Chapter 3

Financial Engineering with Special Purpose Entities

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¶ 301 Introduction

When a mighty company like Enron fails, there are bound to be many causes and many villains. On the one hand, a corporation could fail simply because of adopting inadequate business strategies—making poor investment decisions, ignoring customer needs, offering products and technology that cannot match the competitor's, etc. But such a failure, while common, tends to be reflected in the corporation's stock price slowly over many months or even years. By contrast, when a corporation collapses with the suddenness of Enron's fall from grace, business causes alone are insufficient to explain the meltdown. In such cases, the villain proves to be a sudden loss of investor trust. For Enron, this loss of investor trust, which happened in October and November 2001, can be squarely traced to the series of disclosures in the business and popular media about how Enron hid losses, liabilities, and assorted bad news in hundreds of so-called special purpose entities (SPEs).[1]

Enron's failure is thus a case of SPEs run amok. Enron, with its culture of deal making, found SPE accounting to be a tool perfectly matched for financial engineering on demand, generating profits when needed, and hiding assets when they became a problem. Enron's SPEs, with names such as Chewco, Porcupine, and Braveheart, were strands of the complex web of structured finance arrangements whose lack of transparency led to the financial markets' loss of trust in Enron's management and its financial disclosures. To understand Enron's meltdown, one must understand the power of SPEs as financial engineering tools for balance sheet and income manipulation. More generally, if investors and financial analysts are to avoid mistakes with future Enrons, they need to understand how manipulation of financial statements with financial engineering differs

[1] Portions of this article are based on my written testimony to U.S. Congress, *Enron's Accounting Issues: What Can We Learn to Prevent Future Enrons,* House Energy and Commerce Committee hearing, February 6, 2002 (Congressional Records, 107th Congress), Serial No. 107-83, pp. 87–96.

completely from simple earnings management with traditional accounting techniques such as accruals. Learning to spot and untangle the financial statement effects of modern financial engineering techniques imposes a new challenge on investors and managers alike.

Not all SPEs are bad, of course. They do serve a legitimate business purpose, and Enron's misuse of SPEs should not prevent other corporations from using them when it is appropriate and justified by the business case. ¶ 305 reviews the origins of the SPEs as genuine financial instruments. ¶ 310 discusses how the concept of SPEs was hijacked by companies in the 1980s and 1990s to achieve dubious accounting objectives such as off-balance sheet financing and revenue recognition. ¶ 315 explores the efforts of the Financial Accounting Standards Board (FASB) to regulate the SPEs. ¶ 320 details the financial engineering effects sought by specific Enron SPEs, such as Raptors and Braveheart.

¶ 305 What Are SPEs?

Special purpose entities (SPEs) are business entities formed for the purpose of conducting a well-specified activity, such as the construction of a gas pipeline or collection of a specific group of accounts receivable.[2] Because they are devised to conduct just one prespecified activity, it is often possible to attract a group of investors to invest in SPEs because the cash flows and risks of the venture they perform are clearly specified by design. By contrast, once an investor makes a cash investment in a normal corporation, the corporate management undertakes a variety of transactions and activities that were not specified by prior agreement with its investors. Thus, when it comes to investing in a project with well-defined risks and returns, many investors prefer the isolated and uniquely identifiable nature of an SPE to a more diffusely defined corporate form. For this reason, SPEs have been used for several decades as a preferred entity to raise financing for large international projects and other projects with well-defined cash flows and risk characteristics.

For example, ABC company wants to build a gas pipeline in Central Asia and needs to raise $1 billion. ABC managers find that potential investors in the pipeline venture want their risk and reward exposure limited to the pipeline rather than the overall risks and rewards associated with the sponsoring company. In addition, the investors want the pipeline venture to be a self-supporting, independent entity with no possibility of the sponsoring company taking it over or selling it. The investors can achieve these objectives by structuring the pipeline project into a special purpose entity that is limited by its charter to pipeline-related activities.

[2] SPEs are sometimes also known as special purpose vehicles (SPVs).

.01 Design of SPEs

Thus, historically SPEs have been designed as joint ventures between a sponsoring company and a group of outside investors. The SPE is *limited by charter* to certain permitted activities. The term *special purpose* comes from the limited scope of the SPE. For this reason, an SPE is often described as "brain-dead" or on autopilot. Cash flows from the SPE's project operations may be used only to pay its investors and cannot be taken by the sponsoring company for any other purpose.

In the United States, the use of SPEs spread during the 1970s and 1980s to the financial services industry. In fact, currently SPEs are most commonly found in the so-called asset-backed securities (ABS) market and in financial products such as collateralized debt obligations (CDOs) and mortgage-backed securities (MBSs). Asset-backed securities are, in essence, a form of financial instruments whose value derives from an underlying set of clearly demarcated assets. In a common application of SPE within the ABS market, a manufacturer with an average credit rating may "securitize" (market as securities) a group of trade receivables in its books, assets that are otherwise generally illiquid and nonmarketable. Investors may feel that buying one or more of the individual trade receivables from the company may be too risky, whereas investing in a portion (shares or units) of a large group of these receivables may offer less risk because the default risk is spread over a much larger group of receivables.

To attract investors to investing in the trade receivable assets, the company has to ensure that any collections on the receivables are used solely to pay returns to the investors and to repay the investors' capital. To achieve this, an SPE is created. The manufacturer sells the trade receivables to the SPE, usually without recourse to the company, and gets immediate cash.[3] The SPE is limited by charter to do nothing more than collect on the receivable and pass on the money to the SPE's investors. The company has thus managed to convert a group of illiquid assets into cash, resulting in a capital infusion that can then be deployed for other productive uses.

.02 Risks Inherent in SPE Investments

A major risk to an investor in an SPE is that in times of financial distress (or simply from greed) the company transferring the assets (known as the *sponsoring company, sponsor,* or the *transferor*) may try to "reach back" into the SPE and get access to the assets. The charter of the SPE is thus written specifically to prevent—indeed, prohibit—any such possibility. For example, covenants are generally inserted in an SPE's organizational or loan documents to prohibit any merger with another entity, any

[3] Whether the transfer of financial assets leads to recognition of gain or loss on sale is currently governed by Financial Accounting Standards Board Statement No. 140, *Accounting for the Transfers and Servicing of Financial Assets and Extinguishment of Liabilities.* (This standard replaced the previous FASB rule, Statement No. 125, which had the same title.) If the conditions for sale are met, the transferor must recognize a gain or loss on the sale.

other debt other than what is specifically incurred at the time of SPE formation, payment of dividends or interest to the sponsoring entity, commingling of assets and liabilities with the sponsoring entity, etc. The covenants also limit any contracts between the transferor and the SPE, and specify the accounting policies to be used by the SPE to measure income.

Another major risk for an SPE investor is that the assets of the SPE, while seemingly completely isolated from the transferor, may well be rolled back into the transferor's balance sheet by a bankruptcy judge. Indeed, early development of the SPE's structure focused on this risk of bankruptcy filing by an SPE. To eliminate this risk, it is common for many SPE creators to initiate two SPEs, instead of one. The first SPE is the primary investment vehicle to raise capital from outside investors and is designed to be completely protected from bankruptcy filing. For example, this entity includes a covenant restriction in its organizational documents preventing it from voluntary filing for bankruptcy. In addition, this SPE is typically financed either as an all-equity firm (i.e., no debt that can lead to involuntary bankruptcy petition) or includes loan covenants on debt preventing the lenders from bankruptcy petition. Thus, both voluntary and involuntary bankruptcy risk are ruled out for this SPE entity. SPE 1 then invests in a second SPE, say SPE 2, which buys the assets from the sponsor or transferor, borrows additional debt if needed, and conducts the specified activities of the project.

The two-part SPE structure also makes it easier for the transferring firm to borrow money that is not shown on its own balance sheet. This is referred to as *off-balance sheet financing.* In addition, the sponsoring firm is able to "securitize" or "deconsolidate" the assets transferred to the SPE. As will be discussed later in the chapter, the transfer of assets will also be accounted for as a "sale" by current accounting rules under certain conditions, allowing the transferor or sponsor of the SPEs to report a gain on sale for the asset transfer. In short, accounting rules for the reporting of SPEs allow the possibility of off-balance sheet financing and the reporting of gain on sale for the asset transfer.

.03 Uses for Synthetic Leases

The ability of SPEs to raise capital and keep it off the balance sheet of the sponsoring firm has been the main driving force in the large-scale use of SPEs during the 1980s in so-called synthetic leases. These SPE entities are widely used to finance acquisitions of large-valued equipment such as airplanes and to finance the construction and use of commercial real estate. Known also as *structured financing,* these types of equipment financing and real-estate financing processes are now an integral part of the financing world for large, publicly traded, and creditworthy corporations.

Synthetic leases are an example of a structured finance arrangement. A *synthetic lease* is one in which the lease is structured as a capital lease for

income tax purposes and an operating lease for financial reporting purposes. The intent of this arrangement is to combine aspects of asset ownership—including getting depreciation and interest deductions for tax filing and sharing in any appreciation of asset value during ownership—with the off-balance sheet financing of a traditional operating lease.

For example, say ABC Company wants to use the Henley Building to house its corporate offices for the next 20 years. The building would cost $100 million to buy. However, ABC wants to structure the transaction as a synthetic lease and report it as an operating lease for financial reporting purposes. An SPE is formed with the sole purpose of buying and leasing out the asset. The lenders loan the SPE up to 97 percent of the investment. This loan is backed by the Henley Building itself, and in addition, is guaranteed by the lessee. The remaining 3 percent of the required investment is put up by an outside equity investor who takes an equity risk in the project (i.e., the investor has expectations of return but has no guarantees from the lessee). The SPE buys or constructs the asset, takes title to the property, and leases the Henley Building to ABC, the lessee/corporate user, or one of its subsidiaries. At the end of the lease, the SPE agrees to sell the asset at fair market value and transfer any residual cash proceeds from the sale to the investors and to ABC.

Estimates of the size of the synthetic lease market vary, and as much as $600 billion of U.S. real estate, equipment, and other assets may well be accounted for using synthetic leases, keeping the associated liabilities off the balance sheet of corporations. For example, GE Capital, a unit of General Electric Corp., and a major lender in the synthetic lease market, reported "equipment leased to others" of $36.5 billion, and an additional $49.4 billion in "direct financing leases" as of December 31, 2001. GE Capital mainly participates in equipment leases, leaving the commercial real estate leasing to insurance companies and other lenders.

Accounting for leases, including synthetic leases, is governed by FASB Statement No. 13, *Accounting for Leases,* and various related FASB statements and rules.[4] As noted, FASB Statement No. 140 governs the accounting for asset-backed securities. Both of these rules defer to other, existing accounting rules on issues of consolidation, such as when and whether an SPE should be consolidated, including, for example, FASB Statement No. 94, *Consolidation of All Majority-Owned Subsidiaries.* As a result, despite the loan guarantee by the ABC Company (the lessee), and despite possible effective end-of-lease transfer of resources, ABC does not have to report the building as a capital lease, because the control of the building resides with an SPE whose legal structure prohibits ABC from "controlling" it. Current

[4] The list of FASB pronouncements related to leases is long. For example, accounting for leases involving real estate are covered by some or all of FASB Statements 26, 29, 66, 91, and 98. In particular, FASB Statement No. 98, *Accounting for Leases,* deals with the reporting of sale-leaseback transactions involving real estate and sales-type leases of real estate. In addition, a large portion of the Emerging Issues Task Force (EITF) discussions in recent years has concerned leases, SPEs, and off-balance sheet financing.

accounting rules for consolidation of investments require an assumption of control, and the lack of control of the SPE means that ABC does not have to consolidate the SPE in its books.

Both off-balance sheet financing and gain-on-sale accounting, which result from the peculiarities of SPE accounting, have been controversial from the very beginning. As securitization evolved into a multibillion-dollar industry, the possible misuse of the accounting provisions for the reporting of SPEs has also attracted the attention of accounting regulators and standards-setters. In addition, whereas the early development of SPEs was focused on the securitization and sale or transfer financial assets, such as accounts receivables and mortgage receivables, and later leases, the 1990s saw further application of SPEs for the securitization and transfer of many other types of financial assets, derivatives, and commitments, such as long-term commitments to buy or sell energy (energy derivatives), broadband capacity, and metals and mineral rights.

Despite the accounting questions raised by their use, SPEs have been generally recognized as legitimate financial tools because of the vital role they have played in helping several companies raise capital at a reasonable cost, often by creating liquidity in assets that are otherwise very illiquid. In the United States, the market for asset-backed securities, including MBSs, has grown rapidly over the last three decades. In 2000, more than $400 billion in MBSs and an equal amount in other asset-backed securities were issued. The market for MBSs and ABSs is also large in Europe and Asia. For example, about $150 billion of MBS and ABS capital was raised in Europe in 2000.

¶ 310 Evolution of SPEs as Financial Engineering Tools

From the very beginning, the use of SPEs by the finance industry has been associated with questions about what the proper accounting representation should be for transfer of assets to an SPE. The questions revolved around whether an SPE was truly independent enough from the sponsoring company for the latter to treat the transfer of its financial assets to the SPE as "sale." For example, if Federal Home bank transfers $100 million of its loans receivables to an SPE, Loans Specialty, at a market value of $110 million, the bank could recognize a $10 million gain immediately, provided the transfer qualifies as a sale. Otherwise, Federal Home is forced to recognize the gains over the time it takes Loans Specialty to collect on the receivable.

In the 1990s, questions about aggressive use of the gain-on-sale accounting arose with respect to the SPEs of several financial institutions, including, for example, Conseco, Inc. The finance arm of Conseco, called Green Tree Financial Corporation, was acquired by Conseco in mid-1998. Prior to Conseco's acquisition, Green Tree had made heavy use of gain-on-sale accounting for several asset transfers. The income recognized in these

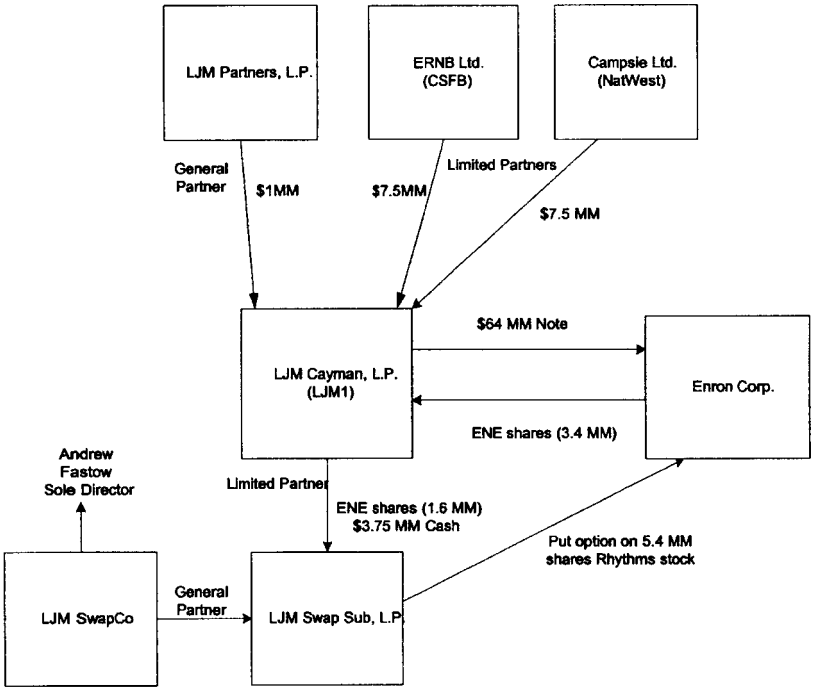
transactions had to be later written down by Conseco when the collections on receivables proved to be far less than initially assumed. In early 2000, Conseco took a $350 million writeoff, which led to a large drop in Conseco's stock price. Several so-called subprime lenders also faced questions during the 1990s about how they accounted for the transfer of financial assets to SPEs. Examples include Mercy Finance Co. and Delta Financial Corp. These examples and previous discussion of synthetic lease arrangements illustrate that formation of SPEs can be motivated either by a genuine business purpose, such as risk sharing among investors and isolation of project risk from company risk, or by a specific financial disclosure goal, such as off-balance sheet financing.

The financial accounting and disclosure effects obtained by the use of SPEs differ substantially in character and complexity from what investors and overseers have traditionally understood to be accounting manipulations. Hence, it may be better to view them as *financial engineering* effects rather than just accounting manipulation. In the garden-variety accounting manipulation practiced by, or at least found in, almost any major corporation, a manager may increase or decrease the levels of accounting "accruals" such as accounts receivables, inventory, accounts payable, deferred revenue, accrued liabilities, and prepaid expenses, in a given time period in order to effect a desired result such as larger or smaller divisional profit. As an example of such an accounting accrual manipulation, a cash expenditure of $90,000 on a marketing campaign may be reported by a manager as a "deferred subscriber acquisition cost" asset instead of an expense in order to boost the bottom line of the division by $90,000.

By contrast, the structure of most SPE transactions is inherently complex, requiring the formation of legal entities and creation of financing arrangements among the company, its lenders, and new outside investors. As with synthetic leases, these financial arrangements are sometimes referred to as structured financing. For example, consider the complex structured financing arrangement depicted in Figure 3.1 for an SPE transaction undertaken by Enron to hedge its equity investment in a company called Rhythms NetConnections.

Figure 3.1

Enron's Special Purpose Entity Financing Arrangement for LJM1



Reproduced from a graphic in *Report of Investigation by the Special Investigative Committee of the Board of Directors of Enron Corp.* (Powers Report), William C. Powers, Jr., Chair, February 1, 2002, p. 81.

.01 Accounting Manipulation Versus Financial Engineering

A comparison of the accounting manipulation example and the above financial engineering arrangement illustrates an important characteristic of financial engineering—*organizational commitment to earnings management.* Accounting manipulation, such as accrual and cost allocation decisions, can be planned and executed by individuals without full organizational involvement. In other words, these actions do not necessarily require the creation of complex legal structures or the hiring of lawyers, consultants, investment bankers, and so on.[5] By contrast, achieving the

[5] They *do* require the concurrence of the external auditor, but auditors do not generally second-guess management judgment on such business outcomes as whether an expenditure will lead to short-term benefit (an expense) or a long-term benefit (an asset).

desired accounting effects from the use of SPEs requires significant legal planning, including the proper creation of legal entities, and additionally requires the hiring of investment bankers to raise the necessary loans and external capital (the minimum 3 percent outside equity required to keep an SPE off of the balance sheet of the sponsor). Financial engineering thus also requires the involvement of senior management and the company board of directors in the decisions to create the needed financial structures. This means that a corporation that conducts financial engineering of financial statements may well be characterized by a large-scale breakdown of internal controls to prevent earnings management, not to mention a general corporate climate of accepting false performance reports as representing reality.

The *lack of disclosure transparency* is another major characteristic of financial engineering decisions and structured finance arrangements. Accounting accruals are easily observed and monitored because accruals can be calculated as the difference between the reported earnings and cash flow from operations. Despite some difficulty in managers' ability to differentiate between what may be nondiscretionary accruals and discretionary or planned accruals, the financial reporting system generally makes it at least possible for both corporate management and investors to spot accounting manipulation using accruals. In addition, most accounting accruals (other than depreciation and amortization) usually reverse within a year or two years in terms of their effect on income. For example, an increase in inventory this year may result in larger income (by shifting costs to the balance sheet), but it may quickly lead to a lower income the following year as the inventory is worked down. Worse, the situation may lead to a visible inventory writeoff in a short time. Because accruals are easy to monitor and reverse visibly in short order, senior management and investors can generally take comfort in knowing that managers who try to look good through traditional accounting manipulation in the short term can be still held accountable for their true economic performance over the intermediate and long term. By contrast, a lack of visibility or transparency is built into most financial engineering structures, and there are fewer and less-developed tools of financial analysis available to senior managers and investors to monitor the income effects of financial engineering. For example, if debt is held off-balance sheet, there is not much an investor or even a corporate manager can do to predict when and whether the debt will affect the reported financial performance of the company. There is no assurance, either, that the income effects will reverse in some definite time frame. For example, off-balance sheet debt can be refinanced indefinitely through the creation of additional SPEs.

To summarize, the financial reporting management opportunities presented by financial engineering are in a different class altogether from the traditional accounting accruals-based earnings management. Financial engineering, of course, is good for the company if it achieves any of the

standard goals of corporate finance—raise capital at the lowest cost, reduce the risk exposure and manage or spread risk, and make funds available for value-creating projects—just as accounting accrual management is supposed to convey information to investors about managers' expectations of future cash flows. Still, the lack of transparency inherent in financial engineering means that the potential to misuse this tool for earnings management is high, especially where an organizational commitment to earnings management exists.

.02 Goals of SPE Arrangements

To illustrate the financial reporting effects sought by the use of SPEs and other structured finance arrangements, the goals of these arrangements can be grouped into the following four types:

1. *Off-balance sheet financing, or hiding of debt.* This seems to be a primary cause of several SPE controversies in recent months, including Enron's. The primary purpose in forming an SPE in this case is to let the entity borrow funds and not show the debt in the books of the sponsoring company. Synthetic leases, discussed earlier, are prime examples of this type of SPE. In a synthetic lease, an SPE is formed to borrow money and purchase a building. The building is then leased to the sponsoring company in such a way that it is reported by the company as an operating lease. By this arrangement, the building and the associated debt are moved to the SPE's financial statements. For example, at the time of its bankruptcy in December 2001, Enron was reported to have hidden several billion dollars of off-balance sheet debt using SPEs.

2. *Gain-on-sale accounting, or management of earnings.* If the SPE can be reported as a separate and unconsolidated entity, and yet be managed in some way by the sponsoring company, obviously this economic arrangement can easily provide opportunities to the sponsoring company for earnings management. In particular, there is potential to manipulate and misstate the value at which the assets are transferred to the SPE. Because FASB Statement No. 140 allows the reporting of the asset transfer to an SPE as a sale by the transferor and the booking of gains or losses from the sale, the valuation of the transferred assets becomes a tool for potential earnings management by the transferor. This apparently occurred when Enron transferred a startup venture called Braveheart, described in ¶ 320, to an SPE created for this purpose, for an estimated value exceeding $120 million, even though the venture at that time had no operating revenues.

Gain-on-sale accounting has been fingered as the main culprit in the manipulation of earnings and asset values that led to the failures of many subprime lenders and mortgage companies in the 1990s. The accounting objective of earnings management may also have been a fundamental motivation for several of the complicated transactions arranged by Enron with SPEs. The Braveheart transaction—in which Enron was able to transfer a long-term business contract with no revenues or profits to an SPE formed by it and report a gain of $111 million—is described in detail below.

3. *Off-balance sheet assets, or hiding of poorly performing assets.* This objective has been a major factor in several SPE transactions of Enron. The use of SPEs by subprime lenders, discussed earlier, was also mainly motivated by the hiding of poorly performing receivable assets. In the case of Enron, several SPE transactions apparently were used to move bad investments in broadband assets, energy derivatives, long-term energy supply contracts, and other poorly performing assets to entities outside the view of Enron's investors. For example, Enron transferred poorly performing equity investments in a broadband network access provider called Rhythms NetConnections to an SPE, so that any subsequent declines in the value of this investment did not have to be recognized by Enron. In 2000 and 2001 alone, Enron was able to hide as much as $1 billion of losses from poorly performing merchant investments using these types of SPE transactions.[6]

4. *Execution of transactions at desired prices and at short notice, or micromanagement of bottom line.* Several of Enron's SPEs were controlled by its own senior managers. This allowed Enron to plan and execute related party transactions quickly when desired, at prices not negotiated at arm's length but arrived at between parties who had clear conflicts of interest. For example, the Braveheart SPE transaction to transfer the broadband joint-venture project with Blockbuster, was arranged at the end of December 2000, just in time so that about $53 million of the "gain" could be included in the 2000 financial report. (The rest of the gain, $58 million, was reported in first quarter 2001.) The purpose of this and several similar Enron transactions with SPEs controlled by its own senior executives to essentially create at short notice any amount of desired income, to meet investor expectations. The idea of using a CFO or other senior manager as an SPE executive in order to control the timing of

[6] *Report of Investigation by the Special Investigative Committee of the Board of Directors of Enron Corp.*, William C. Powers, Jr., Chair, February 1, 2002 (hereinafter the Powers Report), p. 4.

transactions and profits seems unusual and may even be rare in the SPE industry, even though it is not uncommon to staff SPEs with operating management personnel from the sponsoring company.

¶ 315 Accounting for SPEs

There are at least three sets of accounting rules that permit the financial engineering effects of SPEs. One deals with *balance sheet consolidation*—whether SPEs such as synthetic leases should be consolidated or reported separately from the sponsoring entity. The second deals with *sales recognition*—when the transfer of assets to an SPE should be reported as a sale. The third deals with *related party transactions*—whether transfers of assets to related parties can be reported as revenue. Of these, the most controversial accounting rule, and one that is under current FASB actions for immediate remedy, deals with consolidation of SPEs. This is addressed next. With respect to sales recognition rules and related party transaction rules, the problem may lie more with Enron's questionable accounting and corresponding auditor error than the rules themselves.

.01 Development of SPE Consolidation Rules

Despite their potential for economic and business benefits, the use of SPEs has always raised the question of whether the sponsoring company has some other accounting motivations, such as hiding debt, hiding poorly performing assets, or managing earnings. Additionally, the explosive growth in the use of SPEs led to debates among managers, auditors, and accounting standards-setters as to whether and when SPEs should be consolidated. This is because the intended accounting effects of SPEs can only be achieved if the SPEs are reported as unconsolidated entities separate from the sponsoring entity. In other words, the sponsoring company needs to somehow keep its ownership in the SPE low enough so that it does not have to consolidate the SPE.

Thus, consolidation rules for SPEs have been controversial and have been hotly contested between companies and accounting standards-setters from the outset. The involvement of the FASB in developing the accounting standards for SPE consolidation effectively started in 1977, when the board issued lease capitalization rules to control the use of off-balance sheet financing with leases. Corporate management intent on skirting around the new lease capitalization rule appeared to have led to the rapid evolution of SPEs to execute synthetic lease transactions. In the first of several accounting rules directed at SPEs, in 1984 the Emerging Issues Task Force (EITF) of the FASB issued EITF No. 84-15, *Grantor Trusts Consolidation.* However, given the rapid growth of SPEs and their ever-widening range of applications, standards-setters were always a step or two behind and were reactive rather than proactive in developing accounting rules to govern the entities' proper use.

The question of whether a sponsoring company should consolidate an SPE took a definitive turn in 1990 when the EITF, with the implicit concurrence of the SEC, issued a guidance called EITF 90-15. This guidance and the related EITF publication called Topic D-14, *Transactions Involving Special Purpose Entities,* are currently the primary sources for the acceptance of the infamous 3 percent rule for SPE nonconsolidation. The rule states that an SPE need not be consolidated if at least 3 percent of its equity is owned by outside equity holders who bear ownership risk. Subsequently, the FASB formalized the above SPE accounting rule with Statement No. 125, issued in June 1996, which was later replaced with Statement No. 140 in September 2000.[7]

To understand the specific motivation behind the adoption of the 3 percent rule, it would be useful to review the regulators' strong concerns about the potential use of SPE financial engineering, as can be seen in the following from EITF Topic D-14:

> The SEC Observer announced that the SEC staff is becoming increasingly concerned about certain receivables, leasing, and other transactions involving special-purpose entities (SPEs). Certain characteristics of those transactions raise questions about whether SPEs should be consolidated (notwithstanding the lack of majority ownership) and whether transfers of assets to the SPE should be recognized as sales. Generally, the SEC staff believes that for nonconsolidation and sales recognition by the sponsor or transferor to be appropriate, the majority owner (or owners) of the SPE must be an independent third party who has made a substantive capital investment in the SPE, has control of the SPE, and has substantive risks and rewards of ownership of the assets of the SPE (including residuals). Conversely, the SEC staff believes that nonconsolidation and sales recognition are not appropriate by the sponsor or transferor when the majority owner of the SPE makes only a nominal capital investment, the activities of the SPE are virtually all on the sponsor's or transferor's behalf, and the substantive risks and rewards of the assets or the debt of the SPE rest directly or indirectly with the sponsor or transferor.[8]

It does not appear from this discussion of the SEC position that the SEC or the FASB was leaning toward adoption of a loose consolidation standard for SPEs. Nevertheless, the EITF Discussion 90-15, which was subsequently issued, noted the acceptance of the 3 percent rule. The following excerpt from EITF 90-15 mentions the 3 percent guideline:

> The initial substantive residual equity investment [for the purposes of non-consolidation of the investment] should be comparable to that expected for a substantive business involved in similar leasing transactions with similar risks and rewards. The SEC staff understands from discussions with Working Group members that those members believe that 3 percent is the minimum acceptable investment. The SEC staff believes a greater investment may be necessary depending on the facts and circumstances.[9]

An analysis of these EITF discussions shows that the 3 percent rule was an ad-hoc solution to a specific issue faced by the FASB's EITF and

[7] For a discussion of Statement 140 and its implementation issues, see "Securitization Accounting Under FASB 140," by Marty Rosenblatt and Jim Johnson, Deloitte & Touche, January 2001.

[8] FASB EITF Topic D-14. discussed February 23, 1989; May 18, 1989; May 31, 1990.

[9] FASB EITF Discussion 90-15, discussed July 12, 1990; September 7, 1990; November 8, 1990; January 10, 1991; July 11, 1991.

was intended as a short-term band-aid—certainly no more than a guideline of "minimum acceptable investment"—and yet has somehow been transferred by the financing industry and SPE users into a standard practice and permanent fix. More importantly, the rule, in many ways, was a major departure from the normal consolidation rules used for other subsidiaries and entities. U.S. business practice generally requires full consolidation if a company owns (directly or indirectly) 50 percent or more of an entity. Thus, the 3 percent rule is a major loosening of the normal consolidation rule. The motivation for this change seems to have been that the SPEs were restricted in their activities by charter, so the parent company could claim lack of control. The parent company only had to show that some other investors did indeed join the SPE venture with a significant exposure (signified by the 3 percent rule) in order to make the SPE economically real and thus take it off the books.

.02 Future Criteria for Consolidation

The FASB recognizes that the accounting rules for SPE consolidation need to be changed, starting with the abandonment of the 3 percent rule. An ideal replacement rule would emphasize economic control as the consolidation criterion, rather than rely on some legal definition of ownership or on an arbitrary percentage ownership. Economic control should be assumed unless management can prove lack of control. It seems more likely, however, that the FASB will continue to rely on specific numerical standards, though higher and stricter ones than the current ones, to define the minimum investment needed from outside equity holders for nonconsolidation. For example, the 3 percent requirement could be replaced with a 10 percent rule.

¶ 320 Enron's Financial Engineering Using SPEs

The Enron stock meltdown started when the company reported on October 16, 2001, that it was taking a $710 million pretax charge against earnings related to the accounting for a group of four SPEs collectively known as the Raptors. It is useful to examine the motivation behind the creation of these SPEs and their structure, in order to understand the financial statement analysis implications of using financial engineering tools. The discussion of the Enron SPEs' structures and motivations will be brief here, because much more complete information on the background to and structure of Enron's SPEs has been provided extensively in a 203-page report by the *Special Investigative Committee of the Board of Directors of Enron Corp.,* known also as the Powers Report.[10] The Powers Report resulted from an investigation by Enron's board of its prebankruptcy management. Several accounting and finance publications also provide

[10] *Report of Investigation by the Special Investigative Committee of the Board of Directors of Enron Corp.*, William C. Powers, Jr., Chair, February 1, 2002 (hereinafter the Powers Report).

additional explanation of the complex SPE transactions of Enron.[11] Here a review two of Enron's SPE transactions, the Raptors and the Braveheart, illustrates how Enron achieved the financial engineering objectives discussed earlier.

.01 The Four Raptor SPEs

The four Raptor SPEs[12] were modeled after a similar structure created in June 1999 to hide the losses being incurred by Enron from its investment in a firm called Rhythms NetConnections. (See Figure 3.1 for the composition of this structure.) This structure did not really "hedge" the economic losses in Rhythms, but it apparently succeeded in meeting the accounting tests for not consolidating the SPE and keeping the investment off Enron's books. The apparent accounting success was hard won after several months of negotiations with the external auditors and involved an error or oversight on the part of Enron's auditor, Arthur Andersen, as conceded by Andersen's CEO in a congressional testimony.[13] In any case, the accounting success of the Rhythms structure led to the decision to create four similarly structured finance arrangements to hide further losses of as much as $1.4 billion in other merchant investments.

Each of the Raptor SPEs was intended to protect, or hedge, the gains Enron had recognized in a specific set of merchant investments.[14] The objective was that any subsequent losses in the value of these assets would be borne by the SPEs rather than Enron. In return for taking the loss, the Raptor SPEs were capitalized, as in the case of the Rhythms deal, by the transfer of either Enron's own common stock at a discount to market price or contingent forward contracts to buy Enron stock at a discount.[15] The implied value of the transferred stock or the futures contract was expected to compensate Raptors' investors for the losses incurred in the merchant investments. In some cases, Enron committed to additional issuance of Enron stock to provide a minimum return to the Raptors' investors if Enron's stock price fell below certain trigger prices.

If Enron's stock price had continued to rise, as was apparently expected probable by the creators of the Raptors, the so-called hedges might have remained viable for some time, buying some needed time during which the merchant investments were expected to recover from their losses in value. However, the market price of Enron's stock collapsed along with

[11] See, for example, Gordon Yale, "Enron: An Accounting Analysis of How SPEs Were Used to Conceal Debt and Avoid Losses," FEI Research Foundation, March 2002.

[12] The four Raptors were structured as SPEs, and were called Talon, Timberwolf, Porcupine, and Bobcat.

[13] Testimony to U.S. Congress, December 12, 2001. On November 8, 2001, Enron filed restated financial statements reversing the above transaction, after finding that the Rhythms SPE did not meet the 3 percent test for nonconsolidation.

[14] Enron used the term "merchant investments" to report a variety of financial investments, such as equity investments in other companies, and financial contracts, such as energy derivatives and energy supply contracts. There was very little disclosure in Enron's financial reports to help evaluate the mix and performance of these investments.

[15] A troubling aspect of the Raptors story that has received less media attention is that the forward contracts to buy Enron stock were struck with a counterparty entity called Whitewing, also controlled indirectly by Enron. For more on Enron's use of Whitewing to raise off-balance sheet funds, see Peter Behr, "Enron Raised Funds in Private Offering," *Washington Post,* (January 22, 2002).

those of the merchant investment, thereby destroying the SPEs' ability to cover Enron's losses. This led to the unwinding of the Raptors in October 2001 and to the reporting of the huge loss. The disclosure of large losses from the unwinding of these four SPEs, along with an unrelated disclosure of a $1.2 billion reduction in shareholders' equity due to what were described as "accounting errors" in the recording of two exchanges of Enron stock for notes receivable, sent a shocking signal to the market that Enron might be a house of financial engineering cards.

The basic business premise of the Raptors is described in the Powers Report as follows:

> Enron sought to use the "embedded" value of its own equity to counteract declines in the value of certain of its merchant investments. Enron used the extremely complex Raptor structured finance vehicles to avoid reflecting losses in the value of some merchant investments in its income statement. Enron did this by entering into derivative transactions with the Raptors that functioned as "accounting" hedges. If the value of the merchant investment declined, the value of the corresponding hedge would increase by an equal amount. Consequently, the decline—which was recorded each quarter on Enron's income statement—would be offset by an increase of income from the hedge.[16]

The "embedded value" described in the report refers to forward contracts that Enron had entered into to buy its own stock at a set price (similar to a call option). As Enron's stock price increased during 1999 and early 2000, these contracts appreciated in value as well. A basic accounting principle is that a company cannot recognize gain or loss from trading on its own stock. In other words, the appreciated value of the forward contracts held by Enron could not be reported as income by Enron and could only show up in the shareholders' equity when the underlying shares were ultimately acquired and reissued. However, a result of funding the Raptors structure using the embedded value of the futures contracts is that the gains were transferred to an SPE, where they were used to offset the losses in the merchant investments also transferred to the SPE. Note that without this transaction, the merchant investment losses would normally have shown up in the income statement of Enron. Thus, the above arrangement resulted in the effective reporting of the appreciation in Enron stock as a gain in the income statement of Enron. This financial engineering feat could not have been accomplished by traditional accounting tools of account reclassifications, cost allocations over time, etc. However, accounting principles and auditing standards were easily bypassed by the use of a structured finance arrangement involving an SPE. Enron's management referred to the matching of losses on investment assets with gains on its own stock as an "accounting hedge," though one must note that this is not what is meant by the term in financial accounting textbooks.

[16] Powers Report, *supra* note 10, p. 97.

.02 The Role of the LJM2 Partnership

The aspect of the Raptors SPEs that has attracted the most attention was the use of a partnership entity called LJM2 to provide the requisite 3 percent outside equity to the Raptor SPEs. This partnership was modeled after one called LJM1 that was used to fund the Rhythms SPE. LJM2 (and also LJM1) was created by Andrew Fastow, who was then the chief financial officer (CFO) of Enron. As the general partner, Fastow controlled the business decisions of LJM2. Yet investments made by LJM2 in the Raptors SPEs were counted by Enron toward the minimum 3 percent outside equity level needed to satisfy nonconsolidation of the SPEs.

Overall, the Raptors SPEs broke new ground in the extent to which a structured finance arrangement can manipulate reported financial statements. Accounting concepts that have been in place for centuries to prevent the use of one's own equity to report gains and losses were conveniently set aside. New definitions and questionable interpretations of what constitutes hedging were created to justify hedging with the company's own equity. An unusual form of gain-on-sale accounting was practiced by matching the losses on merchant investments with gains on unissued Enron stock. Poorly performing assets were quietly taken off the book of Enron by using SPEs, compared to the more visible asset writedown or reclassification to "discontinued operations" that would have to be necessary in the traditional accrual management world. Finally, normal accounting controls such as arm's-length valuation of transferred assets, not to mention required related party disclosures, were skirted by having the entities receiving the assets from Enron controlled by a senior manager of Enron itself.

.03 The Braveheart SPE

The Braveheart transaction, which was designed to book a gain-on-sale income on a venture that was barely off the ground, is thankfully less complex than the Raptors' structured finance deals. There has been little public disclosure about this deal. Much of the media's discussion is based on a *Wall Street Journal* story that first disclosed the transaction.[17]

In its essence, the transaction dealt with a joint venture between Enron and Blockbuster Inc., in which latter would develop and market a pay-for-TV product to deliver movies on demand to consumers and Enron would provide the broadband fiber capacity. The delivery of movies on demand via cable has been a holy grail chased by the entertainment industry for years. The venture was risky from technological, financial, and marketing angles. Blockbuster was planning to test the product and move it into the market only slowly. Not surprisingly, by December 2000, six months after the project had been inked between Blockbuster and Enron, there were no paying customers for the venture and only about 1,000 test-

[17] "Blockbuster Deal Shows Enron's Inclination to All-Show, Little-Substance Partnerships," by Rebecca Smith, *The Wall Street Journal* (January 17, 2002).

market customers. Yet, reflecting the quick-revenue culture prevalent throughout the company, Enron wanted to book profits from the venture soon after the deal was signed. Financial engineering, which emphasizes deal making, and Enron's deal-making culture were in this case made for each other.

In the traditional accounting world, a venture such as the Blockbuster contract would not lead to recognition of income or revenues. Accounting rules for revenue recognition represent some of the oldest and most regulated parts of accounting standards-setting world. Developed over several decades, and based on concepts that are centuries old, the rules require that in order to report revenue, the earnings process must be complete or almost complete. Traditional accounting emphasizes *execution,* an often-used management buzzword that basically connotes the effective management of projects after the deal is made. For example, receiving an order from a customer is not enough to report revenues. A company has to make the product and sell it before deeming it revenue.

To skirt these well-known accounting restrictions, Enron again resorted to financial engineering. It formed an SPE called Braveheart, and through it raised about $116 million of guaranteed funding from CIBC of Canada, and about $9 million from two supposedly independent entities. The funds from these entities were used to satisfy the 3 percent rule, although it was later revealed that one of the funding entities was the primary computer equipment vendor for the project and the second was a majority-owned subsidiary of Enron. Having successfully gotten the SPE off the book, Enron proceeded to "sell" the Blockbuster joint venture to the SPE entity for $126 million—the valuation being based on an internal appraisal of the expected future cash flows. After subtracting its incurred costs on the venture, Enron recognized a net gain of $111 million, reporting it partly in the fourth quarter of 2000 and the rest in the first quarter of 2001.[18]

In the Braveheart SPE, Enron showed how financial engineering arrangements using SPEs easily bypassed the old prohibition on booking revenues before selling the products. In an extreme case of counting the chicken before the eggs are even conceived, let alone hatched, Enron was able to book the net present value of future profits from the Blockbuster deal even before the technological or competitive feasibility of the project was established.

[18] Interestingly, Blockbuster did not recognize any gain in its reports on the transfer of its share of the project.

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¶ 325 Conclusion

The Enron debacle shows that the art of financial engineering using SPEs is here to stay. Even as corporate finance creates legitimate structured finance products to achieve normal economic goals such as reducing the cost of capital and funding positive NPV projects, the financial engineering opportunities presented by these techniques may prove too tempting to corporate managers intent on managing earnings. The Enron debacle also shows that management of financial statements using financial engineering requires an *organizational commitment to earnings management*. Complex financial structures cannot generally be created without the explicit approval of senior management and even the board of directors. The culture of earnings deception created in such an organization leaves the firm susceptible to stock market disasters.

The inherent lack of transparency of financial engineering also provides ample opportunities for managers to hide liabilities and poorly performing assets from the view of investors. This poses new challenges to investors and corporate managers because traditional techniques of financial statement analysis are hardly suited to analyze companies that make extensive use of structured finance projects. Existing accounting rules and control procedures, including such old-fashioned internal control techniques as inventory audit and receivables audit, are inadequate and incapable of monitoring and controlling the performance of companies where structured financial techniques are used to hide debt, mask assets, and book gains on deals not yet executed. The problem is exacerbated when a company has the ability to use mark-to-market accounting to report gains on financial assets based on its own internal, proprietary valuation models. New accounting rules, control techniques, and financial analysis skills need to be developed rapidly during the next few years, if corporations wish to coax back to the stock market investors who have been burned in recent months by financial engineering disasters like Enron, Global Crossing, and Tyco.

Questions to Consider

1. What are accounting accruals and why are they useful for managing earnings? Give an example of an accrual decision by management that would lead to an increase in reported earnings in the current period.

2. The chapter notes that SPEs have a legitimate role in many corporate structures. From a finance manager's point of view, describe the business purposes of an SPE for which you would recommend their formation to your corporate board, and explain the business contexts in which you would recommend the SPEs.

3. How is earnings management using SPEs different from earnings management using accounting accruals? Which of these techniques to manage reported earnings is more likely to lead to a reversal of the earnings effect within a short term?

4. Examining Enron's SPEs, what seems to have been the company's common accounting-related and disclosure-related goals in their formation?

5. A common use of SPEs is in structuring synthetic leases. What are synthetic leases? Describe why managers typically want to avoid reporting a lease as a capital lease and instead try to structure it as a synthetic lease.

6. The FASB has announced proposals to replace the 3 percent rule for the nonconsolidation of an SPE with stricter rules or principles. Describe the proposals. Do you think they would prevent further accounting abuses of SPEs by companies?

7. What do you perceive was the specific cause of Enron's downfall, given its extensive use of SPEs?

8. Discuss possible proposed improvements to disclosure transparency on financial statements in light of the existence of sophisticated financial engineering tools available to managers. What financial accounting standard changes could improve disclosure of accounting methods for SPEs and prevent future Enron scandals?

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