Lessons from the Failure of Enron

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1 Introduction

On December 2, 2001 Enron Corp, the nation’s 7th largest corporation and six-time winner of Fortune Magazine’s most innovative company in America award declared that it was bankrupt. Enron’s shares closed for the day under a dollar, down from $83.13 just eleven months earlier. How could this have happened? Both Enron’s internal investigation and that of a US Senate investigative committee concluded that the Board of Directors had failed in its oversight duties. The facts that have surfaced since the bankruptcy have shown that the purported failure of Board oversight occurred during a period when the firm’s business model was already faltering, not before. In fact, when Enron’s business model was winning the praise of the investment community, its Board of Directors was often held up as an example of the model board. This raises the basic question, “Did Board oversight lead to the collapse of Enron or was the firm’s failure the result of a failed business model?”

A virtual tidal wave of press coverage has documented every minute detail of Enron’s collapse. Furthermore, because of the close ties of Enron CEO Ken Lay to the Republican Party and the firm’s contributions to a wide range of political candidates, this coverage has been as much political as economic. This fact, in conjunction with the fundamental complexities of Enron’s business model, has made it very difficult to ferret out the financial causes and effects of the firm’s failure and the role that corporate governance played.

The objective of this clinical study is to separate the political rhetoric from the economic events that led to Enron’s collapse. We first try to document the facts concerning Enron’s evolution from gas pipeline company to merchant banker. Next we assess the effectiveness of internal and external systems of corporate governance at Enron. The study findings include the following: Enron’s deal-making culture produced some early successes but eventually ran into trouble when its international investments in energy and water assets failed to produce returns sufficient to support its high growth image. Furthermore, the company’s attempt to remake itself into an internet firm and the resulting investment of billions in a fiber optic network failed along with all

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the other telecoms that followed a similar strategy. The response of Enron’s management in responding to these difficulties has provided the source of public criticism for Enron’s management and consequently for the corporate governance system as a whole.

The paper is organized as follows: In Section 2 we review the history of Enron Corp and its evolution from a regulated gas pipeline company to energy trader and merchant banker. Understanding the successes that Enron enjoyed in its first decade of operations provides the basis for understanding the root causes of its demise. The company’s internal culture nurtured and rewarded risk-taking and the firm was reinventing itself on a near continuous basis. Section 3 presents evidence supporting the contention that Enron’s system of corporate governance failed. Our primary focus is on the failure of the firm’s Board of Directors to address the very questionable accounting practices used by Enron to conceal losses from public view. However, the US system of corporate governance includes external sources of controls that appear to have been ineffectual. These include auditors, equity analysts, credit analysts, and the financial press. Failure of the external controls is suggestive of problems that extend beyond Enron and are a cause for serious concern. Section 4 describes the accounting practices followed by Enron that have been a source of investor concern. These include use of mark-to-market accounting and off-balance sheet financing through the use of special purpose entities. The paper concludes with a set of five lessons that we can learn from the Enron failure.

2 A Brief Overview of Enron’s History

We divide Enron’s history into three periods: The first is the regulated pipeline period. This period includes 1930 up until the time of the merger that actually created Enron in 1985. The second period includes the innovative years from 1986 up until 1996. During this period the company transformed itself from a regulated pipeline company into the country’s most innovative company. Finally, we define the period from 1997 through 2001 as the transition period during which time the firm struggled unsuccessfully to maintain its growth image.

Creating the Most Innovative Company in America

Enron was formed on January 1, 1985 through the merger of Houston Natural Gas (Houston, TX) and InterNorth (Omaha, NE). The merger created the nation’s largest gas pipeline system with a pipeline network of more than 34,000 miles. Almost immediately Enron found itself in a struggle to survive the upheaval accompanying the deregulation of the natural gas market,\(^2\) the nationalization of its Peruvian pipeline assets, and an attempted takeover by Irwin Jacobs. This “near death” set of experiences and the continuing pressures to respond to the second phase of the deregulation of the natural gas market convinced Enron’s top management that they had to

\(^2\) The Natural Gas Policy Act of 1978 set in motion the process of deregulating the natural gas market. The process ultimately took more than ten years to complete with the passage of the Natural Gas Wellhead Decontrol Act of 1989.
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 to head Enron Gas Services. Skilling earlier helped Enron develop its “Gas Bank” idea while working as a McKinsey consultant. Basically, the plan called for Enron to become an “intermediary” in the natural gas market between suppliers and end-users much the same way as a commercial bank intermediates 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 that were later applied to the electricity industry. Throughout the nineties it seemed as if Enron’s management could do no wrong and the company received just about every business accolade. Enron’s top management team became the envy of many business leaders and at least one strategy guru. In fact, Gary Hamel who devoted a significant portion of his book to Enron and its top executives’ leadership styles.

Describe the culture and evolving strategies involving trading versus international power projects.

EVENTS LEADING UP TO ENRON’S BANKRUPTCY FILING

Panel a. of Figure 1 describes the milestone events associated with Enron’s corporate failure, and these events are tied to Enron’s share price in Panel b. Over this period the price of Enron shares dropped from just under $50 to less than a dollar. Although it is not depicted in the figure, Enron’s shares had already dropped precipitously over the first half of the year from $83.13 on December 31, 2000.

The October 16, 2001 announcement that Enron had suffered significant losses and write-downs triggered a dramatic drop in Enron’s share price down to below $10 a share and on November 8, 2001 Enron announced its restatement of its financial results for 1997-2000. This announcement was followed shortly by the announcement of an informal inquiry by the SEC after which

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3 Prior to joining Enron, Skilling was a senior partner at McKinsey & Company, where he oversaw the firm’s worldwide energy and North American chemical consulting practices. He also served as a corporate planning officer with First City National Bank of Houston and as an associate with MJH Nightingale and Company, Ltd., an investment-banking firm in London, England.

4 Skilling would eventually serve as President and COO for Enron Corp. before assuming the CEO position on January 14, 2001. He resigned the CEO position just eight months later on August 14, 2001 citing personal reasons.


Enron’s stock price dropped by half to approximately $5.00 a share. Enron made an effort to forestall the coming financial crisis by entering into a merger agreement with Dynegy Corporation (a smaller energy trading firm, also located in Houston) on November 9, 2001. However, on November 28, 2001 Standard and Poor’s lowered Enron’s credit rating to junk status. This event, combined with the firm’s stock price being below specified trigger-levels contained in some of Enron’s off-balance financing arrangements called Special Purpose Entities, caused a huge portion of Enron’s off-balance sheet debt to come due. Dynegy pulled out of the merger agreement and Enron was forced to declare Chapter 11 on December 2, 2001.

**Why did the bankruptcy happen so quickly?**

Two factors can be given credit for the speed with which Enron’s financial condition deteriorated:

- First, Enron’s golden goose was its trading operations that performed very well in the newly deregulated energy markets. Enron did not simply act as a broker between the buyer and seller, Enron was the counterparty to its trades (i.e., if someone wanted to buy Enron was the seller and if someone wanted to sell Enron was the buyer). Thus, for firms to be willing to enter into long-term contracts with Enron to provide future energy services and other types of energy related financial securities, they (Enron’s counter parties) had to trust that Enron could deliver on these obligations throughout the contract term which in a few cases extended multiple decades. As soon as Enron’s financial viability became an issue, the firm’s counter parties simply refused to trade and Enron’s trading business ground to a halt.

- Second, investors and creditors were “unaware” of the extent of Enron’s off-balance sheet obligations to the partnerships it had formed to acquire assets and hedge some of the risks associated with Enron’s investments (commonly referred to as Special Purpose Entities or SPEs). Furthermore, they either ignored or considered it unimportant that Enron executives (related parties) were in charge of many of the SPEs. Once Enron’s earnings and credit problems began to surface, the firm’s ability to obtain the credit it needed to support its trading operations evaporated.

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7 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).

8 The actual pressure on Enron came when counter parties who normally traded with Enron and retained a cash balance began withdrawing their cash and also began requiring Enron to post cash collateral. Both actions put Enron’s liquidity under severe pressure.
WHAT EXACTLY DID ENRON DO?

As the decade of the nineties unfolded Enron’s business model focused on two related themes. One involved the acquisition and operation of energy related assets such as power plants and pipelines. The other was a trading operation in which Enron created a market for the trading energy (gas and electricity) as well as financial securities based on those physical commodities. By the close of the nineties it was clear that the trading operation had become the primary focus of the organization. This became known as an “asset ‘lite’ strategy” and the Economist described it this way:

Enron became the dominant trader in the markets for energy spawned by deregulation of the US energy markets. It bought and sold contracts on gas and electricity, among other things and made markets in financial derivatives related to the energy markets. Increasingly, though, it traded purely financial products, including credit derivatives. Enron, in effect, was abandoning its roots as an energy provider in favour of becoming a Wall Street trader that just happened to be based in Houston, Texas. (“Upended”, Economist, December 1, 2001).

Enron’s 2000 annual report describes four basic business units: Transportation and Distribution, Wholesale Energy Operations and Services, Retail Energy Services, Broadband Services, and other businesses. Each of these units is described briefly in Exhibit 1. Appendix B contains a breakdown of revenues, profits, and assets for Enron’s principal business units for 1998-2000. Note that the only changes over this period involve the sale of the Exploration & Production business in 1999 and the creation of Broadband Services. Furthermore, Wholesale Services (which contains the firm’s worldwide wholesale energy and other commodities businesses—see Appendix B) is the dominant business unit comprising 92.5% of firm revenues in 2000 and 85.4% of the firm’s operating income.

9 Rebecca Smith and Aaron Lucchetti, Sink or swim: Rebecca Mark’s exit leaves Enron’s Azurix treading deep water, Wall Street Journal, August 28, 2000.
Figure 1. Enron’s stock price performance in the period leading up to its bankruptcy

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 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 ($96 to $250 million) and increased Enron’s debt ($561 to $711 million). However, the announcement also revealed that Enron had commitments to issue equity to satisfy the obligations (debts) of two unconsolidated equity affiliates (Whitewing Associates L.P. investing through an entity named Osprey and Atlantic Water Trust investing through an entity named Marlin). Osprey and Marlin’s debt obligations contain certain “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 or below in the case of Osprey and $34.13 per share or below for Marlin; (ii) a cross default to Enron senior obligations in excess of $50 or $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. On November 16, 2001 Enron’s shares closed at $9.00 per share.
November 28, 2001—Standard and Poor’s downgrades Enron’s debt to junk status. Dynegy scraps the proposed merger with Enron.

December 2, 2001—Enron declares bankruptcy.

Panel b. Stock price performance: June 2001 through December 2001

3 Evidence that corporate governance failed at Enron

Firms fail for reasons that have nothing to do with corporate governance. Their management can exercise bad judgment or simply be the victim of bad luck. It appears that Enron may have encountered its period of bad judgment and/or bad luck beginning in the early to mid-nineties when it poured billions of dollars into international investments (water projects in England, power projects in South America and India) and broadband services (consisting primarily of a network of fiber optic cable). These investments either failed to produce the type of returns the firm needed to support its high growth image or were simply slow to produce them. Of particular significance was Enron’s attempt to turn itself into one of the high-tech firms that were the darlings of Wall Street at the close of the decade.

10 Financial and legal scholars use the term corporate governance system to refer to the various public and private entities that investors rely upon to watch over and discipline the management of publicly held firms. This includes the firm’s board of directors, its auditors, Wall Street equity and credit analysts, governmental regulators including the S.E.C., and the capital market.
The fact that Enron placed huge investment bets in international power projects and a fiber optic network was not economically wise. However, these decisions do not represent wrong doing on the part of Enron’s executive team nor do they necessarily imply a lack of oversight on the part of the firm’s board of directors. Beginning in 1997 the actions of Enron’s management team to disguise and conceal the results of its bad judgment/luck does suggest a governance failure along multiple dimensions including both internal and external controls. Most of the failures in the governance system at Enron can be traced to the existence of serious conflicts of interest that destroyed the essence of independent oversight of the firm’s management, and an incentive compensation system that laser focused management on Enron’s stock price.

**DIRECTOR INDEPENDENCE**

On paper Enron’s board represented many of the attributes that governance experts would say was a model board.\(^1\) Enron’s May 1, 2001 proxy statement described a board of directors comprised of 14 members including only three (3) corporate executives or insiders (CEO Kenneth L. Lay who was chairman of the board, President and CEO Jeffrey K. Skilling, and Robert A. Belfer who was president of Enron’s wholly owned subsidiary Belco Oil & Gas) plus 11 non-employee outsiders. The outsiders included five (5) CEOs, four (4) academics including Wendy Gramm (wife of Senator Phil Gramm and former head of the Commodities and Futures Trading Commission), one (1) professional investor (who also served on the board of an Enron subsidiary, EOTT Energy Corp.) and one retired politician (retired former U.K. Secretary of State for Energy and Leader of the Houses of Commons and Lords). Most of the directors owned stock; almost all had received stock options or phantom stock as part of their director compensation package; and the audit committee had a “state of the art” charter which made it the “overseer of the Company’s reporting process and internal controls” and gave it “direct access to financial, legal, and other staff and consultants of the Company”, as well as the power to retain other accountants, lawyers, or consultants as it deemed appropriate.\(^2\)

However, the independence of the outside board members, including members of the audit committee, is easily questioned.\(^3\) For example, a US Senate investigation into the role of the Enron board of directors in the company’s collapse noted the following financial ties between Enron and certain of its Directors:\(^4\)


\(^2\) The charter was attached to Enron’s 2001 Proxy Statement.

\(^3\) See Joanne S. Lublin, Inside, outside Enron, audit committee is scrutinized, *Wall Street Journal* (February 1, 2002), C1.

\(^4\) “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.
• **Consulting services paid in addition to Board compensation:** Since 1996, Enron paid a monthly retainer of $6,000 to Lord John Wakeham. Since 1991, Enron paid board member John A. Urquhart for consulting services which amounted to $493,914 in 2000. Charls Walker was an Enron Board member from 1985-1999 and was partner in two firms (Walker/Free and Walker/Potter) who were paid more than $70,000 for governmental relations and tax consulting services. In addition, Enron also contributed up to $50,000 annually to the American Council for Capital Formation, a non-profit corporation that lobbies on tax issues and was chaired by Mr. Walker.
Exhibit 1. 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, as well as 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, as well as 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 scaleability. 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.)
• **Business transactions with Director affiliated companies**: Board member Herbert Winokur also served on the board of the National Tank Company that recorded revenues of $1,035,000, $643,793, and $370,294 from sales to Enron subsidiaries of oilfield equipment and services during 1997 through 2000. Director Robert Belco is former chairman and CEO of Belco Oil and Gas which engaged in hedging arrangements with Enron beginning in 1996, and in 1997 Belco bought Coda Energy, an Enron affiliate.

• **Charitable donations to Director affiliated organizations**: Over five years Enron and Kenneth Lay donated nearly $600,000 to the M.D. Anderson Cancer Center in Texas and in 1993 Enron Corp pledged $1.5 million to the Cancer Center. Two Enron Board members Dr. LeMaistre and Dr. Mendelsohn served as president of the Cancer Center. Since 1996, Enron and the Lay Foundation donated more than $50,000 to the George Mason University and its Mercatus Center in Virginia where Board member Dr. Wendy Gramm is employed.15

In addition to the above financial ties Enron’s Board members were paid $350,000 per year. In testimony before the Senate investigating committee Charles Ellison16 noted that this sum is significantly more than the norm. Furthermore, the fact that much of the compensation came in the form of stock options meant that the Board members benefited from stock gains, without any investment loss.

None of these challenges to financial independence are necessarily evidence of wrong doing. However, they do suggest the very real possibility that some board members had financial reasons not to act aggressively to halt the questionable management practices that ultimately led to the collapse of the firm.

**AUDITOR INDEPENDENCE**

The idea behind auditor independence is that publicly traded companies may “cook” their books in an effort to provide favorable financial results to the investing public. To restrain companies from this type of behavior the securities Act of 1933 and the Securities Exchange Act of 1934 established requirements that companies that sell their securities to the public must have their financial statements certified by an independent accountant every year, known as a “statutory audit.” Thus, when accountants perform statutory audits they are acting as a watchdog for the public interest. Can the auditor be truly independent if the audit can become an adversarial inspection of a company’s fiscal health and the auditor is dependent on the company being audited to pay the auditor fees and retain the auditor for future audits? O’Conner (2002) argues that since accountants rely on repeat business, simply accepting the auditing engagement may compromise

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15 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.

16 Director of the Center of Corporate Governance at the University of Delaware.
auditor objectivity and independence.\textsuperscript{17} This suggests that the very basis for the audit is flawed as a form of corporate control. For example, during 2000 Enron’s auditing firm, Arthur Andersen, received total fees from Enron of $52 million including $25 million for performing the audit, $13 million for consulting, and an additional $14 million for work that is arguably connected to the audit as Andersen CEO testified before congress stated that the work can “only be done by auditors. The problems with the current system of auditing at Enron and in other recent corporate failures led the congress to reform the system. On July 30, 2002 President Bush signed into law the creation of an accounting regulatory board consisting of a chairman and four members that is no longer captive to the accounting profession. The new system also gives the SEC tighter control over the new board.

The financial press has often linked accounting audits functions to the provision of information technology consulting services; however, Gordon (2002) argues that a more common problem arises with the bundling of auditing and tax planning.\textsuperscript{18} Tax planners help the firm by structuring transactions so as to minimize the firm’s tax liability. Furthermore, tax planning readily carries over to “accounting planning” in which the accountant aggressively construes accounting rules to maximize reported income. The result is that accounting reporting rules, like the tax code, become the subject of professional manipulation. Such manipulation can easily distort the underlying economic reality, for a fee.\textsuperscript{19}

But is there any evidence that under the current system auditors lack independence? In a recent study by Frankel, et. al. (2002) they find that firms purchasing more non-audit services from their auditor are more likely to just meet or beat analysts’ forecasts and to report larger absolute discretionary accruals. Consequently, they find evidence suggesting that the provision of non-auditor services strengthens an auditor’s economic bond with the client and that investors price this effect.\textsuperscript{20} Of course, Enron’s auditing firm (Arthur Andersen) was indicted and convicted of obstructing justice by destroying documents.

\textbf{EQUITY ANALYST INDEPENDENCE}

Equity analysts provide recommendations to investors that presumably reflect the results of independent research they have carried out. These recommendations then are used by investors to determine what equities to buy, hold, and sell. However, the same firms that employ the equity analysts also engage in providing a wide range of investment banking services to the very firms

\textsuperscript{17} Sean M. O’Connor, 2002, The inevitability of Enron and the impossibility of “auditor independence” under the current audit system, University of Pittsburgh School of Law, unpublished paper (March).


\textsuperscript{19} 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.

that their equity analysts are recommending. This presents a serious conflict of interest on the part of the firm and the equity analysts in that a bad recommendation from an analyst can send a firm’s stock into a tail spin which, in turn, would make the firm far less likely to do business with the investment banking firm. The latter could cost the firm millions in future investment-banking fees.

Furthermore, there is direct evidence bearing on this conflict of interest. Merrill Lynch agreed to pay $100 million to settle lawsuits related to charges that its analysts were not “truthful and fair” in public pronouncements on stocks of companies for which the firm did investment banking business.21

**DID ENRON’S COMPENSATION PLAN CONTRIBUTE TO ITS DEMISE?**

Fuller and Jensen (2002) suggest that Enron’s efforts to manage its earnings in recent years can be traced back to management’s attempts to meet analyst expectations as a way of driving share price to ever-higher levels.22 Based on the belief that there is a strong relationship between stock prices (and consequently shareholder returns) and earnings, Enron’s executives engaged in a number of activities that we described earlier that were designed to manage the risks of earnings fluctuations that we have already discussed. But was it outside pressure from the analyst community or the misguided folly of Enron executives who saw no problem with driving analyst expectations and stock price to heights that may not have been justified by company prospects? We may never know the answer to this question; however, this does raise a potentially serious set of concerns with respect to the proper goal of the firm.

Is maximizing the firm’s share price the appropriate goal of the firm where share valuations are imprecise reflections of the firm’s future prospects and consequently its intrinsic worth? The standard response of the financial economist when asked what should be the goal of the firm’s executives is to maximize the value of the owner (stockholders) investment. Fuller and Jensen (2002) argue that executives that find they are managing an overvalued firm can get involved in variety of organizational behaviors that often end up damaging the firm. The problem at Enron may have been further exacerbated by the firm’s reliance on equity based compensation and cash bonus plans that were tied to the performance of the firm’s share price. These factors may well have programmed the firm to be a high performance engine of growth but also provided a prescription for the ultimate demise of the firm. Executives that held huge investments in the firm’s shares and were provided with large cash bonuses for achieving stock return performance are highly incentivised to find any means possible for pushing the stock priced to ever higher levels, even if the underlying fundamentals did not support it.

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Enron’s personnel policies put a great deal of emphasis on identifying the firm’s star performers and rewarding them handsomely. This entailed bi-annual reviews of all personnel using what is commonly referred to as a 360 review. In essence a team consisting of subordinates, peers, and supervisors evaluated each employee’s performance. Based on this evaluation the employee is placed into one of five categories. The top group received the greatest financial rewards while the bottom category was essentially asked to leave the firm. This system of merit or performance based compensation placed a premium on achieving performance standards or benchmarks which in some notable instances were tied directly to stock price performance.

Of particular interest is a compensation program offered to the firm’s top-level executives Enron used something called the Performance Unit Plan. This four-year program compensated executives with cash if Enron’s total shareholder return—dividend yield plus capital gains return—was sixth or better when compared to a number of alternative investments that included the performance from 1997-2000 of 11 industry peers, the S&P 500 stock index and 90-day Treasury Bills. This plan served as a powerful incentive for these managers to pay very close attention to Wall Street analyst earnings estimates. This, in turn, could explain the willingness of the firm’s upper management to turn a blind eye to some of the financial reporting practices attributed to the creative genius of CFO Andrew Fastow beginning in 1997. For example, as we describe below, the firm engaged in hedges designed to reduce the risk of earnings that had no other economic benefits.

4 Financial reporting issues

Two technical features of Enron’s financial reporting system gave rise to a great deal of controversy. The first is so called “mark-to-market” accounting, and the second relates to Enron’s use of Special Purpose Entities (SPEs).

MARK-TO-MARKET ACCOUNTING

Following this accounting principle Enron recorded assets and liabilities arising out of its trading and merchant operations not at historical cost but using market values that were updated periodically to reflect changing market conditions. It should be pointed out that this practice is consistent with GAAP and is widely used by investment banks and other firms that trade in risky assets. Furthermore, on the surface this practice sounds like a significant improvement over historical cost based accounting. The primary advantage of such a system is its apparent transparency. If the firm acquires an asset whose value drops dramatically under the historical cost standard the loss in value is only reported when the asset is sold (at the time of a subsequent transaction). With mark-to-market accounting the change in value is reported in the firm’s periodic financial statements regardless of whether it is sold or not. However, implementation of

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24 Kurt Eichenwald, “Enron paid huge bonuses in ’01; Experts see a motive for cheating,” The New York Times (March 1, 2002).
mark-to-market valuations frequently involves the use of subjective estimates of value since externally derived market values were not available.

To illustrate how mark-to-market accounting worked at Enron consider the following hypothetical example. Enron enters into a 20 year contract to provide energy services to an electric utility. Once the long-term contract is signed, Enron records as income for the period the present values of the anticipated revenues and expenses spanning the entire term of the contract. Furthermore, over the life of the agreement Enron must record as income for the period any unrealized gains and losses in the market value of the contract that are not hedged. This recording process is straight forward where the gains and losses in market value can be observed in market prices. However, where the value of the contract is unobservable it must be estimated and the subjectivity arising in assessing the value of the contracts and the importance of the resulting gains and losses to Enron’s reported earnings, give rise to potential earnings management abuse.

**SPECIAL PURPOSE ENTITIES**

The second important feature of Enron’s accounting system related to its use of Special Purpose Entities (SPEs). An SPE is an entity created by a sponsoring firm to carry out a specific purpose, activity, or series of transactions that are directly related to its specific purpose. The SPE can take one of many alternative organizational forms including a limited partnership, limited liability company, trust, or corporation. SPEs are sometimes called Structured Financing Vehicles when they are used to raise money or manage risk. Examples of situations where SPEs are often used include:

- Leasing arrangements
- Sale/transfer of assets to an SPE that uses them to raise capital by issuing debt and/or issuing equity certificates that are supported by the transferred assets.
- Issuing equity in the form of preferred, tracking, or common stock in exchange for cash from an SPE that is capitalized by debt and stock.
- Financing arrangements with third-party financial institutions to fund acquisitions of assets or businesses.
- Project development activities.

SPEs are not, in and of themselves, controversial and Enron’s business model made extensive use of them. For example, Enron often acted as a merchant banker who invested funds in the securities of existing and new businesses. Sometimes these were businesses that Enron created and once the business was established Enron would then sell all or a portion of the estimated value of its investment to a limited partnership (an SPE) to raise funds that could be used to finance other

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investments. This practice essentially converts operating business investments into cash, thus it is often referred to as “monetizing” the firm’s investments. However, since the businesses were risky ventures, Enron often found that it had to guarantee the debt used to finance the partnership’s asset purchases. It was existence of these contingent liabilities that ultimately brought the company to its financial knees.

Why was Enron’s use of SPEs so controversial?

Three primary factors contributed to the controversy over Enron’s use of SPEs: first, many of the more prominent SPEs were being run by an Enron employee (i.e., a related party), second, some of the SPEs contained contingent liabilities that were not consolidated with the company’s financial statements such that Enron’s debt obligations were greater than many thought, and finally, at least one of the SPEs did not meet the requirements for off balance sheet reporting. The concerns expressed about Enron’s use of SPEs are readily apparent in the SPEs formed beginning in 1997 including Chewco Investments L. P., LJM Cayman L. P., and LJM2. Although the details are sometimes intricate we review some of the transactions involving these SPEs for they illustrate the controversy that surrounds their use by Enron.

Chewco Investments L. P.

In 1993 Enron entered into a partnership joint venture with the California Public Employees Retirement System (CalPERS) called the Joint Energy Development Investment L. P. or JEDI. As the name implies, the fund was formed to fund energy investments under the direction of Enron. The structure of the venture is reflected in Figure 2 and entailed a combined investment by both parties of $500 million. CalPERS contributed its half of the investment in cash while Enron contributed $250 million in Enron common stock.

26 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 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.
In November 1997 Enron began looking for a buyer for CalPERS’ half of JEDI. The Powers (2002) report indicates that the search was motivated by an effort to enable CalPERS to invest in another, larger partnership. Ultimately, Enron sold CalPERS’ share of JEDI to Chewco Investments L.P., a limited partnership managed by Michael Kopper (an Enron employee who reported to CFO Andrew Fastow) for $383 million. Chewco is important for it is the first time that Enron used a SPE run by an Enron employee to keep a significant investment partnership outside of Enron’s consolidated financial statements.

In order to achieve off-balance sheet treatment Chewco was required to satisfy the accounting requirements for non-consolidation. However, according to the Powers (2002) report, Enron was unable to locate third parties willing to invest in the entity. Consequently, Enron created a financing structure for Chewco that appears to have fallen at least 50% short of the required third-party equity. Despite this problem, Chewco was not consolidated until November 2001 when Enron’s internal accounting staff concluded, and Enron’s auditor (Arthur Andersen) confirmed, that Chewco did not have sufficient equity to warrant not being consolidated. The financial consequences of consolidation were significant. It decreased Enron’s reported net income by $28 million (from $105 million) in 1997, by $133 million (from $703 million) in 1998, by $153 million (out of $893 million) in 1999, and by $91 million (out of $979 million) in 2000. Furthermore, consolidation increased Enron’s reported debt by $711 million in 1997, $561 million in 1998, $685 million in 1999, and $628 million in 2000. The changes in debt were not as dramatic as the impact on earnings. Nonetheless, the consolidation changed the face of Enron from the perspective of its reported financial statements in a significant way.

Perhaps the most troubling feature of Chewco is the fact that it was being run by an Enron employee or a related party. This raises the potential for very serious problems whenever the interests of Enron come into conflict with those of the owners of Chewco. Enron’s code of conduct recognized the seriousness of the situation and stated 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 is did arise when, as the Powers (2002) report states, Enron and Chewco were negotiating the economic terms of the profit distribution to Chewco with Kopper representing Chewco and Fastow representing Enron (note that Kopper reported to Fastow at Enron).

27 The Powers (2002) report indicates that CFO Andrew Fastow first proposed that he serve as general partner for Chewco but was told no by President and COO Jeffrey Skilling since as an executive officer Fastow’s affiliation would have to be reported in the firm’s Proxy statement. It should be noted that the Enron’s ethics policy specifically prohibited such activities unless the CEO and Board of Directors approved them.

Enron put a $383 million unsecured bridge loan together with the help of two banks so that Chewco could purchase CalPERS ownership interest in JEDI. Enron guaranteed the loans. Thus, the first rule regarding non-consolidation (see footnote 28) of Chewco was broken by virtue of the fact that there was (at least initially) no outside equity investment at risk in Chewco. The second requirement for non-consolidation is that the sponsoring firm cannot control the SPE. This, too, is highly questionable in the case of Chewco. Did Kopper control Chewco and, if so, did Enron control Kopper by virtue of the fact that he continued as an Enron employee?

**LJM Cayman, L.P. (LJM)**

In 1999 CFO Andrew Fastow proposed the formation of LJM Caymen, L.P. (LJM1). Fastow further recommended that he serve as general partner and that the partnership would seek outside funding which would allow it to hedge Enron’s substantial investment in Rhythms NetConnections, Inc. and also to possibly acquire other assets in Enron’s merchant portfolio. The partnership was approved by Enron’s board on June 28, 1999 with Fastow to serve as general partner and would invest $1 million for which he would receive a 25% return and a management fee. Additional funding of $15 million was raised from two limited partners (ERNB Ltd. and Campsite Ltd.)

LJM1 proceeded to enter into three transactions with Enron: (1) a hedge transaction with respect to Enron’s Rhythms NetConnections stock, (2) the purchase of a portion of Enron’s interest in a Brazilian power project (Cuiaba), and (3) a purchase of certificates of an SPE called “Osprey Trust”. We will describe the first of these transactions as it is the first time that Enron transferred its own stock to an SPE and then used the SPE to hedge an Enron merchant investment. Furthermore, this transaction illustrates the potential conflict of interest problem that arose with Enron’s use of SPEs run by a related party (in this instance Enron’s CFO, Andrew Fastow).

Enron’s desire to hedge its merchant investment in Rhythms NetConnection stock relates to the fact that the firm held restricted shares worth $300 million in May 1999 that it had paid only $10 million for in March 1998. Enron’s shares were restricted by a lock-up agreement requiring Enron to hold the shares through the end of 1999. Given the market conditions for investments in technology stocks at the time, and the fact that Enron could not close out the position, the Enron’s management had an understandable desire to hedge their investment. However, Enron had another reason to hedge the investment related to the fact that the gains on the investment in Rhythms were already recorded as income. This resulted from the fact that Enron used mark-to-market accounting for its merchant investments (as per GAAP). Consequently, if something

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29 The details discussed in this section rely on the Powers (2002) internal report to Enron’s board unless otherwise noted.

30 A second and even larger partnership, LJM2 Co-Investment, L.P., was formed in October 1999.

31 The Powers (2002) report states that they understood that the two sources of limited partner capital were associated with CSFB and NatWest, respectively.
should cause the value of the Rhythms investment to drop, Enron would be forced to recognize the decline in its reported income for the period.

Enron’s solution to the hedging problem was to form an SPE that would be funded partially by the general partner and other investors. The remaining funding for LJM was to come from an ingenious use of what the Powers (2002) report refers to as the “trapped” or “embedded” value of forward contracts Enron’s management had used to purchase its own shares at a fixed price. These contracts were used to provide an economic hedge against the dilution resulting from Enron’s employee stock option programs and the forward contracts had become more valuable as the price of Enron’s shares rose. Enron had not recorded the gains to these forward contracts as income because GAAP precludes firms from recognizing as income the increase in value of its own stock (including forward contracts). To release the value of the forward contracts and consequently capture it as income, Enron agreed to transfer (sell) them to LJM in return for a note receivable. Let’s consider the details to see just how the hedge was to work.

- Enron restructured the forward contracts such that it released 3.4 million shares of Enron stock valued at $276 million on June 30, 1999.
- Next Enron transferred these shares to LJM along with restrictions on LJM’s ability to sell the shares for four years or hedge their value for one year. However, LJM was not restricted from using the shares as collateral for a loan. Due to these restrictions placed on the Enron shares their value was discounted 39% to $168 million.
- In return for the $168 million value placed on the restricted Enron shares, LJM gave Enron a note for $64 million plus a put option on Enron’s investment in Rhythms shares with an exercise price of $56 per share and expiration date of June 2004. The put option was valued at the difference in the $168 million value of the Enron shares and the $64 million note LJM gave to Enron, or $104 million.

How effective was the hedge? The hedge could work only if LJM could meet its financial obligations that arose in the case that the value of Rythm NetConnection’s shares dropped below the $56 strike price over the life of the put option. However, LJM’s ability to meet its obligations

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32 Interestingly, as we noted earlier, JEDI held Enron shares and if Enron’s merchant investment in that entity were accounted for using mark-to-market rules, then this surely violated the rule against recording income from investing in your own shares.

33 To simplify matters we have omitted an additional organizational detail. Technically, LJM formed a limited partnership to provide the put (LJM Swap Sub, L.P.). This entity’s general partner was LJM SwapCo whose sole director was Andrew Fastow and the limited partner was LJM Cayman, L.P. Funding for LJM Swap Sub, L.P. was provided by a transfer of 1.6 million Enron Shares and $3.75 million in cash from LJM Cayman, L.P.

34 Price-Waterhouse Coopers provided a fairness opinion regarding the value of Enron shares transferred to LJM and the value of the note plus put option received. They estimated the value of the Enron shares to be $170-$223 million and the value of the Rhythms put and note was $164-$204 million, consequently, they concluded that the consideration received by Enron was fair from a financial point of view. However, the Powers’ report indicates that in late July or early August 1999, the parties adjusted the terms by reducing the term of the Rhythms NetConnection put option and increasing the note payable to Enron.
through the swap was contingent upon the value of its own assets and these assets consisted of Enron’s stock. Consequently, if the price of Enron’s shares fell, then LJM’s assets would decline in value and its ability to meet the obligations of the put would be in jeopardy.\textsuperscript{35}

\textsuperscript{35} The Powers Report (2002) indicates that Enron’s director of research told the investigating committee that his analysts reviewed the hedge structure and determined there was a 68\% probability that it would default and therefore not be able to meet its obligations to Enron on the Rhythms put.
LJM2 Co-Investment, L.P. and the Raptors

In October 1999 Enron formed a second SPE that was also to be run by its CFO, Andrew Fastow. A primary difference in LJM2 and LJM1 relates to size of the two SPEs. The plan was for LJM2 to raise $200 million or more of institutional private equity to create an investment partnership that could readily purchase assets Enron wanted to syndicate.

The transactions between Enron and LJM2 that had the greatest impact on Enron’s financial statements involved four SPEs known as Raptors. Enron sought to follow the model used earlier in the Rhythms NetConnections hedge to use the “embedded” value of its own equity to counteract declines in the value of certain of its merchant investments. In essence the Raptors were used to hedge against the effects of mark-to-market accounting losses that would arise if the value of Enron’s merchant investments were to decline. The idea was simple. Should the value of one of Enron’s merchant investments decline in value in a particular quarter then, following mark-to-market accounting, Enron was obligated to report a loss in the value of the merchant investment...
as a reduction to its income for the period. What Enron sought to do with the Raptors was stabilize its reported income by entering into contractual arrangements with the Raptors that would offset any losses in the value of certain of its merchant investments. If Enron had entered into the hedge with an independent and credit worthy counter-party, it may have been able to successfully transfer the risk of a decline in the value of the merchant investments. However, this was not the case, as we discover when we describe the first of the Raptor SPEs.

The first Raptor (Raptor I) was created effective April 18, 2000, and was an SPE called Talon LLC. Talon was created solely for the purpose of engaging in hedging transactions with Enron. LJM2 invested $30 million in cash and received a minority interest. Enron (through a subsidiary named Harrier) contributed $1,000 cash, a $50 million promissory note, and Enron stock and Enron stock contracts with a fair market value of approximately $537 million. Once again the Enron shares came from stock Enron received from restructuring forward contracts Enron had made on its own shares with an investment bank. The shares were restricted such that Talon could not sell, pledge, or hedge them for three years. As a result the shares were discounted 35% from their market value. In return for its contribution, Enron also received a minority interest in Talon and a promissory note with a principal amount of $400 million. Thus, Talon had $30 million of outside equity from LJM2 to provide the requisite 3% outside equity requirement for non-consolidation.

Talon executed derivative transactions with Enron that, with one exception, took the form of “total return swaps” on interests that Enron had in merchant investments. Basically, Talon would receive the amount of any future gains in the value of those investments, but would have to pay Enron the amount of any future losses over the period of the swap. In the event that Enron suffered a loss on a covered merchant investment then it would realize an offsetting gain on its swap agreement with Talon and consequently not have to report the loss for the period. Once again, this arrangement works only so long as Enron’s counter-party has the capacity to make good on its debt to Enron and this capacity depended largely on the value of Enron’s stock (the SPE’s principal asset).

As losses in the Raptors rose, their corresponding obligations to Enron grew. However, throughout 2001 the value of Enron’s shares was falling, so that the capacity of the SPEs to honor those commitments became increasingly questionable. The sum of Enron’s net gain from the transactions with the four Raptors grew to over $500 million. However, Enron was able to recognize the gains from the swaps only so long as the Raptors were financially able to make good on their obligation to Enron. If the Raptors became financially challenged then Enron would have to record a credit reserve reflecting a charge to the income statement that would, of course, defeat the purpose for forming the Raptors in the first place.

What were the problems with Enron’s SPEs?

Enron used SPEs to purchase some of its merchant investments and to hedge some of the risk associated with those investments. On the surface there is nothing about these transactions that cannot be defended as reasonable and good business practice. However, beginning in 1997 with the Chewco L.P. Enron engaged in a series of transactions involving SPEs with related parties. Even if the conflict of interest problems could have been properly handled, the appearance of, and
potential for, wrong doing was great. Furthermore, according to the Powers (2002) report, many of the transactions with the related party SPEs suggest that they were not arms length transactions. Finally, the basic structure of the SPEs was flawed. Their primary asset was Enron stock; consequently the financial viability of these SPEs was contingent on the level of the company’s stock price. The losses in the value of Enron’s merchant investments that were being hedged using the SPEs were important determinants of Enron’s stock price. This interrelatedness of the ability of the SPE to honor its side of the hedge and the value of Enron’s shares, once revealed, produced a death spiral that took the firm into insolvency in record time.

**Summing up—Enron’s use of derivatives and SPEs**

In his congressional testimony Partnoy (2002) argues that Enron’s problems can be traced directly to its use of derivatives and SPEs. Specifically, Enron is accused of using derivatives and SPEs to manipulate or manage its reported financial results in three ways: First, Enron used SPEs to hedge the risk of having to report losses suffered on some of its investments in technology investments. Second, Enron transferred significant assets and corresponding debt obligations incurred to support those assets to unconsolidated SPEs. Here we can point to the Chewco, L.P. SPE that was used to acquire the equity interest of the California Public Employees Retirement System’s investment in JEDI (a joint venture between the fund and Enron formed in 1993).

Finally, Enron is accused of using SPEs to inflate the value of investments in failed business ventures such as the firm’s investments in fiber-optic bandwidth. The accusation is that Enron sold a small fraction of its holdings in a troubled investment to an SPE for an inflated price. This transaction then served as the basis for revaluing the remainder of Enron’s investment at a similar inflated price. For example, on page 16 of Enron’s 2000 annual report (p. 49) “In 2000, Enron sold a portion of its dark fiber inventory to the Related Party in exchange for $30 million cash and a $70 million note receivable that was subsequently repaid. Enron recognized gross margin of $67 million on the sale.” We now know that the “Related Party” is LJM2 (a partnership run by Enron’s Chief Financial Officer), and “dark fiber” refers to a type of bandwidth Enron traded as a part of its broadband business. Enron traded the right to transmit data through various fiber optic cables (over 40 million miles of fiber-optic cables had been installed in the U.S.), however, only a small portion of this cable was ready to use or “lit”, thus the term dark fiber. The dark fiber awaited upgrades before it could be lit, so the rights to transmit over dark fiber were particularly difficult to value. In the above transaction Enron sold dark fiber assets in which it had invested $33 million for $100 million, recording a gain of $67 million. What the footnote does not say is that Enron simultaneously entered into an agreement with the buyer (LJM2) to make up any losses the buyer might incur if the dark fiber were to be found to be worth less than the $100 million. Consequently, Enron retained the risk associated with the dark fiber investment but was able to record a sizeable profit from the sale. When the value of dark fiber plunged with the crash of the

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36 Professor of Law, University of San Diego School of Law, Hearings before the United States Senate Committee on Governmental Affairs (January 24, 2002).
dot.com market in 2000 Enron did not have to record the loss in value since it did not consolidate the LJM2 SPE.\textsuperscript{37}

In all three of these instances it could be argued that if the agreements had truly been arms length and enforceable, they would have made Enron’s management look very smart. They had found creative ways to hedge the risk of loss of prior gains from merchant investments, they used SPEs to finance some of their large investments, and they sold assets that eventually would decline in value. However, the fact that all of these transactions were with a related party and Enron retained the risks inherent to the transactions indicates that they were attempts to manage the firm’s reported profits and losses and did not transfer the economic risks of the associated investments to an independent and viable entity.

**How much debt did Enron have?**

When Enron declared bankruptcy it caught investors by surprise because many were simply unaware of the magnitude of the firm’s financial obligations. The principal reason for this was that a significant portion of these obligations was in unconsolidated SPEs (i.e., they were off-balance sheet contingent liabilities) or they were reported as liabilities from risk management activities (i.e., hedges).

The role of Enron’s contingent liabilities in the firm’s bankruptcy

Exhibit 2 indicates that at the close of fiscal year 2000 Enron’s balance sheet indicated that it owed $28.406 billion in current liabilities, $8.550 billion in long-term debt, and $13.759 billion in deferred credits and other liabilities for a total of $50.715 billion. This total compares to only $20.381 billion in 1999 with the primary difference due to something called “Liabilities from price risk management activities”. As we point out below, this category includes debt-like agreements that resulted from something called “prepaid swap agreements”. Furthermore, Enron’s liabilities were much greater because the firm was contingently liable for many of the debts of its off-balance sheet partnerships, which totaled more than $4 billion dollars.\textsuperscript{38}

**How were hedge agreements used to “defacto” borrow money?**

The line entry in the above financial structure entitled “Liabilities from price risk management activities” may be something you have not seen before. Let’s see where this liability came from and what it represents. Over the period 1992-2001 Enron engaged in financial hedging operations that resulted in the receipt of $3.9 billion including $2.4 billion during the final three years of this period.\textsuperscript{39} These hedges were actually “prepaid swaps” whereby Wall Street firms like J. P.

\textsuperscript{37} Sherron Watkin’s letter indicates that Enron then 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).

\textsuperscript{38} See Enron 10Q for the third quarter of 2001.

\textsuperscript{39} 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).
Morgan Chase, Citigroup, and Credit Suisse First Boston paid Enron cash today for the right to receive an uncertain future payment (e.g., in five years). The future payment was contingent on market conditions at the time. The pattern of cash flows for the prepaid swap agreements is very similar to the payment structure of a loan. However, the amount of the repayment was contingent on the future value of some economic measure such as the price of oil at the end of the swap term. Consequently, Enron could, under generally accepted accounting principles, record the agreements as “assets from price risk management” and the corresponding liability was recorded as “liabilities from price risk management”.

Technically, the transactions were swaps; however, since the Wall Street firm 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 cash flows look just like a floating rate loan.
## Exhibit 2. Enron’s Reported Financial Structure

<table>
<thead>
<tr>
<th>Current Liabilities</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>$2,154</td>
<td>$9,777</td>
</tr>
<tr>
<td>Liabilities from price risk management activities</td>
<td>1,836</td>
<td>10,495</td>
</tr>
<tr>
<td>Short-term debt</td>
<td>1,001</td>
<td>1,679</td>
</tr>
<tr>
<td>Customer's deposits</td>
<td>44</td>
<td>4,277</td>
</tr>
<tr>
<td>Other</td>
<td>1,724</td>
<td>2,178</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>$6,759</td>
<td>$28,406</td>
</tr>
<tr>
<td>Long-Term Debt</td>
<td>7,151</td>
<td>8,550</td>
</tr>
<tr>
<td>Deferred Credits and Other Liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred income taxes</td>
<td>1,894</td>
<td>1,644</td>
</tr>
<tr>
<td>Liabilities from price risk management activities</td>
<td>2,990</td>
<td>9,423</td>
</tr>
<tr>
<td>Other</td>
<td>1,587</td>
<td>2,692</td>
</tr>
<tr>
<td><strong>Total deferred credits and other liabilities</strong></td>
<td>6,471</td>
<td>13,759</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>$20,381</td>
<td>$50,715</td>
</tr>
</tbody>
</table>


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### 5 What lessons can we learn from the failure of Enron?

The bankruptcy and failure of the Enron Corporation on December 2, 2001 shook the investment community to its core. Congressional hearings were begun and new regulations passed that will have far reaching implications for businesses and investors. Furthermore, Enron’s failure provides a sober warning to both employees and investors that go beyond the study of corporate finance and touch on fundamental principles that have always been true, but are sometimes forgotten. We restate five such principles in the form of lessons learned.

**LESSON #1: TRUST AND CREDIBILITY ARE ESSENTIAL TO BUSINESS SUCCESS**

The viability of any firm hinges critically on the firm’s credibility with its customers, employees, regulators, investors, and to some degree, its competitors. This is particularly critical for a trading company such as Enron whose primary business relies on the willingness of the firm’s counter parties with whom it trades to “trust” in Enron’s ability to “be there” when the time to settle up arrives. Furthermore, when the faith of the investment community was tested with the revelation of losses from some of its largest investments and the subsequent revelation of Enron’s off-balance sheet liabilities, Enron’s trading business evaporated along with its equity value.

In addition, we were reminded of the fact that investors must believe that the firm’s published financial reports are a fair representation of the firm’s financial condition. Without this trust
outside investors would refuse to invest in the shares of publicly traded firms and financial markets would collapse.\textsuperscript{40}

Trust between two entities is hard to sustain when one of the parties to the relationship has dual and conflicting motives. We refer to the presence of multiple motives as a conflict of interest and the potential for conflict of interest problems were in abundance as Enron fell to earth. Some of the following sources of conflict apply only to Enron while others are applicable to many firms:

- Enron’s chief financial officer (CFO) attempted to serve two masters when he was both the general partner for a series of limited partnerships used by Enron to finance its investments and hedge certain investment returns, in addition to serving as Enron’s CFO. There were times when he represented the interests of Enron in circumstances that were in direct conflict with the interests of the partners to the partnerships. It is still not clear how he handled these circumstances, but the source of concern to Enron shareholders is obvious.

- Were corporate insiders (executives) selling their stock based on their privileged knowledge of the firm’s true financial condition during the months prior to the firm’s failure while outside investors were being duped into holding their shares? Allegations abound that top corporate executives at Enron were selling their shares long before other employees and outside investors knew how serious the firm’s problems were. Regardless of the outcome in the Enron case, this raises a serious dilemma for investors who cannot know as much about the financial condition of the firms in which they invest as the managers do.

- Are auditing firms that accept consulting engagements with their audit clients truly independent? The Enron failure has called into question the wisdom of relying on external auditing firms who are beholden to the firms they audit both for their continued employment as an auditor and also for consulting fees that can sometimes dwarf their auditor fees.\textsuperscript{41}

- Finally, investors often rely on the opinions of equity analysts whose opinions are presumed to rely on independent research. Investors make the assumption that the analysts are offering unfettered, independent opinions of the company’s financial prospects. However, in many cases the analysts work for investment banks that, in turn, rely on

\textsuperscript{40} This is a simple recasting of the famous result from microeconomics stating that where informational asymmetry problems between buyers and sellers are extreme, markets will collapse (George Akerlof, “The market for lemons: Qualitative uncertainty and the market mechanism,” \textit{Quarterly Journal of Economics}, 84 (1970), 488-500).

\textsuperscript{41} The US Congress moved rapidly to put in place a tightened oversight over the accounting profession and toughen corporate disclosure rules. (“House approves accounting oversight inspired by Enron, \textit{The New York Times}, April 24, 2002.”)
investment banking fees from the very companies the analysts cover. The potential conflict of interest is obvious.\(^\text{42}\)

It would appear that the system of rules and regulations that make up the forces of external governance over corporations failed in the case of Enron. Specifically, reporting and auditing requirements failed to reveal the economic impact of decisions made in 1997 until the fall of 2001. The firm’s board of directors allowed Enron’s management to set up SPEs that clearly involved conflicts of interest between the general partner and the firm.

**LESSON #2: THERE’S NO SUBSTITUTE FOR GOOD BUSINESS JUDGMENT AND LUCK**

Ultimately the cause of Enron’s failure may simply be a combination of bad judgment and bad luck, (i.e., the “perfect business storm”). The firm got caught up in the Dotcom mania and invested heavily in high-speed data transmission lines and other related broadband investments. Unfortunately, everyone else did the same thing, the market for broadband experienced a supply glut, and the business opportunity failed to materialize. Then, Enron tried to hide the losses from public view through the use of hedge transactions that ultimately failed because their viability was tied to the price of Enron’s shares (that were plummeting right along with the value of the hedged assets). Here’s where the bad luck part comes into play as the recession took its toll on the value of Enron’s shares (in combination with Enron’s other problems). Eventually Enron had to report losses on its investments totaling more than $500 million and a write-off to the firm’s equity of $1.2 billion.

**LESSON #3: EVEN GOOD FIRMS CAN FAIL IF THEY USE TOO MUCH LEVERAGE**

Enron essentially *super* leveraged its assets by using off-balance sheet debt in partnerships called special purpose entities or SPEs. These assets and liabilities (many of which were guaranteed by Enron) were not reported to the investment community in Enron’s consolidated financial statements nor was the fact that Enron executives were running some of them. When Enron was forced to reveal its obligations to the SPEs its stock price plummeted, this kicked in debt covenants that made the firm insolvent, and Enron had no choice but to file for bankruptcy.

**LESSON #4: MAXIMIZING SHARE PRICE IS NOT THE SAME AS MAXIMIZING SHARE VALUE**

If there is a disconnect between current market prices and the intrinsic worth of a firm’s shares, then attempts to manipulate share value may appear to be possible over the short-run. Under these circumstances problems can arise if firms use equity-based compensation rewarded on the basis of stock price or returns. These circumstances can lead to a type of managerial myopia that focuses managerial attention on “hyping” the firm’s potential to investors in an effort to reach higher market valuations of the firm’s stock.

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From the shareholder’s perspective one might ask, “What is wrong with achieving a higher stock price?” The problem is that this can lead to a situation where investor expectations become detached from what is feasible for the firm. Ultimately, when investors realize that the valuation of the firm’s shares is unwarranted, there is a day of reckoning that can bring catastrophic consequences as it did with Enron. Thus, maximizing share value where the firm’s underlying fundamentals do not support such valuations is dangerous business. In fact, it is not clear which is worse, having an over or an undervalued stock price. Fuller and Jensen (2002) suggest that it is the former. Furthermore, we should also note that the problems associated with managing for shareholder value in a capital market that is less than omniscient (perfectly efficient) is largely uncharted territory for financial economists.

LESSON #5: CURRENT FINANCIAL REPORTING RULES ARE INADEQUATE

Perhaps audited financial statements never really meant what investors presumed they did. Nonetheless, Enron’s failure emphasizes the fact that investors cannot rely on these financial statements to reveal a firm’s financial risk exposure since significant contingent liabilities easily can be hidden from view in unconsolidated SPEs. This problem is compounded where auditors do not provide assurance that firms are following generally accepted accounting procedures (GAAP). In addition, current rules for reporting revenues and profits appear to offer substantial freedom to stretch credibility should a firm choose to use it. Enron’s use of off balance sheet Special Purpose Entities to hedge its accounting profits demonstrates that the user of reported financial information must be a wary.43

The very speed with which Enron’s equity went from over $60 billion in market value to virtually zero, suggests that investors may not be sufficiently well informed about the financial condition of the companies in which they invest. Specifically, current financial standards for corporate reporting fail to report many things that can have a material impact on the firm’s financial condition including commitments such as the ones made by Enron’s management to the limited partners in off-balance sheet partnerships. In addition, the speed of Enron’s collapse raises serious questions about the use of quarterly and annual financial reports. In this age of high-speed computer networks one can only wonder why the minimum-reporting interval remains three months.

Epitaph

Business school students will no doubt learn from the story of Enron for years to come. We, like the media, have focused on the company’s failures. In fact, it is the mistakes that Enron made that provide the grist for our “lessons learned”. However, we think it only fitting that we close on a more positive note for the sakes of the many Enron employees who were neither criminals nor victims and whose work built the most innovative company in America for six straight years. The

43 For example, 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).
following quote is from a story featured on National Public Ratio’s Morning Edition program on February 24, 2002. An executive from the Florida Municipal Utility League provided the story and we think that it provides a fitting closure for this story. This is a part of what he said,

Enron was a pioneer; they were risk takers and treated their employees like entrepreneurs. In many ways, Enron’s corporate mission was like the gutsy Mercury 7 astronauts in the early days of space program. Think big; take chances, go where no one has gone before. Unfortunately, it now looks like Enron’s profit was as volatile as the natural gas they traded.

I do not condone Enron’s deceptive accounting shenanigans. However, in spite of this massive display of greed and arrogance, there was one nugget of good news. Enron forced every utility to take a fresh look at how they do business, from cutting costs to treating customers better. For years, regulated utility monopolies increased cost, while expecting customers to be thankful for keeping the lights on and their beer cold, but the threat of competition that Enron brought changed all that. It was cold water splashed in our faces. We woke up to realize that unless we gave our customers’ respect, service and a reasonable price, they might leave us to buy from our competitors down the street. Enron now rides off into the sunset, but the company leaves the energy industry more efficient, more innovative, and more customer-friendly. For that we have Enron to thank.

Perhaps with the passage of time and with the benefit of hindsight, business historians may come to agree with this assessment.
### Appendix A. Milestone Events in the History of Enron Corp.

<table>
<thead>
<tr>
<th>Year</th>
<th>Events</th>
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<tbody>
<tr>
<td>1930</td>
<td>- 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.</td>
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</table>
  - 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.  
  - Peruvian government nationalizes Enron pipeline system.  
  - Enron's interstate pipelines work to become open-access transporters to allow other entities to transport on Enron pipelines. |
| 1986 | - Irwin Jacobs and Leucadia National Corporation accumulate over 15 percent of Enron's shares before a buyback agreement is reached. |
| 1987 | - July 1, 1987 second phase of deregulation of the natural gas market initiated.  
  - October 1987 Enron discontinued its speculative oil and petroleum trading operations due to losses incurred during the third quarter.  
  - Florida Gas Transmission's Phase I expansion is completed as a result of growing natural gas needs in Florida. |
| 1988 | - 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. |
| 1989 | - Enron Gas Marketing commenced a program to acquire long-term supplies with which to serve firm, long-term markets under its “gas bank program”.  
  - Transwestern Pipeline Company is the first merchant pipeline in the U.S. to stop selling gas and become a transportation-only pipeline. |
| 1990 | - Jeff Skilling hired as chairman of Enron Gas Services.  
  - 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)  
  - Enron Finance Corporation created.  
  - 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. |
| 1991 | - 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. |
| 1992 | - 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. |
| 1993 | - Enron acquires Zond Corporation, a leading developer of wind energy power, and forms Enron Renewable Energy Corp.  
  - Construction begins on the 790 MW power station at Sutton Bridge, U.K.  
  - Enron announces its first commodity transaction using weather derivative products. |

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44 Commencing in October 1985, the Federal Energy Regulatory Commission (FERC) issued Order 436 which significantly altered the marketing and pricing of natural gas.

45 Enron Finance Corporation was formed 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)
| 1998 | - Enron Energy Services (EES) is formed to provide nationwide energy outsourcing services to commercial and light industrial customers.  
- 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. |
| 1999 | - EES transacts its first commercial outsourcing deal with General Cable.  
- 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.  
- 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. |
| 2000 | - Enron Broadband Services introduces the Enron Intelligent Network (EIN), a new Internet application delivery platform.  
- Enron Investment Partners is created to manage private equity funds targeting women and minority owned businesses in Houston and around the U.S.  
- Enron and the Houston Astros announce the name of Houston's new ballpark, "Enron Field," and a 30-year facilities management contract with EES.  
- 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.  
- EES transacts its first billion-dollar deal with Suiza Foods.  
- Enron announces Azurix initial public offering.  
- The 3,000-kilometer Bolivia-to-Brazil natural gas pipeline, one of the largest gas projects ever undertaken in South America, begins commercial operation.  
- Enron sells its interest in Enron Oil & Gas, but retains its China and India assets.  
- 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.  
- Enron announces the sale of PGE to Sierra Pacific Resources.  
- Enron completes its first bandwidth trade. EES reports its first profitable quarter. |