

## **Enron: Market Exploitation And Correction**

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### **Abstract**

*This paper chronicles the rise and fall of Enron, Inc., the once powerful energy firm based in Houston, Texas. The history of the firm is reviewed, the November 2001 financial restatement is examined to show the impact of the failure to report the appropriate financial position for the firm, and reasons for the firm's downfall are considered. While Enron's decline may currently be considered a market failure, it is likely that the events surrounding the firm in 2001 will ultimately be considered a case in which the market worked to ferret out deception and poor judgment on the part of Enron's management.*

### **I. Introduction**

Early in the year 2002 one could not escape the continuing publicity concerning the once powerful, now bankrupt, Enron, Inc. In a span of less than two months during the autumn of 2001, the firm fell from business idol to congressional doormat, or somewhat more importantly, from the new business model to a model of business greed and ultimate failure. Of course the fall of Enron did not occur in the few days of October and November 2001. The event that started it all was the 1993 formation, in partnership with the California Public Employees' Retirement System (CalPERS), of the Joint Energy Development Investment Limited Partnership (JEDI).<sup>2</sup> The ultimate failure was designed by JEDI and set into place in a galaxy not so far away and in a time not so long ago.

JEDI was the first of a number of limited partnerships that Enron executives set up that were not included in the Consolidated Financial Statements of the company. The partnership was owned equally by Enron and CalPERS and was legitimately excluded from Enron's Consolidated Financial Statements for the years 1993 through 1996. In late 1997, Enron proposed a second limited partnership with CalPERS, JEDI II, with greater capitalization than the first. Believing that CalPERS would not invest in both JEDI partnerships, Enron suggested that CalPERS cash

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<sup>1</sup> The authors thank Dr. Ben Hardy, Jacksonville State University, for many helpful comments.

<sup>2</sup> The ironic acronym implies that Enron held the belief that the "force would be with them" as it apparently was for some time. However, it now appears that the virtues of truth and justice, as portrayed by Luke Skywalker in Star Wars, prevailed in our galaxy just as in a fictional galaxy far, far away.

out of the first JEDI. To accommodate this suggestion, Enron formed Chewco<sup>3</sup> to purchase CalPERS interest in JEDI I. So begins the saga of the demise of Enron.

In this study we examine the rise and fall of Enron. Section II chronicles Enron's history from the merger of gas companies in the mid-1980s, through the restatement of earnings in November 2001, and through the investigations by Congressional Committees in early 2002. Discussion of the firm's contribution to the development of the energy trading markets is included. In Section III we examine the financial story that Enron presented to the investing public and compare and contrast that story with the one they should have provided based upon restated earnings and net worth. Section IV includes a discussion of many of the management, auditing, and legal issues created by the extensive use of the limited partnerships that we now know represented major conflicts of interest.<sup>4</sup> Section V presents a summary.

## **II. Historical Perspective**

### **A. From Houston Natural Gas to Enron: 1985-2000<sup>5</sup>**

A synopsis of significant events for Enron, prior to 2001, is presented in Table 1 and the events are discussed in some detail below. Historically, Enron was known as Houston Natural Gas. In July 1985 the firm merged with InterNorth, a natural gas company based in Omaha, Nebraska, to form Enron, an interstate and intrastate natural gas pipeline company with approximately 37,000 miles of pipe. Late in 1985 the Federal Energy Regulatory Commission (FERC) issued Order 436 requiring interstate transmission pipelines to provide open access, allowing non-Enron entities to transport gas through Enron's pipelines.

In 1988, Enron became the first company to begin construction of a new power plant subsequent to the privatization of the electric industry in the United Kingdom (U.K.). Enron launched GasBank in 1989 and began to trade natural gas commodities. This entity was the precursor of today's wholesale trading business in North America and Europe. After the deregulation of the U.S. natural gas industry, the market revised its methods of contracting for gas in the wholesale market. GasBank allowed producers and wholesale buyers to purchase firm gas supplies and hedge the price risk of the new spot market at the same time. Ultimately, Enron became one of the world's largest natural gas merchants. Enron subsidiary Transwestern Pipeline Company was the first merchant pipeline in the U.S. to stop selling gas and become a transportation-only pipeline.

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<sup>3</sup> The Chewco name for the partnership was derived from Star War's Chewbacca.

<sup>4</sup> See the "Report of Investigation" by Special Investigative Committee of the Board of Directors of Enron Corp., (William C. Powers, Jr., Chair, Raymond S. Troubh, Herbert S. Winokur, Jr.), February 1, 2002.

<sup>5</sup> Much of the information for this section was adapted from Enron's Website, [www.enron.com](http://www.enron.com).

Enron acquired Transportadora de Gas del Sur in 1992 giving the firm its first pipeline presence in South America. Since then, Enron has created an energy network in the region that includes natural gas pipelines, electric and natural gas utilities, wholesale commodities trading, and energy services. In 1993, the world's largest gas-fired heat and power facility, Enron's 1,875-megawatt (MW) Teesside power plant, was placed into operation. The facility was completed using the second largest project financing ever organized in the U.K.

During a relatively quiet period in its history, Enron began trading electricity in 1994 and ultimately grew to be the largest marketer of electricity in the U.S. In 1995, Enron Europe established a trading center in London and began trading U.K. power and gas. This allowed Enron to become the largest wholesale merchant of natural gas and power in the U.K. and to increase its market share in Continental Europe. Enron also became the market maker for power in the Nordic Region of Europe. The firm began construction on Phase I of the now controversial Dabhol Power Project, a 2,450 MW power plant located south of Mumbai, India in 1996. When Phase I, with generating capacity of 826 MW, was completed in 1999, it became the first power project in India to utilize imported liquefied natural gas (LNG) as its fuel source.

**Table 1: Significant Events in Enron History: 1985—2000**

<b>Year</b>	<b>Event</b>
1985	<ol style="list-style-type: none"> <li>1. Houston Natural Gas merges with InterNorth Corporation to form Enron.</li> <li>2. Federal Energy Regulatory Commission orders interstate transmission pipelines to provide open access to other energy companies.</li> </ol>
1988	Enron began power plant construction in England.
1989	Enron launched GasBank.
1990	Enron expands into South America.
1993	<ol style="list-style-type: none"> <li>1. Places world's largest power plant (at the time) into operation in England.</li> <li>2. Entered the JEDI partnership with CalPERS.</li> </ol>
1994	Enron began trading electricity.
1995	Enron Europe established a trading center in London and began trading U.K. power and gas.
1996	Began Construction of Dabhol Power Project in India.
1997	<ol style="list-style-type: none"> <li>1. Enron Acquired Portland General Electric.</li> <li>2. Enron Formed Enron Renewal Energy Corporation which acquired a major developer of wind energy power, Zond Corporation.</li> <li>3. Enron formed Chewco, LLP and JEDI II.</li> </ol>
1998	Enron Energy Services was formed and began to transact Commercial Outsourcing agreements.
1999	<ol style="list-style-type: none"> <li>1. Enron Broadband Services introduced.</li> <li>2. Enron Intelligent Network (EIN), an internet delivery platform introduced.</li> <li>3. Pledged sufficient commitment to name the new Houston Astros ballpark Enron Field.</li> <li>4. Acquired 3000-kilometer Bolivia-to-Brazil natural gas pipeline.</li> </ol>
2000	<ol style="list-style-type: none"> <li>1. Named "Most Innovative Company in America" by Fortune Magazine.</li> <li>2. Signed an agreement with Blockbuster Video to provide "on demand" movies to broadband customers.</li> </ol>

Enron was very busy in 1997, forming Enron Renewal Energy Corporation and acquiring Zond Corporation, a leading developer of wind energy power. Additionally, construction began on a 790 MW power station at Sutton Bridge, U.K., and the firm acquired Portland General Electric (PGE). Enron subsidiary, Northern Natural Gas, began a five-year effort that increased the pipeline's contracted capacity by 350,000 million cubic feet of gas per day bringing peak capacity to 4.3 billion cubic feet of gas per day (Bcf/d), up from 2.8 Bcf/d in 1988. One of the primary events of the year was the initiation of trading of weather derivative products. (This rather innovative derivative is discussed in some detail in a later section of this study.) We know now that Enron sowed the seeds of its own downfall during this year when Chewco was established to purchase the JEDI I partnership from CalPERS so that JEDI II could be established.

Newly established Enron Energy Services (EES) transacted its first commercial outsourcing contract with General Cable during 1998. Over the next two years, EES signed outsourcing contracts with a total value of nearly \$20 billion. Enron also established Azurix, a global water company, and acquired Wessex Water in the U.K. Spain and Germany enacted national electricity regulations and awarded Enron the first power marketing licenses granted to market participants under the new regulations.

In 1999, Enron Broadband Services introduced the Enron Intelligent Network (EIN), a new Internet application delivery platform, and Enron Investment Partners was established to manage private equity funds targeting women and minority owned businesses in Houston and around the U.S. During 1999, Phase I of the Dabhol Power Project began commercial operation. Additionally, financing for Phase II and India's first LNG receiving facility was completed. Upon completion, Dabhol will become the world's largest independent, natural gas-fired power facility.

To the Houston Astros eventual regret, they and Enron announced the name of Houston's new ballpark, "Enron Field." Additionally, the Astros entered into a 30-year facilities management contract with EES.<sup>6</sup> Also during 1999, the 3,000-kilometer Bolivia-to-Brazil natural gas pipeline, one of the largest gas projects ever undertaken in South America, began commercial operation. The pipeline system has a capacity of 30 million cubic meters per day. Enron also launched EnronOnline, the first global web-based commodity-trading site, and grew to become one of the world's largest e-commerce companies. Enron also announced the sale of PGE to Sierra Pacific Resources, completed its first bandwidth trade, and EES reported its first profitable quarter. Enron attempted to keep debt off of its financial statements and to remove volatility from its income statement using the off-balance sheet limited partnerships.

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<sup>6</sup> In February 2002 the Houston Astros negotiated out of the name and management contract. The ballpark will be called Astros Field until a new name partner is identified.

*Financial Decisions, Spring 2002: Clayton, Scoggins, and Westley.*

Enron positioned itself for recognition, and the recognition came in 2000. A *Fortune* survey named Enron “The Most Innovative Company in America,” an apt description, for the fifth year in a row. It was also ranked number 24 among the “100 Best Companies to Work for in America,” and the Energy Financial Group ranked Enron the 6th largest energy company in the world based on market capitalization. Also in 2000, Enron Net Works was created to pursue new market development opportunities in eCommerce across a broad range of industries. Enron and strategic investors, IBM and America Online, launched The New Power Company, which was the first national energy service provider for residential and small businesses in deregulated U.S. energy markets. Through the partnership, Enron provided The New Power Company with energy commodity pricing, risk management services and government/regulatory expertise. The firm acquired the world's leading publicly traded metals marketer, MG plc, and completed its first physical metals transaction on EnronOnline. In addition, Enron signed, yet later abandoned, a long-term joint venture agreement with Blockbuster Video that would have enabled consumers to receive high quality, feature-length movies-on-demand via the Enron Intelligent Network. The limited partnerships continued and generated significant compensation for Enron insiders involved in partnership management.

## **B. Enron’s Downfall: 2001-2002**

The time period January 2001 through February 2002 was marked by a number of extremely significant Enron related events. These events are outlined in Table 2 and discussed below. During the first six months of 2001 all appeared to be business as usual. Significantly, Kenneth Lay stepped down as CEO, retaining his position as Chairman of the Board of Directors. Jeffrey Skilling, COO, assumed the CEO responsibilities.

The firm continued to report significant earnings and to bring innovation to the energy market. A significant event was the termination of the joint venture with Blockbuster that had provided little or no revenue or cash flow to Enron. Following the termination, Enron failed to adjust financial statements and reverse the addition of the substantial revenue previously recognized as a result of the joint venture.

During the six-month period ending June 30, 2001, Enron’s stock price declined from a high of more than \$83/share, losing more than fifty percent of its value. Much of this decline was attributed to declining market conditions. An article critical of Enron and its financial practices, published in *Fortune Magazine* in March 2001, may have contributed to the decline. The article, though insightful, provided only an inkling of the things yet to be revealed. [See McLean, Bethany (2001).]

During the second half of 2001, Enron’s situation deteriorated rapidly. On August 14, 2001, Jeffrey Skilling resigned as Enron’s CEO and Kenneth Lay reassumed the position. Had Skilling seen the writing on the wall? Did Lay know what was to come? If not, he learned rather quickly

when Enron executive, Sherron Watkins, provided an analysis based upon her concerns for the accounting practices used by the firm in handling third party transactions that appeared to be closely related to Enron. By the end of the third quarter it was obvious to those inside the firm that a number of transactions had been inappropriately accounted for and improperly reported to

**Table 2: Significant Events: 2001—2002**

<b>Date</b>	<b>2001</b>
January 22	2000 EPS of \$1.47 fully diluted reported on \$101 Billion Revenue.
January 29	Data Storage Commodity Market Announced.
February 6	Named “Most Innovative Company in America” for 6 <sup>th</sup> consecutive year.
February 12	Kenneth Lay, Enron CEO since 1985, steps down, but remains Chairman.
February 12	Jeff Skilling assumes CEO responsibilities.
February 28	Facility to allow purchase of short-term wind power announced.
March 9	Agreement with Blockbuster is terminated.
April 17	Record first quarter EPS of \$0.47 fully diluted announced.
June 19	Confidence in operations and earnings outlook reiterated by CEO.
July 12	Second quarter EPS of \$0.45 fully diluted announced.
August 14	Skilling resigns, Lay assumes duties as CEO.
August 22	Sherron S. Watkins gives memorandum to Lay outlining concern about potential implosion from accounting scandals.
October 16	Recurring EPS of \$0.43 fully diluted and non-recurring after-tax charge of \$1.01 billion reported.
October 22	SEC requests information on related third party transactions.
October 24	CFO Fastow replaced by McMahan.
October 31	Sherron S. Watkins gives memorandum to Lay outlining ways to approach the related third party transactions and to assign responsibility to Lay’s subordinates.
November 8	Earnings restatement from 1997-2001 announced.
November 9	Merger with Dynegy, Inc. announced.
November 19	10Q filed with SEC with earnings restatement, consolidated debt, charge against equity.
November 28	Dynegy terminates merger agreement.
December 2	Chapter 11 Bankruptcy Petition filed.
	<b>2002</b>
January 15	Enron stock begins trading in the OTC market.
January 15	UBS Warburg to assume operation of Enron Energy Trading business. Enron will receive one-third of the profits from trading activity.
January 17	Relationship with Arthur Anderson, LLP is terminated.
January 23	Lay resigns as Chairman and CEO.
January 25	Former vice-chairman commits suicide.
January 29	Stephen Cooper named interim CEO and restructuring officer.
February 2	Powers committee completes and releases report.
February 4	Lay Resigns from Enron Board of Directors.
February 7	Skilling testifies before Congressional Committee.
February 12	Board of Directors restructured, six Board members resign.
February 14	Board terminates Chief Accounting Officer and Chief Risk Officer.
February 14	Sherron S. Watkins testifies before a Congressional Committee.
	The Saga Continues.

shareholders and the investing public. On October 16, 2001, Enron reported significant earnings from operations, and a very significant after-tax charge of over \$1 billion due to the above mentioned third party transactions. Shortly after this report, the SEC began to consider the appropriateness of Enron's accounting methods for third party transactions. On October 24, 2001, Andrew Fastow was removed as CFO. On October 31, 2001, William Powers, Dean of the University of Texas School of Law, was elected to the Board of Directors with a mandate to conduct a special investigation into the third party partnerships and related transactions. A restatement of earnings was announced on November 8<sup>th</sup>, a merger with Dynegy, Inc. was announced on November 9<sup>th</sup>, and the third quarter 10Q was filed on November 19<sup>th</sup> reflecting the earnings restatement, debt consolidation, and a charge against equity, all related to Enron's activities with related third-party partnerships. The November revelations and decline in Enron's stock price led Dynegy to withdraw from the merger agreement. Finally, on December 2, 2001 Enron, Inc., and a group of its subsidiaries, petitioned for protection from creditors under Chapter 11 of the United States Bankruptcy Code.

The Enron Saga has continued during 2002 and as of this writing numerous investigations are underway. Enron has ended its relationship with Arthur Andersen, LLP and released the Powers' Report that outlines many of the problems that had developed within the firm and explains that the firm's management is largely responsible for its downfall. Meanwhile, Enron's Chief Accounting Officer and Chief Risk Officer have both been dismissed, and Kenneth Lay resigned. Additionally, the Board of Directors has been restructured and a former vice-chairman has committed suicide. Along with all of this, former CEOs Kenneth Lay and Jeffrey Skilling have denied any knowledge, at least in a legal sense, of the Star Wars partnerships that were so heavily used by the firm.<sup>7</sup>

How did Enron reach this point? Was the Enron business model fatally flawed? Did Enron's market innovations and market-making activities contribute significantly to the Enron debacle? What part did greed play in all of this activity? We attempt to answer these and other questions in the remainder of this study.

### **C. Product and Market Innovations**

During much of the latter portion of the twentieth century, both product and financial markets changed rapidly. Deregulation and policy changes moved numerous industries from the realm of a relatively protected and stable price environment to one of lower protection and lower price stability (or greater price risk). There was, and is, legitimate interest in being able to obtain price risk protection. As a result, derivative markets for products traded in a variety of industries grew in volume, breath, and complexity.

Energy markets were not exempt from the desire for stability. Futures and forward contracts for petroleum-related products have been available for many years. Historically, electrical energy has been regulated in the U.S. by the individual states as a monopoly or near monopoly, and

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<sup>7</sup> Even though Enron was a very large firm, these denials are extremely difficult to believe as is evidenced by the skepticism of members of the investigational committees in Congress.

electric utilities were publicly owned in other countries.<sup>8</sup> More recently, there have been moves to allow greater access to previously regulated monopolies and to allow the markets to determine prices. As with firms in other industries, energy companies have sought ways to protect against price instability brought about by exerting greater market influence.

Enron was involved in establishing markets to hedge price and revenue risk inherent in newly deregulated energy markets. Two of the most interesting new derivatives markets are those involving emissions allowances and weather related derivatives products.

### **1. Emissions Allowances**

Amendments to the 1974 Clean Air Act, passed by Congress in 1990, allowed the creation of a market for Emissions Allowances. The amendments set caps on allowable sulfur-dioxide (SO<sub>2</sub>) emissions from power plants and factories in the United States.<sup>9</sup> To make the caps palatable, the amendments to the Act allowed the establishment of a market for emission credits. As discussed in an Environmental Law Institute Research Report in 1997, the goal of the amendments to the Clean Air Act was to reduce total emissions over time.<sup>10</sup> Allowing the trading of emissions credits rewarded those plants and factories that could efficiently reduce emissions without undue punishment to those who needed additional time and resources to reduce emissions. Those with excess credits could sell to firms needing to emit SO<sub>2</sub>. For this market to develop, efficient market makers were needed. Enron, through its buying and selling activity, became one of the major market makers for emission credits.

### **2. Weather Derivatives**

Koch Industries and Enron pioneered the market for weather derivatives in 1997.<sup>11</sup> Natural gas and heating oil suppliers, apparel companies, and theme parks, among others, use weather derivatives for temperature management. For instance, in an unusually warm winter, such as the winter of 2001-02, the demand for natural gas is likely to be less than expected by suppliers. To protect revenues, natural gas suppliers can enter into a contract that pays them if the heating degree-days for a month, or a season, deviate significantly from the long-term average. To obtain this protection, the natural gas supplier pays a premium to the writer of the contract. The supplier effectively holds a put option on the average temperature and benefits when the temperature is higher than expected. An electric utility can use the same basic approach to protect against the effects of a cooler than average summer. Enron has served as both a market maker and a counter

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<sup>8</sup> For instance, Electric Utilities were government owned in Great Britain until the mid-1980s.

<sup>9</sup> SO<sub>2</sub> is the main chemical compound in acid rain.

<sup>10</sup> See "Implementing an Emissions Cap and Allowance Trading System for Greenhouse Gases: Lessons from the Acid Rain Program," Environmental Law Institute Research Report, September 1997.

<sup>11</sup> See "Enron Leads the Weather Pack," *Treasury & Risk Management*, Vol. 9, Issue 1, January/February 1999, p. 17.

party to weather derivative contracts, helping to meet the needs of business and to maintain liquidity in these markets.

The markets that Enron participated in, and helped to develop throughout its seventeen-year history, continue to be viable markets. This raises the very important question: “What went wrong?” In the following section of this study the financial position of Enron is examined to better understand “what went wrong.”

### **III. Enron’s Financial Position**

When evaluating the financial position of a firm, one generally relies upon the audited financial statements provided by the firm (10K or 10Q statements) with the Securities and Exchange Commission. The financial information presented is based upon Generally Accepted Accounting Principles (GAAP).<sup>12</sup> The financial markets utilize information gathered from the financial statements, and from other sources, to determine the market price of a particular security. Markets generally assume the financial information is accurate. Inaccurate or false information, however, may be incorporated into market prices. [See Beranek and Clayton (1985) for a discussion of the difficulty of analyzing consolidated versus parent company financial statements.]

Enron, through its maize of subsidiaries and partnerships, presents a consolidated financial picture that is extremely difficult to analyze. Unfortunately, much of the information presented to the investing public since the mid-1990s failed to properly include debt for which Enron is responsible, and improperly included revenue that the firm did not earn. As a result, many financial ratios were skewed so that Enron appeared to have a more sound financial position than it truly had.

On October 16, 2001, Enron announced that it was taking a \$544 million after-tax charge against earnings related to transactions with LJM2 Co-Investment, L.P. (LJM2). Moreover, it also announced a reduction of shareholders' equity of \$1.2 billion related to transactions with that same entity. Less than one month later, Enron announced a financial restatement for the period 1997 through 2000 due to accounting errors relating to transactions with LJM2 and other related party partnerships, LJM Cayman, L.P. (LJM1), and Chewco. The estimates of the required restatement reflected the earlier announced charge against earnings and the reduction of shareholders' equity. Enron's reported net income was reduced by \$28 million in 1997 (of \$105 million total), by \$133 million in 1998 (of \$703 million total), by \$248 million in 1999 (of \$893 million total), and by \$99 million in 2000 (of \$979 million in total). This restatement reduced reported shareholders' equity by \$258 million in 1997, by \$391 million in 1998, by \$710 million in 1999, and by \$754 million in 2000. It also increased reported debt by \$711 million in 1997, by \$561 million in 1998, by \$685 million in 1999, and by \$628 million in 2000.

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<sup>12</sup> In Enron’s case one must question whether GAAP stands for Grossly Altered Accounting Principles.

To better understand the impact of Enron's financial restatement, Table 3 presents a comparison of selected profitability and leverage ratios for the years 1996-2000. The year 1996 is included to provide a common starting point. Panel-A shows the ratios based on the original financial statements as they were presented, while Panel-B presents the same ratios based on the restated financial information.<sup>13</sup> A comparison of the three profitability ratios prior to and after the restatement reveals, as expected, that the restatements significantly reduced net profit margin, return on assets, and return on equity. The impact on the debt ratios is as expected as well. The restatements increase both the debt ratio and the long-term debt-to-equity ratio for all years involved.

The ratio analysis provides a reason for Enron to extensively use off-balance sheet limited partnerships. Though not reported here, ratio calculations for years prior to 1996 show Enron's financial position is historically consistent with that presented for 1996.<sup>14</sup> Examination of Table 3, however, shows a dramatic decline in the calculated profitability ratios for the years after 1996. For instance, using financial information as it was originally presented, the firm's net profit margin declined from 4.4% in 1996 to approximately 0.5% in 1997, *a decline of more than 88%*. The firm's return on assets exhibited a similar decline while its return on equity fell by almost *92% to less than 2%*. If the restated financial information is used, the declines are more dramatic. Net profit margin *declined by 91%*, return on assets by a like amount, and return on equity by *almost 94%*. After 1997 the firm's ratios improved, but were still at a level of approximately 50% of that achieved in earlier years. Faced with the knowledge of a deteriorated financial position and the pressures from a raging bull market for continuously increasing profits, any transactions that moved debt off the balance sheet and increased revenue were extremely attractive.<sup>15</sup>

The restatements serve as evidence that vital information was withheld from investors. Grossly inflated profits and concealed liabilities resulted from the failure to release timely financial statements that accurately reflected Enron's true financial position. As a result, stockholders were intentionally misled and their confidence in Enron was destroyed. Ultimately, the restatements helped seal the fate of Enron and significantly reduced the chances of survival.

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<sup>13</sup> Our calculations are based upon information provided in the February 1, 2002 Special Investigative Committee Report of the Enron Board of Directors and in the SEC 10Q filing dated November 19, 2001.

<sup>14</sup> Ratio calculations are available from the authors or may be calculated from Enron's financial statements.

<sup>15</sup> At this point we must question the recommendations of security analyst's making strong buy recommendations concerning Enron. The uncomplicated ratio analysis that we have conducted indicates Enron's weak financial condition from 1997, even using the original financial statements. This financial condition should have limited the firm's access to additional financing. Had this limitation been in place, the problems that surfaced in 2001 may not have had the opportunity to develop.

**Table 3: Selected Financial Ratios for Enron, Inc. 1996-2000**

	Panel A-Prior to Restatement					Panel B-After Restatement				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
<b>Net Profit Margin</b>	4.395%	0.518%	2.249%	2.263%	0.971%	4.395%	0.379%	1.823%	1.608%	0.873%
<b>Return On Assets</b>	3.619%	0.466%	2.395%	2.675%	1.495%	3.619%	0.341%	1.942%	1.932%	1.343%
<b>Return On Equity</b>	22.583%	1.915%	10.165%	10.581%	9.463%	22.583%	1.404%	8.242%	7.642%	8.506%
<b>Debt Ratio</b>	76.929%	75.089%	75.986%	71.331%	82.489%	76.929%	78.241%	77.898%	73.383%	83.448%
<b>Debt/Equity</b>	0.89954	1.11321	1.04384	0.74723	0.74542	0.89954	1.29944	1.18942	0.88442	0.85648

#### IV. Why Did This Happen?

The Enron story has dominated the major media since the end of 2001 and Enron's fall was clearly the preminent business story of 2001. As far as business stories go, the name "Enron" will now be associated in the public mind with such formerly illustrious, and now defunct, firms as Drexel Burnham Lambert, Union Carbide, and Hooker Chemical. At the time of this writing, the media are focusing on the social significance of the Enron saga, the soundness of the U.S. regulatory regime and federal accounting standards, and the morality of the market system. Of course, writing definitively about the causes and cures of a tragedy such as Enron is complicated by the fact that the story is still developing. New revelations of past events, as well as revisions of previously disclosed episodes, occur each week. Congressional hearings and class action lawsuits are ubiquitous. Nonetheless, we think that certain conclusions can be drawn with respect to Enron that bear on our knowledge of financial and political markets and on the market system in general.

##### A. Federal Accounting Standards

One of the casualties of the collapse of Enron may very well be the demise of Enron's accountant, Arthur Andersen LLP. Indeed, Andersen's very association with Enron has caused that company to lose contracts with other firms concerned about the tainted association investors may draw regarding any business that utilized Andersen's accounting services.<sup>16</sup> While changes in accounting standards are being discussed by Congress and various regulators, other accounting firms have gone to great lengths to assure the public that their standards are different from Andersen's. Several firms' stock prices fell after Enron-like adjustments to earnings were announced after Enron's collapse. Consequently, many question whether Andersen will survive as a firm as a result of its association with Enron.

<sup>16</sup> More than 160 publicly and privately held companies have severed business relationships with Andersen since January 1, 2002.

It is legitimate, therefore, to remind ourselves exactly what services Andersen provided Enron. Obviously, the most important service was to help the firm comply with federal accounting regulations that have been in place since the Great Depression. These reporting regulations, based on the belief that investors desire certain information about firms and are competent to evaluate it, were created to bolster investor faith in the stock market.

The regulatory scheme that allowed exploitation by Enron, as well as many other firms, does have problems. First, the demand for information on the part of investors varies from investor to investor, meaning that some investors consider the results of federally mandated audits very important, while others do not. An assumption inherent in disclosure requirements is that firms somehow have an incentive to withhold information from investors. This is clearly not the case for all firms. On the contrary, well-managed firms have every incentive to provide investors with every piece of information that they need to make informed investment decisions.

Unfortunately, a one-size-fits-all reporting requirement is deficient because it provides a false sense of security to investors while creating an environment in which firms are discouraged from providing information above and beyond that which is legally required. By altering the incentives of both firms and investors either to provide, or to search for, information as required in a case-by-case basis, these regulations create a moral hazard problem that would not be tolerated if the delivery of this information were left to the market.

Despite the shortcomings of federal accounting standards, their requirements have provided significant federally mandated revenue for accounting firms. Hence, many auditing partners are loath to antagonize their large corporate clients for fear of losing their cash cow to another auditing firm. It is probable that, post-Enron, accounting firms will separate their accounting and consulting divisions so as to minimize conflict of interest problems because investors and Congress will demand this reform. New and adjusted regulations will not promote the establishment of a more stable investment environment unless they are based upon the flow of information demanded by the changing needs of both profit-seeking investors and capital-seeking firms.

As evidenced by the soaring stock prices of many tech firms during the economic boom of the late 1990s, not all investors utilize, or even care for, federally mandated information. During a time when monetary policies influence financial market participants to bid up stock prices without regard for cash flow or risk, the real values of firms become either irrelevant or difficult to gauge. The result is an unhealthy investing environment encouraged by monetary authorities who have increased the money supply many times the value of real output for years 1996 to 2000. Both optimism and unsustainable growth rates characterized the 1990s bull market and caused less concern to be given to “Old Economy” conventions such as accounting statements and their indications of cash flow and profitability. In an easy-money setting, policy enables firms to remain afloat longer than they otherwise would or should. Absent such policies, we would expect business failures to be balanced out by business successes, but when business success dominates during the boom, and when business failure dominates during the bust, we must assume that many market participants were misled by false policy signals. Such signals cause them to discount data in mandated audits.

A structured regulatory environment, including the requirement for audited financial statements, ostensibly provides a legal framework in which markets can thrive. The system appears to have failed with regard to Enron. It is possible, however, that this is not the case. Market analysts, studying the same data as the SEC, found and acted upon deceptive information in Enron's financial statements, while the SEC only acted after the market had passed its judgment on Enron.<sup>17</sup> For instance, hedge fund manager James Chanos first short-sold Enron stock in late 2000 and Bethany McLean questioned Enron's stock price early in 2001 in her Fortune magazine cover story cited above. [See Laing, (2002).]

During much of this time period, Enron's stock was trading at roughly 55 times trailing earnings. When considered in this light, Enron's fall seems to illustrate market success, rather than market failure, as the company was effectively shut down *in spite of* the forced disclosure rules that apply to publicly traded companies. As suggested in the following section, intervention in the market process by government authorities probably hindered the market's ability to identify Enron's shortcomings.

## **B. The Roles of Rent Seeking and Capture Theory**

It is instructive to consider why Enron was able to remain in business as long as it did. Given the contradiction of its implicit operating plan (shifting debts to off-balance accounts to obfuscate its financial statements) as compared to its explicit plan reported in official documents dating back to at least 1997, why was the market unable to identify the firm's problems more quickly?

One obvious reason lies in the firm's investment in the political class that helped to create the belief that, no matter its shortcomings, the firm had achieved a status under which its failure would never be allowed. To an alarming degree, firms divert capital from traditional uses, such as research and development or modernization, to political investments. Frequently, such investments are considered desirable to counter similar investments made by rival firms. It is advantageous for ABC Corporation to invest in lobbying for regulations that secure its market position while harming that of its rival, XYZ Corporation. Given the size and scope of the regulatory structure in Washington, failure to engage in such activity can be detrimental to a firm's long term survival.

Such spending, called *rent seeking*, forces firms to divert resources from productive to nonproductive use. For instance, if a firm determines that the passage of a certain regulation will cause it to increase the present value of its profits (on the margin) by \$1 million, it is to that firm's advantage to invest up to \$1 million to get the regulation passed. Investing more than \$1 million to achieve the above-mentioned regulation is called *rent dissipation*. The firm that eschews this process, and focuses resources on fulfilling the needs of consumers, may do so to its own detriment if its rival firms are busy diverting the resources toward the political class. [See Tullock,(1980) for a review of rent seeking behavior.]

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<sup>17</sup> The SEC first began to investigate Enron in late October 2001, well after Enron's stock price began its final fall.

Enron made significant political investments throughout its history. As shown in Table 4, the company especially increased this activity during the year 1996. Much of Enron's growth throughout the 1990s, in fact, was made possible through overseas investments that were first assisted by interventions organized by domestic and foreign political contacts. We believe that Enron depended on such investments to maintain the growth rates it had attained in the early 1990s, as well as to protect the firm from the massive debts it had assumed, but had not incorporated into its financial statements.

That Enron had become exceedingly adept at this aspect of business investment was well known in the corporate world.<sup>18</sup> The Houston-based company was President Bush's largest campaign contributor in his 2000 election campaign. Ken Lay was the only energy industry leader to meet privately with Vice President Dick Cheney in the latter's role as head of the president's Energy Policy Task Force in 2001. When Lay met with White House officials in the midst of Enron's 4th quarter 2001 free fall, it was widely assumed that he expected to cash in on political investments at these meetings.

**Table 4: Enron Total Contributions to Federal Candidates and Parties, 1989-2001\***

<b>Election Cycle</b>	<b>Total Contributions</b>	<b>Soft Money Contributions</b>	<b>Contributions from PACs</b>	<b>Contributions from Individuals</b>	<b>% to Dems</b>	<b>% to Repubs</b>
1990	\$163,250	N/A	\$130,250	\$33,000	42%	58%
1992	\$281,009	\$75,109	\$130,550	\$75,350	42%	58%
1994	\$520,996	\$136,292	\$189,565	\$195,139	42%	58%
1996	\$1,141,016	\$687,445	\$171,671	\$281,900	18%	81%
1998	\$1,049,942	\$691,950	\$212,643	\$145,349	21%	79%
2000	\$2,441,398	\$1,671,555	\$280,043	\$489,800	28%	72%
2002	\$353,959	\$304,909	\$32,000	\$17,050	6%	94%
<b>TOTAL</b>	<b>\$5,951,570</b>	<b>\$3,567,260</b>	<b>\$1,146,722</b>	<b>\$1,237,588</b>	<b>26%</b>	<b>74%</b>

NOTE: Soft money contributions were not publicly disclosed until the 1991-92 election cycle.

\*Based on Federal Election Commission data downloaded 1/1/02.

Source: The Center for Responsive Politics

<sup>18</sup> In 1996, the Clinton administration provided more than \$1 billion in subsidized loans to Enron's overseas projects at a time when Enron was contributing nearly \$2 million to Democratic causes.

Indeed, Enron's aggressive accounting practices were justified in part by the company's efforts in 1996 to persuade Congress to change the application of the Investment Company Act. This Depression-era law would have prevented the firm's foreign operations from shifting debt off their books and would have barred executives from investing in partnerships affiliated with the company. After being initially rebuffed by Congress, the company hired the former boss of a leading staff official at the Securities and Exchange Commission to represent it in negotiations with the agency. In a March 1997 order, the SEC official, Barry P. Barbash, gave Enron a broad exemption from the law. This exemption enabled Enron to engage in many of the corporate abuses that investigators currently believe ultimately took place at Enron.<sup>19</sup>

The firm's rent seeking activity created an aura that Enron was considered too-big-to-fail. Investors, basking in the aura, bid the stock price higher as late as the fourth quarter of 2000. Such market price movements are also supported by the "capture theory of regulation," as defined by George Stigler (1971) in an often-cited article. This theory states that the government can provide benefits to industry such as direct monetary subsidies, barriers to entry to competitors, price fixing, aid to businesses producing complementary products and barriers to rivals producing substitute products. Since the costs of such market intervention are socialized, individuals have little incentive to organize to stop this activity. Benefits that are concentrated among small groups of people provide the incentive to pursue such help from the state whenever institutions allow such intervention. Regulators, recognizing the prospect of employment by the regulated firm, are likely to provide the firm with the regulation that it desires.

Many post-Enron reformers have called for a heightened regulatory apparatus on the assumption that the existing regulations were too few. Far from too much regulation, capture theory suggests that the relationship between the government and Enron was too close to begin with. When regulators stand to gain personal long-term benefits by crafting regulation to the benefit of the regulated firm, they are more likely to act in their own self-interest and cast the public interest aside. Increasing regulatory oversight cannot address this problem. The solution lies in reforming the regulatory system in general, so that it becomes *institutionally* impossible for regulators to receive personal benefits from firms either during or following government careers.

## **V. Concluding Remarks**

The fallout from the rise and demise of Enron is far from over. Creditors, rightly, are attempting to protect their interest and recover losses related to the firm. Congress continues to hold investigative hearings as members seek answers concerning how a firm can rise so high and fall so quickly. Enron's investors and employees have been damaged to varying degrees. Those who

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<sup>19</sup> Said former SEC official Joseph V. Del Raso in *The New York Times* (January 23, 2002): "From a regulatory standpoint, this raises a red flag. It gave [Enron] carte blanche to go all over the world and invest in a bunch of different companies. The decision to exempt those from the kind of protections to investors is now coming home to roost." Barbash was quoted in the same article: "Enron knew the regulatory boxes, and they [sic] tried to fashion their [sic] businesses to fall outside of those boxes."

purchased and held the stock have lost funds that are not likely to be recovered. The amount of the damage is dependent on when the shares were purchased, with the greatest damage arising from those purchases made in late 2000 and early 2001. Insiders, and others who cashed out when the stock price was high, of course, fared much better.

Corporate history contains many examples of firms that were considered, by themselves and their investors, as too important or too large to fail. One of the most important lessons learned from the Enron saga is that firms, no matter how well positioned, can still fail. Poor management cannot be hidden by deception and fraud. The market is efficient in ferreting out such behavior and is ruthless in its punishment. Investors must protect themselves from such firms through careful analysis and portfolio diversification.

Congress must use caution when considering policy changes as a result of the Enron debacle. All changes must be judged upon whether they do more harm than good by altering incentives and by impeding the tendency of markets toward efficiency. Many times, if left to its own devices, the financial market will devise a better solution than one attained through legislation.

Enron is not the only firm to file for bankruptcy protection in recent months. The events that pushed firms such as Global Crossing and Elan to seek court protection from creditors need to be considered and compared with those of Enron. Each of these bankruptcies should be analyzed in light of the activities of their subsidiaries, joint ventures, and limited partnerships. Additionally, they should be compared with other firms that have sought similar court protection, but have done so because of changing market conditions and changing consumer tastes.

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