

Chapter 2

Enron as of 31 December 2000*

Assume financial analysts were limited to using the year 2000 annual report of Enron to evaluate the financial affairs of the company. Of course, financial analysts should use information beyond the publicly available financial information if they can legally obtain it. In this chapter we analyze Enron's likelihood of bankruptcy using only its year 2000 annual report.

At what stage should the security analysts have recognized that things were not well with Enron? Let us review the year 2000 annual report of Enron. First consider the net incomes and earnings on common stock for the years 1998–2000.

Year	Earnings on common stock*	Net income*
1998	686 million	703 million
1999	827	893
2000	896	979

*p. 31 of the annual report.

*All page references in this chapter are to Enron's year 2000 annual report or to the Skilling–Lay trial proceedings unless otherwise indicated.

Both the \$896 and \$979 million earnings for the year 2000 are after a \$326 million charge to reflect the decrease in the value of the Azurix investment. In addition, there is a \$39 million gain on The New Power Company (TNPC) stock. This gain on the TNPC investment will be important in later discussions because Enron has taken inappropriate steps to protect that gain.

Enron reported that it earned a total of \$2409 million on common stock from 1998 to 2000, with the earnings increasing each year. There were reasons for its stock price to become “high” (but not as high as it went). A reader of the annual report may readily conclude that the Enron stock price was too high without concluding that Enron was heading toward bankruptcy.

Azurix

The \$326 million write-down of the Azurix investment reported in the annual report is important for several reasons. First, it reflected a bad investment (or a badly run investment) of Enron. In July 1998, Enron purchased Wessex Water Company for an amount equal to \$1.9 billion to \$2.2 billion, approximately a 28% premium over the Wessex stock price. This purchase premium was difficult to recover given the unfriendly regulatory climate in England (Wessex was a small English water and sewage company). Second, the accounting for Azurix figured significantly in the Skilling–Lay trial.

Rebera Mark, who had been in charge of Enron’s international trust, was in charge of Azurix. The goal was to use Wessex as a base to launch a worldwide water distribution and water treatment company. In addition to the company in England, Azurix operated in Mexico, Canada, and Argentina. Each acquisition was purchased at premium prices reflecting Mark’s optimism that the water business represented large profitable business opportunities. Thus at the very instant of acquisition, the water assets were recorded at costs materially larger than their expected fair values. (The costs were the prices paid for the assets.) Mark’s hope was that the assets were worth more than the fair value to Enron.

While the purchase of these assets at inflated prices might have been managed badly and reflected bad business judgments, there was no criminal intent in their purchase and initial accounting (as any observer would agree).

For more details of Enron's attempts to form a worldwide water business, see Fox (2003) or McLean and Elkind (2003).

The Trial

Ms Ruemmler states (p. 17694):

Mr. Lay and Mr. Skilling had been unable to sell \$10 billion or so in international assets that were dragging the company down. Mr. Skilling had estimated that those assets were worth only about half of what they were being carried on Enron's books for. An expensive venture into Enron's — into the water business — you heard about this — Azurix was just a colossal disaster.

Remember that the water business was acquired by Mark, Skilling, and Lay at premium prices in 1998–1999. Azurix went public in 1999 at \$19 a share. Skilling was not a supporter of Mark's efforts to build an international water empire. His valuation of the acquired assets was likely to be conservative.

It is not surprising that Enron management was not willing to concede defeat two years later. But Ms Ruemmler sees the refusal to write the assets down differently (p. 17820):

They could not afford to take the \$700 million Wessex goodwill loss that they needed to take, so they had to come up with a scheme to avoid that.

The most powerful motive in the world to come up with a scheme to defraud Arthur Andersen is if you know that if you take a bigger loss, that it's going to mean certain death for the company because a credit downgrade will ensue.

But in 2000, Azurix was written down by \$326 million. Maybe additional write-downs were needed, but remember this same management team paid a 28% premium over market value for Wessex to start with. It is not unusual for the current management of a firm to be reluctant to admit that they made a mistake in the amount paid for assets.

On 26 March 2002, the *New York Times* reported that Enron sold Wessex Water Company to YTL Corporation, a Malaysian company, for \$777 million cash. There was pressure on Enron (and Azurix) to convert the Wessex asset into cash; so, this was a “fire sale”.

Cash Flows

Since management can manipulate earnings, we must also consider cash flows for the three years.

	Net cash provided by operating activities*
1998	1640 million
1999	1228 million
2000	4779 million

*p. 34 of the annual report.

There are at least two cash flow items that could be adjusted. First, \$1838 million “Proceeds from sales” of merchant assets and investments for 2000 (it was \$2127 million in 1999). Since this amount for the year 2000 could be determined by the management’s decisions to sell assets, one might want to adjust cash flow expectations for the future.

Second, the amount of deposits by the California customers was not explicitly given on p. 34, but to the extent it was included in “Net Cash Provided by Operating Activities” for the year 2000, it should be excluded since it is more like a loan than a cash flow generated

from operations. The deposits of the year 2000 were expected to be repaid by Enron in 2001.

Using the above figures, the cash flow stream to investors for the three years seems to be healthy. In each of the three years 1998–2000, Enron paid an increasing amount of dividends, perhaps projecting the management’s optimism.

Cash dividends	
1998	414 million
1999	467 million
2000	523 million

Operating Segments

Enron was divided into five business segments, including an Exploration and Production unit for oil and gas discovery and production. Of the five segments, all were profitable (earnings before interest, minority interests, and income taxes) except for the start-up Broadband Services that lost \$60 million in 2000. Corporate and others (which included Azurix and Enron Renewable Energy Corp.) resulted in a \$615 million deduction from income.

A buyer of Enron stock was not likely to be buying the stock because of incomes from Broadband or Azurix. But these two units were major parts of the Government’s case against Skilling. Skilling is accused of having said good things about Broadband and Azurix, but the facts that there were losses associated with Broadband and Azurix were available to the investors.

One of the major deficiencies of Enron’s reporting is that the different types of incomes were not adequately revealed. For example, we would like to know, how much of the income was related to the holding of Enron stock (and Enron stock price increases) by non-consolidated subsidiaries? How much was the result of price changes of Enron’s merchant assets? How much was related to transactions involving financial securities and derivatives? It was not enough

for the users of the report to be given the income by operating segments.

Other Income

Enron's equity in the earnings of the firm's unconsolidated equity investments was \$87 million in 2000 (p. 31).

There is a \$121 million "Gains on the issuance of stock by TNPC, Inc." that is not well defined. It is likely to be the result of either the sale in the market of part of the Enron investment in TNPC or a change in the market value of Enron's investment. More information regarding this \$121 million gain would have been useful.

Lines of Credit

On 31 December 2000, Enron had current assets of \$30.4 billion and current liabilities of \$28.4 billion (net working capital of \$2 billion). In addition, Enron had \$4.2 billion lines of credit of which only \$290 million was outstanding (p. 27).

Certain of the credit agreements contain prefunding covenants.

Management believes that the sources of funding described above are sufficient to meet short- and long-term liquidity needs not met by cash flows from operations.

We shall find that clauses allowing potential creditors to abrogate the credit agreements and the prefunding covenants will contribute to Enron's downfall. The extent of Enron's risk should have been better defined.

Return on Sales

It is interesting to inspect Enron's return on revenue for the three years.

	Year ended December 31*		
	(dollars in millions)		
	2000	1999	1998
Total revenue	100,789	40,112	31,260
Income before interest, Minority interests, and Income taxes	2482	1995	1582
Income return on total revenue	0.025	0.050	0.051

*p. 31 of 2000 annual report.

The decrease in the return on total revenue could reflect a change in the product mix, a decrease in merchant asset gains, increasing competition, or some other factors. It is not a positive sign. The very large increase in revenue in 2000 was necessary for a relatively small increase in income.

Return on Equity

The returns on stock equity for the three years are as follows:

	Year ended December 31*		
	(dollars in millions)		
	2000	1999	1998
Earnings on common stock	896	827	686
Total shareholders' equity	11,470	9570	7048
Return of stock equity	0.078	0.086	0.097

*p. 31 and 33 of the 2000 annual report.

The returns on stock equity for the three years are at best only fair. The average shareholder will not be very pleased with the firm earning a return on equity of less than 0.10. Enron's earnings performance

for the three years was only mediocre given the \$11 billion of stock equity investment at the end of the year 2000.

Capitalization

As of 31 December 2000, the reported long-term debt was \$8550 million and total shareholders' equity (book) was \$11,470 million. When the stock price was \$80 a share, the firm's market value of stock was \$60 billion. Long-term debt was 0.427 of the total accounting capital (long-term debt plus book equity). This is not a shockingly large percentage of long-term debt.

The definition of debt could be changed from long-term debt to total debt, and in addition debt revealed in footnotes could be included, but the fact is that Enron's capitalization was in reasonable shape based on the accounting reports as of December 2000. All the rating agencies rated Enron's unsecured debt as being in investment grade. The annual report correctly states, "Enron's continued investment grade status is critical to the success of its wholesale businesses as well as its ability to maintain adequate liquidity" (p. 27). Of course, the above debt measures leave out the debt of Enron's unconsolidated subsidiaries.

Note that the following note makes reference to the early settlement of debt and to the issuance of additional shares of Enron stock, but the magnitude of the debt and the amount of potential issuance are not disclosed (p. 27):

Enron is a party to certain financial contracts which contain provisions for early settlement in the event of a significant market price decline in which Enron's common stock falls below certain levels (prices ranging from \$28.20 to \$55.00 per share) or if the credit ratings for Enron's unsecured, senior long-term debt obligations fall below investment grade. The impact of this early settlement could include the issuance of additional shares of Enron common stock.

While the above reference to stock issuance is of concern since it could adversely affect Enron's share price, it could not by itself cause

bankruptcy. If accelerated debt repayment was linked to stock price or the firm's bond rating, this could cause bankruptcy.

In February 2001, Enron issued \$1.25 billion zero coupon convertible senior notes (maturity value of \$1.9 billion) that mature in 2021. The initial conversion premium was 0.45. This will not turn out to be a good investment for the buyers of the bonds. The large conversion premium highlights how good the financial health of Enron seemed to investors who based their opinion on the publicly available information. Since they expected the stock price to increase, they were willing to buy a convertible note with a large conversion premium.

Financial Risk Management

Enron's discussion of its risk management practices takes up more than a page of its annual report. The firm uses "a variety of financial instruments, including financial futures, swaps, and options" (p. 27).

Enron managed the following risks:

- Commodity price risk;
- Interest rate risk;
- Foreign currency exchange rate risk;
- Equity risk.

We shall see that the management of equity risk is most challenging (p. 28).

Equity Risk. Equity risk arises from Enron's participation in investments. Enron generally manages this risk by hedging specific investments using futures, forwards, swaps and options.

Enron applied J. P. Morgan's RiskMetricsTM approach. The failure of Enron does not reflect on the Morgan approach but rather the impossibility of removing all risks from a corporation's operations (p. 28) and Enron's ineffective hedging actions.

The use of value at risk models allows management to aggregate risks across the company, compare risk on a

consistent basis and identify the drivers of risk. Because of the inherent limitations to value at risk, including the use of delta/gamma approximations to value options, subjectivity in the choice of liquidation period and reliance on historical data to calibrate the models.

This sophisticated description of the risk models did not apply to all Enron's hedges. Enron should have revealed that many of its hedges of investments were partial hedges (the hedge counterparty had very limited resources) that would not be effective for large value changes of the underlying assets or the value of Enron's stock.

The Audit

Arthur Andersen was Enron's auditor. The report of the independent public accountant included the conventional (standard) statement (p. 30):

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Enron Corp. and subsidiaries as of December 31 2000 and 1999, and the results of their operations, cash flows and changes in shareholders' equity for each of the three years in the period ended December 31 2000, in conformity with accounting principles generally accepted in the United States.

Arthur Andersen was not charged with any crimes in connection with the audit leading to these financial statements.

The Balance Sheet

The firm's total assets were \$65.5 billion. There were \$5.3 billion of "Investments in and advances to unconsolidated equity affiliates". Natural gas transmission assets were \$6.9 billion, and electric generation and distribution assets were \$4.8 billion. It is important to note that Enron had real assets and had real operations as well as less real trading operations (wholesale business).

There were \$904 million of “Company-obligated preferred securities of subsidiaries”. There are cleverly structured preferred stock securities that give rise to an interest deduction for tax purposes, even though they are called preferred stock. This type of securities is not unique to Enron. It is a form of security that Wall Street Investment Banks like to sell and the issuance of which the US Treasury would like to prevent (but so far the Treasury has not been successful). This type of security is named Monthly Interest Preferred Stock (MIPS).

Mark-to-Market

Enron uses mark-to-market accounting for the instruments utilized in trading activities (p. 36). Unfortunately, mark-to-market accounting was also used in cases where the market value had to be estimated rather than observed. This practice introduced an excessive amount of arbitrary and subjective evaluations into the income and asset measures.

Financial instruments are also utilized for non-trading purposes to hedge the impact of market fluctuations on assets, liabilities, production and other contractual commitments.

Securitizations

Enron sells interests in some of its financial assets. One type of sale transaction involves securitization. The securitization might take the form of a swap (p. 38). Gains on swaps in 2000 were \$381 million and the proceeds were \$2379 million. These transactions were of a material size.

Unfortunately, the footnote (3) and p. 38 do not supply adequate explanation for us to reach definite conclusions. For example, the swaps limit the risks assumed by the purchaser. Does this mean that the risk remains with Enron despite the “sale”?

There were \$545 million of sales to Whitewing Associates. Enron recognized no gain or loss on these transactions (p. 42). Page 42 gives

an amount of sales of \$632 million. Whitewing has relevance in other aspects since it is an entity with ties to Enron employees.

In addition to selling financial assets, Enron also purchased \$1.2 billion of equity interests in 2000.

Guarantees

Guarantees of liabilities of unconsolidated entities and residual value guarantees have no carrying value and fair values which are not readily determinable... (p. 39).

Generally accepted accounting principles do not require the recording of a liability for guarantees. This is unfortunate since a guarantee by a corporation creates a liability for that corporation, and Enron had a significant number of guarantees.

Merchant Activities

The total value of Enron's merchant activities for the year ending on 31 December 2000 was \$690 million, down from \$1273 million at the end of 1999. The merchant investments were carried at fair value. The decrease in value was probably related to both decreases in value and sale of assets. Pre-tax gains from sales in 2000 were of \$104 million and cash proceeds were of \$1838 million.

Substantive merchant investments were made in energy, energy-intensive industries, technology-related power plants, and natural gas transportation (p. 40). Enron's efforts to hedge the gains on these investments led to accounting errors that contributed significantly to its bankruptcy.

Income Taxes

The 2000 annual report showed that the total Federal income tax as currently payable for 2000 was \$112 million up from \$29 million in 1999 and \$30 million in 1998. Obviously, these are low tax bills for a profitable firm. The firm has had very large depreciation, depletion, and amortization deductions for taxes. A *New York Times* news

article (17 January 2002) reported that in four of the last five full years, Enron actually paid zero Federal income taxes. Subsidiaries located in tax havens facilitated this tax strategy. Another factor was that the gains on merchant assets were not realized (for tax purposes); thus Enron did not have to pay tax on a large percentage of its accounting income (which included these unrealized gains). Stock options that are taxed to its executives give rise to a tax deduction for Enron. Enron also used a preferred stock structure so that the dividends on this stock resulted in a tax deduction as if the financing were debt.

The numbers in the annual report for tax expense will mislead a reader who wants to determine the actual amount of federal income taxes paid by Enron.

The firm has a \$254 million alternative minimum tax credit carryforward. Will it ever be able to use this credit? It also has large tax loss carryforwards (p. 40).

Unconsolidated Equity Affiliates

The book value of unconsolidated equity affiliates was \$5.3 billion. For the ten unconsolidated firms listed (p. 42), the voting interest was equal to or less than 50% and was 34% or larger.

The total owners' equity of these firms was \$13.6 billion (Enron owned 0.39 of the equity). The long-term debt of these firms was \$9.7 billion. Enron's proportionate amount of this debt was \$3.8 billion. This is 0.42 of Enron's equity investment, and recognizing both the debt and equity in Enron's balance sheet (not required under accounting rules) would not change the firm's debt-capital ratio materially.

In 2000, The New Power Company sold warrants convertible into common stock of The New Power Company for \$50 million to the Related Party (described in Note 16)" (p. 43).

This transaction is more complex than that implied by the above or below "innocent" statements.

From time to time, Enron has entered into various administrative service, management, construction, supply and operating agreements with its unconsolidated equity affiliates. Enron's management believes that its existing agreements and transactions are reasonable compared to those which could have been obtained from third parties (pp. 42–43).

We will study the “unconsolidated equity affiliates” in forthcoming chapters since they contribute in significant ways to Enron's collapse.

Azurix (p. 43)

A related party subsidiary of Enron acquired an interest in Azurix. If the debt obligations of the related party are defaulted or if Enron's credit rating falls below specified levels, then Enron's convertible preferred stock will be sold to retire such debt. “The number of common shares issuable upon conversion is based on future common stock prices”. A decrease in Enron common stock price could result in an enormous amount of dilution in the Enron stock value per share.

Unfortunately, the above paragraph is not as clear as a reader might like. The above is extracted from footnote 10 (p. 43) and the footnote leaves us with many questions. How much preferred stock can be issued, and convertible on what basis?

Derivatives (p. 44)

At December 31 2000, Enron had derivative instruments (excluding amounts disclosed in Note 10) on 54.8 million shares of Enron common stock, of which approximately 12 million shares are with JEDI and 22.5 million are with related parties (see Note 16), at an average price of \$67.92 per share on which Enron was a fixed price payor.

Again there is too much not revealed. To what type of derivatives does the above note refer? If Enron was a fixed price payer what does it receive?

Pension and Other Benefits (pp. 45–46)

Enron maintains a retirement plan (the Enron Plan) which is a noncontributory defined benefit plan covering substantially all employees in the United States and certain employees in foreign countries. The benefit accrual is in the form of a cash balance of 5% of annual base pay.

On 31 December 2000, the fair value of plan assets was \$858 million for pension benefits. The benefits obligation at the end of the year was \$746 million. Unfortunately, the asset total included plan assets of the firm's ESOP of \$116 million. Assuming zero value for the ESOP, the plan assets would be $858 - 116 = \$742$ million.

While not in great shape, the pension fund assets and liabilities are reasonably close in value.

For the other benefits the firm offers, there are only \$64 million assets to cover \$124 million of obligations.

Related Party Transactions (pp. 48–49)

The existence but not the extent of related party transactions was disclosed.

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 limited partners of the Related Party are unrelated to Enron. Management believes that the terms of the transactions with the Related Party were reasonable compared to those which could have been negotiated with unrelated third parties.

The "hedging" of Enron's merchant investments is a significant contributor to Enron's collapse. In 2000, Enron entered into derivative transactions with the entities with a combined notational amount of approximately \$2.1 billion to hedge certain merchant investments and other assets. Enron's notes receivable balance was

reduced by \$36 million as a result of the premium owed on derivative transactions. Enron recognized revenues of approximately \$500 million related to the subsequent change in the market value of these derivatives, which offset market value changes of certain merchant investments and price risk management activities. In addition, Enron recognized \$44.5 million and \$14.1 million of interest income and interest expense, respectively, on the notes receivable from and payable to the Merchant Investment Entities.

The following note is the trigger of a \$1.2 billion reduction in Enron's stock equity in 2001.

In 2000, Enron entered into transactions with the Related Party to hedge certain merchant investments and other assets. As part of the transactions, Enron (i) contributed to newly-formed entities (the Entities) assets valued at approximately \$1.2 billion, including \$150 million in Enron notes payable, 3.7 million restricted shares of outstanding Enron common stock and the right to receive up to 18.0 million shares of outstanding Enron common stock in March 2003 (subject to certain conditions) and (ii) transferred to the Entities assets valued at approximately \$309 million including a \$50 million note payable and an investment in an entity that indirectly holds warrants convertible into common stock of an Enron equity method investee. In return, Enron received economic interests in the Entities \$309 million in notes receivable, of which \$259 million is recorded at Enron's carryover basis of zero, and a special distribution from the Entities in the form of \$1.2 billion in notes receivable, subject to changes in the principal for amounts payable by Enron in connection with the execution of additional derivative instruments.

Again, the notes are not quite as clear as we would like but they do disclose much relevant information.

Another note indicates that Enron “contributed” a put option. Does this mean it “sold” or was the put option a “gift”? In any event the put option contributed to a \$36 million loss to Enron (p. 49).

Also, Enron contributed a put option to a trust in which the Related Party and Whitewing hold equity and debt interests. On 31 December 2000, the fair value of the put option resulted in a \$36 million loss to Enron.

There was an internal Arthur Andersen communication in February 2001 that “suggests that Andersen may have had concerns about the disclosures of the related-party transactions in the financial statement footnotes. Andersen did not express such concerns to the Board” (p. 203 of the Powers Report).

Conclusions

The Enron Annual Report for 2000 supplies a large amount of financial information. Several footnotes could have been written in a more informative manner, but a reader should have been alerted to the fact that more information was needed.

On the other hand, Enron had a reasonable operating performance in 2000 (as well as 1999 and 1998) and its balance sheet appeared to be strong. Including the debt of the unconsolidated subsidiaries does not change that conclusion if the debt and the equity ownership of the subsidiaries are shown in proportionate amounts.

The Special Purpose Entities (SPEs) of Enron are a separate issue. A careful (thorough) analyst of Enron would like to know more about the SPEs.

There is very little in the 2000 annual report that leads a reader to conclude that financial distress will occur within the next 12 months. There are many signs that the Enron common stock did not deserve to be sold in the \$80s, but that is different from concluding that the firm was in financial distress.

In Chapter 5, we will find that many of the numbers relied on in this chapter need to be adjusted. Given the need for revision, Burton

Malkiel faults the accounting statements (*The Wall Street Journal*, 16 January 2002):

The bankruptcy of Enron — at one time the seventh largest company in the US — has underscored the need to reassess not only the adequacy of our financial reporting systems but also the public watchdog mission of the accounting industry, Wall Street security analysts, and corporate boards of directors.

He recommends self-regulation:

And, in the end, we need to create a powerful and effective self-regulatory organization with credible disciplinary authority to enforce accounting rules and standards. It would be far better for the industry to respond itself to the current crises than to await the likelihood that the political process will do so for them.

Senator Fred Thompson made a very perceptive observation (*Newsweek*, 4 February 2002, p. 17):

The real scandal here may not be what's illegal, but what's permissible.

It would have been very useful if the year 2000 Enron Annual Report had discussed in detail the sources for the incomes for the years 1998–2000.

The failures of Enron's accounting were more a failure to execute the spirit of the current accounting standards, than it was that the standards did not exist. Also, rather than attempting to inform the reader of all relevant financial information, if there was a way to keep information from the reader, too often Enron followed that way. Thus, a minimum of information regarding the SPEs of Enron was presented to the reader of its annual report. But the long-term debt of these entities (\$9.7 billion) was given in the report, if not in Enron's balance sheet.

References

- Fox, L (2003). *Enron: The Rise and Fall*. Hoboken, NJ: John Wiley & Sons, Inc.
- McLean, B and P Elkind (2003), *The Smartest Guys in the Room*. New York, NY: Portfolio (the Penguin Group).

Chapter 2 — Case

Enron (2000) Annual Report

There follows relevant pages of Enron's year 2000 annual report.

- a. Identify the hints that there might be financial trouble despite the reasonable earnings record.
- b. As a bank-lending officer, using only the information contained in the annual report, would you authorize a loan of \$500,000,000 to Enron?
- c. Did you note any sections that were not as clear as you would like?