CHAPTER 1

Introduction

The definition of structured finance is broad, and not everyone agrees on exactly what it is. This introductory chapter begins with our working definition of structured finance and then follows with views and opinions from a variety of experts. It concludes with a case study of how the boundaries of structured finance were tested by the Enron debacle.

DEFINITION OF STRUCTURED FINANCE

There is no universal definition of structure finance. It is apparent from the way that structured finance teams are organized in banks that the term covers a wide range of financial market activity. We believe a good working definition for structured finance is the following:

> . . . techniques employed whenever the requirements of the originator or owner of an asset, be they concerned with funding, liquidity, risk transfer, or other need, cannot be met by an existing, off-the-shelf product or instrument. Hence, to meet this requirement, existing products and techniques must be engineered into a tailor-made product or process. Thus, structured finance is a flexible financial engineering tool.

We believe one or more of following elements generally characterize a structured finance transaction:

- a complex financial transaction that may involve actual or synthetic transfer of assets or risk exposure, aimed at achieving certain accounting, regulatory, and/or tax objectives;
- a transaction ring-fenced in its own special purpose vehicle;
- a bond issue that is asset-backed and/or external reference index-linked;
- a combination of interest-rate and credit derivatives;
- a transaction employed by banks, other financial institutions, and corporations as a source of funding and/or favorable capital, tax, and accounting treatment; and
- disintermediation between banks and other corporate entities.

As we just noted, there are alternative definitions of structured finance and we will identify in the next section some definitions proposed by practitioners and regulators. As will be seen, the working definition above, as well as the elements of structured finance given above, tie together many of the alternative definitions identified in the next section.

OTHER DEFINITIONS OF STRUCTURED FINANCE

One obvious way to define structured finance is to rely on already-published definitions. Here are three examples.

In a recent report, the Bank for International Settlements (BIS) defines structured finance in this way:

> Structured finance instruments can be defined through three key characteristics: (1) pooling of assets (either cash-based or synthetically created); (2) tranching of liabilities that are backed by the asset pool (this property differentiates structured finance from traditional "pass-through" securitizations); (3) de-linking of the credit risk of the collateral asset pool from the credit risk of the originator, usually through use of a finite-lived, standalone special purpose vehicle (SPV).[1]

A 1995 report written by the Committee on Bankruptcy and Corporate Reorganizations of the Association of the Bar of the City of New York, entitled "New Developments in Structured Finance," defines structured financing and the parties involved as follows:

[1] "The Role of Ratings in Structured Finance: Issues and Implications," Committee on the Global Financial System, Bank for International Settlements, 2005.

> Structured financings are based on one central, core principle: a defined group of assets can be structurally isolated and thus serve as the basis of a financing that is independent from the bankruptcy risks of the originator of the assets. By isolating the assets, an originator obtains easier access to the capital markets by generating note proceeds at a lower cost of funds than it otherwise might if it issued notes directly to investors. One of the principal benefits from structured financings is a reduction in the cost of financing (e.g., through lower yield on issued debt).
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> The parties involved in a structured financing typically include many, if not all, of the following entities (of which there may be more than one): the originator of the assets; a "special purpose vehicle;" credit enhancers (i.e., financial guarantors); the servicer (who makes collections on the receivables, directs cash-flow allocation, and otherwise acts as agent for the bondholders); a liquidity provider (letter of credit bank); a trustee or collateral agent; a securities underwriter or placement agent; and a rating agency.[2]

Andrew Silver of Moody's Investors Service defines structured finance as:

> Structured finance is a term that evolved in the 1980s to refer to a wide variety of debt and related securities whose promise to repay investors is backed by (1) the value of some form of financial asset or (2) the credit support from a third party to the transaction. Very often, both types of backing are used to achieve a desired credit rating.
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> Structured financings are offshoots of traditional secured debt instruments, whose credit standing is supported by a lien on specific assets, by a defeasance provision, or by other forms of enhancement. With conventional secured issues, however, it is generally the issuer's earning power that remains the primary source of repayment. With structured financings, by contrast, the burden of repayment on a specific security is shifted away from the issuer to a pool of assets or to a third party.

[2] Committee on Bankruptcy and Corporate Reorganizations of the Association of the Bar of the City of New York, "New Developments in Structured Finance," Report 56, *Business Lawyer* 95, 2000–2001.

> Securities supported wholly or mainly by pools of assets are generally referred to as either mortgage-backed securities (mortgages were the first types of assets to be widely securitized) or asset-backed securities, whose collateral backing may include virtually any other asset with a relatively predictable payment stream, ranging from credit card receivables or insurance policies to speculative-grade bonds or even stock. Outside the United States, both types of structured financing are often referred to simply as "asset-backed securities," which is the convention that we will employ here.[3]

The problem with the three definitions above is that they focus only on one area of what many market participants might view as structured finance: securitization. Our view is that securitization is a subset of structured finance.

In 2005 the Editor and the Editorial Board of the *Journal of Structured Finance* recognized the elusive definition of structured finance as a challenge. They considered it important to get their arms around the full range of views concerning how structured finance should be defined in today's financial markets. They thought that the best source of those views would be expert contributors to the journal. They sent questionnaires to 53 people and received responses from 25.[4] Some replied individually while others participated in group responses from their firms.[5]

The survey asked the experts two basic questions:

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[3] Andrew A. Silver, "Rating Structured Securities," Chapter 1 in Frank J. Fabozzi (ed.), *Issuer Perspectives on Securitization* (Hoboken, NJ: John Wiley & Sons, 1998).

[4] Survey respondents were: Phil Adams, Barclays Capital; Mark H. Adelson, Nomura Securities International; Beth Bartlett, Nomura Securities International; Terry Benzschawel, Citigroup; Ronald Borod, Brown Rudnick; Moorad Choudhry, KBC Financial Products; Edward DeSear, McKee Nelson LLP; Frank J. Fabozzi, Yale University School of Management; J. Paul Forrester, Mayer, Brown, Rowe & Maw LLP; Edward Gainor, McKee Nelson LLP; Brian P. Gallogy, Brown Rudnick; Stav Gaon, Citigroup; Paul Geertsema, Barclays Capital; Barry P. Gold, Citigroup; Jeffrey J. Griffiths, Columbia University/Bear Stearns; Andreas Jobst, International Monetary Fund; Jason Kravitt, Mayer, Brown, Rowe & Maw LLP; Douglas Lucas, UBS; Jeffrey Prince, Citigroup; Madeleine M. L. Tan, Brown Rudnick; Janet Tavakoli, Tavakoli Structured Finance, Inc.; Jon Van Gorp, Mayer, Brown, Rowe & Maw LLP; Lawrence E. Uchill, Brown Rudnick; Hans Vrensen, Barclays Capital; Jacob J. Worenklein, U.S. Power Generating Company; and Boris Ziser, Brown Rudnick.

[5] One survey respondent offered a humorous definition of structured finance: "A complicated transaction that results in large legal fees."

- What is your definition of structured finance?
- Where do you think the boundaries are?

Survey recipients were also asked to cite some borderline cases they thought were just inside or outside the boundaries.

As expected, the definitions received ranged from narrow to broad. In this section, we discuss those definitions based on:

- basic conceptual definitions;
- instruments and techniques;
- when or where structured finance is used;
- benefits provided by structured finance; and
- emphasis on securitization.

Even the above definitions do not fully cover the diverse range of structured finance activity in the market. Exhibit 1.1 describes more esoteric transactions that also fall into the universe of structured finance as suggested by respondents.

Basic Conceptual Definitions

It is apparent from the survey responses that "structured finance" covers a wide range of activities and products. We present here a number of conceptual definitions from respondents that help us to see the different nuances by the variety of terminology used. Structured finance has been defined as:

- A synthetic transaction that transfers risk; such a transaction may or may not involve raising capital.
- A complex financial transaction involving the transfer of assets to raise cash, frequently with the additional goal of achieving certain accounting, regulatory, and/or tax treatment. Such a transaction may or may not involve a securities offering.
- The monetization of any rights to payments by a party having the legal right to transfer those payments to others.
- A financing transaction where legal structures are used to isolate asset or entity risk, resulting in decreased risk for the originator.
- The identification and isolation of inherent risk in a particular asset (or liability) or portfolio of assets (or liabilities) and the financing of such asset or assets (or liability or liabilities) in an economically efficient manner using specific risk transfer mechanisms when justified.
- The process whereby cash flows from cash-generating assets are molded into legal and financial structures designed to insulate those cash flows from insolvency risk and to invest those cash flows with greater predictability than they would be in their natural state.

EXHIBIT 1.1 **Borderline Cases and Boundaries**

This exhibit identifies some survey responses on structured finance that encompasses a wider range of transactions. Respondents had numerous ideas about the borderline between what should and should not be considered structured finance and also about how the boundaries of structured finance are expanding in the course of continued product innovation.

- There is general agreement that ABS, CMBS, RMBS, and CDOs fall squarely within the realm of structured finance. Borderline cases cited by respondents include credit opportunity funds, project finance loans, other tranched loans, credit default swaps (CDS), and hedge funds. For example, most respondents as well as the authors of this book consider project finance loans and CDS to be part of structured finance but some do not.
- In one respondent's opinion, pure credit derivatives are examples of structured products for credit risk transfer that allow very specific, capital-market-priced credit risk transfer. That is why they should be considered part of structured finance. Credit insurance and syndicated loans share the same financial objective; however, they do not constitute arrangements to create new risk-return profiles from existing reference assets.
- Another respondent considers structured finance to include any financial transaction that is not standard, or in market jargon, "plain vanilla" in terms and conditions. In this respondent's view, structured transactions add nonstandard terms, conditions, and other characteristics to create additional economic value for the principal, the agent, or both. So plain vanilla transactions such as syndicated loans, straight equity offerings (including preferred), and straight debt offerings would be outside the boundaries of structured finance. All of these types of financings are relatively commoditized in nature, meaning that there are very standard terms and conditions that govern the vast majority of simple capital-raising activities. In this respondent's view, we enter the realm of structured finance when we add bells and whistles to these straight, standard capital-raising activities. Structured finance can include straight equity and debt offerings that incorporate complex structures to provide some additional economic value to all transaction parties. Examples of features that can be added to plain vanilla capital offerings to make them "structured" include the creation of offshore, special-purpose vehicles; interest rate and currency swaps; embedded options; forward sales; and any other exotic derivatives. Also included under this respondent's definition of structured finance would be "hybrid" debt or equity securities such as trust preferred securities, warrants, and convertible bonds.
- There are differing opinions as to whether we should categorize the derivatives market and derivative securities as "structured finance." We might consider derivative securities to be the elements that can cause certain plain vanilla transactions to become "structured." Although derivative securities are highly structured products within themselves, some believe structured finance pertains mostly to capital-raising transactions that have nonstandard elements attached to them. But others point to numerous derivatives-based synthetic transactions that are designed not to raise capital but merely to transfer risk. Those transactions are becoming an increasingly important part of structured finance.

EXHIBIT 1.1 (Continued)

- The boundaries of structured finance, in terms of the assets that can be securitized on a repeated basis, are continuing to expand with the inclusion of intellectual property, time-share loans, tobacco legal fees, and life settlements. Other assets that may soon be added to this category are renewable energy project cash flows and greenhouse gas emission credits. The boundary between structured finance and project finance is steadily blurring, as ABS technology is applied to cash flows (e.g., wind power) that previously were financed exclusively through the traditional project finance paradigm.
- Another respondent addresses the expanding boundaries of structured finance with two questions: (1) How specific and identifiable are the assets? In a lot of transactions the borrower has flexibility within certain covenants and can bring in new assets as well as take out existing assets. But as assets become less specific and identifiable, it may become more difficult to design structured finance transactions around them. (2) How exactly does the security work? In a lot of transactions there are no registered mortgages on day one, but registration is triggered by certain events. In other words, structured finance is being applied to "assets to come" as well as assets already securely in place.
- One who sees no limit to the boundaries cites future-flow credit card securitizations originated by banks that have higher credit ratings than their native countries, for example Argentina and Turkey. Whereas assets are isolated from the credit risk of the originator in most securitizations, in this case the transaction is actually enhanced by the originating bank's credit rating. The continuing flow of credit card payments underlying the securitization depends on the creditworthiness of the bank.
- Weather-related securities are another definition-stressing example of securitization. Investors pay money into an account where it is invested in money-market-type instruments. The negative arbitrage (the difference between the low reinvestment rate on the escrowed proceeds and the significantly higher interest payable to the investors in the weather-related securities) is made up by a reinsurance premium paid by the U.S. property and casualty insurance company buying this capital-markets-provided reinsurance. The assets being securitized are the escrow investments and the future reinsurance payments from the single obligor.
- A bank may offer a savings product that pays a return linked to an index, but with a minimum guaranteed return as well. To hedge this product, the bank may buy a combined exotic option (an Asian option linked to the index) from an options market maker as well as a zero-coupon bond. The options product will pay what the bank is obliged to pay on its savings product. This combination of a vanilla product, a zero-coupon bond, and an exotic option linked to an index is another example of structured finance.

EXHIBIT 1.1 (Continued)

- Some aspects of Islamic finance also may fall within the realm of structured finance. For example, an Islamic loan becomes a structured finance instrument whenever its formation through replication of conventional asset classes involves a contingent claim. In Islamic finance, traditional fixed income instruments are replicated via more complex arrangements in order to establish (1) compliance with the religious prohibition on both interest earnings (*riba*); (2) the exchange of money for debt without an underlying asset transfer; and (3) nonentrepreneurial investment. Structured finance redresses these moral impediments to conventional forms of external finance. For instance, Islamic banks create synthetic loans for debt-based bond finance, where the borrower repurchases, or acquires the option to repurchase, its own assets at a markup in a sell-and-buyback transaction. That might entail a cost-plus sale of existing assets (*murabahah*) or project financing for future assets (*istina)*. The lender can refinance the selling price and/or the indebtedness of the borrower via the issuance of commercial paper. Alternatively, the *ijarah* principle prescribes an asset-based version of refinancing a synthetic loan, where the lender securitizes the receivables from a temporary lease-back agreement as quasi-interest income. The debt transaction underlying each of these forms of refinancing reflects a put-call, parity-based replication of interest income, where the lender holds stock ownership of the notional loan amount and writes a call option to the borrower, who thereby has a put option to acquire these funds at an agreed premium payment subject to the promise of full payment of principal and markup after time. Both options have a strike price equal to the markup and the notional loan amount. So the lender's position at the time the synthetic loan is made is the value of the stock ownership minus the value of the call option plus the value of the put option, which equals the present value of principal and interest repayment of a conventional loan.
- A respondent believes the boundaries of structured finance will be set by investors, who will weigh the benefits of a particular transaction against the risk that the investment entails, and by public opinion and the legal system, as with Enron and Orange County, California.
- The Enron deals that used structured finance techniques are a difficult gray area. The securitization industry tried hard to distinguish its deals from the ones that Enron did. In the end, however, the main difference was simply that Enron was crooked and deceitful, in this respondent's opinion.

- A method of raising capital that involves the monetization of a cash flow stream, either due currently or to become due in the future, utilizing nonrecourse financing techniques to achieve a lower cost of funds, while enabling the borrower to meet its other operational objectives.
- A way of reorganizing an illiquid asset or group of assets for them to become liquid; a way to pool assets together for securities/certificates/

notes to be sold to investors, who otherwise would not want to purchase the underlying assets; a way to allocate risk by isolating some assets from other assets owned by the originator of the assets or the issuer of the securities; a way to create an efficient market in an asset initially unsuitable for investment and then trade the resulting investment instrument based on current market conditions.

- The art or business of partitioning the risk of an investment (security) or investments (securities) into three or more unique securities—none being identical—that derive their value from the initial investment(s).
- Encompasses all advanced private and public financial arrangements that serve to efficiently refinance and hedge any profitable economic activity beyond the scope of conventional forms of on-balance-sheet securities (debt, bonds, equity) in the effort to lower cost of capital and to mitigate agency costs of asymmetric information and/or market impediments to liquidity. In particular, most structured financings (1) combine traditional asset classes with contingent claims, such as risk transfer derivatives and/or derivative claims on commodities, currencies, or receivables from other reference assets; or (2) replicate traditional asset classes through synthetication.

In essence, the last definition here is probably the closest to what we believe the concept to be. Clearly structured finance encompasses more than simply securitization, although that is a popular definition for it.

Instruments and Techniques

Some survey respondents' definitions emphasize the instruments and techniques used in structured finance:

- A term used in two different ways: (1) asset-backed securities (ABS), residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), and collateralized debt obligations (CDOs); and (2) credit derivatives on corporate names. This respondent puts asset-backed securities credit default swaps (ABS CDS) in both categories.[6]
- Involves some or all of the following components: derivatives, securitizations, and/or special purpose entities. A structured financing can be as simple as a callable bond with an embedded option or as complicated as a cross-border, tax-advantaged securitization.
- Any transaction that is specifically structured using a special-purpose vehicle (removed from the corporation and bankruptcy remote), issues

[6] The instruments cited here are described in later chapters.

bonds listed with an exchange, and is secured by ring-fenced assets producing cash flows solely for supporting the transaction. These elements allow the issuer to obtain better credit ratings and/or more leverage than it would by issuing senior unsecured debt.

- Incorporates the use of securitization techniques, leasing structures, tax credits, derivatives, and financial and regulatory arbitrage with respect to taxes, securities and related laws, regulatory requirements, and accounting issues.
- A method of providing financing that attempts to maximize proceeds that can be funded to an issuer through the use of various techniques that attract investors to provide such financing, including: (1) the use of special-purpose, bankruptcy-remote entities that function in the roles of borrowers or holders relative to such loans; (2) the use of pass-through entities to avoid "double" taxation entities that function in the roles of borrowers or holders relative to such loans; (3) the use of techniques to mitigate risks that, if they occurred, would divert or eliminate cash flow necessary to pay debt service; and (4) the use of techniques to maximize tax advantages for the issuer.
- Includes financial instruments such as credit derivatives that isolate and transfer credit risk.[7] As a common working principle, credit derivatives involve the sale of contingent credit protection for predefined credit events of lending transactions. In their basic concept, credit derivatives sever the link between the loan origination and associated credit risk, but leave the original borrower-creditor relationship intact. The protection buyer of a credit derivative hedges specific credit risk in return for periodic premium payments to the protection seller, who assumes the credit exposure of a financial contract isolated from the underlying transaction. The significance of credit derivatives lies in their ability to supplement traditional ways of hedging credit risk through the transfer of credit-related exposures to a third party. Pure credit derivatives are clear examples of structured products for credit risk transfer that allow very specific, capital-market-priced risk transfer. Other noncredit-

[7] If one agrees with this definition, then one must, logically, include interest-rate derivatives such as swaps and describe them as structured finance products as well. A plain vanilla credit derivative such as a credit default swap consists of fixed and floating cash flows (the "floating" cash flow is the payment on occurrence of a terminating credit event), the value of both of which are linked to the credit quality of the underlying reference. Replace "credit quality" with "interest rate level" and we have described an interest-rate swap. The authors do not extend the definition of structured finance to include plain vanilla credit or interest-rate derivatives themselves, but indeed the use of those instruments may put an otherwise conventional financing into the structured category.

derivative based forms of credit risk transfer include credit insurance, syndicated loans, loan sales, bond trading, and asset swaps. Those instruments share the same financial objectives as credit derivatives, but they do not constitute arrangements to create new risk-return profiles from reference assets.

This respondent distinguishes between credit derivatives in the narrower and in a wider sense. The latter classification includes pure credit derivatives, such as credit default swaps (CDSs), total return swaps, and credit spread options, as well as securitization products with significant contributions by credit-derivative elements, such as collateralized debt obligations (CDOs). Some unfunded/partially funded structured finance transactions, such as credit-linked notes (CLNs) and synthetic CDOs contain both securitization and credit derivative elements by providing refinancing through cash flow restructuring and tranche-specific credit risk transfer (which does not apply to fully funded asset-backed securities (ABS) and mortgage-backed securities (MBS)). These hybrid products, which are considered credit derivatives in a wider sense, usually condition the repayment of securitized debt on the nonoccurrence of a defined credit event (in the case of CLNs), the premium income generated from credit protection sold on reference assets (in the case of synthetic CDOs), or the returns from investment in securitization transactions as reference assets ("pools of pools").

CDOs have been the fastest growing area of structured finance. Generally, a CDO represents a form of asset-backed securitization (ABS), which converts a large, diversified pool of exposures into tradable capital market debt instruments (tranches). In a CDO structure, asset managers can increase assets under management while locking in committed funds and achieving some protection from market-value volatility. While cash CDOs are backed by the collateral of actual bonds and loans as reference assets, whose legal title is transferred to the purchaser, issuers of synthetic CDOs enlist large amounts of credit derivatives and various third-party guarantees to create partially funded and highly leveraged investments from synthetic claims on the performance of designated credit exposures. CDOs involve either cash flow or arbitrage mechanisms to fund either expected principal and interest payments or expected trading and sales activity. CDOs enable issuers to achieve a broad range of financial goals that include the off-balance-sheet treatment of securitized exposures, reduced regulatory capital requirements, and access to alternative sources for asset funding and liquidity support. The conventional security design of CDOs assumes a typical three-tier securitization structure of junior, mezzanine, and senior tranches. Expected losses are concentrated in a small

first-loss position as equity claim, which bears the majority of the credit exposure and is frequently covered by a junior CDS, shifting most unexpected risk to larger, more senior tranches, which display distinctly different risk profiles. This risk-sharing arrangement induces a leverage effect on constituent tranches, whose distinct risk-return profiles can be tailored to specific investment preferences.

When or Where Structured Finance is Used

Some of the survey respondents emphasized when or where structured finance is used:

- Employed by financial and nonfinancial institutions in both banking and capital markets if (1) established forms of external finance are either unavailable or depleted for a particular financing need, or (2) traditional sources of funds are too expensive.
- Used wherever there is a reliable cash flow stream that should continue to exist over the maturity of the loan, which the owner wants to utilize to obtain a sizable cash payment from the financing proceeds, in a situation where the owner would like to retain ownership of, and manage, that cash stream. Could be utilized in connection with a variety of cash streams such as proceeds from power purchase agreements, rents from real estate assets, credit card revenues, toll revenues, payments in lieu of taxes, patent revenues, and the like.
- Seeks to substitute capital-market-based finance for credit finance through disintermediation, that is, sponsoring financial relationships outside the lending and deposit-taking capabilities of banks. The issuer raises funds by issuing certificates of ownership as pledges against existing or future cash flows from an investment pool of financial assets in a bid to increase the issuer's liquidity position without increasing the capital base or by selling these reference assets to a special-purpose vehicle, which subsequently issues debt to investors to fund the purchase.

Benefits of Structured Finance

Other definitions emphasize the benefits provided by structured finance:

- Enables the financing of a unique asset class that (1) previously may have been financed only by traditional borrowing methods or (2) could not be financed at all without structured finance.
- Offers issuers flexibility in terms of maturity structure, security design, and asset types, which in turn allows issuers to provide enhanced

return and a customized degree of diversification commensurate with investors' appetite for risk.
- Contributes to a more complete capital market by offering a trade off along the efficient frontier of optimal diversification at minimum transaction cost.
- Allows the issuer to obtain better credit ratings and/or more leverage compared to senior unsecured debt issuance.
- May reduce borrowing costs; often captive finance companies and independent companies can obtain capital at rates better than those obtainable for the originator of the securitized assets.
- May provide funding and liquidity by converting illiquid assets into cash.
- May transfer the risk of assets or liabilities to allow a bank originator to do additional business without ballooning its balance sheet.
- May enable a financial institution to exploit regulatory capital arbitrage, for example through securitization of assets that offer a low return on regulatory capital.
- Can be used to shelter corporations from potential operating liabilities.

Securitization

A large part of what is considered to be structured finance in today's markets involves securitization, as can be seen from the three published definitions provided earlier. Some respondents provided us with their definitions of securitization as well. Those definitions included the following:

- The use of superior information on how given assets will perform, or given risks will occur, in a way that such assets will be financed, or such risks allocated, more efficiently, usually by some means of structuring to isolate such assets or risks, and most commonly through offerings into the capital markets.
- An alternative means of raising money through the transfer of financial assets to a special-purpose entity that issues securities, payments on which are based on collections on the financial assets to investors in a transaction in which the financial assets are isolated from the credit risks of the originator/sponsor.
- Some people think that single assets can be "securitized." In this respect, bonds are securities that could be considered the securitization of a promise to pay, a stream of cash, or the value of assets.
- One respondent describes securitization as a close cousin to traditional secured debt. Securitizations are intended to provide a lender or

investor with greater protection against the corporate credit risk of the originator of the assets than with traditional secured debt. In principle, a securitization lender/investor is a kind of "super-secured creditor," with rights that surpass those of a traditional secured lender. Securitization employs the notion that the subject assets have been "sold" by the originator and, therefore, will not become entangled in bankruptcy proceedings if the originator files for protection under the bankruptcy code.

This respondent goes on to provide a working, functional definition of securitization. In a securitization, a company raises money by issuing securities that are backed by specific assets. In most cases, the underlying assets are loans, such as mortgage loans or auto loans. The cash flow from the underlying assets usually is the source of funds for the borrower/issuer to make payments on the securities. Securitization products generally are viewed as including the following: ABS, RMBS, CMBS, CDOs, and asset-backed commercial paper.

Accomplishing a "sale" of the securitized assets often requires the use of a special-purpose entity (SPE). A typical securitization is structured as a two-step transaction. In the first step, the originator transfers the subject assets to an SPE in a transfer designed to constitute a "true sale." In the second step, the SPE issues securities backed by the assets. The SPE uses the proceeds from selling the securities to pay the originator for the assets. In addition, part of the "consideration" that the originator receives for transferring the assets to the SPE is its ownership of the SPE. In some securitizations, the originator does not receive the equity in the SPE. Instead, the originator may retain the subordinate or equity position in the securitized assets through other means, such as a variable fee structure.

- Aside from being a flexible and efficient source of funding, the off-balance-sheet treatment of securitization serves (1) to reduce both the economic cost of capital and regulatory minimum capital requirements as a balance sheet restructuring tool and (2) to diversify asset exposures (especially interest rate risk and currency risk), says another respondent.
- The generation of securitized cash flows from a diversified asset portfolio represents an effective method of redistributing asset risks to investors and broader capital markets; it amounts to a transformation and fragmentation of asset exposures. As opposed to ordinary debt, a securitized contingent claim on a promised portfolio performance allows investors at low transaction costs to quickly adjust their investment holdings in response to changes in personal risk sensitivity, market sentiment, and/or consumption preferences.

Arguments for Broader Definitions

One respondent favors a broad definition that would include project finance, leveraged leasing, securitization, structured risk transfer (catastrophe and other insurance-linked securities and embedded-value securitization), and various other applications of derivatives. Indeed, most of the conceptual definitions appearing earlier in this article would apply to all aspects of structured finance under such a broad definition. In this respondent's view, one of the most interesting attributes of structured finance is that it may defy definition. That very hard-to-define attribute may help preserve its creativity, vibrancy, and flexibility and generally contribute to the success of structured finance in the face of repeated challenges by accountants, regulators, and others.

Another respondent recommends that we err on the side of inclusiveness, even for gray areas such as project finance and equipment trust certificates. In a similar vein, another respondent believes that in today's market, structured finance simply refers to more sophisticated, complex transactions. It is no surprise that the market has not standardized these distinctions because, as we know, the field of finance is extremely dynamic and constantly changing. What was complex and structured today may become plain vanilla and standard tomorrow. This leads the respondent to conclude that the market really does not need a clear definition for structured finance. And a consultant in the field agrees, saying, "It is to my advantage to leave the definition ambiguous."

The overall tone of the responses and the opinions strongly support the our notion that we should take a broad, inclusive view of structured finance. Thus in this book, we cover not only securitization, but other transactions that we believe should be viewed as structured financing.

CASE STUDY: HOW ENRON HAS AFFECTED THE BOUNDARIES OF STRUCTURED FINANCE

One of the respondents to our survey cautions that the increasing complexity of the structured finance market and the ever growing range of products being made available to investors are invariably creating challenges in terms of efficient information assembly, management, and dissemination. Another warns that structured finance and securitization create flexibility, but also can be vehicles for manipulating accounting statements and committing fraud, but these applications ultimately tend to work to the detriment of the deal sponsor. And in the course of providing us their definitions, several respondents mentioned Enron as pushing beyond the legal and ethical boundaries of structured finance.

In the spring of 2002, the *Journal of Structured and Project Finance* surveyed nine frequent contributors and leading experts to hear their views of how the Enron debacle affected project finance and the broader realm of structured finance.[8] Their general view is that the Enron bankruptcy and related events have changed neither the nature nor the usefulness of traditional project finance but they have led to a slowing down of some of the more innovative forms of structured and project finance. Among the other direct and indirect effects of Enron have been increased caution among lenders and investors toward the energy and power sectors; increased scrutiny of off-balance-sheet transactions; increased emphasis on counterparty credit risk, particularly with regard to companies involved in merchant power and trading; and deeper analysis of how companies generate recurring free cash flow. There is increased emphasis on transparency and disclosure, even though disclosure in traditional project finance has been more robust than in most types of corporate finance. In the recent market environment, for reasons that extend beyond Enron, some power companies have been canceling projects and selling assets to reduce leverage and resorting to on-balance-sheet financing to fortify liquidity.

Background

The immediate cause of the Enron bankruptcy was a loss of confidence among investors caused by that company's restatement of earnings and inadequate, misleading disclosure of off-balance-sheet entities and related debt. There were also secondary causes related more to conditions in the energy and power business than to structured finance, including (1) the California power crisis in 2001; (2) the related Pacific Gas & Electric bankruptcy; (3) falling spot power prices, caused largely by recent overbuilding of power plants; (4) increasing perception by investors, lenders, and rating agencies of the risk related to independent power producers; and (5) increasing skepticism of the energy trading business, including suspicion that some parties were manipulating their earnings through the marking to market of power contracts and off-balance-sheet vehicles.

Effect on Traditional Project Finance

Jonathan Lindenberg, Managing Director of Citigroup, reminds us that traditional project finance is cash-flow-based, asset-based finance that has little in common with Enron's heavily criticized off-balance-sheet partnerships. According to Roger Feldman, Partner of Bingham McCutchen, the historic elements of project finance are firmness of cash flow, counterparty

[8] Henry A. Davis, "How Enron Has Affected Project Finance," *Journal of Structured and Project Finance* 8 (Spring 2002), pp. 19–26.

creditworthiness, ability to deal over a long timeframe, and confidence in the legal system. Barry Gold, Managing Director of The Carlyle Group, points out that project finance is a method for monetizing cash flows, providing security, and sharing or transferring risks. The Enron transactions had none of these characteristics. They were an attempt to arbitrage accounting, taxes, and disclosure.

In Lindenberg's view, traditional project finance is based on transparency, as opposed to the Enron partnerships, where outside investors did not have the opportunity to do the due diligence upon which any competent project finance investor or lender would have insisted. Those parties are interested in all the details that give rise to cash flows. As a result, there is a lot more disclosure in project finance than there is in most corporate deals.

Gold points out that, in traditional project finance, analysts and rating agencies do not have a problem with current disclosure standards; it is not hidden and it never has been. First, they know project financing is either with or without recourse and either on or off the balance sheet. For example, in the case of a joint venture where a company owns 50% of a project or less, the equity method of accounting is used. On the company's income statement, the company's share of earnings from the project are included below the line in the equity investment in unconsolidated subsidiaries and, on the balance sheet, its investment is included in equity investment in unconsolidated subsidiaries. The point to remember is that whether a project is financed on or off the balance sheet, analysts know where to look.

Lindenberg explains that off-balance-sheet treatment may not be the principal reason for most project financing. It usually is motivated more by considerations such as risk transfer or providing a way for parties with different credit ratings to jointly finance a project—whereas if all of those parties provided the financing on their own balance sheets, they would be providing unequal amounts of capital by virtue of their different borrowing costs. None of these considerations have anything to do with the Enron partnerships, where a 3% equity participation from a financial player with nothing at risk was used as a gimmick to get assets and related debt off the balance sheet.

Structured Project Finance

Even though pure project finance has not been affected very much by Enron, Lindenberg and Worenklein see some slowing of activity in the more innovative types of structured finance such as synthetic leasing, structured partnerships, and equity share trusts.[9]

[9] See Glenn McIsaac, Chris Beale, and Jonathan Lindenberg, "Financing in the New Merchant Power Generation Business," *Journal of Project Finance* 6 (Spring 2000), pp. 13–19, and David Fowkes and Nasir Kahn with Don Armstrong, "Leasing in Project Financing," *Journal of Project Finance* 6 (Spring 2000), pp. 21–32.

Lindenberg notes that synthetic leases are a mature product, understood by rating agencies and accountants, in which billions of dollars of deals have been done. But the problem is "headline risk." Since the Enron debacle, numerous other companies have had disclosure issues. Even though synthetic leases are transparent and well understood by financial experts, they have an off-balance-sheet element that is not understood by everyone in the market at large.

But Christoper Dymond of Greengate LLC cautions that the investor market has overreacted to anything that sounds "like Enron." Structured and project financing techniques have been developed for sound risk management reasons and, in his opinion, must be defended vigorously on those grounds. He believes a prejudice against "complexity" in financial structures could have a real economic and financial cost. Most sponsors and investors are sophisticated enough to make these distinctions. However, if sponsors fear that the wider market will punish them for using complex structures, they will stop using them. After the Enron crisis, several companies made public vows not to use any off-balance-sheet structures. But, rather than pandering to uninformed sentiment, Dymond believes that companies should make greater efforts to clearly delineate the difference between legitimate nonrecourse debt and the Enron structures.

Special Purpose Entities

By using corporate stock as collateral and by creating conflicts of interest, Feldman of Bingham McCutchen believes that Enron undermined the pristine nature of the special purpose, nonrecourse entity and caused all such structures to look suspect in some people's eyes. He stresses that in traditional project finance, a special purpose, nonrecourse entity must be clean and fully focused on the transaction concerned. In the aftermath of the Enron bankruptcy, project sponsors and the bankers and lawyers who support them have had to make special efforts to explain the legitimate business reasons for these entities.

Sources of Free Cash Flow

William Chew, Managing Director of Standard & Poor's recalls that immediately after Enron filed for bankruptcy protection, some questioned whether project and structured finance would survive in their current form. And indeed, some corporations with large amounts of off-balance-sheet financing and inadequate disclosure were subjected to increased scrutiny and sharply reduced valuations for both their equity and their debt. In response, a number of those companies expanded their liquidity and reduced their debt to the extent possible. But Chew

believes that, as time progresses, that the main fallout from Enron and the other recent market shocks may be not so much a turning away from project finance but rather a greater stress on bottom-up evaluation of how companies generate recurring free cash flow and what might affect it over time. In this process, Chew believes that project finance and other types of structured finance probably will continue to play an important role. The change, in his view, is that the focus will be on not only the project structures, but also on how they may affect corporate-level cash flow and credit profiles—for example, through springing guarantees and potential debt acceleration, through contingent indemnification and performance guarantees, through negative pledges and their limits at both the project and the corporate holding company level, and through the potential for joint-venture and partnership dissolutions to create sudden changes in cash flows. Standard & Poor's reminds us in its project as well as its corporate credit analysis that there can be a big difference between generally accepted accounting principles (GAAP) and cash flow analysis.

Security Interests

Feldman notes that the power business, in part, has shifted from a contract business to a trading, cash flow kind of business where the counterparty becomes critical to the viability of a transaction. The security in the transaction is less the asset itself and more what the trading counterparty does with the asset. That asset has an option value in the hands of a counterparty, but a far different value if a bank has to foreclose on it—a value you would rather not find out.

In Feldman's opinion, Enron's alleged tendency to set its own rules for marking gas, electricity, and various other newer, thinly traded derivative contracts to market raises some interesting questions about collateral and security. Historically, the security in a power plant financing has consisted of contracts, counterparty arrangements, and assets. But if a lender's security depends on marking certain contracts to market, and there is some question as to the objectivity of the counterparty that is marking them to market, that raises additional questions as to what is an adequate sale, what is adequate collateral, how a lender takes an adequate security interest, how a lender monitors the value of its security interest, and what a lender needs to do to establish a sufficient prior lien in the cash flow associated with the transaction. In the case of a structured finance transaction, Mr. Feldman believes the key question remains just as it always has been: whether the security is real and whether you can get your hands on it.

How Companies Have Responded

Jacob Worenklein of U.S. Power Generating Company has seen affected companies respond to the post-Enron market environment rapidly and decisively to strengthen their liquidity through issuing new equity, canceling projects, selling assets, either unwinding structured finance deals or putting them on the balance sheet, and increased transparency and disclosure. Even though traditional project finance has little to do with the off-balance-sheet entities that brought Enron down, Dino Barajas of Paul, Hastings, Janovsky, and Walker, LLP fears a backlash that could affect project finance in the event of a credit crunch. If that happens, one possible solution could be, simply, to finance more projects on the corporate balance sheet. Some power companies have set up massive credit facilities for doing so based on their overall corporate cash flow and creditworthiness.

Another option for a company is to borrow against a basket of power projects, allowing the lenders to diversify their risks, although such a facility is still largely based on the credit fundamentals of the corporation. But Barajas believes that project financing on an individual plant basis can be preferable to either of these approaches for both project sponsors and lenders. For example, say a company is financing 10 projects and three run into trouble. The company can make a rational economic decision as to which of those projects are salvageable and which ones do not merit throwing in good money after bad. It might let one go into foreclosure and be restructured and sold. But if a company is financing ten projects together, its management may feel compelled to artificially bolster some of its projects so that the failure of one project does not bring the entire credit facility down. Making such an uneconomic decision for the near term would not be in the company's long-term interests.

Increased Transparency and Disclosure

Worenklein observes that after Enron major players started to release much more information than before about their businesses and financing arrangements. Similarly, Gold of The Carlyle Group saw an overriding aura of conservatism in disclosure, for example, in conference room discussions while drafting prospectuses for project finance deals. Bankers were making extra efforts to confirm that deals are being disclosed and explained the right way.

Going forward, Worenklein believes that strong management actions are needed to restore belief in honesty of numbers. A company's management needs to demonstrate the same passion for integrity as it had for growth in the past. It needs to get rid of gimmicks and consistently communicate and execute a simple, clear strategic vision. This involves cleaning up the balance sheet. Transactions that have signifi-

cant recourse to the sponsor should be put back on the balance sheet. Only true nonrecourse deals should be left off the balance sheet. To convey an accurate, fair picture of the business, companies need to communicate—to the point of obsession—information and assumptions about how earnings are recognized, including mark-to-market transactions. In Worenklein's view, managing earnings is out and managing cash flow is in—and, as Chew of Standard & Poor's noted earlier, that is what the rating agencies are looking at anyway.

Regulatory Issues

Feldman of Bingham McCutchen brings up some regulatory issues. One of the reasons Enron was left to its own devices in valuing gas, electricity, and other types of contracts was that it became, in effect, the largest unregulated bank in the world. It was able to avoid regulation of its trading activities by the Commodity Futures Trading Commission (CFTC), partly as a result of its own lobbying efforts, and the Federal Energy Regulatory Commission (FERC) declined to get involved as well. Therefore, it was able to duck some of the scrutiny that regulators have directed toward commercial and investment banks dealing in derivatives. Of course, securities analysis had long complained about Enron's opaque financial reporting, only to be told in return that they just did not understand the business.

Other Lessons Learned

James Guidera of Calyon sees some general lessons from Enron in the field of structured finance:

- The transfer of assets, intangible and otherwise, into nonconsolidating vehicles controlled by a sponsor may mislead investors as to the extent of nonrecurring earnings or deferred losses, even in the absence of fraud.
- There is a risk of low recovery rates on structured transactions secured by intangible assets (investments, contracts, company stock) or by tangible assets whose values are not established on an arms-length basis.
- Having been badly burned by the Enron bankruptcy, banks and investors involved in structured and project financings, and in the energy sector generally, will be especially conservative, and this will limit credit and capital access for many clients in the sector, creating a general liquidity issue for these customers.

Dymond of Greengate LLC has several recommendations concerning accounting treatment and disclosure:

- An effort must be made by all in the project finance industry (and investor relations) to underscore the distinction between true nonrecourse structures and Enron's activities.
- The terms *nonrecourse* and *off-balance-sheet* should remain synonyms. Liabilities that truly have no recourse to a company's shareholders can justly be treated as off-balance-sheet. Enron appears to have violated this principle since the undisclosed liabilities in the off-balance sheet partnerships actually had significant recourse to Enron shareholders through share remarketing mechanisms.
- Many project finance structures are "limited" recourse rather than "non" recourse, and thus there is a potential gray area in which accounting rules allow off-balance sheet treatment but there is nonetheless some contingent liability to the parent company's shareholders. Full (footnote) disclosure of any potential shareholder recourse was advisable pre-Enron, and is absolutely necessary now.

To conclude, project finance today is alive and well as a form of structured finance. We may just need to remind some people of its basic fundamentals. Neither project finance nor sensible innovations in structured finance with sound, well explained business reasons have been shaken by Enron. The principal lessons learned from the Enron debacle have to do with transparency and disclosure. When some of your businesses or your financing structures become hard to explain, you may begin to question whether they make sense in the first place.

CONCLUSIONS

As we have highlighted in this chapter, structured finance is a term that covers a very wide range of financial market transactions and products. While a common definition of it seems to center on securitization, structured financial products also include complex instruments such as bonds with embedded exotic options and transactions such as project financing and leveraged leasing. We would suggest that securitization and the employment of SPV entities is a subset of structured finance, albeit a large subset.

In conclusion, it is probably best to say that there is no one definition of structured finance, and that the term can be used to describe any financial transaction or instrument that is not plain vanilla.