Red Flags in Enron's Reporting of Revenues and Key Financial Measures

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1. INTRODUCTION

In this article, we analyze the forensic warning signals, or red flags, that started showing up in the financial statements of Enron Corp. a year or two before its eventual fall from grace and bankruptcy in 2001. Since many of the warning signals are primarily related to how Enron measured and reported its total revenues, we will focus on revenues first. We will then review the other red flags, including profitability and cash flows.

Enron used revenues—not profits—as its primary financial objective, performance driver, and measure of success. Enron's use of distorted, "hyper-inflated" revenues was more important to it in creating the impression of innovation, high growth, and spectacular business performance than the masking of debt in special purpose entities. Indeed, Enron's president and CEO Jeff Skilling promoted revenues as the primary measure of performance to achieve his objective of propelling Enron to the status of the "world's leading company." And, by the time of its demise, Enron had used its hyper-revenue growth to claw its way up to Number 7 on the widely followed *Fortune 500* list of the world's largest companies.[1]

That Enron used a variety of deceptive, bewildering, and fraudulent accounting practices and tactics—legal and illegal—to obfuscate its financial statements is a given. But Enron's phenomenal four-year revenue growth from $13.3 billion in 1996 to $100.8 billion in 2000[2] awed politicians and heads of state, and attracted the attention of Wall

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[1] *Fortune 500 Largest U.S. Corporations*, FORTUNE, Apr. 16, 2001, at F1 [hereinafter FORTUNE 500].

[2] ENRON: 2000 ANNUAL REPORT (2001), *available at* http://www.enron.com/corp/investors/annuals/2000/ar2000.pdf (last visited June 11, 2003) [hereinafter ENRON: 2000 ANNUAL REPORT].

Street. The revenue growth amounted to an average annual growth of over 65%, unprecedented in the slow-moving energy and utility industries, and with that growth, Enron succeeded in fooling the best and the brightest among Wall Street analysts, the news media, their own employees, and countless investors. When Enron collapsed, it was labeled as the "largest bankruptcy in history,"[3] on the basis of its illusory revenue size.

Past discussions of the Enron accounting scandal have focused mainly on Enron's efforts to shift assets and liabilities off balance sheet with Byzantine structures and special purpose entities.[4] What has been largely overlooked is an analysis of how Enron effectively used the "mark-to-market" ("MTM") accounting rule and other revenue-boosting accounting methods as a business strategy to create the illusion of being a "larger" company than a General Electric, Citigroup, or IBM. This certainly contrasts with all of the publicity Enron received by using off balance sheet financing in special purpose entities. Dynegy, Reliant Energy, and El Paso also moved up to the top 50 ranks of the *Fortune 500* by using these accounting methods.[5]

It was not profitability that was driving Enron's stock price and high price-to-earnings multiples, since, as we show, Enron's return on equity and profit margins were in the bottom ranks of the largest energy companies. Ironically, Enron's most profitable segment was the asset-intensive Transportation & Distribution group. By contrast, the divisions that were the focus of Enron's famed "asset-light" business strategy reported small accounting profits and certainly did not generate operating cash flows.

As opaque and impenetrable as Enron's financial statements have been characterized, they do provide several forensic accounting red flags with regard to profits and cash flows, suggesting major weaknesses in the company's financial foundations. The evidence we present in our analysis suggests that the business media and sell-side financial analysts must have been in denial over Enron's financial fundamentals, which just didn't add up according to common profitability and valuation measures, regardless of how much debt was hidden in special purpose entities and masked from the public.

2. THE *TITANIC* ANALOGY

Even before Enron collapsed, 2001 was shaping up to be a year of major shocks for the U.S. economy, which was reeling from the collapse of the stock market bubble in 2000 and the September 11, 2001 terrorist attacks on New York and the Pentagon. The tech stock and dot.com market collapse had already ushered in a new period of

[3] *E.g.*, Chris Kraul et al., *Enron Files Chapter 11, Sues Ex-Suitor Dynegy Energy: Bankruptcy Filing is Largest Ever*, L.A. TIMES, Dec. 3, 2001, at A1.

[4] *See e.g.*, Wendy Zellner & Stephanie Anderson Forest, *The Fall of Enron*, BUS. WK., Dec. 17, 2001, at 30.

[5] FORTUNE 500, *supra* note 1.

economic uncertainty as investors saw their life savings decline by as much as 75% in two years. Then Enron, propped up by the media and management experts alike as one of the world's most innovative and admired companies, struck an iceberg, in the form of the unexpected and inexplicable resignation of Skilling on August 14, 2001. Within months, Enron sank like the *Titanic*.

In fact, the *Titanic* analogy is quite apt for Enron. Like the *Titanic* that was described by its admirers as "unsinkable," Enron had been characterized by *Fortune* magazine in August 2000 as one of the "10 stocks to last the decade . . . that should put your retirement account in good stead and protect you from those recurring nightmares about stocks that got away."[6] Like the *Titanic's* reckless decision to race through iceberg-infested waters to beat a Trans-Atlantic crossing record, Enron's management made increasingly larger investments into ill-conceived projects and businesses, even as the U.S. and world economy was starting to slide into a recession as a result of the popping of the largest stock market bubble in history. Finally, like the *Titanic's* inadequate number of lifeboats, the management of Enron seemed to operate without adequate corporate controls and checks as the company's compensation system kept rewarding managers for coming up with new investment ventures of every stripe—and deals that turned out to be egregiously unprofitable.

Like the *Titanic*, the human tragedy from Enron is all too well known—a devastating loss for Enron employees and shareholders as Enron's stock plunged to less than a dollar, with collateral damage extending to virtually every other energy merchant company, including Dynegy, Reliant Energy, El Paso, and Williams, all of whom modeled themselves in various degrees after Enron. Enron's fall also directly led to the indictment, subsequent conviction, and collapse of Arthur Andersen, one of the world's preeminent accounting firms.

As Bala Dharan stated in his testimony to Congress, "How could this tragedy have happened while the company's management, board of directors, and outside auditors were supposedly watching over for employees and investors?"[7]

3. STRATEGIC IMPORTANCE OF REVENUE SIZE AND GROWTH

By the time *Fortune* issued its list of 500 biggest companies in April 2001, Enron had made it to Number 7, surpassing the ranks of corporate giants such as Citibank and IBM.[8] In four short years from 1996 to 2000, its revenues had increased by more than 750 percent, rising from $13.3 billion in 1996 to $100.8 billion in 2000.[9] From

[6] David Ryneck, *10 Stocks to Last the Decade*, FORTUNE, Aug. 14, 2000, at 114.

[7] *Developments Relating to Enron: Prepared Witness Testimony Before the House Comm. on Energy and Commerce*, 107th Cong. (2002) (testimony of Dr. Bala G Dharan Ph.D., CPA) [hereinafter Dharan Testimony].

[8] FORTUNE 500, *supra* note 1.

[9] ENRON: 2000 ANNUAL REPORT, *supra* note 2.

1999 to 2000, Enron's revenues increased 151% from $40.1 to 100.8 billion.[10] This growth of over 65% per year is unprecedented in any industry, let alone the staid energy industry that normally views even a two or three percent a year growth as a decent achievement. Another two or three years of 60% growth would have pushed Enron well past ExxonMobil and Wal-Mart as the world's largest company. Indeed, Enron reported pre-bankruptcy revenues of $138.7 billion for the first nine months of 2001, pushing it up to Number 6 on the *Fortune Global 500*, passing DaimlerChrysler, Royal Dutch/Shell, General Electric, Toyota and ChevronTexaco.[11]

By the end of 2000, the hyper-growth in Enron's revenue placed the company squarely in the company of the energy "supermajors." With over $100 billion in revenue, Enron was twice as large as Chevron ($50.6 billion revenue in 2000 before merger with Texaco), and foreseeably would catch up rapidly to BP ($161.8 billion in 2000) and ExxonMobil ($231.8 billion in 2000). Enron's chairman, Ken Lay, could soon claim to be heading the "world's leading company," and not just the world's leading energy company. The rapid revenue growth and the rapidly climbing *Fortune* rankings undoubtedly attracted media attention, and Enron was soon also propelled into *Fortune's* ranks of the world's most innovative, "admired companies."[12]

As can be seen by the use of revenues as the basis for *Fortune's* annual ranking of companies, annual revenues can be an important psychological measure that carries a lot of weight among investors and the public as an indicator of success and economic size, in the same way GNP determines the economic stature of a nation-state. It has long been understood by managers that firm size carries important implications for the prestige of the company, its influence in the marketplace, its ability to command the attention and respect of the media and Wall Street, and its ability to attract talented students from Ivy League business schools as employees. Firm size also can help a company's image in terms of branding.

Management models developed in the 1970s postulated large firm size as a negative indicator of higher political costs (due to potential anti-trust regulations, pricing regulations, etc.). However, changes in the business-government environment in the 1980s and in more recent years, and in particular, structural changes in the way companies are able to contribute to and influence political campaigns, have fundamentally altered this relation between firm size and political cost. Indeed, we claim that larger firm size provides increased relief from regulatory costs because larger firms are able to leverage their ability to support political campaigns through donations to political action committees and are able to acquire greater political influence and goodwill. This is particularly true in regulated industries with high entry costs, such as the energy and utility industries. The benefits of getting regulatory relief, such as electricity deregulation, are disproportionately greater for larger firms in these regulated and high-entry cost indus-

[10] *Id.*

[11] *Fortune Global 500: The World's Largest Corporations,* FORTUNE, July 22, 2002, at F1.

[12] Nicholas Stein, *The World's Most Admired Companies,* FORTUNE, Oct. 2, 2000, at 182.

tries. Finally, investors may also perceive a reduced risk of bankruptcy for large firms, mainly due to U.S. and global regulators' often-demonstrated unwillingness to let large corporations fail. Not surprisingly, corporations in the energy industry in recent years have initiated mergers and other actions to increase their overall size and influence.

The linkage of revenues with executive compensation was also a factor that probably led to Enron's focus on boosting its total revenue figures. There is some evidence from Enron's description of its compensation plans provided in its annual proxy statements that Enron linked the level of compensation of its key executives to its reported revenues. For example, the following excerpts from a proxy statement filed by Enron in 1997 highlight Enron's pay targeting policy: "Base salaries are targeted at the median of a comparator group that includes peer group companies... and general industry companies similar in size to Enron."[13] Similarly, a proxy statement from 2001 says: "The [Compensation] Committee determined the amount of the annual incentive award taking into consideration the competitive pay level for a CEO of a company with comparable revenue size, and competitive bonus levels for CEO's in specific high performing companies."[14] The implications of revenue size as factor in setting competitive pay levels is illustrated by a widely used Hewitt Associates executive compensation survey. For example, Hewitt reported that average annual total compensation was $10 million for a CEO of a $25 billion company and $25 million for a $100 billion company.[15] By comparison, Ken Lay's year 2000 total compensation was $40.8 million,[16] 62% higher than the $25 million for a $100 billion company and 24% higher than the $33 million pay average for a $140 billion company.

4. ENRON'S REVENUE ACCOUNTING TECHNIQUES

While most energy companies were trying to grow large through mergers, Enron adopted a different strategy for growth. Mega-mergers in the energy industry led to ExxonMobil, BP Amoco (now BP), ChevronTexaco, ConocoPhillips, RWE, and Total Fina Elf. But Enron was not growing on this scale by acquisitions. Instead, it simply grew by exploiting two revenue recognition accounting rules. First, it used mark-to-market accounting for its energy contracts, which it treated as financial contracts for this purpose. This allowed Enron to report expected benefits from future transactions into current period income. Second, Enron adopted an aggressive accounting inter-

[13] ENRON CORP., 1997 PROXY STATEMENT 15 (1997), *available at* http://www.namebase.org/enron/enron98a.txt (last visited June 12, 2003).

[14] ENRON CORP., 2001 PROXY STATEMENT 14 (2001), *available at* http://www.namebase.org/enron/enron01a.txt (last visited June 12, 2003).

[15] HEWITT ASSOCIATES, *Total Compensation Measurement, Executive Long-Term Incentives and Regression Analysis Report, 2002,* Apr. 1, 2002 (note: total compensation includes base salary, cash bonuses and the value of long-term incentives such as stock options and restricted stock grants).

[16] ENRON: 2000 ANNUAL REPORT, *supra* note 2.

pretation of what constitutes revenues in the trades that took place over its "Enron Online" trading platform. Specifically, by adopting a so-called "merchant model" of revenues, Enron reported the entire value of each trade on which it was a counterparty as its revenue, rather than reporting as revenues only its trading or brokerage fees. Traditional trading firms such as Goldman Sachs and Merrill Lynch use a more conservative "agent model" of revenue reporting, in which only the trading or brokerage fee would be reported as revenue. Each of these revenue-distorting accounting techniques is discussed in more detail below.

The revenue effects that arise from the methodology of MTM accounting, which is required by generally accepted accounting standards for financial assets, are counter to what most accounting students are taught in Accounting 101 as to how revenues should be recognized. The two basic criteria for revenue recognition are that revenue is reported after (1) service has been provided or mostly provided, and (2) cash collection has taken place or is reasonably certain. Contrast this conservative revenue recognition technique of accountants with the financial economist's theory of valuation of financial assets and projects, which says that an asset's value is the present value of *future cash flows,* i.e., net cash flows that will only be generated in the future as a result of service activities that will need to take place in those future periods, after subtracting costs that will need to be incurred. Under MTM, changes in the fair values of financial assets classified as trading securities are reported as income. In other words, in the MTM valuation method, revenue recognition depends on the initial estimates of, and subsequent changes in, the estimated future actions of companies and future costs of performance of service, rather than on actual past transactions.

In effect, the MTM method for financial assets allows revenue to be recognized as earned even before service is provided. As an example, let's say a company such as Enron enters into an agreement with a customer to deliver gas or electricity at set amounts and prices for the next ten years. As applied to financial contracts such as these, the MTM technique permits a company to report as revenues in the current period the net present value of all future period revenues of the multi-year transaction, even before any service is provided or products are delivered. By contrast, if the financial contract is treated as a normal business deal, the firm would have reported only the fees or revenues received in one year after the gas or electricity is delivered.

The MTM technique requires companies to estimate what would happen over very long periods, such as the ten-year period in the above example. Since there are often no quoted prices for these complex and often-unique energy contracts, it is difficult to calculate a valuation of these contracts using real market prices, so companies are free to develop and use discretionary methods based on their own assumptions and methods.[17] Regulators and analysts have long worried that the MTM technique can be used

[17] C. William Thomas, *The Rise and Fall of Enron; When a Company Looks Too Good to Be True, It Usually Is*, J. OF ACCT., Apr. 2002, at 41.

by aggressive companies to overestimate future unrealized profits, or to hide or understate future unrealized losses from soured contracts. In the case of Enron, it is no wonder revenues grew the way they did, especially since incentive plans were based on the hypothetical total net present value of the deal, not the actual cash flow that would result from the deal. Starting from as early as 1992, Enron started applying the MTM technique to its financial contracts, capitalizing on the fact that this approach to revenue reporting, as applied to energy trading and energy contracts, results in a gross distortion in reporting revenues.

In addition to using the MTM methodology for its energy contracts, Enron also adopted the "merchant" model of reporting revenues for its trading activities, especially the booming volume of trading that took place over its proprietary Enron Online trading platform. To understand the merchant model, consider a retailer, such as Wal-Mart, who buys products from manufacturers, takes possession of the goods, and takes the risks of selling the goods as well as the risks of collecting from the end-user. Because of the risks taken, the merchant is allowed to report the entire selling price of the products as revenues and the cost of purchases as "cost of goods sold." By contrast, an "agent" is someone who provides a service to the customer (such as facilitating the purchase of an airline ticket), but does not really take up the risks of possession and risks of collection. Under the agent model, the service provider is allowed to report the trading fee, brokerage fee, etc. as revenue, but not the entire value of the transaction.

All of the major financial companies with trading operations, such as Goldman Sachs and Citigroup, used the agent model to report their "spreads" and fees from trading transactions. However, Enron's apparent logic for using the merchant model for its energy trades was that it was not merely an agent but was the legal "counterparty" in almost every transaction that took place on Enron Online.

The combined effect of using the MTM methodology and the merchant model for revenue reporting was that Enron's revenues and cost of goods sold, reported in the income statement, were increased as much as fifty times compared to what they would have been under more traditional accounting. However, this artificial boosting of revenues and cost of goods sold did not increase the net of these two income statement numbers, known as "gross profit."

It is interesting to examine how much smaller Enron would have been in revenue terms if it had not used MTM for energy contracts and if it had used the agent model for energy trades. We estimate that an adjustment for both MTM accounting and merchant accounting would have pushed down Enron's reported revenues to $6.3 billion in 2000 instead of the reported $100.8 billion.[18]

This can be seen from examining the gross profit reported by Enron in each of the last five years, since the gross profit is a reasonable proxy for the amount of revenue that would have been reported by Enron under the agent model and without the help

[18] ENRON: 2000 ANNUAL REPORT, *supra* note 2.

from the accounting assumptions of MTM. Table 1 shows the revenues, cost of goods sold, and gross profit data from 1998 to 2000.

Table 1. Projected "Real" Revenues—1998–2000[19] (Dollars in millions)

Item	1998	1999	2000
Operating Revenues, as reported	$31,260	$40,112	$100,789
Less Cost of Goods Sold, as reported	$26,381	$34,761	$94,517
"Real" Revenues (gross profit)	$4,879	$5,351	$6,272
% Revenue growth, as reported by Enron		28.3%	151.3%
% "Real" revenue growth		9.7%	17.2%
Projected Fortune 500 Rank			287
Actual Fortune 500 Rank			7

The adjustment for revenue would have pushed Enron down in the Fortune 500 list from number 7 to number 287. A similar analysis of revenues and Fortune rank prompted *New York Times* reporter Morgenson to conclude that Enron was the "master of obfuscation in its financial statements."[20]

The story of how Enron got to use the MTM accounting for its energy contracts illustrates the importance that Enron gave to its dealings with regulators. One of Jeff Skilling's first major acts after being hired to work for Enron in 1991 was to seek the approval of the Securities and Exchange Commission to adopt the mark-to-market accounting method for the energy contracts entered into by his Enron Gas Services group. With the approval of the SEC in place in January 1992, nine months after Skilling was hired, Enron became the first company outside the financial services industry to use mark-to-market accounting.

This event marked a major turning point for the company, since it was the beginning of a change in focus (for performance evaluation purposes) to revenue growth, rather than cash flow and profitability, thus sewing the seeds of Enron's decline and fall. It was also the genesis of the transformation of Enron to a trading and financial deal-making company.

The extent of inflation of Enron's revenues due to the use of MTM and merchant model accounting varied by business units. The two methods were primarily used by Enron's "Wholesale" business unit, and to a lesser extent, by the "Broadband" and "Retail" business units. Table 2 depicts revenues and operating income by business unit, as reported for 2000.

[19] Numbers as reported, although obscured and not calculated, in ENRON: 2000 ANNUAL REPORT, *supra* note 2; ENRON: 1999 ANNUAL REPORT (2000), *available at* http://www.enron.com/corp/investors/annuals/annual99/pdfs/1999_Annual_Report.pdf (last visited June 13, 2002); ENRON: 1998 ANNUAL REPORT (1999), *available at* http://www.enron.com/corp/investors/annuals/annual98/pdfs/1998_Annual_Report.pdf (last visited June 13, 2002).

[20] Gretchen Morgenson, *How 287 Turned Into 7: Lessons in Fuzzy Math*, N.Y. TIMES, Jan. 20, 2002, at C1.

Table 2. Revenues and Operating Income by Business Units, 2000[21] (Dollars in millions)

	Trans. & Dist.	Whole-sale	Retail	Broad-band	Other*	Total
Revenues	$2,955	$94,906	$4,615	$408	$–2,095*	$100,789
% of Corporate Total	2.9%	94.2%	4.6%	0.4%	NA	
Operating Income (loss)	$565	$1,668	$58	$–64	$–274*	$1,953
% of Corporate Total	28.9%	85.4%	3.0%	NA	NA	
Operating Margin (Op. Income/Revenue)	19.1%	1.8%	1.3%	–15.7%	NA	1.9%

*Corporate costs, intercorporate eliminations, and others.

As Table 2 indicates, the Transportation and Distribution unit was profitable from an operating income perspective, with an operating profit margin of 19.1%. By contrast, Wholesale, with 94.2% of Enron's revenues, generated only 1.8% of operating income. This illustrates the extent of revenue inflation in Wholesale (i.e., Enron's trading operation) due to MTM and merchant model accounting. Without these accounting methods, the Wholesale unit would have been 50 times smaller in size.

This practice of reporting inflated trading revenue was not limited to just Enron in the energy industry. Many other companies in the energy trading industry felt the need to meet the competitive pressure from Enron's rapid ascendancy, and most of the main competitors of Enron adopted financial reporting methods that were identical to Enron's. Soon, several energy companies with substantive trading operations moved into the elite top 50 of the *Fortune 500* category, including Duke Energy, El Paso Corporation, Reliant Energy, and Dynegy Corp.[22]

5. FORENSIC ACCOUNTING: OTHER RED FLAGS

The media and the analyst community were late to the game of deciphering Enron's accounting numbers. As Enron's stock was on its way to reaching its high of $90 in late 2000, the investment banking and analyst community was still "snowed" by the level of media hype and market euphoria surrounding Enron's ascendancy in size, stature, and political influence. However, by the end of 2000, some analyst reports and articles in the media began to dig deeper into Enron's opaque and impenetrable financial statements and ask questions. Enron was also attracting negative attention from a growing number of independent financial analysts, who just didn't see the profitability numbers adding up in Enron's financial statements. In early 2001, Enron's CEO Skilling berated an analyst during a conference call for asking for a balance sheet (and allegedly used an obscene word to refer to him, while the microphone was still on).[23]

[21] Numbers as reported in ENRON: 2000 ANNUAL REPORT, *supra* note 2.

[22] *Fortune 500 Largest U.S. Corporations,* FORTUNE, Apr. 15, 2002, at F1.

[23] Julia Boorstin, *The Insider*, FORTUNE, May 14, 2001, at 242.

An article in the Texas edition of the *Wall Street Journal* on September 20, 2000, was one of the first to raise concerns about the inflated revenues and profits of energy traders.[24] The article referred to the soaring stock prices of Enron, El Paso Corp., and Dynegy Inc., and continued: "But what many investors may not realize is that much of these companies' recent profits constitute unrealized, noncash gains. Frequently, these profits depend on assumptions and estimates about future market factors, the details of which the companies do not provide, and which time may prove wrong."[25]

An analyst report in February 2001 from John S. Herold, Inc., written by Lou Gagliardi and John Parry, also expressed concerns about Enron's reported profitability. At a celebrated analyst meeting on January 25, 2001, Jeff Skilling made a "New Valuation Metrics" presentation proclaiming that Enron should be valued at $126 a share. The Herold report observed that Enron's profits for its Wholesale Energy Division had been steadily declining from 6.5% in 1995 to 2.7% by 2000 and that a realistic Enron valuation would be $53.20 per share.[26] The report questioned the sustainability of Enron's market leadership, citing that low barriers to entry and low cost revenue growth made it attractive for competitors Dynegy, El Paso, Reliant, Duke, and Williams to chip away at Enron's market share and propel their revenues into *Fortune 50* territory as well. Herold also contrasted the average profit margins of Goldman Sachs, Merrill Lynch, and Lehman Brothers of 66% with Enron's low 3.6% profit margin,[27] pointedly asking whether Enron's market premium was warranted, based solely on future super-revenue growth.[28]

A month later, this theme was expanded by *Fortune* reporter Bethany McLean, who published a cover story in March 2001 questioning Enron's valuation.[29] These early reports were the first to raise red flags about Enron's low profit margin and questionable accounting disclosures. The reports asked why Enron traded at 50 to 100 times earnings while comparable firms like Duke Energy and Goldman Sachs traded in the range of 15 to 22 times earnings.

Financial analysis of ratios can try to discover anomalies in valuation, such as overpriced or under-priced stocks, and can also call attention to poor performance of managers and corporate divisions. However, it is well known that financial ratio analy-

[24] Jonathan Weil, *Energy Traders Cite Gains, but Some Math is Missing*, WALL ST. J., Sept. 20, 2000, at T1.

[25] *Id.*

[26] The percentages given are for earnings before interest, taxes, depreciation and amortization (EBITDA) of this division, divided by the division's revenues.

[27] These percentages represent the earnings before interest, taxes, depreciation and amortization (EBITDA) of Enron and the other firms, divided by their respective revenues.

[28] John S. Herold, Inc., *The New, New Valuation Metrics: Is Enron really worth $126 per share?* Herold Industry Studies analyst report by Louis Gagliardi, John Parry, and Arthur Smith, Feb. 21, 2001.

[29] Bethany McLean, *Is Enron Overpriced?*, FORTUNE, Mar. 5, 2001, at 122.

sis alone cannot generally discover management fraud, especially if the fraud is pervasive in the company and senior management takes an active part in perpetuating it. With this caveat, in this section we examine several common financial ratios commonly used in financial analysis and valuation of companies and highlight the warning signals, or red flags, from the financial statements that would have alerted investors that Enron's real financial performance was a lot less than what its managers and Wall Street analysts proclaimed.

Profitability Measures

Enron's reported net income grew from $584 million in 1996 to $979 million in 2000, an average of 16.9% per year, totaling 67.6% profit growth for the five-year period.[30] Enron appeared to be exceeding even the magic "Jack Welch" (of General Electric) standard of 15% annual earnings growth. Maintaining a high earnings growth contributed to the perception that Enron was among the elite of "high performing" companies. However, as Table 3 indicates, Enron's reported profits were microscopic relative to revenues. Net income did not grow at anything near the same rate as revenues, which grew a phenomenal 164.6% per year for the same five-year period. As a result, there was a steady decline in net profit margin, from 4.4% in 1996 to a paltry 1% in 2001. Similarly, Enron's gross profit margin (gross profits as a percent of revenues) declined from 21.2% in 1996 to 13.3% in 1999, and took a dramatic drop to 6.2% in the following year as earnings more than doubled. Enron's rapidly declining profitability was not questioned by Wall Street analysts, as long as the reported net profits continued to grow at 15% plus per year—regardless of how small these profits actually were as a percentage of revenues.

Table 3. Declining Gross Profit Margin and Net Profit Margin, 1996–2000[31]

	1996	1997	1998	1999	2000
Revenues	$13,289	$20,273	$31,260	$40,112	$100,789
Gross profit	$2,811	$2,962	$4,879	$5,351	$6,272
Gross profit % of Revenues	21.2%	14.6%	15.6%	13.3%	6.2%
Net Income	$584	$105	$703	$893	$979
Net Income as % of Revenues	4.4%	0.5%	2.2%	2.2%	1.0%

Table 4 shows data comparing the profitability of major global energy companies. In terms of net profit margin, return on assets and return on equity, Enron's financial performance was at the lowest end for this group. Only El Paso Corp. had worse profitability and return ratios.

[30] *See supra* note 19.

[31] *See supra* note 19.

Table 4. Profitability and Return Ratios for Global Energy Companies[32] (Dollars in millions)

	2001 Revenues	Profit Margin	Return on Assets	Return on Equity
ExxonMobil	$191,581	8.0%	10.7%	20.9%
BP	174,218	4.6%	5.7%	10.8%
Royal Dutch/Shell	135,211	8.0%	10.0%	19.3%
ChevronTexaco	99,699	3.3%	4.2%	9.7%
Total Fina Elf	94,312	7.3%	9.0%	22.7%
American Elec. Power	61,257	1.6%	2.1%	11.8%
Duke Energy	59,503	3.2%	3.9%	15.0%
El Paso	57,475	0.2%	0.2%	1.0%
ConocoPhillips	56,984	5.7%	5.1%	15.5%
Petròleos de Venezuela	46,250	7.9%	6.0%	9.9%
Reliant Energy	46,226	2.1%	3.1%	14.3%
ENI	44,637	15.5%	6.0%	28.4%
Dynegy	42,242	1.5%	2.6%	13.7%
Enron (2000 data)	100,789	1.0%	0.4%	2.3%

The rapid decline in Enron's gross profit margin revealed a major red flag—the increasing use of the merchant model of revenue accounting by Enron to report both revenues and costs from energy trading, and the application of MTM accounting to increasing volumes of gas and electricity sold. As discussed earlier, the combination of merchant model and MTM accounting allowed Enron to book the whole value of the commodity traded as revenues, rather than just the trading fees or commissions.

Even the small profits reported by Enron in 2000 were eventually determined to be only a mirage by court-appointed bankruptcy examiner Neal Batson.[33] Batson's report reveals that over 95% of the reported profits in these two years were attributed to Enron's misuse of MTM and other accounting techniques.[34] But while financial analysts could not be expected to know that the company illegally manipulated the earnings, the reported profit margins in 2000 were so low and were declining so steadily that they should have merited ample skepticism from analysts about the company's profits.

Segment Profit and Mark-to-Market Accounting

Enron's segment disclosures, providing detailed revenue and profit data for its various operating segments, provided further red flags regarding the true profitability of

[32] Revenues as reported in *Fortune Global 500 The World's Largest Corporations,* FORTUNE, July 22, 2002, at F1.

[33] Second Interim Report of Neal Batson, Court-Appointed Examiner, *In re* Enron Corp., No. 01-16034 (Bankr. S.D.N.Y. Jan. 21, 2003) *available at* 2003 WL 1917445 (CORPSCAN).

[34] *Id.* at 36, 47–48.

the company. In particular, the segment data indicated that operating divisions that used mark-to-market accounting, such as the Wholesale Energy and Retail Energy divisions, showed increasing profits, while divisions that did not have the ability to use this method showed no profits. In other words, Enron's reported profits came mainly from mark-to-market accounting gains in derivatives. The non-derivatives business—including trading—was growing rapidly but generated no profits. Table 5, taken from Partnoy's congressional presentation on Enron's derivatives problem,[35] illustrates this issue.

Table 5. Enron's Income from Derivatives and Non-Derivative Businesses[36] (Dollars in millions)

	2000	1999	1998
Non-derivatives revenues	93,557	34,774	27,215
Non-derivatives expenses	94,517	34,761	26,381
Non-derivatives gross margin	(960)	13	834
Gain (loss) from derivatives	7,232	5,338	4,045
Other expenses	(4,319)	(4,549)	(3,501)
Operating income	1,953	802	1,378

As Table 5 shows, the non-derivatives business of Enron had a gross margin of negative $960 million in 2000, compared to a gain from derivatives business of $7,232 million.

Cash Flow

Perhaps the biggest red flags in Enron's financial statements were signs of poor earnings quality as indicated by several key cash flow measures.

One of the most common measures of earnings quality used by financial analysts, debt-rating agencies, and accounting academics is the so-called accruals, which is the difference between net income and cash flow from operations ("CFO"). Accruals are positive when net income is greater than CFO. When this happens, it usually indicates poor earnings quality issues. Interestingly, Enron was apparently very aware of the importance of CFO for analysts and bond rating agencies. In fact, Enron ensured by whatever means necessary that the annual reported CFO always exceeded the net income, as shown by panel A of Table 6.

[35] *Collapse of Enron Corp., Hearing Before the Senate Comm. on Governmental Affairs*, 107th Cong. (2002) (testimony of Frank Partnoy, Professor of Law, University of San Diego School of Law) (testimony included in this book under the title, ENRON AND THE DERIVATIVES WORLD, starting at page 173).

[36] *Id.*

Table 6. Enron's Net Income and Cash Flow from Operations[37] (Dollars in millions)

Panel A: Annual Data, 1998–2000

	1998	1999	2000
Net income	703	893	979
Cash flow from operations	1,640	1,228	4,779

Panel B: Quarterly Data for year 2000

	Q1	Q2	Q3	Q4
Net income	338	289	292	60
Cumulative net income	338	627	919	979
Cash flow from operations	(457)	(90)	647	4,679
Cumulative cash flow	(457)	(547)	100	4,779

However, as panel B of Table 6 shows, this was not the case when one examines Enron's quarterly financial data. As the data illustrate for the year 2000, Enron reserved almost all of its financial management of cash flow data to the fourth quarter. Similar troubling contrasts in the behavior of Enron's cash flow from operations for Quarters 1–3 and Quarter 4 existed for previous years as well, including 1998 and 1999.

Another cash flow measure called free cash flow also signaled both earnings quality and valuation concerns. Free cash flow is defined as the difference between cash flow from operations and cash flow from investments.[38] When free cash flow from operating activities is negative, the firm will have to make up the difference through debt or equity financing. In the long run, the valuation of an enterprise is determined by the free cash flows. No firm can remain viable for long if its free cash flow from operations is consistently negative. Yet, as Table 7 shows, Enron reported large negative free cash flows for much of 1997 to 2000. In fact, the large positive cash flow from operations reported by Enron for 2000 helped understate the real bleeding of free cash flows during that year. The 2000 cash flow from operations included $5.5 billion in deposits received by Enron from its California electric utility customers, $2.35 billion of which Enron had to repay.[39] Subtracting this payable from the calculated positive free cash flow for 2000 results in negative free cash flow of $1.835 billion for 2000.

[37] *See supra* note 19.

[38] This is a simplified definition, used here to illustrate the concept. *See generally* STEPHEN PENMAN, FINANCIAL STATEMENT ANALYSIS & SECURITY VALUATION 308-24 (2001) (discussing free cash flows and their calculation).

[39] Morgenson, *supra* note 20.

Table 7. Free Cash Flow, 1997–2000[40] (Dollars in millions)

	1997	1998	1999	2000
Cash Flow from Operations	$211	$1,640	$1,228	$4,779
Less: Cash flow from investments (Cash investments in operations)	($2,146)	($3,965)	($3,507)	($4,264)
= Free Cash Flow from Operating Activities	($1,935)	($2,325)	($2,279)	$515

In summary, the red ink as indicated by free cash flows from 1997 to 2000 was massive. This had to be made up by constant trips to capital markets for equity and debt issuance, speeding its collapse when the capital market windows finally shut down in late 2001 in response to its accounting revelations.

Given that Enron's net income margins had also declined from over 4% of revenue to less than 1%,[41] the negative free cash flows should have been a major red flag for any analyst trying to value Enron's equity. It certainly caught the attention of hedge fund manager Jim Chanos of Kynikos. He was quoted as saying, "No one could explain how Enron actually made money. . . . Not only was Enron surprisingly unprofitable, but its cash flow from operations seemed to bear little resemblance to reported earnings."[42]

6. CONCLUSION

One could go on with more red flags. There are the pro-forma earnings headlined by the company with increasing audacity in every quarterly earnings report, starting from late 1999. Or those inscrutable footnote disclosures about related party transactions, including ventures controlled by a "senior officer" of the company. Or the deal-based compensation system, which rewarded managers for bringing in projects with estimated profits rather than for executing ventures to generate real profits.

While there were red flags aplenty, the fact that there were all these accounting red flags that could be identified through financial analysis does not in any way shift the blame of Enron's failure to its investors. As Dharan stated in his address to Congress, the Enron meltdown was the result of a massive failure of corporate control and governance.[43] Enron did make numerous bad business decisions, including expensive energy projects such as Dabhol, overpaid investments in water projects such as Azurix, and ill-timed ventures into broadband trading. But in the end, the revelations in late 2001 of the company's Byzantine efforts to hide assets in special purpose entities,

[40] *See supra* note 19.

[41] *See supra* Table 3, p. 15.

[42] Bethany McLean, *Why Enron Went Bust*, FORTUNE, Dec. 24, 2001, at 58.

[43] Dharan Testimony, *supra* note 7.

whose viability and existence depended on maintaining the high value of inherently fragile Enron stock, caused the company to implode—revealing to investors how the company's board and management had failed at even the most basic aspects of corporate governance and control.

Enron's problems were also exacerbated by a compensation and performance management system[44] that contributed to a dysfunctional culture that in turn fostered an excessive short-term earnings focus. The obsessively compensation-driven culture encouraged high volume deal-making, often without regard to the quality of cash flow or profits, and getting accounting numbers booked as fast as possible to maintain the fragile underpinning of Enron's stock price, thus assuring that the deal-makers and executives would receive large cash bonuses and stock option exercise gains.

Although the Enron debacle has passed into history, the wide ranging dysfunction, conflicts of interest, and breakdown of governance standards and management practices have gone a long way to damage investor confidence and weaken the credibility and effective functioning of our governance institutions. Until more reforms and strengthened corporate governance practices are implemented, it will be a difficult road ahead to restore investor confidence and the healthy functioning of market intermediaries in the accounting, consulting, legal services, banking, investment advisory, and credit rating sectors. We hope that Enron will be a catalyst for stimulating innovative solutions to address these wide-ranging business challenges.

[44] Paul Healy & Krishna Palepu, *Governance and Intermediation Problems in Capital Markets: Evidence from the Fall of Enron*, J. OF ECON. (forthcoming 2004) (Harv. Bus. School working paper 03-027).