

# Working Paper Series

WP 2002-001

Financial Engineering, Corporate Governance,  
and the Collapse of Enron

Stuart L. Gillan and John D. Martin



<http://www.be.udel.edu/ccg/>

# Financial Engineering, Corporate Governance, and the Collapse of Enron<sup>\*</sup>

Stuart L. Gillan<sup>a</sup> and John D. Martin<sup>b</sup>

<sup>a</sup> *Department of Finance and the Center for Corporate Governance, College of Business and Economics, The University of Delaware, Newark, DE 19716*

<sup>b</sup> *Carr P. Collins Chair of Finance, Hankamer School of Business, Baylor University, Waco, TX 76798*

Draft 11/06/2002

---

## *Abstract*

Enron plummeted from the 7<sup>th</sup> largest US firm and six-time winner of Fortune's most innovative firm award to bankruptcy in less than one year. However, management used financial engineering and related-party transactions to disguise Enron's financial condition for over three years. These transactions, board approved, sanctioned by the external auditor, and partially disclosed in SEC filings, put the firm on an economic precipice of which few were aware. Although extreme, Enron's collapse and corporate governance failure has implications for all publicly held firms. We document the existence of potential conflicts of interest throughout Enron's governance structure, conflicts that contributed to the firm's bankruptcy.

*JEL classification: G3; G32; G33; G38*

*Keywords: Corporate governance; financial distress*

---

## **1 Introduction**

On December 2, 2001 Enron Corp, the nation's 7<sup>th</sup> largest corporation and six-time winner of Fortune Magazine's most innovative company in America award declared bankruptcy. Enron's shares closed for the day under a dollar, down from \$83.13 just eleven months earlier. How could this have happened? Weil (2002, p.2) suggests that Enron's failure was simply a result of having "... bet the farm and lost." However, Enron's internal investigation (i.e., the Powers Report (2002)) and a US Senate investigative committee concluded that the Board of Directors failed in its oversight duties. Specifically, the board approved the formation of off-balance sheet partnerships run by Enron employees, failed to effectively monitor transactions with these partnerships, and failed to react to warning signs about those transactions as they came to light.

---

\* Corresponding author: John Martin (254-710-4473 Office; 254-710-1092 Fax; and [J.Martin@Baylor.edu](mailto:J.Martin@Baylor.edu)). We gratefully acknowledge the helpful comments of Vladimir Atanasov, Jennifer Bethel, Charlene Budd, James DeLong, David Haarmeyer, Steven Helm, Vince Kaminski, Roger Lowenstein, in addition to the participants at the University of Kansas conference on corporate governance and the finance seminar at the University of Delaware on earlier drafts of the paper.

Although both explanations have merit, ultimately it was Enron's board that allowed, and even encouraged, Enron executives to engage in the innovative business activities and aggressive reporting practices that drove the firm's rapid ascent to prominence, and ultimately led to the firm's collapse.

During the 1990s, Enron's growth was driven by parallel but related strategies involving the expansion of energy trading and large capital investments in energy, water, and broadband (fiber optic network) assets.<sup>1</sup> Enron's investments were sizeable, and often took years to deliver significant earnings or cash flow. Believing that exceptional returns would come with time, and concerned about possible dilution, Enron's management eschewed raising equity in favor of borrowing through off balance sheet partnerships. These partnerships, known as Special Purpose Entities (SPEs), were typically structured as separate entities to which Enron and outside investors contributed assets or other consideration. The SPEs would then borrow from lenders who frequently required Enron to guarantee the debt (which was sometimes done using Enron stock). The added borrowing strained Enron's ability to maintain an investment grade credit rating, a rating that was vital for conducting trading operations. In addition, to shelter the stock price from possible declines in merchant investments, Enron executives formed SPEs funded with Enron stock to financially engineer earnings hedges. The effect of these transactions was to inextricably link Enron's credit rating, and thus its viability, to its own stock price.

The effects of a slowing economy, poorly performing international investments, and the failed broadband initiative proved too much even for Enron's financial wizards. The stock price

---

<sup>1</sup> In an interview with Kaminski and Martin (2001) former CEO Jeffrey Skilling describes the firm's strategy as follows: When Enron decides to develop a market for a particular commodity it must first gain credibility as a supplier of the commodity. This often required that Enron acquire or develop the capacity to supply the commodity. For example, to enter the electric power market the firm acquired Portland General (an electric power producer in Oregon). Once the trading operation was established Enron then often sold off its productive assets and focused on trading.

declined, the contingent liabilities were realized, the earnings hedges became insolvent, and bankruptcy ensued. The speed of Enron's collapse and the lack of associated warning signs raise questions as to the root cause of the firm's failure. Was the collapse attributable to a failed business strategy, the failure of internal and external governance mechanisms, or some combination thereof? To investigate these issues we document (1) how Enron's business strategy evolved around energy trading and international power project acquisitions and; (2) the firm's use of financial engineering, including off balance sheet financing and earnings hedges backed by Enron stock; and (3) corporate governance shortcomings.

We conclude that Enron's rapid decline into bankruptcy was attributable to extreme covenants included in SPE debt agreements. Counter to the perspective that leverage disciplines management (Jensen 1986); it appears that Enron incurred financial leverage to manipulate reported earnings. Moreover, poor corporate governance placed Enron in this position. Three main factors contributed to Enron's governance breakdown. First, there was a lack of board independence and board oversight.<sup>2</sup> At Enron potential conflicts of interest suggest that board independence was compromised. Indeed, Senate investigations into Enron's downfall provide unprecedented insights into the role and functioning of the company's board. This unique perspective demonstrates that if the board is to be effective in its monitoring role, it must not only be independent in form (i.e., composition) but must also function independently.

Second, Enron's external auditor, Arthur Andersen, failed to fully inform the board or regulatory authorities of potential irregularities. The external audit function has long been viewed as a certification mechanism to aid in controlling incentive or contracting problems (Lambert, 2001). Recent work, however, has questioned the auditor's role. Specifically, it has been argued

---

<sup>2</sup> Previous research has shown that board independence is a critical feature of effective governance. See for example, Brickley, Coles and Terry (1994), Borokhovich, Parrino, and Trapani (1996), Fama and Jensen, (1983), Jensen (1993), Klein (1998), Weisbach (1988) and Yermack (1996).

that large consulting fees (relative to audit fees) received by auditors from the same client may compromise the auditor's independence (Frankel, Johnson, and Nelson, 2002). Focusing on Enron provides an opportunity to explore potential conflicts and deficiencies in the audit process, and perhaps more importantly, to highlight apparent deficiencies in Enron's governance practices pertaining to the audit committee's review of the external audit process.

Third, and finally, Enron's compensation policies contributed to a focus on short term results. As noted by Murphy (1999) and Healy (1985), if bonuses are based on performance thresholds, managers can be expected to manipulate earnings to achieve the threshold. Although it is not clear to what extent compensation caused Enron's problems, the magnitude of payouts under bonus plans and accelerated vesting features may have contributed to a myopic focus on the short term. Of course, the compensation committee recommended, and the full board approved, the firm's compensation plans and payouts under those plans. Once again, corporate governance deficiencies appear related to a lack of board oversight.

The remainder of the paper is organized as follows: In Section 2 we review the evolution of Enron Corp from a regulated gas pipeline company to energy trader and merchant banker. Understanding Enron's success during its first decade of operations provides the basis for understanding the root causes of its failure. Section 3 focuses on Enron's use of financial engineering and its influence on reported financial results. In particular, we focus on the use of mark-to-market accounting, and off-balance sheet SPEs used to consummate asset sales, raise financing, and hedge earnings risk. Section 4 presents evidence of corporate governance failures at Enron, emphasizing the Board of Directors, the role of the external auditor, and compensation plans. We conclude in Section 5.

## 2 Enron's operating and stock price performance

Enron was formed on January 1, 1985 through the merger of Houston Natural Gas (Houston, TX) and InterNorth (Omaha, NE). This merger created the nation's largest gas pipeline system with a network of more than 34,000 miles. Almost immediately Enron found itself struggling to survive the upheaval accompanying natural gas market deregulation, the nationalization of its Peruvian pipeline assets, and an attempted takeover by Irwin Jacobs. These events, combined with continuing pressures to respond to further deregulation, created a "near death" experience for the company. Enron's management realized that they had to innovate or die—and innovate they did (Appendix A summarizes the major business milestones in the history of Enron Corp).

In 1990 Enron hired Jeff Skilling who, as a McKinsey consultant, had helped Enron develop its Gas Bank idea. The Gas Bank plan called for Enron to become an intermediary between suppliers and end-users in the natural gas market analogous to a commercial bank matching the needs of savers and borrowers. Under Skilling's leadership of Enron Gas Services and later Enron Capital and Trade, the company pioneered the use of risk management products and long-term contracting structures in the natural gas industry. Enron's principal innovation in energy markets was to combine financial contracts with contracts for physical delivery. These innovations were applied to the natural gas and electric power markets and were being extended to the markets for basic metals, pulp and paper, and broadband when the firm failed.

As the nineties unfolded Enron's management could do no wrong and the executive team received the accolades of the business community.<sup>3</sup> The firm's business model focused on two

---

<sup>3</sup> CEO Jeffrey Skilling appeared on the cover of the May 14, 2001 issue of *Business Week* and in the October 1, 1999 issue of *CFO Magazine*. Former CEO Kenneth Lay had been honored by *Business Week* in 1996 and 1999 as one of the top 25 managers. Enron CFO Andrew Fastow received one of *CFO Magazine's* twelve CFO awards. His award, oddly enough, was for capital structure management. Finally, strategy guru Gary Hamel (2000) was so enamored of

related themes: the acquisition and operation of energy related assets (power plants and electric distribution companies), and a trading operation in which Enron created markets for trading physical energy commodities (gas and electricity) and financial securities based on those commodities. By the close of the nineties it was clear that trading operations had become Enron's primary focus and the firm began systematically shedding its physical assets. This became known as the "asset light strategy."

With the exception of 1986, Enron was profitable throughout its history (see panel a. of Table 1). However, its greatest success occurred between 1995 and 2000 when the firm's revenue grew at a compound annual rate exceeding 60 percent. During the same five-year period the firm's assets grew at a rate of 38 percent while net income grew 12 percent. Much of increase in revenues can be attributed to the successful development of EnronOnline (the firm's internet based energy trading business) and Enron's method of accounting for trading revenues. Enron (following industry practice) reported the total dollar value of its trading volume as revenues and the cost of filling those contracts as costs of goods sold. Notably, Enron's revenues increased from \$40 billion in 1999 to over \$100 billion in 2000.

In 2001 Enron restated its financial statements for 1997-2000 to reflect the consolidation of some previously unconsolidated SPEs. Although the restatement garnered a great deal of press coverage in light of the firm's financial problems, the effects on reported profitability were modest (with the exception of 1997) and increased the firm's debt ratio only slightly. Comparing Enron's debt ratio to the median of its peer group indicates that Enron was near the median in all four years. Of course, as we discuss later, this analysis does not reflect the debt of unconsolidated SPEs.

---

Enron's management strategy that he devoted a significant portion of his book to Enron and its top executives' leadership styles.

Enron's line of business reports for 1998-2000 (found in Table 2 and defined in Appendix B) indicate that Wholesale Services, which housed the firm's worldwide wholesale energy and other commodities businesses which were principally involved in trading operations (including EnronOnline), contributed 92.5 percent of 2000 revenues, and just under 90% in the previous two years.<sup>4</sup> Although trading operations contributed the bulk of Enron's profits, margins were declining and from 1998 to 2000 dropped from 3.23 percent 1.79 percent. Following Wholesale Services, the Transportation and Distribution unit, comprised of interstate natural gas transportation systems and electricity transmission in Oregon, contributed 28.9% of the firm's operating profits in 2000 based on margins of about 20 percent. Neither Retail Energy Services (which provided retail energy products and services to business customers) nor Broadband Services (global fiber optic network and related services) made meaningful contributions to the firm's revenues or its bottom line. Thus, contrary to popular characterizations of the firm, Enron was never successful in transforming itself from a traditional gas pipeline and energy trading company to a new economy trading powerhouse. The dramatic run-up in Enron's price-earnings ratio from 18.33 in June 1996 to over 55 in December 2000 evidently reflected the "hoped for benefits" of the new economy Enron.

Panel A of Fig. 1 compares buy and hold monthly returns for Enron stock and the CRSP value-weighted market index during 1985-2001. Enron's stock-price paralleled the index return from its inception in 1985 until mid-1997 when the stock suffered a brief period of below market performance. For the next two and a half years, however, Enron dramatically outperformed the index. During this period Enron experienced several significant events (see Appendix A) including (1) the completion of Phase I of the Dabhol project and the acquisitions of international

---

<sup>4</sup> To the extent that we can rely on Enron's reported profits, their Internet trading produced \$2.3 billion during the 12 months before the collapse. This would make this division alone one of the 50 most profitable companies in America. ("Recharging," *The Economist*, April 18, 2002).

assets Elektro (Brazil) and Wessex (Great Britain); (2) early successes related to the firm's internet businesses (EnronOnline quickly became the world's largest business-to-business web site; Enron Broadband announced its first successful trade; and Enron Net Works was created to capitalize on eCommerce across a broad range of industries); and (3) Enron Energy Services reported its first transaction in 1998, followed by a billion dollar deal, and its first profitable quarter in 1999.

Panel B of Fig. 1 presents a different view of Enron's performance. Between 1985 and 2000 Enron's return on invested capital (ROIC) exceeded its cost of capital in only five years (1992-95 and 1997). For the remainder of the period, the firm regularly earned a ROIC lower than estimated financing costs (these figures are based on unrevised financials, suggesting that the actual results were even worse). However, this characterization ignores Enron's heavy investment in energy projects and later broadband network assets, investments that would pay out only over the long-term. For example, Table 2 indicates that between 1998 and 2000 Enron reported capital expenditures exceeding \$6.5 billion while total assets grew from \$29.350 billion to \$65.503 billion. From this perspective, returns from Enron's investments may simply not have caught up with its rapidly growing capital base.

The general public became aware of Enron's problems less than twelve months prior to the firm's bankruptcy. Panel A of Fig. 2 lists the milestone events leading up to the bankruptcy filing, and Panel B ties these events to Enron's share price. Enron's share price dropped from a high of \$83.13 on December 31, 2000 to under \$50 by June of 2001 and to less than a dollar by the end of November 2001.

Two factors underlie the speed of Enron's financial decline. First, Enron did not simply act as a broker between buyers and sellers in its trading operations. Rather, it was the counterparty to many trades (i.e., if someone wanted to buy then Enron was the seller, and if someone wanted to sell then Enron was the buyer). Thus, when entering into long-term contracts with Enron for

energy services and energy-related derivatives, Enron's counterparties had to trust that Enron could deliver on these obligations throughout the contract term. When Enron's credit rating declined and its financial viability became an issue, the firm's counterparties simply refused to trade, unwound their existing positions, and Enron's trading business ground to a halt.<sup>5</sup>

Second, Enron exposed itself to contingent liabilities associated with off-balance sheet special purpose entities (SPEs) run by Enron executives (related parties). Once the potential earnings and credit problems began to surface, the magnitude of the contingent liabilities was discovered, and Enron's ability to obtain credit to support its trading operations evaporated.

### **3 Financial engineering and financial reporting**

The US Senate report concluded that, in part, Enron executives were allowed to “...engage in high risk accounting ...” (p. 3).<sup>6</sup> Two features of Enron's financial reporting system serve as the focal point of concern in this regard. The first relates to so-called “mark-to-market” (or fair value) accounting and the second relates to the firm's use of off-balance sheet SPEs.

#### **3.1 Mark-to-market accounting**

Enron recorded assets and liabilities arising from its trading and merchant operations at market values rather than at historical cost. Far from controversial, this practice is consistent with Generally Accepted Accounting Principles (GAAP) and standard practice for equity and bond trading desks in banks and other financial institutions. Under mark-to-market accounting, assets are carried on the balance sheet at their market or fair value. Changes in asset value from one period to the next (unrealized gains and losses) are reported in the firm's income statement for the

---

<sup>5</sup> The financial pressure on Enron came when counterparties who normally traded with Enron withdrew cash balances held with Enron, and began requiring Enron to post cash collateral. Both actions put Enron's liquidity under severe pressure.

<sup>6</sup> “The role of the board of directors in Enron's collapse”, Report prepared by the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, United States Senate, July 8, 2002.

period. On the surface, mark-to-market accounting enhances transparency concerning the value of corporate assets and liabilities. For example, if a company acquires an asset whose value later drops dramatically, under historical cost accounting the value loss would be reported only when the asset was sold (unless the value of the asset were to become permanently impaired). With mark-to-market accounting, the value loss is reported in the firm's periodic financial statements, regardless of whether it is sold. However, if market values are unavailable, mark-to-market becomes mark-to-model, and the requisite valuations frequently involve subjective estimates. Such was the case at Enron when, on numerous occasions, it recorded values of complex transactions for which there were no observable market values.

Estimated values were a particular concern where Enron used mark-to-market accounting for merchant investments that lacked observable market values. Enron's merchant investments consisted of two main types. First, debt and equity financing provided primarily to energy and technology-related businesses. In many instances these investments were in firms whose securities were publicly traded, and these investments were marked-to-market using market values. Second, investments in power plants and natural gas pipelines (some of which it had developed, constructed and operated). These were classified as merchant investments because Enron did not expect them to be long-term, integrated components of its energy networks. The power plants and pipelines were also carried at fair value, however with market values for such assets not generally available, fair value was assessed using independent appraisals and cash flow analyses.

Although we do not know the extent to which estimates were used to value Enron's merchant assets, we do know that merchant asset sales had a significant impact on reported pre-tax profits. For the years ended 1998 through 2000 Enron reported that \$628 million, \$756 million, and \$104 million of its pre-tax profits came from gains from sales of merchant assets and

investments (footnote 4 of the 2000 10K). These values represent 89.3 percent of pre-tax reported net income for 1998, 84.7 percent for 1999, and 10.6 percent for 2000. Given that some of these sales were to SPEs run by Enron employees, and the potential conflicts of interest, questions understandably arise as to the validity of the reported income figures

### **3.2 Special purpose entities (SPEs)**

An SPE is an entity created by a sponsoring firm to carry out a specific purpose or activity, or a series of transactions directly related to a specific purpose and can take many different forms: a limited partnership, limited liability company, trust, or corporation (Graziano, 2002). SPEs are often referred to as Structured Financing Vehicles, particularly when used to raise money or manage risk as was often the case at Enron.

SPEs are neither unusual nor controversial in and of themselves and Enron's business model made extensive use of them. Management's rationale for the use of SPEs as a preferred financing vehicle was presented to the firm's board in the following way (US Senate permanent subcommittee report, 2002, p. 474). Enron continues to make significant capital investments in energy and communications investments that typically do not generate significant cash flow and earnings for 1-3 years. Since the firm has limited cash flow to service additional debt and limited earnings to cover the dilution effects of additional equity, Enron syndicates its capital investments in order to fund its growth. By 1999 Enron reported \$33.381 billion of assets on its balance sheet and had an additional \$26.993 billion syndicated in off balance sheet SPEs. Furthermore, because of the investment risk associated with the assets sold to the SPEs, lenders who provided financing to the SPE's often demanded that Enron provide collateral and guarantees.

Three factors contributed to the controversy over Enron's use of SPEs: First, several large SPEs formed beginning in 1997 were run by Enron employees (i.e., related parties). Second, some SPEs contained contingent liabilities that were not consolidated with the company's

financial statements. Consequently, Enron's debt obligations were greater than many observers thought. Finally, some SPEs did not meet the requirements for off balance sheet reporting and should have been consolidated (see Appendix C for details). These concerns are readily apparent in three SPEs formed beginning in 1997: Chewco Investments L. P., LJM Caymen, L.P., and LJM2 Co-Investment, L.P.

### 3.2.1 Questionable Financial Reporting: Chewco Investments L. P.

In 1993 Enron undertook a joint venture with the California Public Employees Retirement System (CalPERS) called the Joint Energy Development Investment L. P. or JEDI. The partnership was formed to fund energy investments under Enron's direction. The structure of the venture, reflected in Fig. 3, indicates that JEDI was capitalized with investment commitments of \$250 million in cash from CalPERS and a matching contribution by Enron. Enron's contribution, however, consisted of its own shares plus a put option guaranteeing CalPERS a 10 percent return on its investment.

According to the Powers Report (2002), in November 1997 Enron started looking for a buyer for CalPERS' share of the JEDI investment. The search was motivated by Enron's desire to have CalPERS invest in another, larger partnership and CalPERS' desire to manage its exposure to Enron. Enron subsequently sold CalPERS' share of JEDI for \$383 million to Chewco Investments L.P., a limited partnership created by Enron. Enron initially arranged for, and guaranteed, \$383 million of unsecured bridge loans so that Chewco could purchase CalPERS' JEDI interest. Chewco was managed by Michael Kopper (an Enron employee reporting to Enron CFO Andrew Fastow). Thus, Chewco was the first time that Enron used an SPE run by an employee to keep a

*significant* investment partnership outside of Enron's consolidated financial statements (Powers Report, p. 4).<sup>7</sup>

For off-balance sheet treatment (non-consolidation) Chewco had to satisfy two basic accounting requirements (see Appendix C). The first was that the partnership had to have at least 3 percent outside equity at risk. Table 3 describes how Chewco planned to meet this requirement (Powers Report, pp. 49-51). Importantly, the general partner (Kopper) invested only \$125,000 in Chewco and a bank loaned the balance of the "equity" for which it required cash collateral at closing. JEDI then sold assets and posted the collateral; however, because the collateralized portion of the loan was not "at risk" it was later determined (in 2001) that it could not be used to meet the 3 percent equity requirement for non-consolidation. The second requirement for non-consolidation is that the sponsoring firm cannot control the SPE. This, too, is questionable in the case of Chewco. Did Kopper control Chewco and, if so, did Enron control Kopper as an Enron employee?

In November 2001 Enron's internal accounting staff concluded, and Enron's auditor (Arthur Andersen) confirmed, that Chewco had to be consolidated as its financing did not meet the 3 percent equity at risk rule. This action had significant financial consequences for Enron. The restatement associated with Chewco's consolidation reduced Enron's reported net income for 1997-2000 by 43%, 15%, 17%, and 9%, respectively, and increased Enron's total liabilities for 1997-2000 by 11.4%, 7.6%, 8.4%, and 6.1%, respectively.<sup>8</sup>

---

<sup>7</sup> Kopper had served as general partner in one other SPE named RADR that was formed in early 1997; however, this was a very small partnership compared to the size of Chewco.

<sup>8</sup> These figures only reflect the impact of consolidating Chewco. Enron's 10Q filed on November 19, 2001 includes additional revisions. For example, it reported that 1997 reported earnings of \$105 million were revised downward by \$28 million as a result of the consolidation of Chewco and by another \$51 million to reflect prior period proposed audit adjustments and reclassifications. The revised earnings for 1997 was \$26 million for a reduction of more than 75%. Note, however, that the percent impact of the Chewco adjustment for 1997 looks much larger because of the fact that in 1997 Enron had a write off of \$714 million.

Also of note is the potential conflict of interest between Enron shareholders and the Enron employee who ran Chewco. Enron's code of conduct recognized the seriousness of such situations, stating that no full-time officer or employee should

“[o]wn an interest in or participate, directly or indirectly, in the profits of any other entity which does business with or is a competitor of the Company, unless such ownership or participation has been previously disclosed in writing to the Chairman of the Board and Chief Executive Officer of Enron Corp. and such officer has determined that such interest or participation does not adversely affect the best interests of the Company.” Powers (2002, p. 44)

The potential for conflict became a reality when, as the Powers Report (2002) states, Enron and Chewco negotiated the terms of profit distributions to Chewco with Fastow representing Enron and Kopper (who reported to Fastow) representing Chewco.<sup>9</sup>

### 3.2.2 Earnings Hedge Transactions: LJM Cayman, L.P. (LJM1)<sup>10</sup>

In 1999 CFO Andrew Fastow proposed the formation of LJM Caymen, L.P. (LJM1). Fastow would serve as general partner and the partnership would raise funds to 1) allow it to hedge Enron's merchant investment in the stock of Rhythms NetConnections, Inc. and 2) possibly acquire other assets in Enron's merchant portfolio. Enron's board approved the partnership and Fastow's role as general partner on June 28, 1999. Fastow was to invest \$1 million of personal funds and receive a 25% return plus a management fee. Additional funding of \$15 million was raised from two limited partners.

LJM1 entered into three transactions with Enron; however, we are particularly interested in one transaction: a hedge with respect to Enron's investment in the stock of Rhythms

---

<sup>9</sup> On August 21, 2002 Michael Kopper pled guilty to charges of money laundering and conspiracy to commit wire fraud. (Kurt Eichenwald, Former Enron official pleads guilty and will aid investigation, *New York Times*, August 21, 2002).

<sup>10</sup> The details discussed in this section rely on the Powers (2002) internal report to Enron's board unless otherwise noted.

NetConnections. This transaction represents the first time that Enron transferred its own stock to an SPE and then used the SPE to hedge the value of a merchant investment.

The background for the hedge is as follows: In March 1998 Enron invested \$10 million in Rhythms NetConnection stock. By April of 1999 when Rhythms went public, Enron's unrealized gain was approximately \$300 million. Given market conditions for technology stocks and Enron's inability to close out the position due to a lock-up agreement, the firm's management had an understandable desire to hedge the investment gain. However, Enron had another reason to hedge—the gains on the merchant investment had already been booked using mark-to-market accounting. Thus, any price decline in Rhythms stock would be reflected as a loss on Enron's income statement. Enron's solution was to hedge the Rhythms investment with LJM1.

A portion of LJM1's funds came from the general partner, Fastow, and other investors. The remainder came from what the Powers Report (2002) refers to as an ingenious use of the "trapped" or "embedded" value of forward contracts Enron had entered into with investment banks to purchase its own shares. Enron had entered into these agreements to provide an economic hedge against dilution resulting from Enron's employee stock option programs. As Enron's stock price increased, so too did the value of the forward contracts. Because GAAP precludes a firm from recognizing increases in the value of its own stock as income (including forward contracts), the gains on these forward contracts could not be booked as profits.

Releasing the value of the forward contracts to capture it as income was a two stage process. First, Enron settled the forward contracts in return for shares of Enron stock. Second, these shares were sold to LJM1 for a note receivable and a put option on the Rhythms shares. A simplified diagram of the transaction appears in Fig. 4. The critical element of this transaction is that LJM1's ability to honor the put was contingent on the value of the Enron stock it owned. Thus, the value of Enron's Rhythms put ultimately relied on Enron's share price. It appears that

the only purpose of the hedge was to convert the embedded value of the forward contracts into a form that could be recognized as income (i.e., the payoff to the put option). Consequently, the put option served only as an earnings hedge and resulted in no economic gain to Enron.

### 3.2.3 Expanding Hedge Transactions and Asset Sales: LJM2 Co-Investment, L.P. (LJM2) and the Raptors

In October 1999 Enron formed a second, much larger, SPE (LJM2) also run by Fastow. The plan for LJM2 was to raise at least \$200 million to create an investment partnership that could purchase assets Enron wanted to syndicate or monetize.

The transactions between Enron and LJM2 that had the greatest impact on Enron's financial statements were known as the Raptors. Enron followed the model used in the Rhythms NetConnections hedge and used the embedded value of Enron stock to counteract possible value declines in certain merchant investments. To avoid taking a charge to income if a merchant investment's value declined (following mark-to-market accounting) Enron contracted with the Raptor SPEs to offset any value loss in those merchant investments.

The first Raptor (Raptor I) was created April 18, 2000 solely to hedge Enron's merchant investments. Under Raptor 1 an SPE called Talon LLC was created to execute derivative transactions with Enron. With one exception, these transactions took the form of "total return swaps" on Enron's interest in merchant investments. Basically, Talon agreed to receive future gains on those investments, but agreed to pay Enron any losses incurred over the period of the swap. Once again, this arrangement would only work if Talon had the capacity to meet its obligations. This capacity, in turn, depended largely on the value of the SPE's principal asset—Enron stock.

As the value of Enron's investments underlying the hedges began to fall, the losses suffered by the Raptors rose. At the same time, Enron's stock price began to decline,

compromising the ability of the Raptors to honor the hedge agreements. The Powers Report (2002, p. 128) indicates that during 2000 and the first nine months of 2001 the Raptors contributed almost \$1.1 billion to Enron's earnings by offsetting losses on merchant assets. However, once the Raptors became financially challenged and were unlikely or unable to honor their commitments, Enron would have to record a credit reserve reflecting a charge to the income statement – exactly what Enron was trying to avoid. Had Enron hedged with an independent and creditworthy counterparty, it may have been able to transfer the risk of value declines. This did not, however, happen with these SPEs.

### 3.2.4 Summing up Enron's use of SPEs

Enron's rapid decline into bankruptcy is clearly linked to its aggressive and questionable use of derivatives and SPEs.<sup>11</sup> Enron used derivatives and SPEs to manage its reported financial results in two main ways: first, to hedge the risk of having to report losses suffered on some of its investments; and second, to transfer significant assets and debt obligations off the firm's balance sheet to unconsolidated SPEs.<sup>12</sup>

In all three SPEs discussed here, it could be argued that *if* the agreements had been arms length and enforceable, the transactions would have been deemed appropriate and even shrewd. Enron's management found creative ways to hedge the risk of losing their gains from merchant investments, used SPEs to finance large investments, and sold assets that eventually declined in

---

<sup>11</sup> Partnoy (2002) reaches a similar conclusion in his testimony in the Hearings before the United States Senate Committee on Governmental Affairs (January 24, 2002).

<sup>12</sup> Enron also used SPEs to inflate the value of investments in failed business ventures. Sherron Watkin's published letter to Ken Lay concerning the problems facing Enron charges that Enron took the price realized from the sale of dark fiber to LJM2 and used it to inflate the value of its remaining dark fiber assets (i.e., marking these investments to market). Enron completed an agreement to swap fiber optic network capacity and services with Qwest in the fall of 2000 that the two firms valued at more than \$500 million. Analysts later said that the valuation would be hard to justify due to the glut of fiber optic capacity and the fact that network prices were falling at the time. (David Barboza and Barnaby J. Feder, "Enron's swap with Qwest is questioned," *The New York Times*, March 29, 2002).

value. However, beginning in 1997 the SPEs involved related parties, and Enron retained the risks inherent to the transactions. As such Enron effectively entered into hedges with itself. On balance, the hedges appear to be attempts to manage the firm's reported profits, losses, and financial position.

### **3.3 Financial leverage**

Enron's bankruptcy caught many investors by surprise for, as we pointed out in Panel b. of Table 1, Enron's book debt ratio was not out of line with its peer group. However, investors were apparently unaware of the full extent of the firm's financial obligations. Their oversight was due in part to the fact that some portions of these obligations were contingent liabilities related to unconsolidated SPEs. Moreover, some of the SPEs debt covenants were extreme. Finally, substantial liabilities appeared on the balance sheet as "liabilities from risk management activities" (i.e., hedges) when in many cases these obligations were economically equivalent to floating rate loans.

#### **3.3.1 The role of Enron's contingent liabilities in the firm's bankruptcy**

Table 4 indicates that at fiscal year end 2000 Enron had \$28.4 billion in current liabilities, \$8.6 billion in long-term debt, and \$13.7 billion in deferred credits and other liabilities for total obligations of \$50.7 billion. Not reflected in the firm's balance sheet are \$3.9 billion in contingent liabilities arising out of Enron's guarantees for the debt of off-balance sheet SPEs (Enron 10Q, 3<sup>rd</sup> Quarter, 2001). The use of off-balance sheet financing was becoming an increasingly important element of Enron's capital structure management policies. Prior to Fastow's appointment as CFO the firm used a publicly traded subsidiary, Enron Global Power and Pipelines, to borrow money. Fastow started using partnerships because he felt they were more cost-effective and flexible (Fink, 1999). However, as noted earlier, Enron had to guarantee significant amounts of partnership debt. Furthermore, the ability of some partnerships to support their borrowings was ultimately

contingent on the value of the Enron shares they owned. So when Enron's stock price began to fall in 2001, the financial viability of these partnerships deteriorated and ultimately collapsed.

To see how the drop in share value triggered Enron's liquidity crisis, consider the guarantees made by Enron for the debts of two of its unconsolidated partnerships, Whitewing Associates L.P. and Atlantic Water Trust, formed to acquire Enron assets. These partnerships invested through two separate entities, Osprey and Marlin. Enron guaranteed the debt of the two entities and provided "Note Trigger Events" to protect the note holders, including (i) an Enron senior unsecured debt rating below investment grade by any of the three major credit rating agencies concurrent with an Enron stock closing price of \$59.78 per share or below in the case of Osprey and \$34.13 per share or below in the case of Marlin; (ii) a cross default to Enron senior obligations in excess of \$50 million and \$100 million for Osprey and Marlin, respectively; and (iii) the requirement that an amount sufficient to redeem the notes be deposited with a trustee 120 days prior to maturity dates of January 15, 2003 and July 15, 2003 for Osprey and Marlin, respectively. Enron stock dropped below \$30 per share in August 2001 such that the November 12, 2001 downgrade in Enron's senior unsecured debt rating to BBB- by Standard & Poor's caused a ratings event. This event started a nine business day period during which Enron had the right, until November 26, 2001, to post an unsecured letter of credit equal to Enron's note payable, to repay the note payable, or to purchase the investors' interest in the partnerships. To the extent that Enron did not satisfy this requirement by November 27, 2001, the investors had the right to immediately begin to liquidate the Limited Partnership assets. (Enron 3<sup>rd</sup> Quarter 10Q, p. 34)

### 3.3.2 Borrowing off balance sheet through hedge transactions

Table 4 also reveals a 150% increase in Enron's total liabilities for 2000 compared to the \$20.4 billion reported in 1999. The primary difference can be attributed to "Liabilities from price risk management activities".

During the period 1992-2001 Enron hedges resulted in the receipt of \$3.9 billion, including \$2.4 billion during the final three years of this period.<sup>13</sup> These hedges were actually “prepaid swaps” whereby Wall Street firms like J. P. Morgan Chase, Citigroup, and Credit Suisse First Boston paid Enron cash for the right to receive an uncertain future payment (e.g., in five years) that was contingent on market conditions at the time. The cash flow pattern for the prepaid swap agreements is similar to the payment structure of a loan. However, the repayment amount is contingent on the future value of some economic measure, such as the price of oil at the end of the swap term. Consequently, under GAAP Enron could record the agreements as “assets from price risk management” and the corresponding liabilities as “liabilities from price risk management.” Technically, the transactions were swaps. However, because the Wall Street firms pre-paid the fair value of its obligation under the swap to Enron and Enron made its payment at the end of the swap term, the transaction’s cash flows were economically equivalent to a floating rate loan.

#### **4 Corporate governance issues**

Lapses in Enron’s corporate governance exacerbated, and in some instances facilitated the firm’s ultimate demise. Governance failures along multiple dimensions, both internal and external to the company, allowed Enron’s management team to disguise and conceal the firm’s true financial condition for more than 3 years. We trace the primary sources of governance failures to conflicts of interest that led to the circumvention of independent oversight of Enron’s management and monitoring failures on the part of the board and external auditors. In addition, it appears that Enron’s incentive compensation system engendered a focus on earnings growth and stock price; however, it is not clear to what extent compensation policy contributed to the firm’s downfall. We review each of these issues in turn, beginning with Enron’s Board.

---

<sup>13</sup> This discussion relies on Daniel Altman, “Enron had more than one way to disguise rapid rise in debt,” *The New York Times* (February 17, 2002).

## 4.1 Board structure

On paper, Enron had a model board comprised predominantly of outsiders with significant ownership stakes and a talented audit committee (Gordon 2002). In its 2000 review of best corporate boards the *Chief Executive Magazine* included Enron among its top five boards. Enron's May 1, 2001 proxy statement described a board of 14 members, somewhat larger than the average size of 9 to 11 (Adams, et. al. 2002, Ferris, et. al. 2002, Gillan, et. al. 2002, and Yermack 1996). Enron's board had only two internal executives (Chairman of the board and former CEO Kenneth L. Lay, and President and CEO Jeffrey K. Skilling) and 12 non-employee outsiders (see Table 5).<sup>14</sup> The outside directors included five CEOs, four academics (including Wendy Gramm, former head of the Commodities and Futures Trading Commission and wife of Senator Phil Gramm), a professional investor, the former president of Enron's wholly owned subsidiary Belco Oil & Gas, and a former U.K. politician. Notionally, this puts Enron's board at 86% independent, which is higher than the average of 59% for a broad range of US companies (Gillan, et. al. 2002).

Enron's board structure appeared to be at the leading edge of best corporate governance practice. The board's subcommittees included audit and compliance, compensation and management development, executive, finance, and nominating and corporate governance (see Appendix D for details). Almost all US listed companies have audit and compensation committees. However, during the late nineties, less than 60% of large firms had separate nominating committees, and fewer than 25% had corporate governance committees. (Gillan, et. al. 2002) Moreover, in a sample of S&P 500 firms, Adams, et. al., (2002) report that less than half (46%) had a separate finance committee.

Furthermore, Gordon (2002, p. 11) notes that Enron's audit committee had a state of the art charter making it "...overseer of Enron's financial reporting process and internal controls." The

---

<sup>14</sup> Appendix E contains the names of former Enron board members from the 1995-1999 period.

audit committee also had “direct access to financial, legal, and other staff and consultants of the Company”, and the power to retain other accountants, lawyers, or consultants as it deemed appropriate. As is the case with many other firms, the compensation committee established compensation strategy, ensured effective compensation of senior management, and monitored and approved awards under Enron’s executive compensation program. Similarly, the nominating and corporate governance committee’s responsibilities included making or evaluating: recommendations on board size and board candidates, the company’s corporate governance guidelines, and director independence and performance. The finance committee had responsibility for monitoring executive decisions including the review of management’s financial plans and proposals, changes in risk management policy, the transaction approval process, and the policy for approving guarantees and letters of credit.

Table 5 shows that the audit, compensation, and nominating committees were comprised solely of outside directors, and only one affiliated director (Belfer) served on the finance committee. Interestingly, no board member served on all four monitoring committees. Thus, it could be argued that no one outside director was privy to the full ramifications of key managerial decisions. However, this outcome seems unlikely given the lengthy tenure of most of the board members and the evidence presented at Senate Hearings.<sup>15</sup>

Most directors owned significant amounts of Enron stock, and all but one non-employee director (Gramm) received stock options or phantom stock as part of their director compensation package.<sup>16</sup> Using Enron’s January 2001 stock price of \$83.13 and the directors’ beneficial ownership reported in the 2001 proxy, director ownership ranged in value from \$266,000 to

---

<sup>15</sup> Enron had five directors who had served on the board since the merger that created it in 1985. These include Belfer (age 65), Duncan (73), Jaedicke (72), LeMaistre (77), and Winokur (57). In addition, Belfer served on the board of Houston Natural Gas beginning in 1983.

<sup>16</sup> A trust was created for Gramm to avoid any appearance of conflicts of interest given her relationship with Senator Phil Gramm..

\$706,000,000 (see Table 5 for details). The amounts were \$659,000,000 for Lay, and \$174,000,000 for Skilling.

Enron's board structure changed somewhat during 1995-2001. Board size increased from 13 during 1995 and 1996, to a high of 18 in 2000 before shrinking to 14 in 2001. These changes involved the appointment and resignation of several insiders, and the resignations of two outsiders. Although the initial increase in board size is counter to recent trends, the subsequent reduction is generally consistent with best practice and the evidence in recent papers examining corporate boards (Denis and Sarin (1999) and Yermack (1996)). Moreover, Enron's board appeared to be experienced, structured in a manner to closely monitor management activities, and comprised of directors with a financial interest to carry out their monitoring duties.

#### **4.2 Director independence**

The independence of the Enron's outside board members, including members of the key monitoring committees has been challenged by the financial press and in Senate hearings.<sup>17</sup> Indeed, the US Senate investigation into the role of the Enron board of directors in the company's collapse highlighted numerous financial ties between Enron and certain directors that we summarize in Table 6. These ties encompass three general areas: directors being paid consulting fees in addition to board fees, transactions with entities in which directors played a major role, and donations to groups with which directors were affiliated.

Of the 12 outside directors as of May 2001, 6 had potential conflicts of interest through financial ties, suggesting that less than 43% of the board may have been independent of management. This contrasts with average board independence in large sample studies discussed above of 59%, and with IRRC data indicating that 75% of large U.S. companies had majority

---

<sup>17</sup> See Joanne S. Lublin, "Inside, outside Enron, audit committee is scrutinized," *Wall Street Journal* (February 1, 2002), C1.

independent boards.<sup>18</sup> Moreover, several directors with potential conflicts of interest sat on the audit, finance, and nominating and corporate governance committees.

Enron's director compensation policy raises more questions about board independence. Table 7 reports that between 1995 and 1998 the value of annual phantom stock grants to directors ranged from \$15,000 to just over \$21,000. Similarly, stock option grants ranged from 1,600 to 2,000 shares with an estimated value of \$20,000 to \$30,000. During 1999, although the value of phantom stock remained at the same level, the number of options granted jumped to over 8,000 with an estimated value exceeding \$100,000. By 2000, each non-employee directors received average director fees of \$79,107 and 10,775 stock options with an estimated value of \$270,000 for an annualized package close to \$350,000.<sup>19</sup> This compares to Enron's peer group average of \$104,514 where no firm paid more than \$200,000 to its directors in 2000, and only three paid more than \$100,000.<sup>20</sup>

None of these challenges to financial independence are necessarily evidence of wrong doing. However, it has been suggested that some board members' financial interests may have attenuated any inclination to aggressively monitor management's practices – practices that sought to preserve the firm's debt ratings, supplement reported earnings, and maintain the firm's growth and stock price through the use of complex derivative transactions.

---

<sup>18</sup> IRRRC stands for the Investor Responsibility Research Center and the report cited here is dated 2001.

<sup>19</sup> For example, Enron's proxy statement indicates that during 2000 each non-employee director received 360 phantom stock units (valued at \$75.125 per unit on the date of the grant) and options to purchase 10,775 shares (with an exercise price of \$75.125 per share). If we use the rule of thumb that option value is equal to one third of the strike price times the number of options granted this produces a value for the options at \$270,000.

<sup>20</sup> Enron's peer group (from the 2001 proxy statement) includes AES Corporation; BG Group plc; Coastal Corporation; Dominion Resources, Inc.; Duke Energy Corporation; Dynegy Inc.; El Paso Energy Corporation; Level 3 Communications, Inc.; Occidental Petroleum Corporation; PG&E Corporation; and the Williams Companies, Inc.

### **4.3 Board actions and inactions**

The 758-page Senate Subcommittee report entitled “The role of the board of directors in Enron’s collapse” (May 2, 2002) provides unprecedented insight into how Enron’s board and subcommittees operated. Thirteen of Enron’s board members were interviewed, and the Subcommittee had access to detailed information including board and committee minutes, presentation materials, and communications with Arthur Andersen. In this section we draw on the Senate report to gain a unique understanding of how Enron’s board actually functioned.

Enron’s board normally met five times a year for a two-day period. The first day involved board committee meetings generally lasting 1-2 hours each and a dinner. Full board meetings on the second day included presentations by committee chairmen summarizing each committee’s work and recommendations. Other than the formal committee and board meetings, Enron directors indicated that little communication took place either among board members, or between board members and Enron or Andersen personnel. Moreover, Lay and Skilling usually attended executive, finance, and audit committee meetings, and Lay often attended compensation committee meetings. We do not know the extent to which senior executives attend committee meetings at other companies or the level of interaction between board members and company or audit personnel; however, these practices raise questions as to the independence and effectiveness of the board’s monitoring efforts.

Table 8 documents a number of red flags regarding the firm’s use of off balance sheet SPEs and other important actions of Enron’s management that the board may have ignored. For example, board minutes indicate that in the meeting when LJM1 was approved, the board also considered proposals pertaining to a stock split, increasing shares in the company’s stock compensation plan, purchasing a new corporate jet, and investing in a Middle Eastern power plant.

Furthermore, Chairman Lay discussed reorganization plans in process. The entire meeting lasted only one hour.

The Board relied on Enron's management to develop and implement controls to monitor the LJM partnerships and associated transactions. Initially no controls were established. As further transactions with the SPEs were approved, additional controls were imposed by the board. But it appears that these controls were either ineffectual or did not result in a detailed board review. For example, the audit and finance committee reviews of LJM transactions were based on a 1-2 page list that included the names of the transactions between LJM and Enron, the approximate dollar value of each transaction, and a short description of the transaction (ten words or less). At each of these reviews, the committees spent between 15 and 30 minutes reviewing the list with Enron's Chief Accounting Officer.

In May 2000, a report to the finance committee indicated that LJM2 had produced over \$2 billion in "funds flow" for Enron, over \$200 million in "Earnings," and "8 days/6 deals/\$125 million" during the fourth quarter of 1999. Despite the magnitude of these numbers for a newly formed business, there apparently was no discussion of how LJM2 was able to achieve its success so quickly. However, the finance committee did request that the chair of the compensation committee obtain information on Fastow's LJM compensation. When the information was not provided by Enron's senior compensation officer, the chair let the matter drop. In October 2001, a *Wall Street Journal* story suggested that Fastow had earned more than \$7 million from LJM. This reignited the board probe into Fastow's LJM compensation and Fastow acknowledged receiving \$45 million from LJM. On October 24, 2001 Fastow was placed on leave.

The evidence suggests that at several important junctures the board ignored red flags that could have served to curtail management actions that led to the firm's collapse. Initially the board failed to implement controls for related party transactions, and after recognizing the importance of

the potential conflicts of interest and implementing controls, they apparently failed to follow through and monitor those transactions. It is worth noting, despite the red flags, that the board relied heavily on information provided by the external audit firm, Arthur Andersen. We now turn to a more detailed discussion of Andersen's role.

#### **4.4 Auditor independence**

To restrain companies from cooking the books to defraud the investing public, the Securities Act of 1933 and the Securities Exchange Act of 1934 established "statutory audit" requirements. Specifically, these Acts required that companies issuing securities to the public have their financial statements certified annually by independent accountants. Thus, when accountants perform statutory audits, they act as watchdogs for the public interest.

Auditor effectiveness, like board effectiveness, hinges on the ability to act as an independent gatekeeper. The independence of Arthur Andersen has been questioned on at least three grounds. First, some have argued that the very system whereby firms pay auditors is flawed. O'Conner (2002) argues that because accountants rely on repeat business, simply accepting the auditing engagement may compromise auditor objectivity and independence. This suggests that the very basis for the audit is flawed as a form of corporate control. The conventional counter argument is that auditors would not risk their reputation on a single client's indiscretions and the modest fees involved (see, for example Coffee (2002)). However, evidence from the 1990's suggests that auditors do acquiesce to managerial fraud, even though the financial gains appear to be dwarfed by reputation loss (Prentice, 2000).

The second challenge to Arthur Andersen's independence relates to the fact that for two years Andersen served as both Enron's internal and external auditor. Essentially, when Andersen performed its external audit it was reviewing its own work. For example, Andersen advised Enron on the structure of many its SPEs, received consulting income for doing so, and audited those

transactions.<sup>21</sup> This leads to the third challenge to auditor independence – auditors accepting consulting engagements with audit clients has long been recognized as a potential source of conflict of interest problems (Frankel, et. al., 2002). During 2000, Enron paid Arthur Andersen total fees of \$52 million, including \$25 million for the audit, \$14 million for work arguably connected to the audit (Andersen’s CEO testified before congress that the work can “only be done by auditors”), and \$13 million for other consulting. These fees made Enron one of Andersen’s largest clients, and certainly one of the largest clients for its Houston office.

The conflict of interest problems described above may have led to what appear to be failures on the part of Anderson to pursue its misgivings about many of Enron’s transactions. For example, apparently Andersen employees had serious concerns about Fastow’s involvement in the SPEs as the following e-mail reveals.

“Setting aside the accounting, [the] idea of a venture entity managed by CFO is terrible from a business point of view. Conflicts of interest galore. Why would any director in his or her right mind ever approve such a scheme?” (Andersen internal email, Exhibit 55, Senate Subcommittee report)

However, the magnitude of these concerns were apparently not communicated to the audit committee. In addition, at a February 1999 audit committee meeting, Andersen presented a risk profile analysis of accounting judgments and disclosure judgments that placed Enron in the “high risk” category in 11 out of 14 areas. At the same meeting, handwritten comments on meeting materials by an Andersen representative indicated that some of Enron’s accounting practices “push limits” and were “at the edge” of acceptable practice. Despite Andersen’s concerns the audit firm issued Enron an unqualified audit report. The audit committee then recommended the adoption of the financial statements to the full board and that Andersen be reappointed as the firm’s independent public accountant.

---

<sup>21</sup> The Powers Report (2002) confirms Andersen’s role in helping structure Enron’s off-balance sheet Special Purpose Entities which later proved to be disclosure deficient.

The evidence suggests that potential conflicts of interest on the part of Andersen may have contributed to Enron's problems. Also, Enron's audit committee failed to fulfill its responsibilities which included reviewing "...the scope of and fees related to the audit, accounting policies and reporting practices, internal auditing and internal controls, compliance with Enron's policies regarding business conduct and other matters as deemed appropriate."

#### **4.5 Enron's compensation plans**

There is little doubt that senior executives engaged in a variety of activities that were designed to manage the level and volatility of Enron's reported earnings, and presumably the company's stock price. In this section we review the firm's compensation plans to ask the question: what economic incentives did Enron's executives have to manage earnings?

Enron's compensation program used the three elements common to most firms: base salary, annual incentive awards, and long-term incentive grants. Annual incentive awards, which were approved by the compensation committee, were funded as a percentage of after-tax net income. Long-term incentive grants were initially awarded with one-half of the value in performance units, and one-half in stock options granted at market price. Each performance unit had a four-year performance period, and was granted at a value of \$1.00. The unit payoff was based on the firm's ranking of total shareholder return (based on stock price performance) relative to a set of 12 industry peers. At the upper end, a ranking of one would ensure a \$2 per unit payoff. At the other end, a ranking of 7-12 or if Enron's total shareholder return during the period failed to exceed the cumulative return on T-bills, would result a zero payout.

A similar pattern of compensation persisted throughout the mid 1990's, although revisions to the structure were made from time to time. By 1998, the performance unit plan had been replaced with performance-based restricted stock grants (although the previous performance unit plan grants would run their cycle). By 2000, awards were made one-half in non-qualified stock

options and one-half in restricted stock with a performance accelerated vesting feature. Stock options were typically granted in January with a 5-year term and 3-year vesting. In some cases, stock option awards had performance vesting features, providing for accelerated vesting if Enron achieved its “aggressive target” of 15% annual compounded growth in earnings-per-share. Similarly, although some restricted stock grants “cliff vested” four years from the date of the grant, vesting could be accelerated based upon Enron's annual cumulative shareholder return relative to the S&P 500.

The compensation committee summarized their assessment of the total compensation program applied to Lay and other senior executives as one that: “...provides Enron management with a long-term strategic incentive that will encourage the continued creation of stockholder value.” Although it is difficult to discern the extent to which other employees were granted stock or options with performance triggers, the compensation committee report noted that approximately 70% of the total compensation for Enron's most senior executives was “at risk,” with a heavy weighting toward long-term performance.

Other aspects of Enron’s human resource policy provide additional insights into the employment and incentive environment (Kaminski and Martin, 2001). Average salaries for most employees were set at or below competitive levels and substantial bonuses and large stock option grants were awarded based on a bi-annual performance review process. These reviews ranked employees at each managerial level (i.e., analyst, vice president, etc.) from highest to lowest. Employees were then classified into six performance categories: superior, excellent, strong, satisfactory, needs improvement, and issues. Compensation was linked closely to the results of the performance review. For example, at the vice president level, a superior performer could be paid up to 5 times a satisfactory performer. Finally, based on the performance review process, 10-15% of the lowest ranked employees each year were asked to leave the company.

Many would argue that Enron's personnel and compensation programs were not only innovative, but in concert with recommended best practices. Evidence on compensation structures at the largest 250 industrial companies for 2000 suggests that fewer than one third of firms use performance shares, less than 20% use performance unit plans, and only 16% use performance-based options.<sup>22</sup> At Enron, on the other hand, compensation for employees was closely linked to shareholder value, and employees had a substantial portion of their compensation at risk. Additional performance requirements – such as meeting earnings growth targets, beating an index or peer group, or in the case of the performance unit plan, the requirement that Enron's return exceed the T-bill rate for a payout to be made – are features that many advocates of compensation policy reform applaud. The compensation program rewarded executives not just for general market movements, but for real and relative performance. Senior Enron executives were also expected to hold Enron stock with a value at least equal to their annual salary.

However, Enron's compensation program, which emphasized earnings and stock price in conjunction with short and accelerated vesting schedules, raises several questions. Did Enron's compensation policy align employee and shareholder interests? Or did it lead to a myopic focus on short-term stock prices?<sup>23</sup> Could the potential payoffs from meeting earnings and share price targets explain the willingness of the firm's upper management to turn a blind eye to the financial reporting practices and SPE transactions initiated by Fastow in 1997? The answers to these questions are not clear. What is clear, however, is that Enron employees were operating in an internally competitive environment where they had powerful incentives to increase earnings and the company's stock price. As noted by Murphy (1999) and Healy (1985), if bonuses are based on performance thresholds, managers are expected to manipulate earnings to achieve the thresholds.

---

<sup>22</sup> The 2001 Top 250, Frederic W. Cook & Co., Inc.

<sup>23</sup> Kurt Eichenwald, "Enron paid huge bonuses in '01; Experts see a motive for cheating," *The New York Times* (March 1, 2002).

However, for many years shareholders reaped the benefits of these increases. For example, \$100 invested in Enron stock in 1995 grew to \$474.61 in 2000, compared to \$227.89 for the S&P 500, and \$254.88 for Enron's peer group.

Moreover, bankruptcy records suggest that Lay and more than 140 senior executives at Enron apparently held some \$430 million of stock before the firm declared bankruptcy, of which Lay accounted for \$50 million. Whereas it is difficult to determine how much these individuals cashed out of Enron over the years, or what their personal wealth was, we can say they stood to lose a substantial amount in the event of the company's demise.<sup>24</sup>

The question remains as to how actively the compensation committee monitored compensation policies and payments. For example, the committee approved a \$4 million credit line for Lay that was later increased to \$7.5 million. However, the committee was unaware that from October 2000 to October 2001, Lay used the credit line to obtain over \$77 million in cash from the company, and that he repaid the loans using Enron stock (effectively selling stock back to Enron). Mr. Blake, a compensation committee member, stated,

"I do not want to go close to the word 'abuse,' but I would say that as a CEO, it is not what you say, it is what you do. Sale of a stock in the nature that took place was inappropriate. ... I was absolutely shocked by this. ... [I]f we had a chance to have known that that occurred, we would have taken immediate and corrective action to ensure that behavior would not happen again." (Senate Subcommittee Report p. 90)

Moreover, during 2001, based on year 2000 performance, Enron executives were paid some \$430 million under the annual bonus plan. Another \$320 million was paid under the performance unit plan for a total cash payout of \$750 million. Enron's net income for 2000 was \$975 million. Compensation policy was the mandate of the compensation committee, and ultimately the full board. Interestingly, during Senate interviews board members indicated that

---

<sup>24</sup> Lay, for example, had locked in gains by selling some \$123 million of shares during 2000 alone. This in and of itself, however, appears similar to the actions of many other CEOs during the 1990's.

they were unaware of the total bonuses paid, suggesting another potential failure in board monitoring, this time in the area of compensation policy.

## **5 Conclusion**

The bankruptcy and failure of the Enron Corporation on December 2, 2001 shook the investment community to its core. Congressional hearings ensued and new regulations in process of adoption will have far reaching implications for businesses and investors. It now seems apparent that there was a corporate governance failure at Enron. Reporting and auditing requirements did not reveal the economic impact of decisions made as far back as 1997 through the fall of 2001. Enron's board of directors allowed management to set up SPEs that clearly involved conflicts of interest between the company and employee general partners. It is also apparent that Enron effectively added to its leverage by using off-balance sheet debt in SPEs. Moreover, strict covenants in SPE debts, debts for which Enron was a guarantor, put the company on a knife-edge. The nature of these obligations, and the fact that Enron executives were running SPEs was not made clear in Enron's consolidated financial statements until well after they had been established. In fact, Enron was forced to reveal its obligations to the SPEs only after its stock price plummeted, which triggered debt covenants and forced the firm into bankruptcy.

A competitive personnel evaluation process, short vesting periods for stock and option grants, and accelerated vesting that resulted in enormous payouts certainly focused employee attention on earnings and the firm's stock price. This combination of factors could have engendered a short-term focus that contributed to the firm's problems. However, at the core, blame for Enron's failure appears to rest with three main groups. First, Enron executives set up financial structures that circumvented accounting rules and internal and external controls. Second, basic internal controls either failed, or were so flimsy that they were easily circumvented. Notably, the board of directors waived the corporate code of conduct to permit critical

transactions, and then apparently undertook only cursory reviews, or no reviews of those transactions. Third, the external auditors failed to inform the board of their misgivings and the potential problems associated with many of the SPEs. Neither the board nor the external auditors appeared to fully appreciate the potential economic jeopardy that these transactions posed for the company until it was too late.

The governance failures at Enron highlight potential flaws in corporate governance systems more generally. Indeed, they provide the basis for questioning the standard view of what constitutes good governance and provided the impetus for dramatic regulatory reform. Such reforms are addressing perceived weaknesses in internal control mechanisms, external control mechanisms, and the overall structure of corporate governance. Only time will tell whether the changes in corporate governance will prevent future corporate governance failures like Enron.

## References

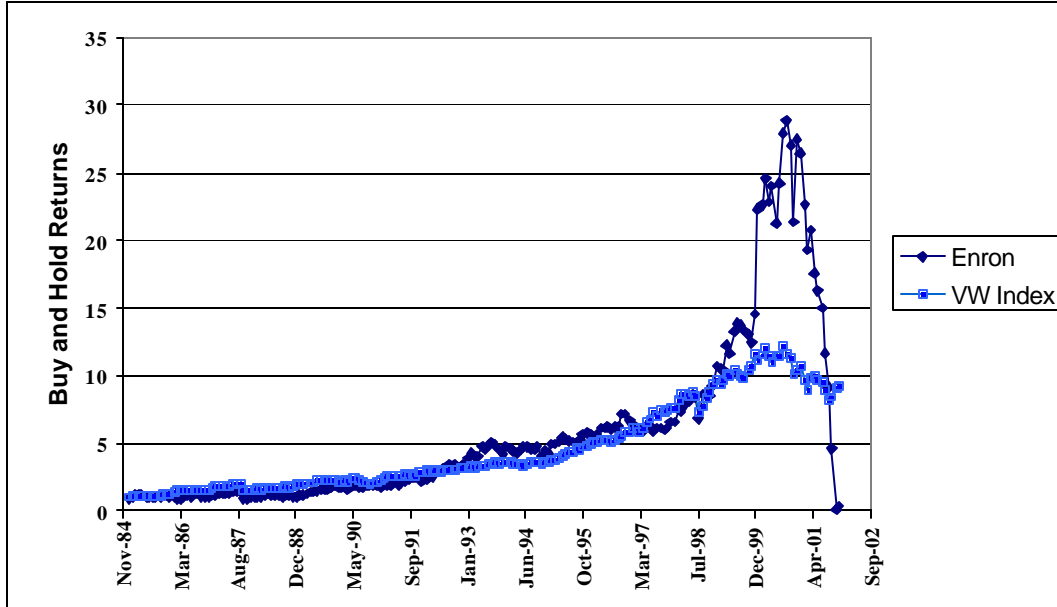
- Adams, R., Hayes, R., Mehran, H., and Schaefer, S., 2002, Board committee structures, ownership, and firm performance, working paper, New York Federal Reserve.
- Borokhovich, K.A., Parrino, R., and Trapani, T., 1996, Outside directors and CEO selection. *Journal of Financial and Quantitative Analysis* 31, 337-355.
- Bratton, W.W., 2002, Enron and the dark side of shareholder value, Public Law and Legal Theory Working Paper No. 035, The George Washington University Law School, forthcoming in the *Tulane Law Review*, 2002.
- Brickley, J., Coles, J., and Terry, R., 1994, Outside directors and the adoption of poison pills, *Journal of Financial Economics* 35 (1994), 371-390.
- Coffee, J.C., Jr., 2002, Understanding Enron: It's about the gatekeepers, stupid," Columbia Law School, The Center for Law and Economic Studies, Working Paper No. 207, (July 30, 2002).
- Committee on Governmental Affairs of the United States, The role of the board of directors in Enron's collapse, Report prepared by the Permanent Subcommittee on Investigations, 107<sup>th</sup> Congress, 2<sup>nd</sup> Session, Report 107-70 (May 7, 2002).
- Fama, E.F., and Jensen, M.C., 1983, Separation of ownership and control, *Journal of Law and Economics* 26, 301-326.
- Ferris, S. P., Jagannathan, M., and Pritchard, A.C., 2002, Too busy to mind the business: monitoring by directors with multiple board appointments, forthcoming *Journal of Finance*.
- Fink, R., Balancing Act, *CFO*, June 1999.
- Frankel, R.M., Johnson, M.F., and Nelson, K.K., 2002, The relation between auditors' fees for non-audit services and earnings quality, MIT Sloan School of Management, Working Paper 4330-02.
- Fuller, J., and Jensen, M.C., 2002, Just say no to Wall Street, Negotiation, Organization and Markets Unit, Harvard Business School, Working Paper No. 02-01.
- Gillan, S.L., Hartzell, J.C., Starks, L.T., 2002, Industries, investment opportunities and corporate governance, working paper, University of Texas and University of Delaware.
- Gordon, J.N., 2002, What Enron means for the management and control of the modern corporation: Some initial reflections, forthcoming in the *University of Chicago Law Review*.
- de Mesa Graziano, C., 2002, Special Purpose Entities: Understanding the Guidelines, *Issues Alert, Financial Executives International*.
- Healy, P., 1985, The effect of bonus schemes on accounting decisions, *Journal of Accounting and Economics*, 7, 85-107.
- Jensen, M. C., 1986, Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers *The American Economic Review*, Vol. 76, No. 2, pp. 323-329.
- Jensen, M.C., 1993, The modern industrial revolution, exit and the failure of internal control systems, *Journal of Finance* 48, 831-880.

- Klein, A., 1998, Firm performance and board committee structure, *Journal of Law and Economics* 41, 275-303.
- Lambert, R.A., 2001, Contracting theory and accounting, *Journal of Accounting and Economics*, 32, 1-3, 3-87.
- Murphy, K.J., 1999, Executive Compensation, in Orley Ashenfelter and David Card (eds.), *Handbook of Labor Economics*, Vol. 3, North Holland
- Hamel, G., 2000, Leading the Revolution, (Boston, MA., Harvard Business School Press).
- Kaminski, V., and Martin, J., 2001, Transforming Enron Corp: The Value of Active Management, *Journal of Applied Corporate Finance*, Winter, 39-49.
- O'Connor, S.M., 2002, The inevitability of Enron and the impossibility of “auditor independence” under the current audit system, University of Pittsburgh School of Law, Unpublished paper.
- Partnoy, 2002, Testimony of Frank Partnoy Professor of Law, University of San Diego School of Law Hearings *before the United States Senate Committee on Governmental Affairs*, (January 24).
- Powers, William C., Jr., Raymond S. Trough, and Herbert S. Winokur, Jr., 2002, Report of the Special Investigative Committee of the Board of Directors of Enron Corporation, (February 1).
- Prentice, R.A., 2000, The case of the irrational auditor: A behavioral insight into securities fraud litigation, 95 *Nw. U. L. Rev.* 1333.
- Weil, R.L., 2002, Fundamental causes of the accounting debacle at Enron: Show me where it says I can't, Summary of Testimony for Presentation 06-Feb-2002, The Committee on Energy and Commerce, (February 5).
- Weisbach, M.S., 1988, Outside directors and CEO turnover. *Journal of Financial Economics* 20, 431-46.
- Yermack, D., 1996, Higher market valuation for firms with a small board of directors, *Journal of Financial Economics* 40, 185-211.

Figure 1 Enron's market and operating performance

*Panel A. Historical buy and hold returns for Enron and the CRSP Value Weighted Index returns—November 1984-June 2001*

Buy and hold returns =  $(BHR_t) = \prod_{j=1}^t (1 + HPR_j)$  where  $HPR_t$  is the monthly holding period return for month  $t$ .



*Panel B. Enron operating performance for 1985-2000.*

Annual return on invested capital (ROIC) and weighted average cost of capital (WACC) estimates. The data source is Stern Stewart Company and does not reflect the revision of 1997-2000 reported results filed by Enron in Q3 2001. The revisions reduced reported profits and increased assets such that their effect was to reduce ROIC and make Enron's performance worse.

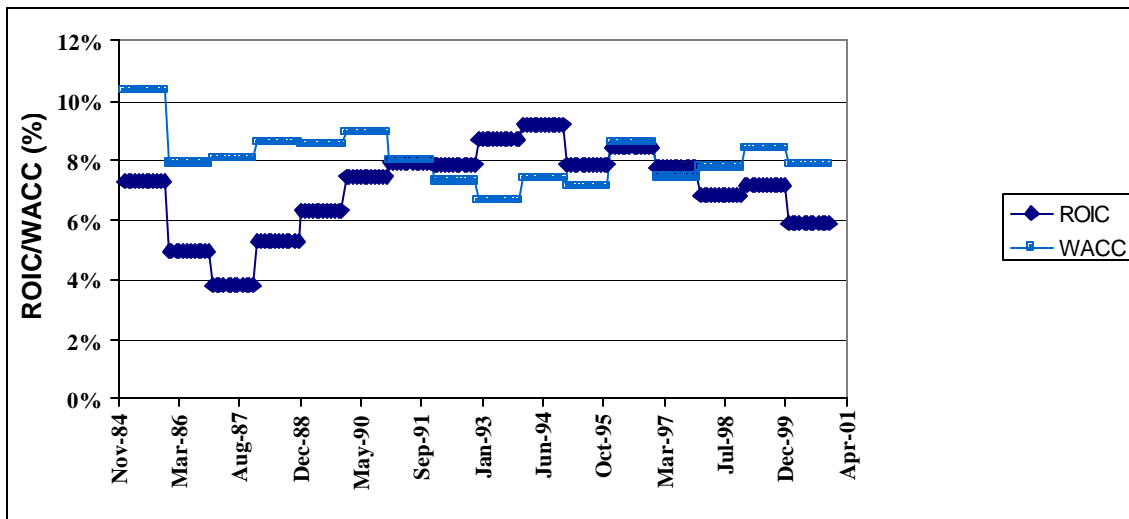


Figure 2

Enron events and stock price performance during 2001

---

*Panel A: Key events leading up to the Enron bankruptcy*

---

January 22, 2001—Enron reports annual net income rises 32% while Broadband business loses \$60 million.

July 12, 2001—Enron reports its second quarter net income jumps 40%, broadband losses reach \$102 million.

August 14, 2001—CEO Jeffrey Skilling resigns and Chairman Ken Lay states “Our growth prospects have never been better.”

October 16, 2001—Enron announced non-recurring losses totaling more than \$1.01 billion and a \$1.2 billion charge to shareholder’s equity. These losses relate to the firm’s water business (\$287 million) and its broadband investments (\$724 million). Some of the losses are a result of commitments Enron had with off-balance sheet partnerships known as “Special Purpose Entities” that had acquired many of the assets. Questions raised about these entities spark a voluntary SEC investigation.

October 17, 2001—The SEC requested that Enron voluntarily provide information regarding certain related party transactions.

October 18, 2001—Enron restates earnings for the past four and a half years because of partnership losses. This included \$1 billion in write-downs and a \$1.2 billion charge to shareholders’ equity.

October 24, 2001—Andrew S. Fastow removed from CFO post.

October 25, 2001—Enron drew down on its line of credit with its bank revolving credit agreement.

October 31, 2001—The SEC opened a formal investigation of certain related party transactions that were the subject of the October 18, 2001 informal inquiry.

November 5, 2001—Fitch cut its ratings on Enron’s debt to BBB-minus (one grade above junk) from BBB-plus, and warned that it may reduce the ratings again if the company does not decrease its debts, if the firm’s trading business deteriorates, or if charges exceed present estimates.

November 8, 2001—Enron announces that it will restate its Consolidated Financial Statements for 1997-2001.

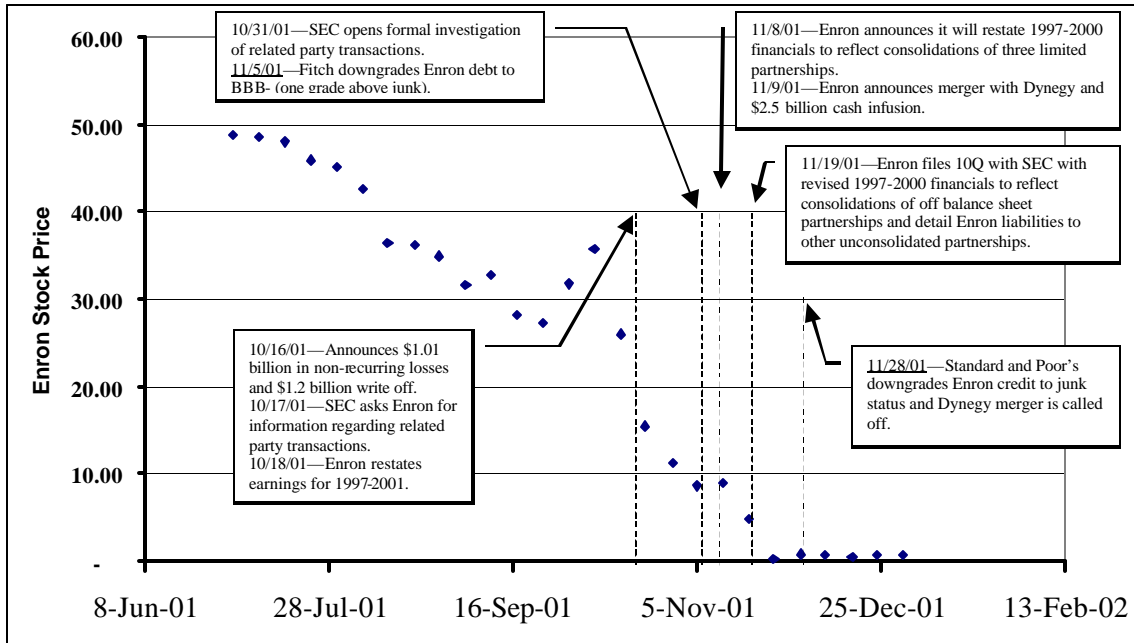
November 9, 2001—Enron announces a planned merger with Dynegy (a competitor firm that is also located in Houston, TX).

November 19, 2001—Enron files a 10Q with the SEC that documents the restatement of its financial reports for 1997-2000 that was announced on November 8, 2001. The restatement consolidates three previously off-balance sheet partnerships. The revisions decrease reported earnings by \$96 to \$250 million and increased Enron’s debt by \$561 to \$711 million. The announcement also revealed that Enron had commitments to issue equity to satisfy the obligations (debts) of two unconsolidated equity affiliates. These obligations are triggered by Enron’s stock price falling below prescribed minimums and Enron losing its investment grade bond rating.

November 28, 2001—Standard and Poor’s downgrades Enron’s debt to junk status which triggers \$3.9 billion in off balance sheet debt guarantees, and Dynegy scraps its proposed merger with Enron.

December 2, 2001—Enron declares bankruptcy.

Panel B: Stock price performance—June 2001 through December 2001



Legend: Stock prices are closing prices for weeks ending July 1, 2001 through December 31, 2001.

Figure 3

Structure of the JEDI L.P. Fund

On June 30, 1993 Enron Gas Services Corp. (EGS) and CalPERS announced their agreement to form a \$500 million limited partnership to invest in natural gas assets and other investments. The Joint Energy Development Investments Limited Partnership (JEDI, L.P.) was funded by EGS subsidiary, Enron Capital, as the general partner, and CalPERS, as a limited partner. (UPI, June 30, 1993). Technically, Enron's contribution to the partnership consisted of \$250 million in value comprised of a combination of Enron shares plus a put option that guaranteed CalPERS at least a 10 percent return on their investment.

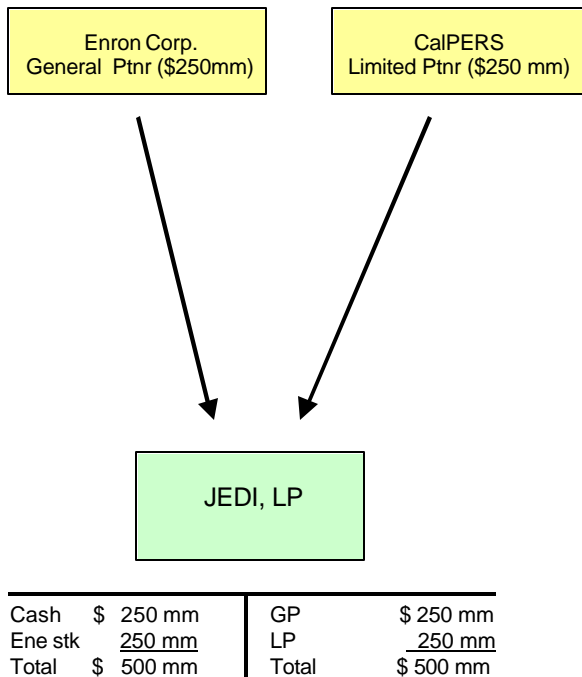


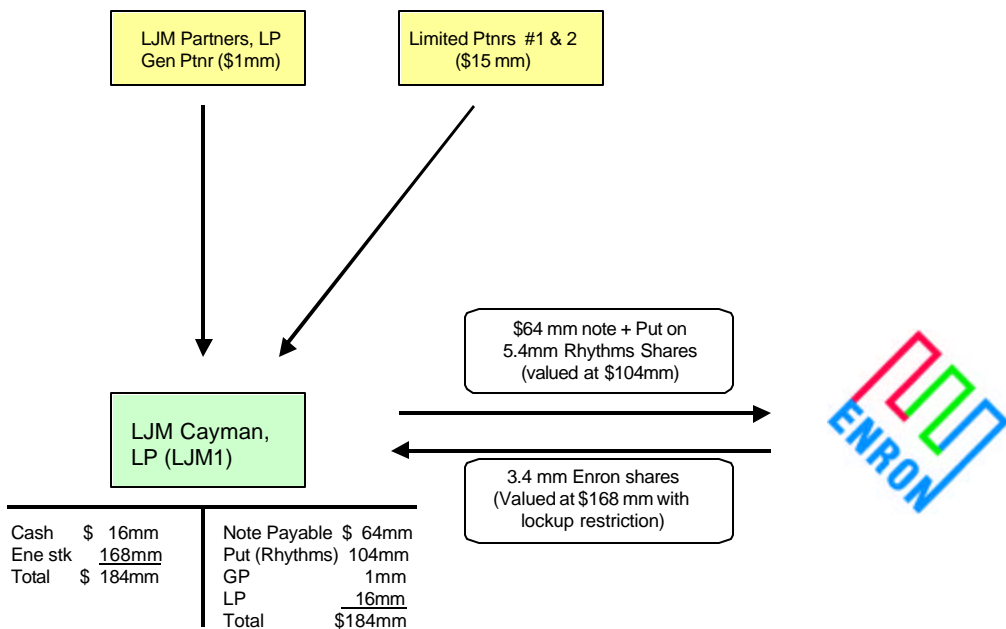
Figure 4

A Simplification of the Rhythms NetConnections Hedge Transaction

In 1999 Enron entered into a hedging agreement with LJM, Cayman, L.P. (LJM1) to insulate the company's earnings from the possible decline in value of one of its merchant investments (Rhythms NetConnections). Enron had invested \$10 million in Rhythm's equity and it had a current market value of approximately \$300 million. Because of a lockup agreement Enron could not liquidate the investment prior to the end of 1999. The details of the transaction are described below:

- Enron restructured the forward contracts such that it released 3.4 million shares of Enron stock with a total value of \$276 million on June 30, 1999.
- Next Enron sold these shares to LJM1 but included restrictions on LJM1's ability to sell the shares for four years or to hedge their value for one year. However, LJM was not restricted from using the shares as collateral for a loan. To reflect these restrictions the value of the shares was discounted 39% to \$168 million.
- In return for the \$168 million value placed on the restricted Enron shares, LJM1 gave Enron a note for \$64 million and a put option on Enron's investment in Rhythms NetConnection shares with an exercise price of \$56 per share and expiration date of June 2004.

To simplify the organizational chart found below we have omitted the fact that LJM1 actually formed a limited partnership (LJM Swap Sub, L.P.) to provide the put to Enron. The put option was valued at \$104 million, the difference in the \$168 million value of the Enron shares and the \$64 million note LJM1 gave to Enron.



**Table 1**

**Enron operating performance: 1985-2000**

Gross profit margin is equal to sales minus cost of goods sold divided by firm sales, operating profit margin is equal to net operating income divided by sales, and net profit margin is equal to adjusted net income (adjusted for extraordinary items and discontinued operations) divided by firm sales. Times interest earned equals net operating income divided by interest expense. Total liabilities include both current and long-term liabilities whereas long-term debt includes only those liabilities not due within the year.

Panel a. Selected financial performance measures (as originally reported)

	Dec-85	Dec-86	Dec-87	Dec-88	Dec-89	Dec-90	Dec-91	Dec-92	Dec-93	Dec-94	Dec-95	Dec-96	Dec-97	Dec-98	Dec-99	Dec-00
Total Sales (\$millions)	10,253	7,453	5,916	5,708	9,836	13,165	5,563	6,325	7,972	8,984	9,189	13,289	20,273	31,260	40,112	100,789
Gross profit margin (%)	9.1%	9.4%	12.0%	12.2%	7.0%	6.0%	15.3%	15.5%	13.5%	12.9%	11.4%	8.8%	6.9%	7.2%	5.3%	2.8%
Operating profit margin (%)	5.3%	3.5%	5.7%	5.4%	3.4%	3.3%	9.0%	9.8%	7.7%	8.0%	6.7%	5.2%	3.9%	4.6%	3.1%	1.9%
Net profit margin (%)	1.2%	-1.4%	0.9%	2.3%	2.3%	1.5%	4.3%	5.3%	4.2%	5.0%	5.7%	4.4%	0.5%	2.2%	2.6%	1.0%
Net Income (\$millions) (a)	125	(108)	54	130	226	202	241	336	333	453	520	584	105	703	1,024	979
Total Assets (\$millions)	9,596	8,484	9,529	8,695	9,105	9,849	10,424	10,664	11,504	11,966	13,239	16,137	23,422	29,350	33,381	65,503
Times interest earned	1.56	0.57	0.70	0.71	0.85	1.09	1.35	1.90	2.06	2.53	2.05	2.41	1.89	2.34	1.75	2.23
Debt ratio (Total liabilities/Total assets)	82.1%	83.2%	82.0%	80.0%	80.4%	81.2%	81.5%	76.1%	77.2%	75.9%	76.1%	76.9%	76.0%	76.0%	71.3%	82.5%
Long-term debt/Total assets	78.8%	76.1%	78.8%	77.7%	77.1%	74.9%	65.7%	60.3%	68.9%	66.7%	67.8%	67.3%	66.2%	63.3%	60.5%	56.6%

Panel b. Comparison of actual to revised financial statements and peer group ratios (b)

	Dec-97		Dec-98		Dec-99		Dec-00	
	Actual	Revised	Actual	Revised	Actual	Revised	Actual	Revised
Net Income (\$millions)	105	26	703	564	1,024	635	979	842
Net profit margin (%)	0.5%	0.1%	2.2%	1.8%	2.6%	1.6%	1.0%	0.8%
Median peer group net profit margin (%)	5.3%		4.6%		2.9%		4.1%	
Total Assets (\$millions)	23,422	22,924	29,350	29,442	33,381	33,272	65,503	64,926
Debt ratio (Total liabilities/Total assets)	76.0%	76.8%	76.0%	77.6%	71.3%	73.8%	82.5%	84.2%
Median peer group debt ratio (%)	71.8%		75.2%		75.1%		82.7%	
Max peer group debt ratio (%)	93.4%		94.1%		94.2%		93.9%	
Min peer group debt ratio (%)	19.8%		48.1%		57.0%		42.8%	

(a) Before extraordinary items and discontinued operations. However, in 1997 there was a significant contract restructuring charge totaling \$463 million (after tax).

(b) Enron's peer group (from the 2001 proxy statement) includes AES Corporation; BG Group plc; Coastal Corporation; Dominion Resources, Inc.; Duke Energy Corporation; Dynegy Inc.; El Paso Energy Corporation; Level 3 Communications, Inc.; Occidental Petroleum Corporation; PG&E Corporation; and the Williams Companies, Inc.

Source: Enron Annual Reports and Quarter 3 form 10Q filed November 19, 2001.

**Table 2**

**Enron Line of Business Reports for 1998-2000 (\$millions)**

Business unit definitions are found in Appendix B. NOI is net operating income. Enron redefined its lines of business in 1998 such that prior year's line-of-business data are not comparable. These data do not reflect the revision of 1997-2000 reported results filed by Enron in Q3 2001.

**Panel A. Divisional Reporting—Distribution of sales, operating income, capital expenditures, and depreciation expense for 1998-2000**

<i>FYR 2000</i>	Sales	% Of Total	Operating Income	% Of Total	Assets	% Of Total	Capital Expenditures	% Of Total	Depreciation Expense	% Of Total
Transportation & distribution	2,742	2.7%	565	28.9%	8,283	12.6%	270	11.3%	278	32.5%
Wholesale services	93,278	92.5%	1,668	85.4%	47,934	73.2%	1,280	53.8%	343	40.1%
Retail energy services	3,824	3.8%	58	3.0%	4,370	6.7%	70	2.9%	38	4.4%
Broadband services	408	0.4%	(64)	-3.3%	1,337	2.0%	436	18.3%	77	9.0%
Corporate and other	537	0.5%	(274)	-14.0%	3,579	5.5%	325	13.6%	119	13.9%
	100,789	100.0%	1,953	100.0%	65,503	100.0%	2,381	100.0%	855	100.0%
<b><i>FYR 1999</i></b>										
Exploration & production	429	1.1%	66	8.2%	-	0.0%	226	9.6%	213	24.5%
Transportation & distribution	2,013	5.0%	551	68.7%	7,959	23.8%	316	13.4%	246	28.3%
Wholesale services	35,501	88.5%	889	110.8%	21,185	63.5%	1,216	51.5%	294	33.8%
Retail energy services	1,518	3.8%	(81)	-10.1%	956	2.9%	64	2.7%	29	3.3%
Corporate and other	651	1.6%	(623)	-77.7%	3,281	9.8%	541	22.9%	88	10.1%
	40,112	100.0%	802	100.0%	33,381	100.0%	2,363	100.0%	870	100.0%
<b><i>FYR 1998</i></b>										
Exploration & production	750	2.4%	133	9.7%	3,001	10.2%	690	36.2%	315	38.1%
Transportation & distribution	1,833	5.9%	562	40.8%	7,616	25.9%	310	16.3%	253	30.6%
Wholesale Services	27,220	87.1%	880	63.9%	14,837	50.6%	706	37.1%	195	23.6%
Retail energy services	1,072	3.4%	(124)	-9.0%	747	2.5%	75	3.9%	31	3.7%
Corporate and other	385	1.2%	(73)	-5.3%	3,149	10.7%	124	6.5%	33	4.0%
	31,260	100.0%	1,378	100.0%	29,350	100.0%	1,905	100.0%	827	100.0%

**Panel B. Divisional Profitability—Continuing Divisions (1998-2000)**

<b>Business Units</b>	<b>2000</b>		<b>1999</b>		<b>1998</b>	
	NOI/Sales	NOI/Assets	NOI/Sales	NOI/Assets	NOI/Sales	NOI/Assets
Transportation and Distribution	20.61%	6.82%	27.37%	6.92%	30.66%	7.38%
Wholesale Services	1.79%	3.48%	2.50%	4.20%	3.23%	5.93%
Retail Energy Services	1.52%	1.33%	-5.34%	-8.47%	3.23%	5.93%

**Table 3**

***Planned Financial Structure for Chewco, L.P. formed in November 1997***

Chewco, L.P. was formed by Enron to acquire the interests of CalPERS in a previously formed SPE known as JEDI, L.P. To qualify for off balance sheet reporting GAAP requires that an independent investor (some entity other than the sponsoring firm) make a substantive equity investment, and the investment must remain at risk throughout the life of the SPE. The staff of the SEC has taken the position that independent equity equal to 3 percent of the total assets of the SPE is the minimum outside investment required to meet the independent investor requirement. An Enron employee, Michael Koppers, was the general partner in Chewco and invested \$125,000 of his own funds and borrowed the remainder of the equity component. Because the bank that loaned him the funds required collateral be posted at the closing of the loan it was later determined that the partnership did not have the 3 percent equity capital required for off-balance sheet reporting and Chewco was consolidated by Enron in 2001. The capital structure for Chewco at the time of its formation is found below:

---

Bank loan	\$240,000,000	62.6%
Advance from JEDI (Revolving credit agreement)	132,000,000	34.4%
Total debt	<u>\$372,000,000</u>	<u>97.0%</u>
Equity	11,500,000	3.0%
Total	<u><u>\$383,500,000</u></u>	<u><u>100.0%</u></u>

---

**Table 4****Enron's Reported Financial Structure**

The financial structures reported below reflect the original reported structures for 1999 and 2000 as well as the effects of the revision for 2000 as announced on November 8, 2001 and filed in a Form 8-K with the SEC on November 11, 2001. The revisions include the consolidation of three previously unconsolidated entities (Chewco, JEDI, and LJM1) and affected previous financial statements for 1997-2000. The revised statements increased debt by \$685 million and \$628 million for 1999 and 2000, respectively.

(\$ millions)	<b>1999</b>	<b>2000</b>	<b>2000 Revised</b>
Current Liabilities			
Accounts Payable	\$ 2,154	\$ 9,777	\$ 9,577
Liabilities from price risk management activities	1,836	10,495	10,495
Short-term debt	1,001	1,679	2,192
Customer's deposits	44	4,277	4,277
Other	1,724	2,178	2,200
Total Current Liabilities	\$ 6,759	\$ 28,406	\$ 28,741
Long-Term Debt	7,151	8,550	8,665
Deferred Credits and Other Liabilities			
Deferred income taxes	1,894	1,644	1,679
Liabilities from price risk management activities	2,990	9,423	9,519
Other	1,587	2,692	2,692
Total deferred credits and other liabilities	6,471	13,759	13,890
Total Liabilities	\$ 20,381	\$ 50,715	\$ 51,296
Minority Interests	\$2,430	\$2,414	\$ 2,437
Company-Obligated Preferred Securities of Subsidiaries	1,000	904	904
Shareholder's Equity	9,570	11,470	10,289
Total Liabilities and Shareholder's Equity	\$ 33,381	\$ 65,503	\$ 64,926

Sources: Enron Corp 2000 Annual Report and 10Q for Quarter 3, 2001.

**Table 5**

**Enron's Board of Directors**

This table provides details of Enron's Board as of the 2001 Proxy Statement. The table reports director name, year of appointment, number of years of board service, committee membership (where "C" designates the committee's chairperson). The Notes column provides detail about each director's classification as executive, independent, or affiliated, employment history, and their stock ownership (amount and value) as reported in the 2001 proxy.

<i>Panel A. Board membership in 2001</i>									
Name	Year Appt.	Yrs Service (Departure)	Age (2001)	Audit	Comp	Nom	Exec	Fin	Notes
Robert A. Belfer	1983	19	65				y	y	<ul style="list-style-type: none"> <li>• Affiliated Outside Director (business dealings)</li> <li>• Shares owned: 8,491,829; Value: \$ 705,925,745</li> <li>• Oil and gas investor.</li> <li>• Former President and Chairman of Belco Petroleum Corporation a wholly owned subsidiary of Enron (resigned 1986).</li> <li>• Director of EOTT Energy Corp. (the general partner of Enron subsidiary EOTT Energy Partners, L.P.), NAC Re Corporation, and Smith Barney World Funds Inc.</li> </ul>
Norman P. Blake, Jr.	1993	9	59		y			y	<ul style="list-style-type: none"> <li>• Independent Outside Director</li> <li>• Shares owned: 24,611; Value: \$ 2,045,912</li> <li>• Chairman, President and CEO of USF&amp;G Corporation (since 1990) property and casualty insurer.</li> <li>• Former Chairman and CEO of Heller International Corporation, subsidiary of The Fuji Bank, Ltd. of Tokyo, Japan</li> <li>• Director of Owens-Corning Fiberglass Corporation.</li> </ul>
Ronnie C. Chan	1996	6	51	y				y	<ul style="list-style-type: none"> <li>• Independent Outside Director</li> <li>• Shares owned: 19,199; Value: \$ 1,596,013</li> <li>• Chairman of Hang Lung Development Group, a publicly traded Hong Kong based company involved in property development and investment, and hotel development and management.</li> <li>• Founder and manager Morningside/Springfield Group, which invests in private industrial companies internationally.</li> <li>• Chairman of Springfield Bank and Trust Limited of Gibraltar.</li> <li>• Director on the boards of Standard Chartered Bank PLC and Jusco Stores (Hong Kong) Co., Ltd.</li> </ul>
John H. Duncan	1985	17	73		y		c		<ul style="list-style-type: none"> <li>• Independent Outside Director</li> <li>• Shares owned: 954,692; Value: \$ 79,363,546</li> <li>• Investor (since 1990).</li> <li>• Director of EOTT Energy Corp. (the general partner of EOTT Energy Partners, L.P.), Texas Commerce Bank National Association and King Ranch, Inc.</li> </ul>

Wendy L. Gramm	1993	9	56	y		y			<ul style="list-style-type: none"> <li>• Affiliated Outside Director (Charitable/Political Contributions)</li> <li>• Self employed consultant on economic issues.</li> <li>• Former Chairman of the Commodity Futures Trading Commission</li> <li>• Director of IBP, Inc., State Farm Insurance Co. and the Chicago Mercantile Exchange.</li> </ul>
Robert K. Jaedicke	1985	17	72	c	y				<ul style="list-style-type: none"> <li>• Independent Outside Director</li> <li>• Shares owned: 57,087; Value: \$ 4,745,642</li> <li>• Professor (Emeritus) of Accounting at the Stanford University Graduate School of Business in Stanford, California.</li> <li>• Served as Dean at the Stanford University Graduate School of Business from 1983 until 1990.</li> <li>• Director of Homestake Mining Co., Boise Cascade Corporation, Wells Fargo &amp; Company, California Water Service Company, GenCorp, Inc. and State Farm Insurance Co.</li> </ul>
Kenneth L. Lay, 58	1985	17	58				y		<ul style="list-style-type: none"> <li>• Executive Director</li> <li>• Shares owned: 7,930,897; Value: \$ 659,295,468</li> <li>• Chairman of the Board and former CEO of Enron.</li> <li>• Also served as President of Enron (1989-1990).</li> <li>• Director of Eli Lilly and Company, Compaq Computer Corporation, Enron Oil &amp; Gas Company, EOTT Energy Corp. (the general partner of EOTT Energy Partners, L.P.) and Trust Company of the West.</li> </ul>
Charles A. LeMaistre	1985	17	77		c		y		<ul style="list-style-type: none"> <li>• Affiliated Outside Director (Charitable Contributions)</li> <li>• Shares owned: 56,287; Value: \$ 4,679,138</li> <li>• President of The University of Texas M. D. Anderson Cancer Center in Houston, Texas.</li> </ul>
John Mendelsohn	1999	3	64	y		y			<ul style="list-style-type: none"> <li>• Affiliated Outside Director (Charitable Contributions)</li> <li>• Shares owned: 5,563; Value: \$ 462,452</li> <li>• President of the University of Texas M.D. Anderson Cancer Center.</li> <li>• Former Chairman of the Department of Medicine at Memorial Sloan-Kettering Cancer Center in New York.</li> <li>• Director of ImClone Systems, Inc.</li> </ul>
Jerome J. Meyer*	1997	4 (2000)	63			y		y	<ul style="list-style-type: none"> <li>• Chairman and Chief Executive Officer and a director of Tektronix, Inc., an electronics manufacturer</li> <li>• Director of Esterline Technologies Corporation and AMP, Incorporated.</li> </ul>
Paulo v. Ferraz Pereira	1999	3	46	y				y	<ul style="list-style-type: none"> <li>• Independent Outside Director</li> <li>• Shares owned: 3,195; Value: 265,600</li> <li>• President and Chief Operating Officer of Meridional Financial Group, Managing Director of Group Bozano</li> </ul>

									<ul style="list-style-type: none"> <li>• Former President and Chief Executive Officer of the State Bank of Rio de Janeiro.</li> </ul>	
Frank Savage	1999	3	62		y			y	<ul style="list-style-type: none"> <li>• Independent Outside Director</li> <li>• Shares owned: 4,005; Value: \$ 332,936</li> <li>• Chairman of Alliance Capital Management International</li> <li>• Director of Lockheed Martin Corporation, Alliance Capital Management L.P., Lyondell Chemical Corp. and Qualcomm Corp.</li> </ul>	
Jeffrey K. Skilling	1997	5	47					y	<ul style="list-style-type: none"> <li>• Executive Director</li> <li>• Shares owned: 2,091,529; Value: \$ 173,868,806</li> <li>• President and CEO (former COO) of Enron Corp. Former CEO and Managing Director of Enron Capital &amp; Trade Resources Corp. ("ECT").</li> </ul>	
John a. Urquhart*	1990	(12) (2000)	71					y	<ul style="list-style-type: none"> <li>• Former Vice Chairman of the Board of Enron</li> <li>• Shares owned: 57,087; Value: \$ 4,745,642</li> <li>• President of John A. Urquhart Associates, a management consulting firm (since 1991).</li> <li>• Formerly Senior Vice President of Industrial and Power Systems General Electric and Executive Vice President of General Electric's International and Power Systems. Sectors. (1982-1990)</li> <li>• Director of Aquarion Company, TECO Energy, Inc., Hubbell, Inc. and The Weir Group, PLC.</li> </ul>	
John Wakeham	1994	8	69	y		c			<ul style="list-style-type: none"> <li>• Affiliated Outside Director (Consulting)</li> <li>• Shares owned: 20,987; Value: \$ 1,744,649</li> <li>• Retired former U.K. Secretary of State for Energy and Leader of the House of Lords.</li> <li>• Former member of Parliament (1974 –1992)</li> <li>• Prior government managed a large private practice as a chartered accountant.</li> </ul>	
Herbert S. Winokur, Jr.	1985	17	57					y	c	<ul style="list-style-type: none"> <li>• Affiliated Outside Director (Business Dealings)</li> <li>• Shares owned: 119,755; Value:\$ 9,955,233</li> <li>• President of Winokur &amp; Associates, Inc., an investment and management services firm, and Managing General Partner of Capricorn Investors, L.P. and Capricorn Investors II, L.P., private investment partnerships concentrating on investments in restructure situations.</li> <li>• Former Senior Executive Vice President and Director of Penn Central Corporation.</li> <li>• Director of NAC Re Corporation, NHP, Inc. and DynCorp.</li> </ul>

**Table 6**  
**Financial Ties between Directors and Enron**

Enron engaged in transactions with entities in which a director played a major role

- Robert Belfer, board member since 1985 and Chair of Belco Oil and Gas. Belco engaged in hedging arrangements with Enron beginning in 1996. In 1997 Belco bought Coda Energy, an Enron affiliate. He served on the executive and finance committees.
- Herbert Winokur, on the board since 1985, also served on the board of the National Tank Company. Between 1997 and 2000, National Tank recorded revenues of \$1,035,000, \$643,793, and \$370,294 for providing oilfield equipment and services to Enron subsidiaries. Winokur served on the Finance committee.

Enron made donations to groups with which directors were affiliated

- Dr. Wendy Gramm, board member since 1993, was employed for some time at George Mason University. Since 1996, Enron and the Lay Foundation donated more than \$50,000 to the George Mason University and its Mercatus Center that employed Ms. Gramm. Gramm served on the Audit and Nominating and Governance Committees. In addition, Ms. Gramm's husband (Senator Phil Gramm) received political contributions over the period 1989-2001 totaling \$97,350 according to the Federal Election Commission data (11/1/01). This total was the second largest political contribution made by Enron to a member of the US congress.
- Dr. LeMaistre and Dr. Mendelsohn, on the board from 1985 and 1999 respectively, both served as president of the M.D. Anderson Cancer Center. During a 5 year period Enron and Kenneth Lay donated nearly \$600,000, with Enron pledging \$1.5 million to the Center in 1993. LeMaistre served on the executive committee and chaired the Compensation committee. Mendelsohn was on the audit and nominating and corporate governance committees.

Received consulting fees from Enron

- John A. Urquhart, director since 1990, and consultant to Enron since 1991. During 2000 he received \$493,914 in consulting fees. Urquhart left the board in 2000 and also gave up his directorship of Enron Renewable Energy Corp. He served on the Finance committee.
- Lord John Wakeham had been paid a monthly retainer of \$6,000 since 1996. Wakeham, board member since 1994, served on the audit, and nominating and corporate governance committees.
- Charles Walker, board member from 1985-1999 and partner in two firms that were paid over \$70,000 for governmental relations and tax consulting services. Enron also contributed up to \$50,000 annually to the American Council for Capital Formation, a non-profit tax lobbying corporation chaired by Mr. Walker. During his tenure Walker served on the finance and nominating and corporate governance committees.

Source: "The Role of the Board of Directors in Enron's Collapse", Report prepared by the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, United States Senate (July 8, 2002), pp. 54-55.

**Table 7**

**Board of Directors' stock-based compensation**

This table provides estimates of the value of compensation by way of phantom stock and stock options during the period 1995-2000. The estimated value for phantom stock is based on stock units granted multiplied by stock price at grant date. Stock option value is approximated by (price at grant x options)/3.

	Price	Phantom Stock	Estimated Value	Stock Options	Estimated Value	Aggregate Grant Value
1995	\$ 34.75	450	\$ 15,638	1,800	\$ 20,850	\$ 38,288
1996	40.88	480	19,620	1,920	26,160	47,700
1997	41.38	510	21,101	2,040	28,135	51,276
1998	53.00	400	21,200	1,600	28,267	51,067
1999	37.59	560	21,053	8,240	103,258	132,550
2000	75.13	360	27,045	10,775	269,824	307,644

Source: Enron Proxy Statements for 1995-2000.

**Table 8**

**Red Flags raised to the board in connection with the “asset light” strategy and the SPE transactions.**

	Date	Red Flag	Board Actions
1	February 1999	Andersen informs audit committee that Enron’s accounting practices were high risk and pushed limits	Audit committee recommends Andersen be reappointed.
2	June 1999	At a special meeting board approves LJM.  Counter to standard procedures the finance committee does not review the LJM structure prior to full board review.  Conflict of interest provision waived allowing Fastow to serve as managing partner of LJM.	No internal controls specified.
3	September 1999	Board approved moving \$1.5 billion joint venture Whitewing off balance sheet.  Whitewing established December 1997 to obtain loans and purchase assets Enron wanted off its books.	
4	November 1999	Board approves second waiver for Fastow for LJM2.	Internal controls added: Chief Accounting Officer Richard Causey was required to “approve all transactions between Enron and LJM.”
5	May 2000	LJM2 update reporting “8 days/6 deals/\$125 million.”  Board approves Raptor 1 to hedge Enron investments using Enron stock.	
6	June 2000	Executive committee approves Raptor II	
7	August 2000	“Project Summer” to sell \$6 billion of assets fails .  Board approves Raptors III and IV	
8	October 2000	Board approves third Fastow waiver for LJM3.  Report to board that LJM2 had invested over \$400 million in 21 transactions with Enron.  Board knew that Enron had almost 50% of assets (approximately \$27 billion) off balance sheet.	Internal controls added: Mr. Causey, Mr. Buy and Mr. Skilling will “approve all Enron-LJM transactions”;  audit committee will review LJM transactions each February;  Skilling will review Fastow’s “economic interest in Enron and LJM”;  Finance committee to undertake quarterly reviews of LJM transactions;  Compensation committee asked to undertake a one-off review of Fastow’s compensation from LJM.
9	February	Revenues jump from \$40 billion to \$100	Audit and finance committee each spend 15-30

	2001	billion.  Audit and finance committees review LJM procedures and transactions during 2000.	minutes reviewing LJM transactions.  After asking and failing to obtain information on Fastow's LJM compensation, compensation committee Chair LeMaistre lets the matter drop.
10	February 2001	Fortune article questioning Enron's valuation and portraying the firm as a black box that analysts could not understand	
11	April 2001	Board informed that 64 percent of Enron's international assets were troubled or not performing.  45 million shares of Enron stock were at risk in the Raptors and Whitewing.	

Source: "The Role of the Board of Directors in Enron's Collapse", Report prepared by the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, United States Senate (July 8, 2002).

## Appendix A. Milestone Events in the History of Enron Corp.

Year	Events
1930	<ul style="list-style-type: none"> <li>o Northern Natural Gas Company formed in Omaha, NE by three companies: North American Light &amp; Power, United Light &amp; Railways Co., and Lone Star Corporation.</li> </ul>
1985	<ul style="list-style-type: none"> <li>o January 1, 1985 phased deregulation of natural gas markets initiated.</li> <li>o Houston Natural Gas merges with InterNorth, a natural gas company based in Omaha, Neb., to form the modern-day Enron, an interstate and intrastate natural gas pipeline company with approximately 37,000 miles of pipe.</li> <li>o Peruvian government nationalizes Enron pipeline system.</li> <li>o Enron's interstate pipelines work to become open-access transporters to allow other entities to transport on Enron pipelines.</li> </ul>
1986	<ul style="list-style-type: none"> <li>o Irwin Jacobs and Leucadia National Corporation accumulate over 15 percent of Enron's shares before a buyback agreement is reached.</li> </ul>
1987	<ul style="list-style-type: none"> <li>o July 1, 1987 second phase of deregulation of the natural gas market initiated.</li> <li>o October 1987 Enron discontinued its speculative oil and petroleum trading operations due to losses incurred during the third quarter.</li> <li>o Florida Gas Transmission's Phase I expansion is completed as a result of growing natural gas needs in Florida.</li> </ul>
1988	<ul style="list-style-type: none"> <li>o Enron enters UK power market at the first signs of energy liberalization and is the first company to begin construction of a new power plant when the electric industry is privatized.</li> </ul>
1989	<ul style="list-style-type: none"> <li>o Enron Gas Marketing commenced a program to acquire long-term supplies with which to serve firm, long-term markets under its "gas bank program".</li> <li>o Transwestern Pipeline Company is the first merchant pipeline in the U.S. to stop selling gas and become a transportation-only pipeline.</li> </ul>
1990	<ul style="list-style-type: none"> <li>o Jeff Skilling hired as chairman of Enron Gas Services.</li> <li>o Enron continues its efforts to move more of its merchant sales function into its non-FERC regulated gas companies such as Enron Gas Marketing. (Enron 10K, p. 8)</li> <li>o Enron Finance Corporation created to provide financing to natural gas producers to encourage increased production, to provide price hedging services to the natural gas industry, and secure new gas supplies. (Enron 10K, p. 9)</li> </ul>
1991	<ul style="list-style-type: none"> <li>o Enron Gas Services purchases and markets natural gas and also provides price risk management services to natural gas producers, gathers, processors and end-users as part of its physical molecule business.</li> </ul>
1992	<ul style="list-style-type: none"> <li>o FERC Order 636 is issued, separating the merchant function from the transportation function and taking pipelines out of the business of buying and selling gas.</li> <li>o Enron acquires Transportadora de Gas del Sur, establishing Enron's first pipeline presence in South America.</li> </ul>
1993	<ul style="list-style-type: none"> <li>o The world's largest gas-fired heat and power facility (the 1,875 megawatt Teesside power plant) becomes operational. Teesside is the second largest project financing (after the Channel Tunnel) ever completed in the U.K</li> <li>o Enron and CalPERS form \$500 million Joint Energy Development Investment, L.P.</li> </ul>
1994	<ul style="list-style-type: none"> <li>o Enron North America trades its first electron.</li> </ul>
1995	<ul style="list-style-type: none"> <li>o Enron Europe establishes a trading center in London and begins trading U.K. power and gas - marking Enron's entry into the European wholesale market.</li> </ul>
1996	<ul style="list-style-type: none"> <li>o The 826 MW Phase I of the Dabhol Power Project, a 2,450 MW power plant located south of Mumbai, India, achieves financial close and begins construction. It is the first power project in India to involve imported liquified natural gas (LNG) as a fuel source.</li> </ul>
1997	<ul style="list-style-type: none"> <li>o Enron acquires Zond Corporation, a leading developer of wind energy power, and forms Enron Renewable Energy Corp.</li> <li>o Construction begins on the 790 MW power station at Sutton Bridge, U.K.</li> <li>o Enron acquires Portland General Electric (PGE).</li> <li>o Enron announces its first commodity transaction using weather derivative products.</li> <li>o Enron Energy Services (EES) is formed to provide nationwide energy outsourcing services to commercial and light industrial customers.</li> <li>o Northern Natural Gas initiates a major market-wide expansion project, Peak Day 2000, a five-year effort that increases the pipeline's contracted capacity by 350,000 million cubic feet of gas per day.</li> </ul>
1998	<ul style="list-style-type: none"> <li>o EES transacts its first commercial outsourcing deal with General Cable.</li> </ul>

	<ul style="list-style-type: none"> <li>○ Enron acquires Wessex Water in the UK and forms new global water company, Azurix. Spain and Germany award Enron the first power marketing licenses granted to new market participants following the passage of national electricity regulations.</li> <li>○ Northern Border Pipeline completes its third and most ambitious expansion/extension, The Chicago Project. The project involved the construction of 390 miles of 36- and 30-inch diameter pipeline from Iowa to Illinois and eight grassroots compressor stations.</li> </ul>
1999	<ul style="list-style-type: none"> <li>○ Enron Broadband Services introduces the Enron Intelligent Network (EIN), a new Internet application delivery platform.</li> <li>○ Enron Investment Partners is created to manage private equity funds targeting women and minority owned businesses in Houston and around the U.S.</li> <li>○ Enron and the Houston Astros announce the name of Houston's new ballpark, "Enron Field," and a 30-year facilities management contract with EES.</li> <li>○ The 826 MW Phase I of the Dabhol Power Project begins commercial operation, and financing for the 1,624 MW Phase II and India's first LNG receiving facility is completed.</li> <li>○ EES transacts its first billion-dollar deal with Suiza Foods.</li> <li>○ Enron announces Azurix initial public offering.</li> <li>○ The 3,000-kilometer Bolivia -to-Brazil natural gas pipeline, one of the largest gas projects ever undertaken in South America, begins commercial operation.</li> <li>○ Enron sells its interest in Enron Oil &amp; Gas, but retains its China and India assets.</li> <li>○ Enron launches EnronOnline, the first global web-based commodity-trading site. Since EnronOnline's introduction, Enron has become the world's largest e-commerce company.</li> <li>○ Enron announces the sale of PGE to Sierra Pacific Resources.</li> <li>○ Enron completes its first bandwidth trade. EES reports its first profitable quarter.</li> </ul>
2000	<ul style="list-style-type: none"> <li>○ Enron launches EnronCredit.com, the first real-time credit department for corporations. Enron rolls out its "Ask Why" advertising campaign.</li> <li>○ Enron Net Works is created to pursue new market development opportunities in eCommerce across a broad range of industries.</li> <li>○ Enron and strategic investors, IBM and America Online, launch The New Power Company, the first national energy service provider for residential and small businesses in deregulated U.S. energy markets.</li> <li>○ After acquiring MG plc in May, the world's leading publicly traded metals marketer, Enron completes its first physical metals transaction using EnronOnline.</li> <li>○ Enron signs a long-term agreement with Blockbuster that will enable consumers to receive high quality, feature-length movies-on-demand via the Enron Intelligent Network.</li> </ul>

## Appendix B. Enron Business Units—2000

Transportation and Distribution—This includes Enron’s North American interstate natural gas transportation systems and its electricity transmission and distribution operations in Oregon.

Wholesale Energy Operations and Services— This includes Enron’s worldwide wholesale energy and other commodities businesses. Enron has operations in North America and Europe, and in newly deregulating or developing markets in Japan, Australia, South America, and India. The activities of this business segment fall into two categories: (i) Commodity Sales and Services, and (ii) Assets and Investments.

Commodity Sales and Services include the sale and provision of commodity delivery and predictable pricing to Enron’s customers through forwards and other contracts. This market making activity involves the purchase, sale, marketing and delivery of natural gas, electricity, liquids and other commodities, and management of Wholesale Services’ own portfolio of contracts. In late 1999 Wholesale Services launched EnronOnline, an Internet-based e-commerce system, which allows wholesale customers to view Enron’s real time pricing and complete commodity transactions with Enron as principal with no direct interaction.

Activities of the Wholesale Energy Services operations that fall under Assets and Investments relate to managing the investments made in various energy and other assets that are related to the commodities provided. In most cases, Wholesale Services operates and manages these assets. In other cases Wholesale Services invests in the debt and equity securities of energy and technology-related businesses, which may also utilize the products of Wholesale Services’ products and services. Such investments are called “merchant investments” and Enron’s ability to control these assets is limited in comparison to assets it develops and manages directly.

Retail Energy Services—Enron Energy Services provides energy outsourcing products and services to business customers including the sale of natural gas, electricity, liquids and other commodities. In addition, they provide energy management services directly to commercial and industrial customers in North America and Europe. These products and services are designed to help commercial and industrial businesses maximize their total energy savings while meeting their operational needs.

Broadband Services—In 2000 Enron Broadband substantially completed the Enron Intelligent Network, which is a high capacity, global fiber optic network which through pooling points can switch capacity from one independent network to another and create scalability. Broadband Services provides (i) bandwidth management and intermediation services, and (ii) high quality content delivery services.

In a manner very similar to Enron’s wholesale energy businesses, the company acts as principal in its bandwidth transactions and makes markets for bandwidth capacity. Specifically, Enron provides bandwidth on demand at specified service levels and guaranteed delivery. The company also aggregates bandwidth supplies from multiple counterparties and, from its portfolio of bandwidth contracts, provides flexible, low cost bandwidth management products to its customers. The idea is that buyers will have to pay only for the bandwidth they use, at prices that reflect current market conditions.

Other Enron Businesses—In this category are two businesses: Azurix Corporation (a global water company engaged in the business of owning, operating and managing water and wastewater assets, providing water and wastewater services and developing and managing water resources) and Enron Wind Corporation (an integrated manufacturer and developer of wind power that provides power plant design and engineering, project development, and operations and maintenance services).

## **Appendix C. Accounting for Special Purpose Entities (SPEs)**

FASB Accounting Research Bulletin No. 51, Consolidated Financial Statements (1959), provides the guiding principle for thinking about consolidation issues. Specifically, this document states “the presumption [is] that consolidated statements are more meaningful than separate statements and they are usually necessary for a fair presentation when one of the companies in the group directly or indirectly has a controlling financial interest in the other companies”. Furthermore, the majority holder of a class of equity funded by independent third parties should consolidate under the assumption that the equity meets certain criteria related to size, the ability to exercise control, and exposure to risk and rewards. However, the accounting profession has concluded that the presumption in favor of consolidating can be overcome where two conditions are met:

1. First, an independent investor (some entity other than the sponsoring firm) must make a substantive equity investment, and the investment must remain at risk throughout the life of the SPE. The SEC staff has taken the position that independent equity equal to 3% of the total assets of the SPE is the minimum outside investment required to meet the independent investor requirement.
2. The independent investor must exercise control over the SPE. This standard is subjective and control is not determined with sole reference to control over the day-to-day operations of the SPE.

When both these conditions are met, then the sponsoring firm may record gains and losses on transactions with the SPE much as it would with any other outside entity and it does not have to include the assets and liabilities of the SPE in the company’s balance sheet.

## Appendix D. Committee Structure for Enron's Board of Directors in 2000

Committee Name	Key Mandate	Stated Activities	Members
Audit and Compliance	Oversee Enron's financial reporting process and internal controls	Met 5 times Review: <ul style="list-style-type: none"> <li>scope and results of the audits</li> <li>notice and application of accounting principles</li> <li>effectiveness of internal controls</li> </ul>	Chan Gramm Jaedicke Mendelsohn Pereira Wakeham
Compensation and Management Development	Establish compensation strategy and ensure effective compensation of senior management.	Met 10 times <ul style="list-style-type: none"> <li>monitor and approved awards earned under Enron's executive compensation program</li> <li>monitor employee benefit programs</li> <li>review matters relating to management development and management succession</li> </ul>	Blake Duncan Jaedicke LeMaistre Savage
Nominating and Corporate Governance	Oversight for making or evaluating recommendations regarding <ul style="list-style-type: none"> <li>Board size</li> <li>recruiting and recommending board candidates</li> <li>monitoring Corporate Governance Guidelines for revision and compliance</li> <li>monitoring Enron's social and environmental performance</li> <li>performing periodic evaluation of director independence and performance.</li> </ul>	Met 3 times	Mendelsohn Meyer Gramm Wakeham.
Executive	All of the powers of the Board of Directors, except where restricted by Enron's bylaws or by applicable law.	Met 7 times	Belfer Duncan Lay LeMaistre Skilling Winokur
Finance	Monitor Enron's finance activities.	Met 5 times Review management's financial plans and proposals including: <ul style="list-style-type: none"> <li>equity and debt offerings</li> <li>changes in stock dividends and the equity repurchase program</li> <li>changes in the risk management policy</li> <li>the transaction approval process and the policy for approval of guarantees</li> <li>letters of credit</li> <li>letters of indemnity</li> <li>other support arrangements.</li> </ul> recommend actions with regard thereto to the full board	Belfer Blake Chan, Meyer Pereira Savage Urquhart Winokur.

Source: Enron proxy materials

## Appendix E. Former Enron Board Members: 1995-1999

Name	Year Appt.	Years Service	Notes
Joe H. Foy	1985	16	<ul style="list-style-type: none"> <li>• Former President of Houston Natural Gas Corporation (a predecessor of Enron)</li> <li>• Retired partner of Bracewell &amp; Patterson L.L.P.,</li> <li>• Director of Central and South West Corporation.</li> </ul>
Ken L. Harrison	1997	4	<ul style="list-style-type: none"> <li>• Chairman of the Board and Chief Executive Officer of Portland General Electric Company ("PGE"), an electric utility company and a subsidiary of Enron (since 1987)</li> <li>• Chairman of the Board, Chief Executive Officer, and President of Portland General Corporation for more than five years prior to its acquisition by Enron on in 1997.</li> <li>• Vice Chairman of the Board of Enron since July 1, 1997.</li> <li>• Director of Enron Oil &amp; Gas Company ("EOG").</li> </ul>
Richard D. Kinder	1988	9	<ul style="list-style-type: none"> <li>• President and Chief Operating Officer of Enron.(since 1990)</li> <li>• Vice Chairman of the Board (1988-1990).</li> <li>• Various management and legal positions with Enron and its affiliates.</li> <li>• Director of Enron Global Power &amp; Pipelines L.L.C., Enron Oil &amp; Gas Company, EOTT Energy Corp. (the general partner of EOTT Energy Partners, L.P.), Enron Liquids Pipeline Company (the general partner of Enron Liquids Pipeline, L.P.), Sonat Offshore Drilling Inc. and Baker Hughes Incorporated.</li> </ul>
Rebecca Mark -Jusbasche	1999	1	<ul style="list-style-type: none"> <li>• Chairman and Chief Executive Officer of Azurix Corp., (Since 1998).</li> <li>• Vice Chairman of Enron. (May-July 1998)</li> <li>• Chairman of Enron International Inc. (1996-1999)</li> <li>• Chief Executive Officer of Enron International Inc.</li> <li>• Chief Executive Officer of Enron Development Corp.</li> <li>• Member of the Council on Foreign Relations and The Chase Manhattan Corp. National Advisory Board.</li> </ul>
Charls E. Walker	1985	15	<ul style="list-style-type: none"> <li>• Chairman of Walker/Potter Associates, previously Walker/Free Associates, Inc., a governmental relations consulting firm.</li> <li>• Director of Potomac Electric Power Company.</li> </ul>
Bruce G. Willison	1997	3	<ul style="list-style-type: none"> <li>• President, Chief Operating Officer and a director of H.F. Ahmanson Company and its principal subsidiary, Home Savings of America, FSB, of the nation's largest full service consumer banks (since 1996).</li> <li>• Chairman, President and Chief Executive Officer of First Interstate Bank of California from (1991-1996)</li> <li>• Vice Chairman of First Interstate Bank from (1994-1996)</li> </ul>