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THE ENRON COLLAPSE

Professor Stewart Hamilton wrote this case with assistance from Research Associate Inna Francis as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business situation.

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When Enron filed for bankruptcy protection on December 2, 2001, the financial world was shocked. How could this high profile leader in the world of energy trading have failed? The employees, many of whom had a large part of their retirement and other savings tied up in Enron shares, were devastated. Not only were they likely to be out of a job but they also faced financial ruin.

Enron was the seventh largest company by revenues in the United States. It employed 25,000 people worldwide. The readers of *Fortune* magazine had voted it as one of the most admired companies in the United States. Its performance had been lauded in the media, and business school cases had been written holding it up as a glowing example of the transformation of a conservative, domestic energy company into a global player. In fact, other, more traditional, energy companies had been criticised for not producing the performance that Enron had apparently achieved.

Indeed, the consulting firm McKinsey had frequently cited Enron in its *Quarterly* as an example of how innovative companies can outperform their more traditional rivals.

As more and more facts emerged, it became clear that Enron had many elements of a "Ponzi" scheme*. The drive to maintain reported earnings growth, and thus the share price, led to the extensive use of "aggressive" accounting policies to accelerate earnings. In particular, the "Special Purpose Entities" (SPEs) Enron used to move assets and liabilities off the balance sheet attracted the most attention. The financial involvement of Enron officers and employees in the SPEs increased that interest.

* A swindle, also known as a pyramid scheme, that involves "borrowing from Peter to pay Paul". It is named after Charles Ponzi, who, in the 1920s, conned tens of thousands of people in Boston into investing in international postal reply coupons by offering to pay vast amounts of interest, which he paid using the investments.

Background: Founding of Enron and Growth of the Traditional Business

The advent of energy deregulation in the late 1970s in the United States, which started with allowing open market prices for new natural gas discoveries, was to fundamentally change the way that energy was produced and traded.

Kenneth Lay, who at one point in his career had been an energy economist at the US Interior Department, rising to the rank of Under Secretary, was a convinced "free marketeer". After his stint in Washington, he first joined an energy company in Florida and ultimately ended up as CEO of Houston Natural Gas. After he engineered the merger with InterNorth, a larger traditional gas pipeline company, to form Enron in 1985, he became chairman and CEO of the new entity.

This combination created the largest company-owned natural gas pipeline system in the United States of some 37,000 miles stretching from the border of Canada to Mexico and from the Arizona-California border to Florida. It also had significant oil and gas exploration and production interests, which later would be spun off as a separately quoted company.

Lay, with the help of Richard Kinder as chief operating officer (COO), set about building up Enron through a series of new ventures and acquisitions. Many of these were financed by debt, including some deals underwritten by the "Junk Bond King", Michael Milken of Drexel Burnham Lambert. In the meantime, Enron had to buy off a potential hostile bidder, a hangover from the merger, which cost the company some $350 million. By the end of 1987, Enron's debt was 75% of its market capitalisation. Thereafter, managing the debt burden was to be one of Enron's constant preoccupations.

Kinder, a lawyer by training, was a traditional oil and gas man who insisted on rigorous controls and who had a reputation for being a fair but tough manager. He was considered the perfect foil to Lay.

Lay knew that, as energy deregulation progressed, the process would create commercial opportunities for the more farsighted energy companies, and would open the way to energy trading. Anxious to take advantage of the new environment, in 1985, Enron had opened an office in Valhalla, New York to trade oil and petroleum products. However, unauthorised dealing by two employees led to substantial losses and the office was closed in 1987. Enron took a charge of $85 million, and one of the employees concerned was jailed for fraud.

In 1989, Lay hired Jeffrey Skilling, a Harvard MBA and the partner in charge of McKinsey's energy practice in Houston, to be head of Enron Finance. Skilling had advised Lay on how to take advantage of gas deregulation. In particular, he had been responsible for Enron's establishing a "gas bank", a mechanism to provide funding for smaller gas producers to enable them to invest more in exploration and development and, at the same time, provide Enron with reliable sources of natural gas to feed its pipeline system. The following year Enron Gas Services was formed as a trading and marketing arm.

At the end of the 1980s, the vast proportion of electricity generated in the United States came from coal fired or nuclear power stations. Gas fired plants were not favoured because of concerns about the reliability of supply and the stability of the price of gas. Enron, in order to grow its market, had to find new industrial customers for its gas.

The big breakthrough came in January 1992, with a 20-year deal with Sithe Energies to supply all the natural gas for a 1,000-megawatt electricity generating plant that Sithe was constructing in New York. This was a huge deal involving an estimated $3.5 billion over the lifetime of the contract. The price was fixed for the first five years and thereafter would fluctuate with the market. The terms were sufficiently good to persuade Sithe to use gas instead of coal to power the plant. Other similar deals soon followed. The advantage for the power producer was that knowing the price of gas for the early part of any project eliminated a major uncertainty and made it easier to raise the necessary finance.

The Overseas Expansion of Enron's Traditional Energy Business (1990-2000)

In the early 1990s, Enron substantially increased its foreign activities, driven by Rebecca Mark who had joined Enron in 1985 and was responsible for international power and pipeline development. Enron later sponsored her to do a Harvard MBA. In 1992, Enron signed the contract for the Dabhol power project in Maharashtra State in India*, which, at around $3 billion, was the largest direct foreign investment ever in that country.

In its drive to become a global player, Enron bought energy plants in Brazil and Bolivia and an interest in a 4,000-mile Argentinian pipeline system that delivered two-thirds of that country's gas. In 1993, Enron built a gas turbine power plant on Teesside in England, its first foray into the European energy markets. It was granted permission to do so by Lord Wakeham, a UK energy minister, and an English chartered accountant (CA), who subsequently joined Enron's board. By 1994, Enron was operating power and pipeline projects in 15 countries and developing a similar number in several others.

In July 1998, as part of its strategy to build a worldwide water utility company, Enron purchased, for $2.2 billion, Wessex Water in the UK and formed a new company, Azurix. The intention was to develop and operate water and wastewater assets including distribution systems and treatment facilities and related infrastructures. Azurix pursued such projects in Europe, Asia and Latin America.

The Trading Operations (1985-1995)

The piecemeal process of deregulation, which had started in 1985, continued over a number of years, and during this time, while it was expanding its traditional

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* This was a joint venture with GE and Bechtel, the international construction giant.

business with heavy overseas expansion, Enron increased its trading activities. Recognising that this required new skills, in 1989 the company entered into a joint venture with Bankers Trust to set up a financial trading desk. This arrangement was short-lived, ending in 1991, but helped establish Enron as a major player. Thereafter, Enron hired its own traders from the investment banking and brokerage industries and, increasingly, newly graduated MBAs from high-ranking business schools.

In 1990, Skilling hired Andrew Fastow from Continental Illinois Bank to help run Enron Capital and Trading. Fastow's background was in asset securitisation and structured finance. His role would be to develop the company's funding business and to obtain and manage the debt and equity capital to fund its third-party finance business.

One major innovation was the development of "Volumetric Production Payments" (VPPs) in 1990. To get round the problem in the gas industry of the large number of small producers who lacked access to capital to improve their facilities and to search for new reserves, Enron provided liquidity by prepaying for long-term fixed-price gas supplies, with the payment secured on the gas itself and not on the assets of the producer. This reduced the risk of default to Enron who had first call on a proportion (usually half) of the gas from the field. In effect, Enron was being repaid in gas rather than cash. This arrangement also meant that Enron had secure long-term natural gas supplies. To finance these up-front payments, Enron sold the rights to future cash flows from each deal to investors in a series of off balance sheet vehicles (usually limited partnerships).

The first VPP deal was with Forest Oil, where Enron paid $44 million for the right to receive 32 billion cubic feet of gas over the next five years. Many similar deals followed.

Enron's first trading activities were straightforward, but this would soon change.

Initially confined to contracts for physical delivery, the trading extended to gas and, after deregulation, electricity futures. The industry, led by Enron, lobbied hard for exemption from the normal regulatory oversight of derivatives trading in order to avoid restrictions on margin trading and other potential limitations. In early 1993 Wendy Gramm, as outgoing chairman of the US Commodities and Futures Trading Commission (and the wife of the senior US senator for Texas), granted that exemption. Sometime afterwards, she joined Enron's board as a non-executive director.

The development of trading was greatly assisted by the decision, in 1990, of the New York Mercantile Exchange (NYMEX) to trade futures on the delivery of gas to the Henry Hub, a major gas depot in Louisiana where 14 inter- and intra-state pipelines converged. This would mean the availability of transparent prices. This added to Enron's existing information advantage about pricing that came from being a major supplier in the gas market.

After obtaining exemption from regulation as a utility company in 1994, Enron began buying and selling electricity.

Prior to deregulation, the industry was vertically integrated, from the generation of electricity to its transportation, distribution and sale into a captive market. While low risk, it was capital intensive and heavily regulated. Success came through technical expertise and economies of scale and the whole industry was characterised by slow trends requiring a long-term view. Deregulation effectively "unbundled" the industry value chain so that companies were free to choose in which parts to operate. In other words, it was not necessary to be a generator or a transporter in order to market and sell power to the end customer. One could source the electricity from generators and rent transmission capacity or indeed trade it like any other commodity. Enron's strategy was to focus on the high value added activities such as trading and retail sales, and optimise them independently of one another.

Internal Conflicts

Within Enron, almost from the day in 1990 that Jeff Skilling had joined the company, there had been conflict over the strategic direction to be followed. On the one hand, Rebecca Mark favoured investment in traditional power generating assets, both in the United States and overseas, and on the other, Skilling favoured an "asset light" strategy. He believed that Enron would make more money by trading in energy rather than generating and supplying it.

Richard Kinder is credited with containing the dispute, but matters came to a head with his unexpected departure in 1996. Many insiders believed that, had Senator Bob Dole won the presidential election in November 1996, Ken Lay would have been offered a cabinet-level post in Washington. Instead, with Clinton safely back in the White House, Lay signed on for a further five years as CEO. Unwilling to remain as number two for that length of time, Richard Kinder resigned to form his own company. As a result, Skilling became president and chief operating officer (COO) of the company, and was thus free to pursue his "asset light" vision. As an Enron employee, a traditional Texan Republican, trying to explain the collapse said, "It was all Bill Clinton's fault."

Skilling quickly promoted Fastow to chief financial officer (CFO). Although not a certified public accountant (CPA), Fastow would, in 1999, be voted by *CFO magazine* the "most creative financial officer of the year" in the US.

The consequence of the dispute between Mark and Skilling, both of whom were pretenders to Kenneth Lay's mantle as CEO[*], was that Enron continued to pursue dual strategies of investing heavily in physical assets and simultaneously expanding its trading activities. Both strategies required significant investment and placed considerable strain on the company's balance sheet and, therefore, on its investment ratings.

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[*] Skilling would succeed Lay as CEO in February 2001.

Enron Trading (1996-2000)

By the time Skilling took over from Kinder in 1996, the US energy market was essentially fully open and Enron was able to exploit the expanded opportunities. Enron's aggressive electricity trading was to cause considerable controversy in California, where Enron was accused (with others) of seeking to manipulate supplies and thus prices during the power crisis in the summer of 2000.

On the trading front, Enron had started off with oil and gas futures, and long-term supply contracts and hedges. Later, the portfolio extended to more exotic items including weather derivatives. The rationale for these was that an energy supplier concerned that the weather was going to be too warm, and that its customers would consequently consume less energy, would want to find a way of hedging this income shortfall. As markets for existing products matured and competition eroded margins, Enron had to find new and more innovative instruments to trade. These would include things as diverse as wood pulp futures and oil tanker freight rates. Ultimately there were over 1,200 separate trading "books"[*] including broadband capacity, which would give rise to some special problems.

In late 1999, EnronOnline was launched, creating an electronic trading floor for oil and gas in the United States and Canada, and quickly expanded to other products and countries. Although it was developed at the relatively low cost of $15 million, it required a large amount of working capital to fund the "book". Enron used the short-term commercial paper market for this, a market that was to dry up in the immediate aftermath of September 11, 2001, which would pose major liquidity problems.

"Mark-to-Market" Accounting

The Volumetric Production Payments (VPPs) Enron introduced in 1990 opened the way for the use of "mark-to-market" accounting[♣] for contracts. The Enron board agreed to adopt this policy for the 1991 annual report.

The VPPs were in effect contracts that had a predictable future cash flow and could be treated as "merchant assets"[♦]. Following this logic, Enron applied to the Securities and Exchange Commission (SEC) to be allowed to mark these assets to market. This permission was granted for 1991 on an exceptional basis and thus Enron became the first company outside the financial sector to adopt this method.

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[*] The "book" is the portfolio of contracts to buy or sell the futures, options or other derivatives that are being traded.

[♣] An accounting method that adjusts the valuation of a security or other asset to reflect current market values, with the paper gain or loss taken through the income statement.

[♦] "Merchant assets" were those assets (including options and futures contracts) held on Enron's books that could be traded at any time if they received a suitable offer.

Although the permission was supposed to be temporary, the SEC seems to have forgotten to revisit it, thus paving the way for Enron to make increasing use of this accounting treatment in the ensuing years. The result was to allow Enron to take up front most, if not all, of the anticipated profits on such contracts, and of course the requirement to write them down if their value diminished.

The basic methodology was simple. To create a merchant asset or "monetise" a deal, the trader would forecast the future price curve for the underlying product, calculate the future cash flows and apply a discount rate to compute the net present value which could either be sold to an SPE created for that purpose or kept on Enron's books as a merchant asset. For some products, e.g. gas futures, market prices could be obtained from NYMEX but usually for a limited time horizon, say four years. Enron extended the mark-to-market principle to much longer contracts, for which it had to derive its own price curves, and as one trader put it, for some products where Enron was the only supplier, it was more a case of "marking to Enron".

Enron had a large risk assessment and control group, headed by the chief risk officer (CRO), Rick Buy, who had been with Bankers Trust. The group was split into four departments: credit, underwriting, investment & valuation and trading. This last was supposed to ensure that the traders' pricing was appropriate for the risks being assumed. However, sometimes the level of activity was such that it had time to do little more than check the arithmetic rather than to question the underlying assumptions.

Enron's Reported Financial Performance

In the five years from 1996 to 2000, Enron reported consolidated net income rising from $580 million to $970 million, with a blip in 1997 (*refer* ***to Exhibits 1, 2*** *and* ***3*** *for last published accounts*). This was in marked contrast with the tax losses of $3 billion declared to the Internal Revenue Service (IRS) for the four years to 1999.

Over the four years to December 2000, while revenues from the traditional physical asset energy-generating business grew relatively slowly, reported revenues from trading grew exponentially to become 80% of Enron's turnover, which leapt from $40 billion in 1999 to $100 billion in 2000.

The Role of Andersen

This is not the familiar story that "recessions uncover what the auditors do not".

Arthur Andersen had been Enron's auditors[*] since the company's formation in 1985. In the years leading up to the collapse, David Duncan had been the client

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[*] Andersen performed not only external but also internal auditing for Enron.

engagement partner based in Andersen's Houston office, and within the firm, was known to be a "client advocate" with a reputation for "aggressive accounting".

Enron was one of Andersen's largest clients, generating audit fees of $25 million and additional consulting fees of $26 million in 2000. A large team of Andersen staffers was based in Enron's offices and Enron had many employees who had joined from the audit firm. Skilling was on record as saying that one of Andersen's most useful services was to provide a pool of accounting talent that Enron could tap.

Within Andersen, Enron was known as difficult and demanding and was included in its "high risk" category of client. Internal Andersen memos reveal concerns being expressed by technical partners as early as 1999, and one of them, Carl Bass, was removed from the engagement after Enron complained that he was being deliberately obstructive. There were particular doubts about the accounting treatment of some of Enron's off balance sheet activities. The memos (and e-mails), released by the US House Committee on Energy and Commerce in April 2002, show that the local engagement partner and his team were able to override the advice of the specialists even though David Duncan was aware that "these…policies...push limits and have a high risk profile…others could have a different view".

The accounting policies Enron adopted, and which Andersen sanctioned, were unusual for a non-financial company. As one employee recounted:

> The issue, which was unnerving, was their focus on immediate earnings (accounting not cash). Whenever a transaction or business plan was presented, the focus was on how much earnings the deal would bring rather than if it made business sense or made cash. Another example is the way they conducted their trading business: Enron would create forward price curves on commodities, based in many cases on rather sketchy data or pricing points. Using these curves, Enron would enter into long-term transactions with counter parties (10 years was usual in illiquid markets like bandwidth). For Enron, it didn't matter if they lost money in years 1-5 of a deal (i.e. sold below current market values), as long as they recovered the investment and made a "profit" on years 6-10. The reason was because Enron used "mark-to-market" accounting and would take the NPV of the ten-year deal on day one, using the sketchy curves I mentioned before as price points for discounting and, therefore, making a "profit". The fact that the company was bleeding cash in years 1-5 in exchange for potential gains in years 6-10 was usually not considered in these transactions. The only thing that mattered was "earnings".

The Enron Culture

The occupants of 1400 Smith Street, Houston regarded themselves as an elite. Enron had largely left behind the Texan "good ol' boy" culture--and certainly the culture of the regulated utility--and had embraced Lay's free market vision. Encouraged by Skilling, a highly paid army of financially literate MBAs sought innovative ways to "translate any deal into a mathematical formula" that could then be traded or sold on, often to SPEs set up for that purpose. By the end, Enron had in excess of 3,000 subsidiaries and unconsolidated associates, including more than 400 registered in the Cayman Islands.

Although the SPEs set up by Enron, often with Andersen's advice, have attracted much comment and criticism, there is nothing inherently wrong with such vehicles. In fact, almost all major companies use various forms of SPEs to manage, for example, joint ventures in foreign countries, or investments in hostile environments. What was unusual in this case was the sheer number of SPEs involved.

Skilling had introduced a rigorous employee performance assessment process that became known as "rank or yank". Under this system the bottom 10% in performance were shown the door. There was heavy pressure to meet targets and remuneration was linked to the deals done and profits booked in the previous quarter. This pressure was particularly acute at the quarter end and gave rise to the expression "Friday night specials". These were deals put together at the last moment, often inadequately documented, despite the efforts of the 200 or so in-house lawyers that Enron employed. The emphasis was on doing deals and not necessarily worrying about how they were to be managed in the future. Even internally it was recognised that project management was not a core competence.

Enron's accounting policies led to deals being struck that would be cash negative in the early years. In one example, Enron entered into a 12-year, fixed-price gas supply deal in the Far East at a price below the current "spot", and as Enron did not have its own supply it had to go into the market to purchase at the higher price. Nevertheless, the forecast price curve was such that it showed a positive net present value and a profit was booked to reflect that. The manager who had done the deal was subsequently approached by his boss towards the end of the quarter, and told that, as they were not going to meet their budget, he should revisit the deal and "tweak the numbers" to squeeze out a bit more. This he did (an action of which he is now somewhat ashamed). This process was so common, he said, that it was known as "marking up the curve".

Those who worked in Enron were reluctant to challenge such deals. One former employee described his experience:

> From a cultural perspective, what shocked me was that no one could explain to me what the fundamentals of the business were. As a new person I have always been used to asking questions--many might seem dumb, but it is part of the learning process. In Enron, questions were not encouraged, and saying things like "This doesn't make sense" was unofficially sanctioned. Further, I got the impression that many people did not understand what was going on, so asking questions would show this lack of knowledge."

Despite, or perhaps because of, all the pressure, Enron's senior employees were loyal and well rewarded. In 2000, the top 200 employees shared remuneration packages of salaries, bonuses, stock options and restricted stock totalling $1.4 billion, up from $193 million in 1998 (*refer to* ***Exhibit 4***). The board also enjoyed handsome benefits well in excess of the normal levels of remuneration paid to non-executive directors of public companies in the United States.

The belief that they were changing the world ran deep even after the problems emerged. Following Skilling's resignation as CEO in August 2001, there were some lay-offs in the trading and risk management areas, and in at least one case an individual used a substantial proportion of his severance package to buy more Enron stock in the market. Another, after hearing expressions of sympathy for the redundant employees, said:

> I would disagree on your view of the "poor employees", however. When I was there it was pretty obvious that most employees knew what was going on and the fact that many people had an overly large exposure to Enron shares was based on greed and share price growth which had taken a disproportionate part of personal assets. As an example, I clearly remember discussing the sale of shares by Skilling and other executives while they were being simultaneously talked up. This was a company-wide known fact. Of course, some of the technical and lower level employees did not understand what was going on, but I fume when I see some of the VPs on US television complaining about their egregious treatment.

The Broadband Story

Enron's venture into broadband was more opportunistic than planned. In 1997, it had acquired Portland General Electric, an Oregon electricity generator and distributor that had laid some 1,500 miles of fibre-optic cable along its transmission rights of way. Ken Rice, a long-time Enron employee and by all accounts a born salesman and rather bored with his current role, decided that this could be the great new thing. Enron, through its new subsidiary Enron Broadband Services (EBS), making use of its own substantial rights of way, started to build its own network, adding 4,000 miles in 1998 and a further 7,000 the following year. The intention was to sell capacity to heavy data users, such as Internet providers and telecom companies, on long-term contracts which could then be "marked to market", and to trade bandwidth in a manner similar to gas or electricity. Such was the speed with which this business developed that no fundamental supply and demand analysis was carried out and indeed Enron was competing with the likes of WorldCom and Global Crossing for customers in a market which had huge overcapacity. Even more worrying was that technological improvements were exponentially increasing the amount of data that could be carried by existing cable. Getting the dark fibre lit[*] considerably increased overheads, and in 2000 EBS lost $60 million on revenues of $415 million. The anticipated volumes of traffic did not materialise, which caused great problems as the only way to generate profits from cable is to get data flowing through it.

In an attempt to generate traffic, EBS announced, in July 2000, that it had entered into a memorandum of understanding with Blockbuster Video to provide "video on demand", whereby the former would provide the means of delivery and the latter the content. Small trials in four parts of the US proved that the technology worked and the service was rolled out with much fanfare in Seattle, Portland and

[*] Dark fibre is fibre that has been installed but is not yet activated; once it is activated it is referred to as being "lit".

Salt Lake City just before Christmas. However, it proved impossible to attract enough subscribers to make it pay. Fearful of the cannibalising effect of the project on its existing business if it were to work, Blockbuster walked away from the deal after a few months, leaving EBS to go it alone. This did not preclude Enron from booking a "mark-to-market" profit based on its predictions of the project's future cash flows.

However, despite this setback, by the end of that year broadband was seen as a major part of the company's future and was being promoted as such to the financial markets.

After the collapse, a former employee posted his thoughts on his MBA class website:

> OK, now that it's bust, I can tell you a little bit of what was going on--at least where I was. Imagine that you make a spreadsheet model of a business plan (in this case it was taking over the world). You discount it with Montecarlo simulations (more like Atlantic City, really), sensitise it to all possible shocks, but still make sure you obtain a huge NPV. Then you sell this "idea" to a company that does not consolidate and which finances the purchase with debt guaranteed by Enron's liquid stock (remember no consolidation). You book all the NPV (or profit) UPFRONT.

Market and Other Pressures

Enron's shares, in the late 1990s, had significantly outperformed the market (*refer to **Exhibit 5***) and at their highest price the market capitalisation of the company reached $60 billion. At this level, the share price implied a price-earnings multiple of around 60, or nearly three times the sector average. Although the "irrational exuberance" of the time may have contributed, Enron was not a simple "dot-com" story. When the Nasdaq index was falling through the floor, Enron shares continued to outperform the market.

Performing well on the stock market brings its own problems by raising market expectations. Consequently, there was tremendous pressure on Enron to maintain earnings-per-share (EPS) growth, which in turn led to the need to find new sources of revenue and new sources of capital. Large investments in major power projects needed cash. Such investments were not expected to generate earnings or positive cash flow in the short term, placing immediate pressure on the balance sheet. The much expanded trading book added to this pressure, especially after the creation of EnronOnline. Enron was already highly leveraged, and funding new investments with debt was unattractive as they would not generate sufficient cash flow to service that debt and would put pressure on credit ratings.

Enron had never been a "triple A" company, but its debt had to stay within investment grade. If it did not, this would affect the company's ability to issue further debt and would trigger bank covenants and influence the perceptions of, and its credibility with, counter parties. One answer might have been to issue new equity, but this was resisted as it would dilute EPS and in turn affect the share price.

The Enron Solution

The chosen solution was to get some of the assets and related debt off the balance sheet. This required finding outside investors willing to take some of the risk through equity participation in separate entities, which, in turn, could borrow from third parties (outside lenders). This would only work if these special purpose entities (SPEs), which are also known as special purpose vehicles, did not have to be consolidated in Enron's results, otherwise it would defeat the objective of such financial engineering.

Under US Generally Accepted Accounting Principles (US GAAP), to avoid consolidation of an SPE there must be an independent owner that would take a "substantive" capital investment in the SPE. That investment must have substantive risks and rewards throughout the period of ownership. The Financial Accounting Standards Board (FASB) had determined 3%[*] of total capital to be the minimum acceptable level of equity (raised to 10% post Enron). The independent owner must exercise control of the SPE. Investments are not considered at risk if supported by a letter of credit or other form of guarantee, or if there is a guaranteed return. Finding truly independent investors proved difficult so Enron turned to related parties.

The "Off Balance Sheet" Transactions

The first controversial deal involving an Enron employee and using an SPE was Chewco. This Limited Liability Partnership (LLP)[♣] was formed in 1997 with the purpose of acquiring the California Public Employees Retirement Scheme's (CalPERS) interest in an earlier joint venture with Enron called the Joint Energy Development Investment (JEDI), where CalPERS' initial investment of $250 million in 1993 had been valued at $383 million. Chewco was to borrow a like amount on an unsecured basis. In a rather complicated deal (*refer to **Exhibits 6a** and **6b***), the loan would be guaranteed by Enron.

The debt was provided by BZW, a subsidiary of Barclays Bank in the UK. Enron charged Chewco a fee of $40 million for providing the guarantee and booked that sum as part of its profit for the quarter. The general partners in the SPE were Enron employees or associates, in particular Fastow's assistant, Michael Kopper and his partner, William Dodson. Fastow had wanted to do this deal himself but the Enron board would not allow that to happen, so Kopper, a graduate of the London School of Economics, who had joined Enron in 1994 from Toronto Dominion Bank and had become close to Fastow both professionally and privately, took his place. Kopper would later plead guilty to a number of criminal

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[*] The other 97% could be borrowed.

[♣] In the US, a Limited Liability Partnership is one in which, except for the "general partner(s)", the partners' or investors' liability is limited to the amount they have invested. A partner is not liable for professional malpractice that does not involve that partner.

charges and agree to co-operate with the authorities in order to reduce his 15-year jail sentence.

The next significant event was the formation of LJM1 in June 1999, a Cayman Islands registered SPE. The name was derived from the first initials of Fastow's wife and two children. Aware that Enron was anxious to get more debt off its balance sheet, Fastow had taken to the board a proposal to raise $15 million from two limited partners, through an SPE, which would purchase from Enron certain assets and associated liabilities that the company wished to remove from its balance sheet. Although the Enron code of ethics prohibited Enron from having any dealings with an officer of the company because of the potential for conflicts of interests, the board gave special permission for this to proceed subject to certain checks being put in place to protect the company's interests.

The ultimate structure was a little complex and designed to ensure that Fastow was shielded from any possible personal liability. Fastow was the sole and managing member of LJM Partners LLC[*], which in turn was the general partner of LJM Partners LP[♣]. This then became the general partner of LJM1. LJM1 then entered into a number of transactions with Enron.

In one, it hedged Enron's position in Rhythms NetConnections stock (a dot-com company that Enron had bought into at $1.85 a share and which had an initial public offering (IPO) at $21, subsequently rising to $69 by the close of the trading day). In May 1999, Enron wished to protect the profit of $300 million, which, under "mark-to-market" accounting, it had already recognised. As there was a lock-up agreement that prevented Enron from selling the holding until the end of 1999, it needed to find some other way to do so. LJM1 provided such a mechanism, by granting Enron a "put option" to require an LJM subsidiary to buy the Rhythms shares at a price which would crystallise the profit. (*Refer to **Exhibit** 7 for a diagram of the deal*.)

The two parties that put up the debt finance were subsidiaries of Credit Suisse First Boston (CSFB) and NatWest (now part of the Royal Bank of Scotland group), whose loans were secured by options on Enron's shares. These options, once exercised, would cover them for any reduction in the lenders' collateral.

A few months later, Fastow put a more ambitious proposal to the board that he would raise $200 million of institutional private equity in order to purchase assets that Enron wanted to syndicate. At that level, the leverage potential was huge. The board agreed that he could go ahead, and so LJM2 was formed in October 1999 as a Delaware limited partnership. Merrill Lynch prepared a private placement memorandum for a co-partnership with LJM2, which ultimately had some 50 limited partners, which included well-known financial institutions such as

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[*] Limited Liability Company

[♣] Limited [Liability] Partnership

GE Capital, Citigroup, Deutsche Bank and JP Morgan. Enron was a significant purchaser of investment banking services, and Fastow was the gatekeeper.

The memorandum clearly identified Andrew Fastow, together with Kopper and Ben Glisan, as the managers and, in an unusual twist, highlighted their use of inside information:

> …their access to Enron's information pertaining to potential investments will contribute to superior returns.

Glisan had joined Enron three years earlier from Andersen and was described as being responsible for the deal structuring of the company's "highly complex non-recourse or limited recourse joint venture and asset-based financings".

Enron's own disclosure was less frank. In a note to the 2000 Annual Report, on page 48, it simply said, "In 2000 and 1999, Enron entered into transactions with limited partnerships (the Related Party) whose general partner's managing member is a senior officer of Enron." The note then went on to outline some of the transactions.

The Impact of These Deals

At the end of Quarter 3 and Quarter 4 of 1999, Enron sold interests in seven assets to LJM1 and LJM2. Enron bought back five of the seven assets shortly after the close of the respective financial reporting periods. While the LJM partnerships made a profit on every transaction, the transactions generated Enron "earnings" of $229 million in the second half of 1999 (out of $570 million).

In June 2000, Enron sold $100 million of dark fibre optical cables to LJM, on which it booked a profit of $67 million. LJM sold on cable for $40 million to "industry participants" and the remainder to another Enron-related partnership for $113 million in December. Between June and December, these deals suggested that the value of fibre had increased by 53% while the open market value had fallen 67% in the same period.

Fastow is reported to have profited to the extent of $45 million from these deals.

The Raptor Vehicles

In addition to the LJM transactions, Enron entered into a series of deals with the so-called Raptors, the purpose of which seems to have been the hedging of Enron's own investments. (*Refer to **Exhibit 8** for an example of the complexity of the structures.*) The deals were complicated and the nature and extent of the inter-company liabilities, undertakings and commitments were difficult to grasp. Most appear to be predicated on Enron's share price being maintained as Enron shares had been used to fund the vehicles. Although the existence of these entities had been disclosed in Enron's accounts and SEC filings, the financial exposure had not been made clear (*refer to **Exhibit 9**, Inadequate disclosure*). The company had been renowned for being less than open with the analysts and financial press as to exactly what their business was, and they were notoriously reluctant to give information. An example of this was Lay's comment in October 2000:

> We are an energy and broadband company that also does a lot of other stuff.

Storm Clouds Gather

In February 2001, Lay, while remaining as chairman, handed over the role of CEO to Jeff Skilling. Meanwhile, Enron's investment in the broadband business, and its continuing overseas operations, were placing a strain on its liquidity position.

In the course of 2000, a number of problems had emerged. The power project in India had run into political difficulties and the local state government was refusing to honour its obligations under the contract. In fact, the plant was shut down in 2001. In Brazil, the issue had arisen of impaired asset values compounded by the devaluation of the local currency. The Azurix venture had already resulted in write-downs of $326 million relating to assets in Argentina, and the Wessex Water business in England was experiencing both financial and operational difficulties.

Both inside and outside Enron, Rebecca Mark was widely regarded as being responsible for the difficulties and she had resigned in August 2000.

Furthermore, the broadband venture was losing money, with no short-term likelihood of generating profits, while continuing to suck up capital expenditure. To make matters worse, the fall in the value of Enron's share price was likely to trigger its guarantee obligations in relation to many of the SPEs.

To compound these problems, some hedge funds had become short sellers of Enron stock. On March 5, 2001, *Fortune* published an article by Bethany McLean in which she questioned the current stock market value of Enron. Her main arguments were that it was very difficult to ascertain how the company was making its profits, that these profits did not seem to be generating a commensurate amount of cash, and that there was a lack of transparency in Enron's reporting and its handling of media questions. In the meantime, Enron's share price continued to slide.

A real blow came on August 14, 2001, when Skilling resigned after only six months as CEO citing "personal reasons". Lay resumed the role of CEO. Subsequently, in an interview with *Business Week*, Lay said, " There's no other shoe to fall," and went on to add, "There are absolutely no problems [….]. There are no accounting issues, no trading issues, no reserve issues, no previously unknown problem issues. The company is probably in the strongest and best shape that it has ever been in."[1] Enron watchers, fearing there was more to the story, were not convinced and the share slide continued.

At the same time as seeking to reassure investors, Lay was cashing in his share options, netting himself in the process more than $100 million. As a rather jaundiced employee put it after the crash:

> If the business works, super, if it doesn't then you have to take a hit. Fun, hey? Meanwhile, as CEO, you take all your compensation in equity. You find out that as long as you keep making this paper money, the shares go up. Woohooo! But, oh shit! Something's going on--maybe the world is pretty hard to take over. "I think I'll sell my shares," says he. Of course, he keeps talking the stock up, while the guy is selling his shirt as fast as possible.

The Downfall

On August 15, the day after Skilling quit, an Enron employee, Sharon Watkins, herself an Andersen alum who was working in Fastow's team, had sent a memo to Ken Lay expressing fears over the company's accounting practices, particularly with regard to the Raptor transactions and asked whether Enron had become a "risky place to work". She expressed the view that "Skilling's abrupt departure will raise suspicions of accounting improprieties and valuation issues."

Lay, who briefly met with Watkins a few days later, passed her memo to Enron's principal legal advisors, Vinson & Elkins. This well-respected Houston legal firm, which had advised on some of the transactions being questioned, concluded that there was no need to get a second opinion on the accounting policies.

Watkins also called someone she knew at Andersen and voiced her concerns. Andersen had been uncomfortable for some time with Enron's accounting practices that it had previously accepted. Revisiting some of the SPEs, particularly in relation to the 3% rule, it decided that, at least in the case of Chewco, there had been a breach and that Chewco would have to be consolidated. It also looked again at the Raptor transactions and came to the same conclusion. Accordingly, it advised Enron that the accounts would need to be restated.

On October 16, in a conference call with analysts, Lay disclosed a $1.2 billion write down of shareholders' equity, focusing attention on the SPEs. Fastow was fired on October 24 and the SEC announced an investigation into Enron's accounting practices and related party transactions.

Little over a week later, on October 26, Enron's board announced the establishment of a Special Investigation Committee chaired by the newly and specially appointed William Powers Jr., Dean of the University of Texas School of Law, with existing board members Raymond S. Troubh and Herbert S. Winoker. The committee was given a very limited remit, which was "to address transactions between Enron and investment partnerships created and managed by Andrew Fastow, Enron's former Executive Vice President and Chief Financial Officer, and by other Enron employees who worked with Fastow".[2]

Against this background, Enron's management were in frantic discussions with their many bankers--trying to win some breathing space--and with the rating agencies--trying to persuade them not to downgrade Enron's stock. And all the while they were trying to find a "White Knight" to bail them out.

In the meantime, Enron implemented a bonus plan for some 60 key traders and about 500 other employees whose retention was thought critical to enable the company to continue to operate in the future. In order to qualify, an employee had to agree to repay the bonus plus 25% if they left within 90 days. The plan cost the company $105 million.

Enron's great local Houston rival, the much smaller Dynergy Inc., announced a bid to acquire Enron but withdrew it on November 28, having done some due diligence. Moody's, the rating agency, downgraded Enron's debt to "Junk", (Ca), on November 29, with the inevitable result of forcing Enron to seek protection from its creditors a few days later.

The speed of the collapse surprised many. After all, the rating agencies had been slow to indicate a credit risk problem and most financial analysts following the stock were still rating it a "buy" or "hold". Indeed, in June, David Fleischer, an analyst with Goldman Sachs, had described Enron as " a world-class company" and as "the clear leader in the energy industry". While acknowledging that Enron's "transparency" was "pretty low" and that "[the company] had been indifferent to cash flow as it sought to build businesses", his view was that "an investment in Enron shares right now represents one of the best risk/reward opportunities in the marketplace". This was not untypical.

The Post-Mortems

Working with commendable speed, the Powers committee team interviewed a number of the main Enron employees involved (although not all were willing to co-operate) and examined numerous documents. The committee claimed that they were denied access to Andersen personnel and papers (an allegation strongly refuted by Andersen), which limited their enquiries. Their report[3] was published on February 1, 2002 and posted on the Internet. Contrary to many expectations, although restricted in scope and without access to some information that may have assisted, Powers and his colleagues produced a report that contained some damning criticisms of many involved, including the board themselves. (*Refer to **Exhibit 9** for excerpts from the report.*)

Their principal conclusion was that "many of the most significant transactions apparently were designed to accomplish favourable financial statement results, not to achieve bone fide economic objectives or to transfer risk". They went on to say "[………], the LJM partnerships functioned as a vehicle to accommodate Enron in the management of its reported financial results".[4]

In their summary they said:

> The tragic consequences of the related-party transactions and accounting errors were the result of failures at many levels and by many people: A flawed idea, self-enrichment by employees, inadequately-designed controls, poor implementation, inattentive oversight, simple (and not-so simple) accounting mistakes, and overreaching in a culture that appears to have encouraged pushing the limits[5].

The Enron Board

The 15 members of Enron's board were heavily criticised for their oversight failure, both by the Powers committee and, later, in a US Senate Committee Report[6].

The main accusations were that they knew of and authorised high risk accounting policies in the face of warnings from Andersen; they allowed excessive remuneration; they did not follow their own code of ethics by allowing Fastow to transact with the company and they failed to ensure that sufficient controls were in place to safeguard Enron's interests in the deals with the special purpose vehicles. This was despite the presence on the Audit committee of Dr Robert Jaedicke, a distinguished academic accountant and former Dean of Stanford Business School, and Lord Wakeham.

Aftermath

Following the collapse, there was an immediate media frenzy, much of it highly speculative, and acres of newsprint were covered. The politicians were also quick to get in on the act with numerous House and Senate investigations set up and televised hearings organised. Lay and Fastow pled the Fifth Amendment[*], as did many others. Skilling did not, but used the phrase "I don't recall" many times.

It may yet be years before the full picture emerges but that will be too late for Andersen, which imploded after being found guilty, in July 2002, of obstructing justice.

Postscript

The Enron story continues to evolve. This case has been written to provide a background to the events leading to the then biggest bankruptcy in US history. I have drawn upon information in the public domain and on interviews with a number of former Enron employees, together with internal documentation made available to me. Against the background of pending civil litigation and further criminal proceedings, those with whom I have spoken wish, at this stage, to remain anonymous.

[*] The constitutional right of an American citizen to remain silent to avoid self-incrimination.

Exhibit 1
Enron and Subsidiaries Consolidated Income Statement

	Year ended December 31		
(In $ millions, except per share amounts)	*2000*	*1999*	*1998*
Revenues			
Natural gas and other products	50,500	19,536	13,276
Electricity	33,823	15,238	13,939
Metals	9,234	-	-
Other	7,232	5,338	4,045
Total revenues	100,789	40,112	31,260
Costs and Expenses			
Cost of gas, electricity, metals and other products	94,517	34,761	26,381
Operating expenses	3,184	3,045	2,473
Depreciation, depletion and amortization	855	870	827
Taxes, other than income taxes	280	193	201
Impairment of long-lived assets	-	41	-
Total costs and expenses	98,836	39,310	29,882
Operating Income	**1,953**	**802**	**1,378**
Other Income and Deductions			
Equity in earnings of unconsolidated equity affiliates	87	309	97
Gains on sales of non-merchant assets	146	541	56
Gains on the issuance of stock by TNPC, Inc.	121	-	-
Interest income	212	162	88
Other income, net	(37)	181	(37)
Income Before Interest, Minority Interests and Income Taxes	**2,482**	**1,995**	**1,582**
Interest and related charges, net	838	656	550
Dividends on company-obligated preferred securities of subsidiaries	77	76	77
Minority interests	154	135	77
Income tax expense	434	104	175
Net income before cumulative effect of accounting changes	979	1,024	703
Cumulative effect of accounting changes, net of tax	-	(131)	-
Net Income	**979**	**893**	**703**
Preferred stock dividends	83	66	17
Earnings on Common Stock	**896**	**827**	**686**
Earnings Per Share of Common Stock			
Basic			
Before cumulative effect of accounting changes	1.22	1.36	1.07
Cumulative effect of accounting changes	-	(0.19)	-
Basic earnings per share	1.22	1.17	1.07
Diluted			
Before cumulative effect of accounting changes	1.12	1.27	1.01
Cumulative effect of accounting changes	-	(0.17)	-
Diluted earnings per share	1.12	1.10	1.01
Average Number of Common Shares Used in Computation			
Basic	736	705	642
Diluted	814	769	695

Source: Company annual report

Exhibit 2
Enron and Subsidiaries Consolidated Balance Sheet

	Year ended December 31	
(In $ millions, except per share amounts)	*2000*	*1999*
ASSETS		
Current Assets		
Cash and cash equivalents	1,374	288
Trade receivables (net of allowance for doubtful accounts of 133 and 40, respectively)	10,396	3,030
Other receivables	1,874	518
Assets from price risk management activities	12,018	2,205
Inventories	953	598
Deposits	2,433	81
Other	1,333	535
Total current assets	30,381	7,255
Investments and Other Assets		
Investments in and advances to unconsolidated equity affiliates	5,294	5,036
Assets from price risk management activities	8,988	2,929
Goodwill	3,638	2,799
Other	5,459	4,681
Total investments and other assets	23,379	15,445
Property, Plant and Equipment, at cost		
Natural gas transmission	6,916	6,948
Electric generation and distribution	4,766	3,552
Fiber-optic network and equipment	839	379
Construction in progress	682	1,120
Other	2,256	1,913
Total	**15,459**	**13,912**
Less accumulated depreciation, depletion and amortization	3,716	3,231
Property, plant and equipment, net	11,743	10,681
Total Assets	65,503	33,381
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Accounts payable	9,777	2,154
Liabilities from price risk management activities	10,495	1,836
Short-term debt	1,679	1,001
Customers' deposits	4,277	44
Other	2,178	1,724
Total current liabilities	28,406	6,759
Long-Term Debt	**8,550**	**7,151**
Deferred Credits and Other Liabilities		
Deferred income taxes	1,644	1,894
Liabilities from price risk management activities	9,423	2,990
Other	2,692	1,587
Total deferred credits and other liabilities	13,759	6,471
Commitments and Contingencies Minority Interests	**2,414**	**2,430**
Company-Obligated Preferred Securities of Subsidiaries	**904**	**1,000**
Shareholders' Equity		
Second preferred stock, cumulative, no par value, 1,370,000 shares authorized,1,240,933 shares and 1,296,184 shares issued, respectively	124	130
Mandatorily Convertible Junior Preferred Stock, Series B, no par value, 250,000 shares issued	1,000	1,000
Common stock, no par value, 1,200,000,000 shares authorized,752,205,112 shares and 716,865,081 shares issued, respectively	8,348	6,637
Retained earnings	3,226	2,698
Accumulated other comprehensive income	(1,048)	(741)
Common stock held in treasury, 577,066 shares and 1,337,714 shares, respectively	(32)	(49)
Restricted stock and other	(148)	(105)
Total shareholders' equity	11,470	9,570
Total Liabilities and Shareholders' Equity	**65,503**	**33,381**

Source: Company annual report

Exhibit 3
Enron and Subsidiaries Consolidated Statement of Cash Flows

	Year ended December 31		
(In $ millions)	*2000*	*1999*	*1998*
Cash Flows From Operating Activities			
Net income	979	893	703
Cumulative effect of accounting changes	-	131	-
Depreciation, depletion and amortization	855	870	827
Impairment of long-lived assets (including equity investments)	326	441	-
Deferred income taxes	207	21	87
Gains on sales of non-merchant assets	(146)	(541)	(82)
Changes in components of working capital	1,769	(1,000)	(233)
Net assets from price risk management activities	(763)	(395)	350
Merchant assets and investments:			
Realized gains on sales	(104)	(756)	(628)
Proceeds from sales	1,838	2,217	1,434
Additions and unrealised gains	(1,295)	(827)	(721)
Other operating activities	1,113	174	(97)
Net Cash Provided by Operating Activities	**4,779**	**1,228**	**1,640**
Cash Flows From Investing Activities			
Capital expenditures	(2,381)	(2,363)	(1,905)
Equity investments	(933)	(722)	(1,659)
Proceeds from sales of non-merchant assets	494	294	239
Acquisition of subsidiary stock	(485)	-	180)
Business acquisitions, net of cash acquired (see Note 2)	(777)	(311)	(104)
Other investing activities	(182)	(405)	(356)
Net Cash Used in Investing Activities	**(4,264)**	**(3,507)**	**(3,965)**
Cash Flows From Financing Activities			
Issuance of long-term debt	3,994	1,776	1,903
Repayment of long-term debt	(2,337)	(1,837)	(870)
Net increase (decrease) in short-term borrowings	(1,595)	1,565	(158)
Net issuance (redemption) of company-obligated			
preferred securities of subsidiaries	(96)	-	8
Issuance of common stock	307	852	867
Issuance of subsidiary equity	500	568	828
Dividends paid	(523)	(467)	(414)
Net disposition of treasury stock	327	139	13
Other financing activities	(6)	(140)	89
Net Cash Provided by Financing Activities	**571**	**2,456**	**2,266**
Increase (Decrease) in Cash and Cash Equivalents	**1,086**	**177**	**(59)**
Cash and Cash Equivalents, Beginning of Year	**288**	**111**	**170**
Cash and Cash Equivalents, End of Year	**1,374**	**288**	**111**
Changes in Components of Working Capital			
Receivables	(8,203)	(662)	(1,055)
Inventories	1,336	(133)	(372)
Payables	7,167	(246)	433
Other	1,469	41	761
Total	**1,769**	**(1,000)**	**(233)**

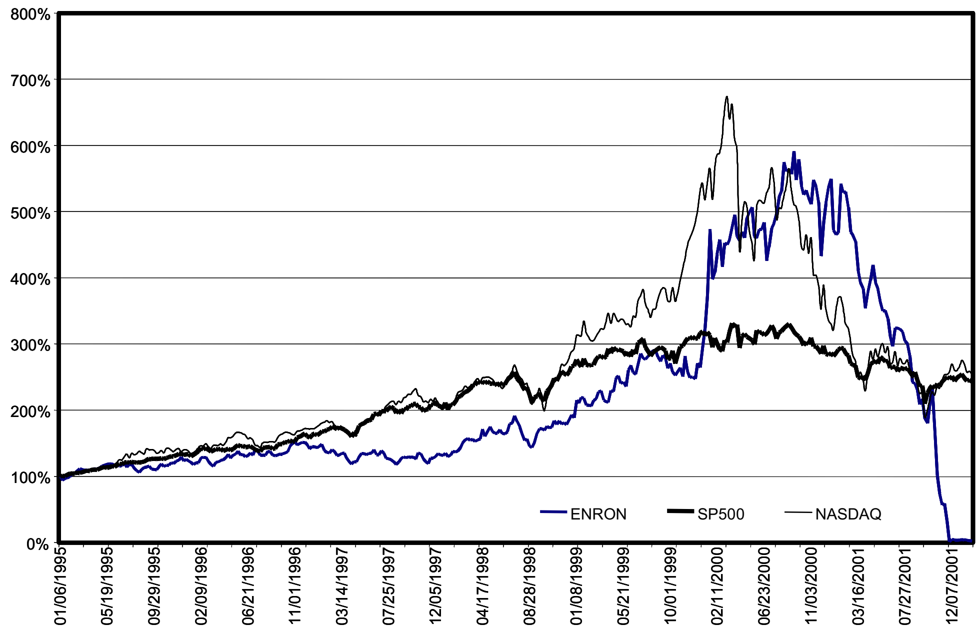
Source: Company annual report

Exhibit 4
Compensation Paid to the Top-Paid 200 Employees for 1998-2000

Year	Bonus	Stock Options	Restricted Stock	Wages	Total
1998	$41,193,000	$61,978,000	$23,966,000	$66,143,000	$193,281,000
1999	$51,195,000	$244,579,000	$21,943,000	$84,145,000	$401,863,000
2000	$56,606,000	$1,063,537,000	$131,701,000	$172,597,000	$1,424,442,000

Extracted from: "Written Testimony of the Staff of the Joint Committee on Taxation on the Report of Investigation of Enron Corporation and Related Entities Regarding Federal Tax and Compensation Issues, and Policy Recommendations." US Senate Committee on Finance Hearing, February 13, 2003.

Exhibit 5
Enron Share Price Movements



Source: Datastream

Exhibit 6a
Chewco Deal (simplified)

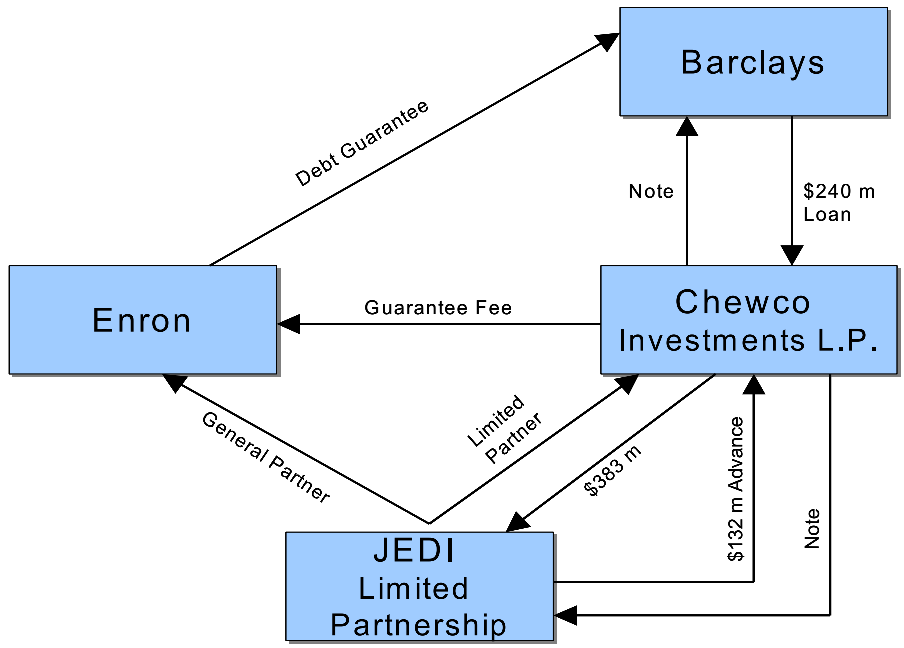
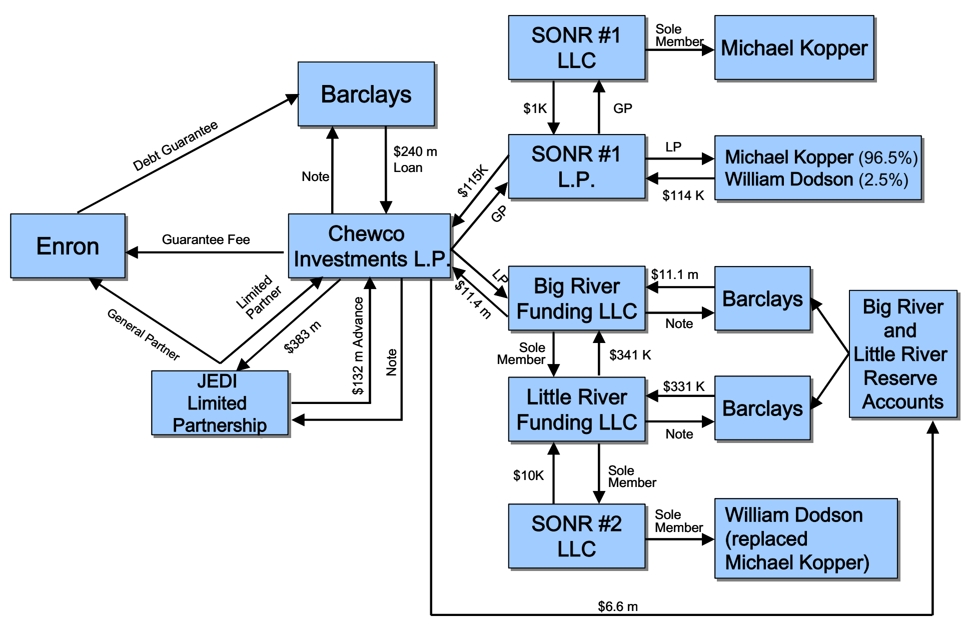
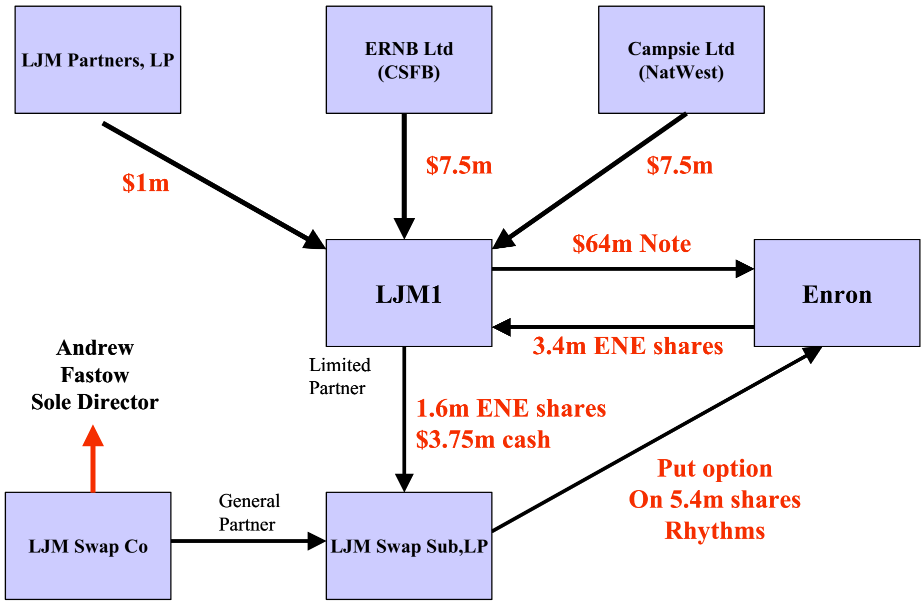


Exhibit 6b (detailed)



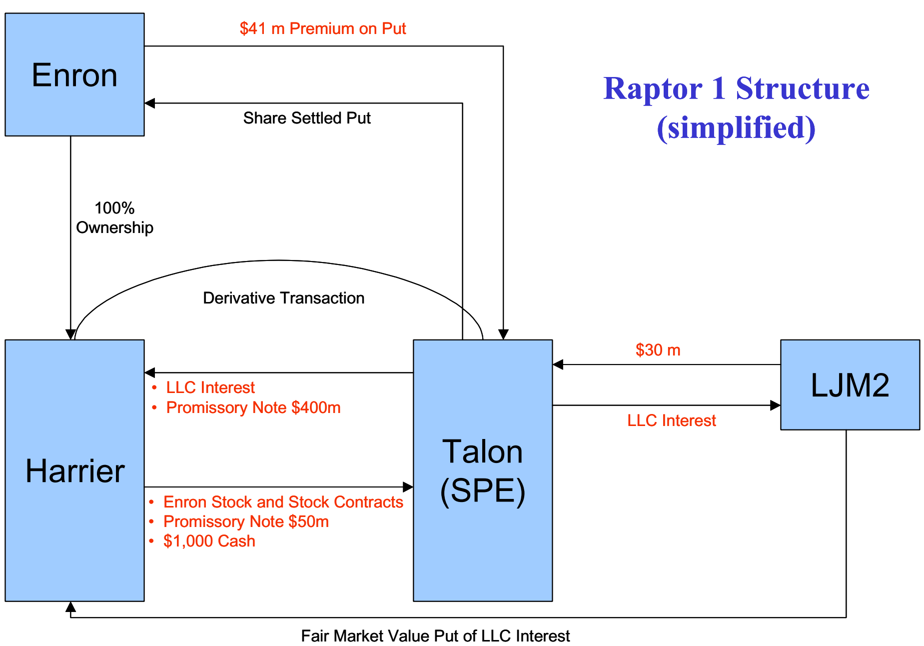
Source: Powers committee report

Exhibit 7
LJM1 Deal



Source: Powers committee report

Exhibit 8
Raptor Transactions



Source: Powers committee report

Exhibit 9
Excerpts from the Powers Committee Report

The Board of Directors

"With respect to the issues that are the subject of this investigation, the Board of Directors failed, in our judgement, in its oversight duties."

Op. cit., p. 22

Poor controls

"These controls as designed were not rigorous enough, and their implementation and oversight was inadequate at both Management and Board levels."

Op. cit., p. 10

And the CEO's role…

"Skilling,…, bears substantial responsibility for the failure of the system of internal controls to mitigate the risk inherent in the relationship between Enron and the LJM partnerships."

Op. cit., p. 21

The auditor's role…

"…, Andersen also failed to bring to the attention of Enron's Audit and Compliance Committee serious reservations Andersen partners voiced internally about the related party transactions."

Op. cit., p. 25

Creative accounting

"… accounting judgements that,…, went well beyond the aggressive…, the fact that these judgements were, in most if not all cases, made with the concurrence of Andersen is a significant, …, fact."

Op. cit. p. 27

Inadequate disclosure

…However these disclosures were obtuse, did not communicate the essence of the transactions completely or clearly, and *failed to convey the substance of what was going on between Enron and the partnerships*".

Op. cit. p. 1

And a lack of understanding…

"It appears that many of [the board] members did not understand those transactions--the economic rationale, the consequences, and the risks."

Op. cit., p. 23

Source: Enron Special Committee report, February 1, 2002 (the Powers Report)

Notes

[1] *Business Week online* August 24, 2001
[2] Enron Special Committee report, February 1, 2002 (the Powers Report)
[3] Op. cit., p. 4
[4] Op. cit., p. 4
[5] Op cit. p. 1
[6] Report of the Permanent Subcommittee on Investigations of the Committee of Governmental Affairs, United States Senate, July 8, 2002.