs were invoiced through a US supplier. Disbursements made for local costs must also remain within 15 per cent of the aggregate amount of the US contract price for which the 85 per cent US related disbursement portions are made at all times during the disbursement process.

7. Contract progress payment guidelines

Progress payments (and construction 'milestone payments') made under the terms of an EPC or other supply contract, are generally eligible for Ex-Im Bank support to the extent that the supplier can certify that the accrued costs for actual work performed under the contract, including expenses for any subcontracted equipment, are at least equal to the value of the respective progress payment. A certification that the value of the progress payment does not exceed the costs incurred by the supplier to date must accompany any request for a progress payment disbursement. Similarly, disbursements for initial down payments will only be made once the supplier can certify to Ex-Im Bank that actual expenses associated with the work performed are equal to the value of the requested disbursement. The lender's independent engineer may be required to confirm the level of work performed. Ex-Im Bank disbursements should not serve as general working capital for the supplier.

In cases where the requested progress payments exceed 60 per cent of the value of the export before it is shipped, Ex-Im Bank's engineering and environment division will advise the credit administration division as to whether any further disbursements should be made until such time as the product is actually delivered. The engineering and environment division will review the payment terms of the major project supply contracts, especially the EPC contract, and will advise the US supplier if it appears that the progress payment schedule conflicts with Ex-Im Bank requirements, as described above.

Notes and references

1. This appendix is prepared from and incorporates written material prepared by the Ex-Im Bank in May 1995.
2. If the pre-project services were financed under the Ex-Im Bank Engineering Multiplier Programme, then these services may be rolled into the capital cost of the project, in keeping with this special feature of the Programme.

Attachment A: Sample project cost breakdown as required for Ex-Im bank project finance applicatlons

(Assume a hypothetical oil-fired, thermal electric power plant)

Cost elements
A = US contract price eligible for Ex-Im support
B = Eligible foreign content included in 'A'
C = Local (host country) costs
D = Other foreign exchange costs (ineligible for Ex-Im)
E = Total cost (A + C + D)

I – EPC Contract — US$ million

Item (quantity and description)	*Supplier name and location of manufacture*	*A*	*B*	*C*	*D*	*E*
Two boiler units & auxiliaries	Johnson Boilers; Balt, MD 21999	55.0	4.5	8.0	–	63.0
Two 175 MW T-G sets	Turbo Works Co.; Nashua, NH 31200	65.6	3.2	3.0	4.0	72.6
4 feed pumps	Davis Pumps; orange, VA 98711	21.6	–	–	–	21.6
Other Mechanical BOP	Various, to be determined	1.0	–	0.8	24.0	25.8
3 main transformers	To be determined	10.5	0.5	–	–	10.5
SF6 switchgear	Current Devices; Danbury, CT, 39566	12.5	1.0	–	–	12.5
Other electrical BoP	Various, to be determined	–	–	2.0	19.0	21.0
Fuel storage tanks	Ohio Steel; Cincinnati, OH 98888	0.3	–	0.5	–	0.8
Instrumentation & controls	KX Instruments; San Antonio, TX 78923	3.3	0. I	–	–	3.3
Design & Engineering	Bradley & Hunt, Inc . Atlanta, GA 37546	15.0	–	1.0	–	16.0
Construction management	Grace Construction; Helena, MT 23552	25.0	–	3.0	–	28.0
EPC contingency and fee	Grace Construction; Helena, MT 23552	25.0*	–	–	–	25.0
EPC Contract subtotal	–	**234.8**	**9.3**	**18.3**	**47.0**	**300.1**
II – Other						
Owners' engineering services	Energy Development Co.	10.0*	0.5	1.0	1.0	12.0
Operator training services	Energy Development Co.	3.0*	–	2.0	–	5.0
Preliminary proj. engineering	Bradley & Hunt Inc. Atlanta, GA 37546	2.0*	–	0.I	3.0	5.I
Fuel supply consultants	Oil Endeavors Corp. Houston, TX 67544	2.0*	–	–	1.0	3.0
Legal advisory services	Various (Lenders, Sponsors, Banks)	1.2*	0.2	–	0.5	1.7
Financial advisory services	Miller Bank (US & Hong Kong)	1.0*	–	–	1.0	2.0
Construction insurance	You Build It Right, Inc. Denver CO 21221	2.0	–	–	–	2.0
Commercial bank commitment fees		–**	–	–	1.0	1.0
Local taxes & duties		–	–	1.0	–	1.0
Other indirect cost		–	–	–	3.0	3.0
Sponsors develop cost & fee	Bradley/Peters/Smith	–**	–	–	8.0	8.0
Other subtotal		**21 2**	**0.7**	**4.1**	**18.5**	**43.8**
Total project cost:		**256.0**	**10.0**	**22.4**	**65.5**	**343.9**

Note: Interest during construction and Ex-Im exposure fee not included
* Cost or portion of cost eligible for Ex-Im support (takes into account reach-back period, and other eligibility criteria)
** Cost generally not eligible for Ex-Im support

Attachment B: Sample US Acquisition list Ex-Im bank project finance programme Required prior to disbursement

(Assume a hypothetical oil-fired, thermal electric power plant)

Cost elements
A = US Contract price eligible for Ex-Im support
B = Eligible foreign content included in 'A'
C = Associated local costs not included in 'A'

US$ million

Item (quantity and SIC code)	*Supplier name and complete address of manufacture location of eligible US products (include DUNS Number where available)*	*A*	*B*	*C*
I – EPC Contract				
Two Boiler units & auxiliaries (SIC # 3443)	Johnson Boilers; 212 West St., Balt, MD 21919 DUNS # 345-54-7451	55.0	4.5	8.0
Two 175 MW T-G sets (SIC # 3511)	Turbo Works Co.; 46 Main St. Nashua, NH 31200 DUNS # 423-00-5675	65.6	3.2	3.0
4 feed pumps (SIC #3561)	Davis Pumps; 454 Elm St. Orange, VA 98711	21.6	–	–
HP piping (SIC # 3317)	Maxwell Tubung, 534 Industrial Dr. St. Paul MN 67899 DUNS # 978-12-363	0.7	0.1	0.8
3 main transformers (SIC # 3612)	Volt Raisers, Inc.; 56 Current Drive, Amesbury, MA 08123	10.5	0.5	–
SF6 switchgear (SIC # 3613)	Current Devices; 55 Ampere Way, Danbury, CT, 39566	12.5	1.0	–
Valves (SIC # 3491)	Interrupt Devices Co.; 35 Port Drive, Irvine, CA 98753 DUNS # 973-63-1258	0.3	–	–
Fuel storage tanks (SIC # 3443)	Ohio Steel; Cincinnati, 231-B Structural Drive, OH 98888	0.3	–	–
Instrumentation/control (SIC #3625)	KX Instruments, Co. 9687 Oak St. San Antonio, TX 78923	3.3	0.1	–
Design & engineering (SIC # 8711)	Bradley & Hunt, Inc. 645 Circle Court, Atlanta, GA 37546 DUNS # 876-23-7552	15.0	–	1.0
Construction management (SIC 8711)	Grace Construction; 867 Junction St., Helena, MT 23552	25.0	–	3.0
EPC contingency & fee (SIC #8711)	Grace Construction; 867 Junction St., Helena, MT 23552	25.0*	–	–
EPC Subtotal		**234.8**	**9.4**	**13.3**
II – Other				
Owners' engineering services (SIC # 8711)	Energy Development Co.; 534 Branch Dr. S.F., CA 98459 DUNS # 567-23-5678	10.0*	0.5	1.0
Operator training (SIC # 8711)	Energy Development Co.; 534 Branch Dr. S.F., CA 98459	3.0*	–	2.0
Prelim. proj engineering (SIC #8711)	Bradley & Hunt Inc.; 2 Design Ct, Atlanta, GA 37546	2.0*	–	0.1
Fuel supply consultants (SIC # 8711)	Oil Endeavours Corp.; 6 Camel St. Houston, TX 67544	2.0*	–	–
Legal advisory svcs. (SIC # 8111)	Solomn & Gainer, New York & Hong Kong	1.2*	0.2	–
Financial advisory svcs. (SIC #6282)	Miller Bank; 713 Eastern Road, New York, NY 25564	1.0*	–	–
Construction insurance (SIC # 6411)	You Build It Right, Inc.; 1 Safety Way, Denver CO 21221	2.0	–	–
Other costs subtotal		**21.2**	**0.7**	**3.1**
Total		**256.0**	**10.1**	**18.5**

Note: Interest during construction and Ex-Im exposure fee not included.
* Cost or portion of cost eligible for Ex-Im support (takes into account reach-back period, and other eligibility criteria).

Map of Ex-Im Bank programmes

Programme	*Exports supported*	*Programme description*	*Best used by*	*Coverage and terms*	*Cost*	*Special features*
1 Working capital guarantee	All products and services for manufacturers and trading companies.	• Guarantee for lenders making working capital lines available to exporters. • Loan amount must be over US$833,333; otherwise handled by US Small Business Administration unless lender has delegated authority.	• Lenders who need additional security to make a loan. • Small/medium size exporters who are having difficulties obtaining pre-export financing but are creditworthy.	• 90% guarantee of principal and interest to lender. • Must be fully collateralised. • 1 year revolving line or transaction-specific line.	• US$100 processing fee due with application. • Facility fee of 1.5% per annum.	• Exporters must show ability to perform based on at least 1 year of operating experience. • Frequently used in conjunction with Ex-Im Bank insurance policies. • Stand-by letters of credit can be included in the line. • 20% capital risk weighting for banks. • Lenders can obtain delegated authority which contains special incentives.
2 Short-term multi-buyer	Consumables, raw materials, spare parts, bulk agricultural commodities, low cost capital goods, consumer durables, services performed by US personnel.	One year policy (renewable) insuring all short-term export credit sales.	Experienced exporters with the ability to evaluate foreign credit.	• Two coverage options: A. Split/after an annual commercial risks first loss deductible: 100% political, 90% commercial risks protection sovereign buyers 100%. B. Equalised for political and commercial risks, after annual all risks first loss deductible: 95%, sovereign buyers 100%. • 98% coverage for bulk agricultural sales after the commercial or all risks deductible. • Interest covered up to prime rate minus 0.5%. • Maximum terms: 180 days (360 days for bulk agricultural commodities, consumer durables, and capital equipment).	• Minimum annual premium of US$500. • Determined by factors such as exporter's sales profile, loss history, spread of country risk, and repayment terms.	• Exporters with Discretionary credit limits can insure most sales without prior approval from Ex-Im Bank. • Political risk only coverage is also available.
3 Small business	SMALL BUSINESS Same as short-term multi-buyer.	One year policy (renewable) insuring all short-term export credit sales.	• Small businesses with average annual export credit sales of less than US$3 million. • Graduates to short-term multi-buyer when annu-	• 100% political risks protection. • 95% commercial risks protection (98% for bulk agricultural sales). • Interest covered up to	• Minimum annual premium of US$500. • Varies with each sale according to repayment term and type of buyer per a rate schedule.	(All small business policies) • Political risk only coverage also available. • No annual commercial risk first loss deductible. • Policy proceeds are

Map of Ex-Im Bank programmes *continued*

Programme	*Exports supported*	*Programme description*	*Best used by*	*Coverage and terms*	*Cost*	*Special features*
3 Small business *continued*			al export credit sales exceed US$3 million.	prime rate minus 0.5%. • Maximum terms: 180 days (360 days for bulk agricultural commodities, consumer durables, and capital equipment).		assignable to financial institutions with prior approval. Under special assignment, financial institutions can obtain an increased assurance of payment.
	SMALL BUSINESS ENVIRONMENTAL Products and services designed to control pollution or protect against toxic substances.	Same.	Small businesses exporting environmental goods and services.	• 100% political risks protection. • 95% commercial risks protection. • Interest covered up to prime rate minus 0.5%. • Maximum terms: 180 days (360 days for capital equipment).	Same.	• Exporter can qualify for and retain policy regardless of export credit sales volume.
	UMBRELLA Same as short-term multi-buyer.	Same.	• Insurance brokers, state development agencies or others that will administer a policy on behalf of small businesses. • Exporters must meet same eligibility requirements as small business.	Same as small business.	• Minimum annual premium of US$500 paid by administrator, for policy, not each insured. • Varies with each sale according to repayment term and type of buyer per a rate schedule.	• Policy administrator relieves exporter of administrative responsibilities by providing for all required reporting to/from Ex-Im Bank, including premium payment. • Single buyer coverage available provided sale supports repayment of Ex-Im Bank Working Capital Guarantee. • Ex-Im Bank must pre-approve all buyers.
4 Short-term single buyer	Same as short-term multi-buyer.	Covers a single sale, or repetitive sales over a one-year period, to a single buyer.	Exporters not wishing to insure all export credit sales but concerned with receivables from one or several buyers.	• Equalised coverage for political and commercial risks: – Sovereign buyers: 100%. – Private sector and non-sovereign public sector buyers: 90%. – Letter of credit transactions: 95%.	• Minimum premiums: – Sovereign buyers: US$2,500. – Letter of credit or bank guaranteed transactions: US$5,000. – Private sector buyer: US$10,000.	• Political risk only coverage also available. • Policy proceeds are assignable.

Map of Ex-Im Bank programmes *continued*

Programme	*Exports supported*	*Programme description*	*Best used by*	*Coverage and terms*	*Cost*	*Special features*
4 Short-term single buyer *continued*				– Bulk agricultural sales: 98%. • Interest covered up to prime rate minus 0.5%. • Maximum terms: 180 days (360 days for bulk agricultural commodities, consumer durables, and capital goods).	• Premiums individually determined by risk. • Small businesses pay a minimum premium of US$1,000.	
5 Bank letter of credit	Same as short-term multi-buyer.	One-year policy (renewable) insuring commercial banks against loss on irrevocable letters of credit issued by foreign banks. Insured must have an approved Issuing Bank Credit Limit (IBCL) per foreign bank or letter of credit.	Ex-Im Bank approved commercial banks in the US.	• Equalised coverage for political and commercial risks: – 100% protection for sovereign banks. – 95% protection for all other banks (98% for bulk agricultural sales). • Interest covered up to prime rate minus 0.5%. • Maximum terms: 180 days (360 days for bulk agricultural commodities, consumer durables, and capital goods).	• Minimum annual premium of US$2,000. • Premium individually determined by risk.	• No annual first loss deductible. • Coverage available for refinancing of payments by insured bank under a sight irrevocable letter of credit. • Pre-presentation coverage available. • Coverage available for fixed- and floating-interest rates. • Political risk only coverage also available.
6 Financial institution buyer credit	Same as Short-Term Multi-Buyer.	Single-buyer policy insuring individual short-term loans by financial institutions to a foreign buyer.	Financial institutions extending direct credit loans or reimbursement loans to foreign entities.	• Equalised coverage for political and commercial risks: – Sovereign buyers: 100%. – Private sector and non-sovereign public sector buyers: 90%. – Bulk agricultural sales: 98%. • Interest covered up to prime rate minus 0.5%. • Maximum terms: 180 days (360 days for bulk agricultural commodities, consumer durables, and capital equipment).	• Minimum premiums: – Sovereign buyers and political risk only coverage: US$2,500. – Non-sovereign public sector buyers and bank guaranteed transactions: US$5,000. – Private sector buyers: US$10,000. • Premium individually determined by risk.	• May be used for a one-time sale or for a series of shipments from one or more exporters to the same buyer. • Political risk only coverage also available. • No first loss deductible.
7 Medium-term single buyer	Capital equipment and related services.	Single-buyer policy insuring medium-term export credit sales.	Exporters and financial institutions financing transactions under US$10 million.	• 15% cash payment by the foreign buyer. • 100% of the loan's principal and interest is	• Premium individually determined by risk.	• Political risk only coverage also available. • No commercial risk first loss deductible.

Map of Ex-Im Bank programmes *continued*

Programme	*Exports supported*	*Programme description*	*Best used by*	*Coverage and terms*	*Cost*	*Special features*
7 Medium-term single buyer *continued*				insured for commercial and political risks (85% of the contract amount). • Eligible repayment terms are generally between 1 and 5 years, depending on product and contract price (exceptionally up to 7 years).		• Covers either single or repetitive sales to a single buyer. • Product dispute is covered for financing institutions. • Financing institutions receive documentary policy protecting them from defects in the transaction. • Policy proceeds are assignable by insured exporters to financial institutions under a special assignment which offers an increased assurance of payment.
8 Leasing	Capital equipment and related services.	• Covers single transactions with a single lessee. • Operating lease policy insures both a specified number of lease payments and fair market value of leased products. • Finance lease policy covers total payments under a lease.	Any leasing company, manufacturer, bank, trust, partnership or other entity, foreign or domestic, that participates in the financing of leased US equipment and related services.	• Equalised coverage for political and commercial risks: – 100% protection for sovereign lessees. – 90% protection for all other lessees. – 100% protection against government prevention of repossession under the operating lease policy. • Maximum repayment periods are up to 5 years, determined by product, contract value and type of lease. Longer terms will also receive consideration.	• Premium individually determined by risk, paid in advance of shipment.	• The lessee must make a 15% cash payment for financing leases; none required for operating leases. • Government prevention of repossession coverage can be obtained on a 'stand alone' basis under the operating lease policy. • Political risk only coverage also available. • No first loss deductible. • Coverage for cross-border and international leases. • Policy proceeds are assignable by insured lessors to financial institutions.
9 Financial guarantee	Capital equipment, services and projects. Supports both medium- and long-term export sales.	Guarantee of repayment on fixed- or floating-interest rate export loans.	• Banks or other lenders. • Large exporters financing their own transactions.	• 15% cash payment by foreign buyer. • 100% of principal and interest to guaranteed lender covering commercial and political risks (85% of the contract amount).	• US$100 processing fee due with application. • Up-front exposure fee, based on repayment term, type of buyer, and country risk rating, to be paid on each disbursement; may be financed.	• Guarantee is unconditional and transferable. • Political risk only coverage available. • Credit guarantee facilities are available to cover multiple sales financed by line of credit from US bank to foreign bank.

Map of Ex-Im Bank programmes *continued*

Programme	*Exports supported*	*Programme description*	*Best used by*	*Coverage and terms*	*Cost*	*Special features*
9 Financial guarantee *continued*					• Commitment fee of 0.125% per annum on undisbursed balance of guaranteed loan.	• Guarantee may be for any amount. • Guarantees US$10 million or under do not require shipment on US registered vessels and do not require an Ex-Im Bank credit agreement. • Master guarantee agreement available for lenders. • Approvals subject to Ex-Im Bank environmental procedures and standards. • 0% capital risk weighting for banks. • Special enhancements for environmental goods and services.
10 Credit guarantee facility	Capital equipment and services eligible for medium-term financing.	Guarantee of repayment to US or foreign lenders on lines of credit to foreign banks or large foreign buyers.	• Any size US exporter. • Small and medium sized foreign buyers. • Creditworthy foreign banks whose customers' financial condition cannot be accurately analysed by Ex-Im Bank. • Foreign buyers with large amounts of ongoing medium-term procurement.	• 15% cash payment by foreign buyer. • 100% of principal and interest to guaranteed lender covering commercial and political risks (85% of the contract amount).	• US$100 processing fee due with application. • Facility fee of 0.0625% (flat). • Up-front exposure fee on each sub-loan based on repayment term and country risk rating, to be paid on each disbursement; may be financed.	• Foreign bank makes credit judgment and takes risk of its customers. • Facility available for one year. • Note per disbursement or consolidation facility available. • Standard documentation for rapid response. • Facility can finance small-sized transactions with minimal paper work. • US$10 million minimum facility size. • Individual disbursements can be consolidated and sold in the secondary market.
11 Direct loan	Capital equipment, services and projects. Supports both medium- and long-term export sales.	Fixed-interest rate loan made directly by Ex-Im Bank foreign buyer.	Buyers of goods and services where financed portion usually exceeds US$10 million.	• 15% cash payment by foreign buyer. • Loan up to 85% of contract amount.	• US$100 processing fee due with application. • Up-front Exposure Fee based on repayment term and country risk rating, to be paid by exporter on each dis-	• Lending rates are lowest permitted under international guidelines. • Shipment on US registered vessels (or waiver) required. • Loan agreement required.

Map of Ex-Im Bank programmes *continued*

Programme	*Exports supported*	*Programme description*	*Best used by*	*Coverage and terms*	*Cost*	*Special features*
11 **Direct loan** *continued*					bursement; may be financed. • Commitment fee of 0.5% per annum on undisbursed balance of loan.	• Special terms, rates and features apply to aircraft, nuclear power projects and limited recourse project financing. • Interest rates based on US Treasury rates and loan repayment period. • Special enhancements for environmental goods and services. • Approvals subject to Ex-Im Bank environmental procedures and standards.
12 **Project finance**	Capital equipment and related services for projects whose repayment depends on project cash flows as defined by contractual relationships.	Ex-Im Bank direct loan, guarantee, or combination of both.	• Major US suppliers. • Project sponsors without access to bank or government guarantees.	• 15% cash payment by foreign buyer. • Direct loan and/or guarantee up to 85% of contract amount. • Consideration of following on case-by-case basis: – Financing of interest during construction. – Local cost financing up to 15% of US contract amount. – Maximum repayment terms within OECD guidelines. • Political risk only coverage during construction.	• No US$100 processing fee due with application. • Ex-Im Bank's fee and interest rate will vary depending on project risk. • Evaluation fee for Ex-Im Bank selected financial consultant. • For most projects, additional fees for independent legal counsel, engineers, and insurance advisors.	• Preliminary review within 5 business days. • Indication of support within 45 days. • No coverage for precompletion commercial risks. • Approvals subject to Ex-Im Bank environmental procedures and standards. • Possibility of non-sovereign financing for government projects.

In this index the page numbers in bold refer to terms in the glossary and *n* appearing after the page number indicates a reference in the footnotes.