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The Rise and Collapse of Enron: Financial Innovation, Errors and Lessons

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Abstract

*Recent collapses of high profile business failures like Enron, Worldcom, Parmlat, and Tyco has been a subject of great debate among regulators, investors, government and academics in the recent past. Enron's case was the greatest failure in the history of American capitalism and had a major impact on financial markets by causing significant losses to investors. Enron was a company ranked by **Fortune** as the most innovative company in the United States; it exemplified the transition from the production to the knowledge economy. Many lessons can we learn from its collapse. In this paper we present an analysis of the factors that contributed to Enron's rise and failure, underlying the role that energy deregulation and manipulation of financial statements played on Enron's demise. We summarize some lessons that can be learned in order to prevent another Enron and restore confidence in the financial markets, as well as in the accounting and auditing professions.*

Keywords: Enron, Corporate Ethics, Corporate Bankruptcy, Creative Accounting.

Introduction

The rise and fall of high profile businesses like Enron, *WorldCom*, *Parmlat* and *Tyco* has been a subject of great debate and research among regulators, investors, government and academics in the recent years. Enron, for one, was the greatest failure

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in the history of American mercantile capitalism and had a major impact on financial markets by causing significant losses to banks, insurance companies and pension funds that invested directly in Enron, as well as on other small and large investors. Moreover, the breakdown of this corporation made imperative to assess what has to be done to ensure the soundness of financial reporting worldwide and to encourage and support accountants in their efforts to protect the public interest. What went wrong with Enron? A company that was ranked by *Fortune* as the most innovative company in the United States; a company that exemplified the transition from the production to the knowledge economy. What lessons can we learn from Enron's collapse? Ultimately, it is clear that responsibility for the Enron affair cannot be identified with only its top managers, and certainly it cannot be generalized to the entire accounting and auditing professions. The company and its management, the auditors, banks, analysts, regulators, speculators and standard setters are all responsible in some degree for this historical collapse. Many significant issues have to be analyzed, including the need for clear and unequivocal accounting and auditing standards of international application; it must be also acknowledged that conflicts or interest arise between corporations and investors markets when systematic inefficiencies characterize financial markets. In this context, this paper examines the factors that contributed to Enron's rise and failure. An examination of the role that energy deregulation, manipulation of financial statements and over exploitation of risky financial assets operations, namely energy derivatives, played on Enron's demise is emphasized. We summarize lessons that can be learned in order to prevent another Enron and restore confidence in the financial markets. The paper is organized in eight sections. Section I examines Enron's origins and evolution. Section II analyzes Enron keys factors intervening for its short lived success. Enron's success and increased profits were largely derived from important and continuous innovations; these are identified and analyzed in Section III. To finance its operations and hedge against risk, Enron used limited partnerships called "special purpose entities" (SPEs), which allowed to increase leverage and return on assets without having to report debt on its balance sheet. The nature and implications of these partnerships and derived "creative accounting" are examined in Section IV. Section V discusses the role of deregulation, particularly electric power deregulation and its over all impact on Enron, emphasizing its relationship with its special purpose entities. Section VI, gives full account of Enron's accounting practices; The company took full advantage of accounting limitations in managing its earnings and balance sheet to portray a favorable picture of its performance. Many lessons can be learned from Enron's failure, particularly to prevent similar

corporate disasters in the futures; these lessons are summarized in Section VII; problems and lessons, and suggestions for their solution include administrative, legal, regulation, ethical, educational, and accounting and auditing practices issues. Finally, Section VIII summarizes the issues and findings of this paper.

I. Enron's Beginnings and Progression

Enron's roots can be traced to 1985, when Kenneth Lay helped form a company operating in one of the oldest, capital-intensive commodity industries in the world - gas and utilities. Enron was born from the merger of Houston Natural Gas and InterNorth, a Nebraska pipeline company (Thomas, 2002). With the help of deregulation, Kenneth Lay was considered a pioneer in taking the energy supply business from a sleepy monopoly as a regulated utility, to a free-market commodity that previously did not exist. In the process of the merger, Enron incurred enormous debt and, as the result of deregulation, it lost its exclusive rights to the pipelines. In order to endure, a newly hired consultant Jeff Skilling, developed an innovative business plan to generate earnings and cash flow. Through the creation of "gas banks" Enron would buy gas from a network of suppliers and sell it to a network of consumers, contractually guaranteeing both the supply and the price, charging fees for the transactions and assuming the associated risks (Thomas, 2002). In so doing, Enron created both a new product and a new model for the industry – the energy derivative.

It continued to diversify beyond the pipeline and natural gas trading into becoming a financial trader and market maker in electric power, coal, steel, paper and pulp, water and broadband fiber optic cable capacity (Healey and Palepu, 2003). Enron trading activities were reported to be very innovative; Enron had made money off gas and electricity futures; thus, the firm believed that they could do the same for fiber-optic bandwidth, pollution-emission credits, even weather derivatives. Indeed, Enron moved even farther a field with its trading and risk management competency, trading wood pulp, steel, and television advertising; results were promising, for by year 2000 Enron was the seventh largest company in America and was paving the way to become the largest. In its annual reputation survey, Fortune listed Enron as the most innovative company in the United States (Curren and Epstein, 2003). Enron's gas trading idea was probably a reasonable response to the opportunities

arising from deregulation. However extensions of this idea into other markets and international expansion were unsuccessful. By 2001, Enron had become a conglomerate that owned and operated gas pipelines, electricity plants, pulp and paper plants, broadband assets and water plants internationally and traded extensively in financial markets for the same products and services. It started to fall from grace, however, when investors questioned the value of the company's stock as a result of the company's questionable accounting methods.¹

II. Key to Enron's Success

During the late 1990s Enron had implemented repeated value innovations, lowering the cost of gas and electricity to customers by as much as 40 percent to 50 percent. Enron did so while dramatically reducing its own cost structure and by creating the first national spot market for gas in which commodity swaps, future contracts, and other complex derivatives effectively stripped the risk and volatility out of gas prices (Kim and Mauborgne, 1999).

Enron was involved in every aspect of the energy supply chain, from natural gas pipelines to power marketing and allowance trading, including coal trading and coal mine. As a result, Enron made its mark on the industry and forever changed how coal and energy are traded (Fiscor, 2002). Enron was, in essence, two companies. One was an energy supply company that purchased pipelines and electrical power plants that provided energy while the other was a financial institution that functioned as a major dealer in wholesale and derivatives transactions in energy products and some financial derivatives. The energy supply side of the company had information from energy producers about production costs and distribution problems. On the dealer side of the company, it had critical knowledge of order flow as market participants came to them to either buy or sell which it could share directly with its energy-supply operations, thereby providing a major competitive advantage to Enron.

The energy supply business grew rapidly by making major investments in the United States and abroad. This rapid accumulation of assets, which was mostly financed by debt, produced a high debt-to-equity ratio that was partially hidden from investors through partnerships known as "special purpose entities." The financial institution

¹ For a full assessment of current accounting disclosure problems see: Benston *et al.* (2003).

grew rapidly by profiting from the broader growth in derivatives trading in general, plus profiting from trading during the energy crisis in California in the summer of 2000 (Dodd, 2002). Enron made large profits from its trading activities because it was both a dealer and a key market participant in the underlying commodities. Accordingly, Enron had acquired market power. As long as Enron bought at a lower bid price than it sold at its ask price, it earned the spread on trading volume. It also earned speculative profits by taking a position in the market due to its advantageous position.

Enron's model was to acquire physical capacity in each market and then leverage that investment through the creation of more flexible pricing structures for market participants, using financial derivatives as a way of managing risks. Enron argued that the systems and expertise it had acquired in gas trading could be leveraged to new markets. The trading model assumed continuous growth as it diversified from a pure energy firm into a broad-based financial service company (Healy and Palepu, 8). Thus, the successes of Enron was rooted in its ability to manage risks in complex transactions. Yet these very risks that ultimately brought Enron down (Chatterjee, 2003). Moreover, success and failure derived from Enron's corporate culture of innovation and competitiveness, where employees enjoyed autonomy if they produced quarterly results. That culture fed its appetite for new ideas and for creative, hardworking people. But the drive and independence also helped enable financial deception, because the company encouraged experimentation but discouraged anything other than success (Fox, 2003).

III. Enron's Innovations

Enron facilitated its increased profits as well as a name in the U.S. corporate culture by introducing a number of innovations. In 1988 the company made a major strategic shift by pursuing unregulated markets in addition to its regulated pipeline business (Fox, 2003).

In 1989 it launched Gas Bank, which allowed gas producers and wholesale buyers to purchase firm gas supplies and hedge the price risk at the same time. In that same year, its Transwestern pipeline is the first merchant pipeline in the U.S. to stop selling gas and become a transportation-only pipeline.

Enron used derivatives to reduce risks associated with future gas prices. In so doing,

Enron took advantage of the derivatives revolution that had already begun in the finance area, but it was new to the natural gas industry. Over the years, trading derivatives would become one of Enron's special talents. Most of Enron's trading involved customized contracts used outside of exchanges, which meant that there was no exchange regulating these deals (Fox, 2003).

In 1999, Enron began using an accounting method known as "mark-to-market" for booking the value of its trades. Enron believed this type of accounting more fairly presented the results of managing in its portfolio of trades and contracts (Chatterjee, 2003).

Enron also pioneered the Special Purpose Entities. An SPE is simply a trust created by a company to hold some of the company's assets; typically, the SPE would then either borrow against those assets or conduct more complex financing arrangements backed by those assets. Because the SPE, contains some assets but none of the company's existing debt, it's a less risky borrower and can therefore borrow money at lower rates. In general an SPE is a legitimated way of segregating a special risk, from a company's core operations and help it pay less to borrow money.

Enron used a SPE organized by Citigroup to disguise significant amounts of debt as commodity prepaid transactions. Through a series of circular or round-trip prepaid connections, the Special purpose entity was the centerpiece in allowing Enron to borrow money but to record the amount borrowed as cash generated by operations, because prepaid commodity contracts are generally booked as trades, not loans (Sapsford and Bekett, 2002).

Closely related to the SPE was the VPP, Volumetric production payment, the loaning of money to oil and gas production companies, asking to be repaid in oil and gas. Enron wasn't in a financial position to just hand out millions of dollars to oil and gas producers and then wait a couple of years for the gas sales. So the company set about to create financing vehicles to raise the money for the VPPs. These instruments, which were perfectly legal, laid the groundwork for the more complicated entities Enron created in the late 1990s that eventually led the company's demise (Curral and Epstein, 2003).

Another closely related instrument was the Cactus Funds, a pool of VPP contracts in limited partnerships. This group produced a stream of gas supplies that could be sold at spot prices. It then used natural-gas swaps to stabilize the prices Cactus could get

for the gas, lowering the risk. This meant, that a Cactus Fund produced a known series of cash payments almost like a bond. Enron could then split up the Cactus payments as securities and sell them to banks the way an investment firm might sell a corporate bond to big investors. Selling a sort of massaged pool of VPP contracts raise the cash Enron needed to make the VPP loans. Enron didn't hide its use of the Cactus Funds, instead pointing to them as creative solutions to the problem of raising funds inexpensively. By mid 1993, Enron had used Cactus partnerships to raise some \$900 million (Fox, 2003).

In addition to Cactus, Enron had a partnership known as Joint Energy Development Investors or JEDI, purposely named after the characters in the Star Wars movies. It was a 50-50 partnership between Enron and the public pension system of California, known as CalPERS, or the California Public Employees' Retirement System. JEDI was believed to be the first partnership of its kind, in that a pension fund initiated and helped structure it. It also became the first company to issue a new kind of debt known as "credit sensitive notes." These notes paid interest rates that varied based on Enron's credit rating.

Enron also was very keen in being a world company and venture into the international arena and some of its efforts came to a successful reality when in 1993 its Teesside power plant in England begins operation. Also in 1993 Enron and Maharashtra reach agreement to build the massive Dabhol power plant in India. The \$2 billion Indian project presented a lot of challenges to the company from its very beginning. It opened up in 1999. In 1998 it agrees to buy Wessex Water, a British water utility, for \$2.2 billion. Wessex becomes the core of Enron's new water unit, Azurix. In 1999 Azurix goes public with a \$700 million initial public offering. Also, Enron created the first LJM partnership in order to hedge its investment in an internet company.

In 1994 Enron completed its first electricity trade, and in 1997 it traded its first weather derivative. It goes on to trade coal, pulp, paper, plastics, metals and bandwidth.

In that same year it formed the first independent partnership run by an Enron employee occurs when it forms Chewco Investments managed by Enron employee Michael Kopper.

In 1999, it also launched Enron Online, its Internet based system for wholesale commodity trading. Also, Enron forms the LJM2 partnership. Also in 1999 Enron conducts its first bandwidth trade.

Another innovation in 2000 was the initiation of EnronCredit.com, which bought

and sold credit risk to help companies manage the risk incurred in trading transactions. Also in that year Enron created the first Raptor special purpose entity. The Raptors would be used to hedge Enron investments. But mostly backed by Enron stock, they were risky vehicles (Fox,2003).

Enron's accounting firm, Arthur Anderson, which like other big accounting firms, also did Consulting work for Enron, signed off on the company's questionable accounting practices. According to a number of people, the accounting rules were vague enough and the company's deals complex enough that it was often difficult to tell when Enron violated rules. But Anderson downplayed questions about the accounting practices; indeed, employees concerned about those practices were simply fired (Curral and Epstein, 2003).

Arthur Anderson's Enron account delivered an average weekly billings of \$1 million, over half being for nonaudit services. Anderson also housed a number of its staff in Enron facilities, and was a routine supplier of accounting staff to Enron and counted numerous members of the Enron management team among its alumni (Demski, 2003). Andersen weakened the authority of this Central authority in its own firm and allow the Enron partner in charge to have final say on a number of reporting issues.

IV. Use of Special Purpose Entities

Enron used "special purpose entities" (SPEs) to access capital or hedge risk. These limited partnerships permitted Enron to increase leverage and return on assets without having to report debt on its balance sheet. Under the leadership of Andrew Fastow (A Skilling's protégé who had gone up in ranks becoming Enron's CFO in 1998) the company took SPEs to new heights, thereby pushing accounting principles to the breaking point. It capitalized on them not only with a range of hard assets and liabilities, but also with extremely complex derivative financial instruments (Thomas, 2002).

Enron had used hundreds of special purposed entities by 2001. Many of these were used to fund the purchase of forward contracts with gas producers to supply gas to utilities under long term fixed contracts (Tufano,1994). However, several controversial special purpose entities were designed primarily to achieve financial reporting objectives. As an example Chewco and several other special purpose entities, did more than just skirt accounting rules. As Enron revealed in October 2001, they violated accounting standards that require at least 3 percent of assets to be owned by

independent equity investors. By ignoring this requirement, Enron was able to avoid consolidating these special purpose entities. As a result its balance sheet understated its liabilities and overstated its equity and earnings (Healey and Palepu, 2003).

Enron's derivatives contracts allowed executives to conceal the risks from investors and even from the company's Board. Their very complexity obscured the fundamental weakness of these financing instruments and, by placing unchallenged power in the hands of a few, threatened basic concepts of risk management. Moreover, this type of scheme, so prevalent in the 1990s "bull market" and so compelling in Enron's collapse, divert companies from applying new technologies and work practices to their infrastructure and business processes (Apgar, 2002).

The Cactus transactions were a legal and innovative way to transfer the risks and the debt associated with the VPP contracts off Enron's corporate balance sheet. Certainly, the Cactus Fund moved some profits of Enron's books, too-but it was willing to record just a portion of the profits in its financials if that income came without adding to the company's debt.

V. Role of Deregulation

While deregulation generally led to lower prices and increased supply, it also introduced increased volatility in gas prices. Enron began offering utilities long-term fixed price contracts for natural gas, typically at prices that assumed long-term declined in spot prices (Healy and Palepu, 2003). To ensure delivery of these contracts and to reduce exposure to fluctuation in spot prices, Enron entered into long-term fixed price arrangements with producers and used financial derivatives, including swaps, forward and future contracts. It also began using off-balance sheet financing vehicles, known as Special Purpose Entities to finance many of these transactions. Enron was a child of deregulation. Although Enron's field would later expand to include Electricity and electric deregulation, in the early years deregulation was about natural gas.

Another dimension of the Enron case is the role that deregulation of electric power played in its rise and demise. Much of the U.S. economy can be efficiently run as a free market—but not electricity (Kuttner, 2002). In no industry has deregulation raised as much fear and concern as in electric power markets (Geisst, 2000; Rossi, 2002). Enron's collapse can be used as a prime example to demonstrate that

deregulation of electricity went too far. As California's power disaster proved demand for electricity is relatively inelastic. Traditionally, regulated power coexisted with adequate supply and fair prices because the system included both capacity for peak demands and prohibitions on price-manipulation and windfall profits. But deregulation signals entrepreneurs both to discard spare capacity and to accumulate the sort of market power that brings price manipulation. Moreover, the system needs spare capacity, in case prices peak or brownouts occur. In a deregulated system, utilities and consumers are prey for traders. Even a well-designed market system creates opportunities for market manipulation (Kuttner, 2002). In this climate, it was guaranteed that Enron would generate earnings by manipulating supply in California and the highly publicized shortage of electric power of the summer of 2000.

Neoclassical economists argue that removing economic regulation would promote efficiency, induce innovation, lower costs, lower prices, and improve reliability (Trebing, 2002). But deregulation has many pitfalls. Instead of a promised 30 percent reduction in price together with improved reliability, California consumers saw wholesale markets soar and reliability virtually collapse (Trebing, 2002). In theory, it created an efficient market. In practice, it created a system so complex that energy traders like Enron Corp. could manipulate supply and price, evade scrutiny, and fleece consumers (Kuttner, 2002). Over time, Enron was all over the country, at every hub. More than just a broker, it became a "market maker" for gas: a trading firm that stood ready to make deals in order to keep the flow of trades going (Fox, 25). According to economist Paul Joskow, "It was an accident waiting to happen from day one" (Rossi, 2002).

VI. Manipulation of Enron's Financial Statements

Enron's business model, as previously analyzed, reached across many products, including physical assets and Trading operations and crossing national borders—stretched the limits of accounting. The company took full advantage of accounting limitations in managing its earnings and balance sheet to portray a rosy picture of its performance.

Enron highlights the many flaws prevalent in the industry. Many of Enron's accounting actions were legal. Off-balance sheet accounting is legal, however, the ability to design transactions that satisfied the letter of the law, but violated the intent such that its balance sheet did not reflect its financial risks (Healey and Palepu,

2003). Thus, one potentially positive outcome of Enron's scandal should be improving the process by which auditors are selected, retained and compensated. This should be accomplished promoting corporate governance structures that allow shareholders a direct path for deciding on auditor choice and compensation (Abdel-khalik, 2002).

Market-to-market accounting needs to be clarified so that it isn't abused in illiquid markets, which is what Enron did. And the definition of what makes an SPE independent needs to be refined. Enron's external auditor Arthur Anderson, accepted Enron's decision not to consolidate the derivative-related liabilities of these entities with the corporation's overall liabilities. These entities hid the fact that Enron was massively at risk (Millman, 2002). As its financial dealings became more complicated, the company also used SPEs to hide troubled assets that were falling in value, such as certain overseas energy facilities, the broadband operation or stock in companies that had been spun off to the public (Thomas, 2002).

As the value of the assets in these partnerships fell, Enron began to incur huge debt. From 1999 through July 2001, these entities paid Fastow more than \$30 million in management fees, far more than his Enron salary. This was also with the approval of top management and Enron's board of directors.

Although some analysts saw the decline of Enron as unavoidable with the climbing coal prices, the world economy headed into a recession, thus dampening energy market volatility and reducing the opportunity for the large trading gains that had made Enron so profitable, its collapse was the result of deceptive methods used to disclose its complicated financial dealings. Enron failed because its management was caught defrauding the market with false reporting and manipulating accounting rules. Enron's financial management lack of transparency in reporting its financial dealings, followed by financial restatements disclosing billions of dollars of omitted liabilities and losses, contributed to its demise. Enron's obsession with meeting analysts' profits estimates was so great that Enron's executives went too and strained not only to deliver outside profits but also reliable ones from the types of activities that investors favored (Chaffin, 2002).

On October 16, 2001 Enron announced its first quarterly loss in more than four years after taking charges of \$1 billion on poorly performing businesses as the energy supply business suffered heavy losses on such ventures as an electrical power plant in India and a water treatment plant in the United Kingdom. Enron also lost money

trying to create markets in bandwidth access, and steel. Enron sold shares to offset the company's private equity losses, severely diluting earnings. It also disclosed the reversal of the \$1.2 billion entry to assets and equities it had made as a result of dealings with these arrangements. It was this disclosure that got the SEC's attention (Thomas, 2002).

In response to the aforementioned events and the downgrading of Enron's credit ratings, traders lost trust in Enron. Without the trading volume, Enron was without liquidity and without the volume that turned bid-ask spreads into large earnings. In the end, the deceptive hiding of debt and losses and the fabrication of income proved to be a deadly combination (Dodd, 2002). Poor financial stewardship not only took Enron to the edge it also brought the lethal blow. Although Enron had at its base a very valuable set of assets and cash flow streams, its value was ultimately offset by the huge liability and capital cost incurred when investors could not trust the company's financial management (Livingston, 2002; Cato Institute, 2002).

According to Healy and Palepu (2003) two kinds of issues proved difficult. First, Enron's trading business involved complex long-term contracts. Pursuant to current accounting rules the present value framework was used to record these transactions, requiring management to make forecasts of future earnings. Hence, Enron's management made forecasts of energy prices and interest rates well into the future.² Second, Enron relied extensively on structured finance transactions that involved setting up special purpose entities. These transactions shared ownership of specific cash flows and risk with outside investors and lenders. Traditional accounting, which focuses on arms-length transactions between independent entities, faced challenges in dealing with such transactions. Although accounting rule makers have been debating appropriate accounting rules for these transactions for several years, mechanical conventions were used to record these transactions, creating a divergence between economic realities and accounting numbers.³

²In a great extent, Enron's price predictions relied on its ability of manipulate supply and prices, as previously pointed out, diminishing the prediction capability of the models used by either masking some information or else leaving aside some powerful models. On this issue see Mathew *et al.* (2005).

³ Notwithstanding errors and guilt from certain Enron managers, it is important to recognize that frauds related to accounting are part of a complex social construction which includes issues of regulation, governance, economic crises, poverty, race, youth, politics, and class; it is a social phenomena, which during the last few years has manifested itself in several leading corporations around the world. In this respect, it is important to assess the importance of assessing the power of institutions-including accounting-in creating reality and reconstructing the frailties and errors of humans. Important studies on accounting and corruption can be seen in: Lehman and Okcabol (2005), and Rezaee (2005).

financial statements. Lost were \$60 million of shareholder investment, forty-five hundred jobs, and the savings upon thousands of workers and retirees. Protecting pension savings plans is not the only reform the Enron debacle puts under consideration. Accounting industry critics note that where accountants once clearly served the public interest by checking the books, auditing has become a marketing tool to sell “consulting services” such as computer systems, advice on tax shelters, and business strategy evaluation.

Arthur Andersen had many professional staff members working full time at Enron’s; and opinion letters provided by Andersen were critical in legitimizing the various Special Purpose Entity transactions (Dmeski,2002). Enron paid Arthur Andersen \$25 million in auditing fees and \$23 million in consulting fees in 1999. According to Andersen, a “significant but undetermined” number of documents and electronic files related to Enron were destroyed.

VII. Lessons to be Learned from Enron

Enron’s failure was anything but typical. In a decade and a half it was transformed from a large natural-gas pipeline company to an energy trading firm that bought and sold gas as well as electricity. Enron evolved beyond energy trading, trafficking in metals, paper, financial contracts, and other commodities. By the late 1990’s so much of Enron’s business came from trading. Accordingly, it stopped being an energy company and functioned as a sort of bank (Fox, 2002).

What can we learn from Enron’s collapse, and how do we prevent another Enron? How can we avert situations in which corporate greed destroys not only shareholder value but also companies themselves?

Enron had been endorsed as a knowledge-intensive company that was leading the New Economy. This is why its bankruptcy shocked and infuriated many regulators, economists, accountants, and investors who have been taken in by the deliberate self-promotion of Enron. The failure of Enron undermined confidence in financial markets in the United States and abroad. It caused substantial damage throughout the financial system resulting from multi-hundred-million-dollar write-offs from exposure to Enron. This situation clearly underscores a very important weakness in the behavior of corporations and financial markets—the exploitation of conflicts of interest. Enron’s leadership failed to protect investor interests by recording misleading transactions in

which the economic risk stayed with the company, but liabilities and losses were transferred to off-balance-sheet entities. Most important, it promoted a culture based on oversized corporate egos that went beyond its original core business and fostered aggressive accounting practices (Walter, 2004). Although potential conflicts of interest are a fact of life among financial firms, they are only viable when competition is not perfect and when markets are not fully transparent. Since market imperfections are systematic even in highly developed financial systems, causing agency problems, it is essential that this problem be solved through improved transparency and market discipline to strengthen public confidence in financial markets (Walter, 2004). In addition to a lesson in corporate responsibility there are major concerns that need to be addressed in the Enron demise including the role of electric power deregulation, audit committees and financial analysts. Moreover, Enron was a financial institution but it was subject to no federal regulation as a financial institution. It had no capital requirements, no margin or collateral requirements, no reporting requirements, no licensing or registration requirements, and there was no obligation as a dealer to make a market by maintaining bid and ask quotes as specialists on stock exchanges do. Traditional financial institutions must meet all these requirements (Bing, 2002; McLean and Elkind, 2003). In sum, Enron's leadership failed to protect investor interests by recording misleading transactions in which the economic risk stayed with the company, but liabilities and losses were transferred to off-balance-sheet entities. Most important, it promoted a culture based on oversized corporate egos that went beyond its original core business and fostered aggressive accounting practices. Enron suggests the need for tougher regulation in several areas. First and foremost there is a need for an improved reporting model that provides investors with quality information in making investment decisions. This model should address off-balance-sheet activity, other risks related uncertainties that will provide transparent reporting. Table 1 summarizes the lessons to be learned from Enron's rise and collapse analyzed in the previous sections. Column 1 identifies the problem areas which include deregulation, corporate governance, accounting standards, the accounting and auditing professions, investments analysis, business ethics, and business teaching and research; in column 2 we identify the lessons to be learned; finally in column 3 we offer some suggestions for reform and preventive changes to avoid in the future corporate collapses similar to the one experienced by Enron.

Finally, although there is plenty of blame to go around, one of the most important lessons from Enron's collapse concerns both the centrality and fragility of organizational trust. The profound implications of the loss of trust can be seen in other corporate collapses as well, such as WorldCom Inc., Tyco International, Global

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Crossing, Parmlat, and Adelphia Communications Corp. Central to this entire discussion of increased corporate accountability is the issue of trust—its importance, how to build it, and how to maintain it. Organizational and individual trust is critical to organizational performance and success. This conveys a critical lesson for all senior corporate managers regarding the importance of corporate accountability (Currall and Epstein, 2003).

Table 1
Lessons from Enron's Rise and Collapse

Problem Area	Lessons to be Learned	Suggested Reform
Deregulation of electric power industry	Deregulation has many pitfalls. However a return to full re-regulation of the industry is unlikely to create more efficient markets in states like California	New regulation of the electric power industry is necessary in order to ensure that companies do not engage in trading activities such as Enron. There is a need, however, to keep in proper perspective Schumpeterian innovations and issues associated with efficiency, reduction in prices and reliability.
Corporate governance	Financial Executives failed in their duty to protect the company's assets and provide full disclosure to investors	The SEC has already taken steps by issuing new rules including the implementation of the requirements of the Sarbanes-Oxley Act, which stipulates that chief executive and financial officers certify the company's financial statements.
Accounting standards	Use of aggressive earnings standards nobody understands.	Use of special purpose entities to hide company's debt and use of derivatives, among other items, need revised accounting standards that clearly include written discussion of all off-balance-sheet transactions in financial reports.
Accounting and Auditing professions	Integrity of audit process can be compromised in cases where external auditors engage in consulting work that generate hefty fees	An effective and transparent system of self-regulation for the accounting profession subject to SEC's monitoring. Creation of a new regulatory framework for the accounting profession in which there should be a separation of the auditing and the consulting functions.
Investment Analysts	Wall Street analysts who failed to advise investors of Enron's developing problems, yet kept recommending investment in spite of deceptive reporting.	The "investor alert" issued by the Securities and Exchange Commission is a move in the right direction. Educating the investor on the role of analysts is needed so that potential investors do not rely solely on analysts' predictions.
Business ethics	Collapse of a leading company such as Enron is a case of ethical bankruptcy.	Emphasis on ethical codes of conduct. Employees at all levels should be able to report violations to an independent party without fear of reprisal. Business schools need to highlight the importance of business ethics.
Board of Directors/Audit Committees	Boards of Directors and audit committees that failed to protect investors interests	Audit committees should add independent financial experts to their roster who have extensive experience in corporate financial management.
Business Teaching and Research	Insufficient business ethics in business, accounting and auditing courses and programs; limited research on business ethics	Revise business, accounting and auditing courses integrating teaching of business ethics. Promote the development of new theories, models and advanced empirical studies on corporate governance, early warning models of corporate failure, and unethical practices, corporate regulation and business ethics.

Enron was not a complete fraud. The company was an innovator into trading gas and electricity, exemplified by its push into the financing of energy projects. It expanded the use of derivatives in the energy industry and introduced new ways of managing

risk, which lowered the costs of energy-related transactions for a great number of businesses. The collapse of Enron provides a vision into how this web of corporate governance, with multiple players, can go off track. Enron carried out many, many highly complex and carefully crafted financial transaction. Mostly they involved selling of additional financial services by consultants, attorneys, and investment banks. In many cases these transactions were designed with no apparent purpose other than manipulating recorded debt and earnings and often provided an opportunity for a financial institution to collect fees on both sides of a transaction (Demski, 2002).

VIII. By Way of a Summary

In sum, the economic recovery in the United States and abroad weakened in 2002 as financial markets reflected the uncertain environment of declining stock market prices resulting from corporate and accounting scandals like Enron, WorldCom and others. This demonstrates the vulnerability of financial markets and the need to restore integrity to the reporting system and to address issues associated with corporate accountability. As stated by Lev (2003) earnings manipulations are prevalent; but except for specific cases, it is hard to detect and prosecute them. Trying to regulate earnings manipulations out of existence with more detailed rules seems unlikely. The key to sustainable economic growth lies in corporate reforms that strengthen corporate governance and restore confidence to the financial system (Brancanto and Plath, 2003). The Enron story, is one of actual achievement, but also of arrogance, ambition and deceit. It's the story of how so many people and agencies missed the cracks in Enron's front, in part because the system was set up that way. In short, it's the story of how American capitalism worked at the end of the twentieth century. The Securities Exchange Commission (SEC) and other government agencies have placed the improvement of financial reporting at the top of its agenda and has issued numerous new rules and rule proposals including the creation of a new regulatory framework for the accounting profession and rulemaking to implement the requirements of the Sarbanes-Oxley Act. Indeed, Additionally, one potentially positive outcome of Enron's failures will be clear and improved process by which auditors are selected, retained and compensated. Directors, accountants and auditing firms need to be sensitive and responsive to the new levels of scrutiny and exposure caused by the Enron bankruptcy, the WorldCom debacle, and other recent corporate scandals. The new emerging reporting and auditing standards along with firm ethical decision making should be the basis for leading corporate practices for the XXI Century.

References

- ABDEL-KHALIK, A.R. 2002. "Reforming corporate governance post Enron: Shareholders' Board of Trustees and the auditor". *Journal of Accounting and Public Policy* 21: 2 , pp. 97-103.
- APGAR, Mahlon. 2002. After the 11th-enduring effects on real estate. *Real Estate Issues*, Summer 27 i2, pp.6-7. (Electronic). Retrieved from Infotrac Database.
- BENSON, Mitchel. 2002. "Light Switch: As Woes Mount For Utilities, Cities Try to Take Charge". *The Wall Street Journal*; New York, N.Y.; Nov 4, A1.
- BENSTON, G., Michael Bromwich, Robert E. Litans and Alfred Wagenhofer. 2003. *Following the Money—The Enron Failure and the State of Corporate Disclosure*. AEI-Brookings Joint Center for Regulatory Studies.
- BING, Stanley. 2002. "Lessons From The Abyss". *Fortune*, Feb 1, pp.49-52.
- BRANCATO, Carolyn Kay and Christian A. Plath. 2003. *Corporate Governance Best Practices: A Blueprint for the Post-Enron Era*. The Conference Board, Report Number SR-03-05.
- CASTELLANO, James G. 2002. "Restoring public confidence: the AICPA is supporting and implementing a range of reforms". *Journal of Accountancy* 193, April, pp. 37-40.
- CATO INSTITUTE. 2002. "Enron Worldcom and Other disasters", Chapter 22. *Cato Handbook for Congress. Policy Recommendations for the 108th Congress*. Washington, D.C.: Cato Institute.
- CHAFFIN, Joshua. 2002. "Enron in California: A Titanic Error". *Financial Times*, November 22, p. 20.
- CHATTERJEE, Sayan. 2003. "Enron's Incremental Descent into Bankruptcy: A Strategic and Organisational Analysis". *Long Range Planning* 36: 2, pp.133-149.

The Rise and Collapse of Enron:
Financial Innovation, Errors and Lessons

- CURRAL, Steven C. and Marc J. Epstein. 2003. "The Fragility of Organizational Trust: Lessons From the Rise and Fall of Enron". *Organizational Dynamics* 32: 2. pp. 193-206.
- DEMSKI, Joel. 2003. "Corporate Conflicts of Interest". *Journal of Economic Literature* 17: 2, pp.51-72.
- DODD, Randall. 2002. "Untangling Enron: The reforms we need. Interview with Randall Dodd". *Challenge* 45: 2, March/April, pp. 67-76.
- FOX, Loren. 2003. *Enron the Rise and Fall*, Hoboken, New Jersey: John Wiley & Sons.
- GEISST, Charles R. 2000. *Monopolies In America: Empire Builders And Their Enemies From Jay Gould To Bill Gates*. New York: Oxford University Press.
- HEALY, Paul M. and Krishna G. Palepu. 2003." The Fall of Enron". *Journal of Economic Perspectives* 17:2, pp. 3-26.
- KIM, W. Chan and Renee Mauborgne.1999. "Strategy,Value Innovation and the Knowledge Economy". *Sloan Management Review*, 40:3, pp.41-53.
- KRUGMAN, Paul. 2002. "Cronies in Arms", *New York Times*, September 17.
- KUTTNER, Robert. 2002. "Free Markets are Great-but not for electricity", *Business Week*; Oct 14.
- LEHMAN, Cheryl R. and Fahrettin Okcabol. 2005. "Accounting for crime". *Critical Perspectives on Accounting* 16: 5, pp. 613-639.
- LEV, Maurice.2003. "Corporate Earnings: Facts and Fiction". *Journal of Economic Literature* 17: 2, pp. 27-50.
- LIVINGSTON, Philip. 2002. "Financial management after Enron". *Bank Accounting & Finance* 15: 3, pp. 27-28.
- MATHEW, J., Stephen Kromerb, Osman Sezgenç and Steven Meyersd. 2005. "Actuarial pricing of energy efficiency projects: lessons foul and fair". *Energy Policy* 33: 10, pp. 1319-1328.

- MCLEAN, Bethany and Peter Elkind, 2003. *Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron*. Portfolio.
- MILLMAN, Gregory J. 2002. "New scandals, old lessons Financial ethics after Enron". *Financial Executive*, July-August, pp.16-20.
- O'DONNELL, Arthur. 2002. "Crawling from the wreckage". *Public Utilities* 140:7, Apr. 1, p. 20.
- POWERS, William C., Raymond S. Toubh and Herbert S. Winokur. 2003. *Report of Investigation by the Special Investigative Committee of the Board of Directors of Enron, Corp.*
- REZAEI, Zabihollah. 2005. "Causes, consequences, and deterrence of financial statement fraud". *Critical Perspectives on Accounting* 16: 3, pp. 277-298.
- ROSENBERG, Martin. 2002. "The energy trade and call to leadership". *Utility Business*, Overland Park; July 2002, pp. 4-5 (Electronic), Retrieved from Infotrac
- ROSSI, Jim. 2002. "Monopolies in America: Empire Builders and Their Enemies from Jay Gould to Bill Gates, Book Review". *Michigan Law Review*, 100: 6. pp.1768..
- SCHROEDER, Michael. 2002. "SEC to Propose New Financial-Disclosure Rules". *The Wall Street Journal*; Oct 30, p. A10.
- MARSHALL, Jeffrey. 2002. "Setting a new route for corporate governance". *Financial Executive* 8: 4, pp.32-37.
- SMITH, Rebecca. 2002. "Energy Traders To Issue Rules On Disclosures". *The Wall Street Journal*, Nov 19, C1.
- FISCOR, Steve. 2002. "The Impact of Enron's Collapse Should Have Been Much Worse". *Coal Age*, Feb 1, pp. 1-3.

The Rise and Collapse of Enron:
Financial Innovation, Errors and Lessons

- THOMAS, C. William. 2002. "The rise and fall of Enron". *Journal of Accountancy*, April, pp. 41-48.
- THURM, Scott, Robert Gavin and Mitchel Benson. 2002. "Juice Squeeze: As California Starved for Energy, U.S. Businesses Had a Feast". *The Wall Street Journal*; Sep 16, p. A1.
- TREBING, Harry M. 2002. "The 2002 Veblen-Commons Award recipient: Edythe S. Miller". *Journal of Economic Issues*, June, pp. 245-250.
- TUFANO, Peter. 1994. "Enron Gas Business. Case 9-294-076". *Harvard Business School*.
- WALTER, Ingo. 2004. "Conflicts of Interest and Market Discipline Among Financial Service Firms". *European Management Journal* 22: 4, pp. 361-376. 