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Did Enron's Investors Fool Themselves?

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So far the Enron story has mostly been about executives and accountants. This article focuses on the professional investment community – fund managers and financial analysts. It argues that the data in Enron's published accounts should have been sufficient to trigger warning bells long before the share price started falling. Enron's reported revenue grew fast, but at lower margins – with the result that it was failing to earn an adequate return on capital. As with the internet bubble, the investment community neglected the question of whether the growth was valuable.

Enron's announcement in late-October 2001 of a $1.2bn charge for losses in LJM, an off-balance sheet equity fund, triggered a plunge in stock price. LJM was one of a complex web of affiliates created by Enron, with the apparent motive of parking currently under-performing assets off balance-sheet, thus flattering earnings and reducing reported borrowings. The stock price fall through 2001 was catastrophic for Enron since it had used its own equity to support some of these vehicles. This, and the attendant collapse in investor confidence, led to its bankruptcy on 2nd December.

The Enron affair has put the spotlight on the finance profession in its various guises, and on financial governance. Enron subsequently admitted errors in accounting over a number of years, and claims have been made that the auditor, Arthur Andersen, was complicit. As users of Enron's accounting statements, professional investors – another branch of the finance profession – have emerged as the victims of the piece. I argue differently in this article: if investors were the victims of Enron's accounting, there appears to have been contributory negligence.

I argue that it is the responsibility of the finance profession to counterbalance the advocacy and self-belief of senior management. We need accountants to be conservative and sceptical. Financial governance breaks down if either the finance function within the firm or the auditors forget their role and absorb the belief system of top management; in other words, if the accountants go native.

But investment professionals should exercise the same scepticism. In the case of Enron their evaluation should have reflected the fact that, even using the numbers as published at the time, a simple analysis of Enron's return on capital in the years up to 2000 shows a company which was unprofitable in economic terms. The revised earnings and borrowing numbers issued by Enron in late-2001 just make the return on capital even worse. Also, Enron's involvement with a number of special-purpose financing vehicles was well known on Wall Street over a period of years. The lack of transparency in Enron's financial statements was also widely remarked. All this it should have signalled further caution.

The dramatic run-up in the Enron stock price in 1999 and 2000 took place at much the same time as the internet bubble, and has much the same feel. Analysts admired Enron's innovativeness and were excited about the potential of the new markets that it was pioneering. But many analysts' notes at the time reveal that they were not taking a hard look at Enron's profitability, or thinking hard about how Enron was going to make money from these new markets. It looks as if the investment professionals went native too.

What Accountants Are For

Senior managers of large corporations take immense strategic risks. They risk their own reputations, the livelihoods of the people who work for them, the savings of investors. These people need immense self-confidence and self-belief; without it, they could not get out of bed in the morning. We expect them to be ethical, and we hope they will be sensible. But without the creativity and drive of corporate pioneers we would be much poorer, so we probably need them to have their bias to optimism.

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In the governance system of the Anglo-Saxon market economies of countries like the UK and the US, we rely on the finance profession to provide the balance. These people staff the finance and treasury function inside the firm, they are the auditors, and they monitor the corporation as analysts and fund managers. The traditional caricature is that accountants are cautious and conservative creatures. But this is precisely what society needs them to be. They can be wild at home, they can dye their hair green and dance till the early hours, but in the office their job is to measure economic performance with a cold, puritan eye. It is their role in society to provide a bias to scepticism.

What if the accountants go native?

How can we ensure that this governance system is working? The finance function within the firm is hard to monitor from outside. The UK, since Cadbury, has introduced rules to improve internal control and the disclosure of internal financial governance procedures. But, ultimately, we rely on the finance function having a strong enough sense of professional identity and a clear enough vision of its role.

By contrast, the auditors are the group whose tasks are most tightly defined by law, and who are most regulated. So when a clear case of audit failure occurs this naturally becomes the subject of controversy. The explanation usually given for audit failure, because it is intellectually the easiest to grasp, is money: auditors fail to do their job when they are not financially independent of the firms they are auditing. This seems hard to accept when the auditors belong to one of the Big-5 accountancy firms. Rationally, there is no client whose audit fee could possibly justify risking the reputation, the future income, even the survival, of a Big-5 firm. But this requires the audit firm to have high professional standards and strong internal governance because, to an individual partner or senior audit manager, the incentives could look quite different. Also, the argument goes, audit is a low-margin business and the spice comes from lucrative consulting work on the side. Hence the question regularly surfaces, should auditors be prohibited from also undertaking consulting for their clients?

There is another, subtler, cause of audit failure. When the auditor gets too close to charismatic senior management displaying strong self-belief, there is a risk that he or she will simply go native and adopt that belief system. This will be all the easier when everyone else has gone native too; when the firm is adulated by commentators, admired by strategy gurus, and adored by investors. Here we perhaps have the real reason why we do not want auditors to be consultants; it puts them on both sides of the table at once. When the audit firm was itself involved in devising a transaction, how can it possibly review it with a cold eye?

The Role of Investors

In what sense do investors or, more precisely, the investment professionals who advise investors, have a financial governance role? In market economies we rely heavily on stock prices as metrics of economic performance and as signals for resource allocation, so we need them to be rationally set. Stock prices directly reflect the investment decisions of fund managers. However, we cannot observe the analysis and discussion behind the fund manager's decisions. In the case of the so-called "sell-side" analysts, however, the fruits of their labours, their evaluations, recommendations, and the narrative that supports them, are all in the public domain. So, potentially, their influence is extensive. Unfortunately, the worry is that sell-side analysts have a bias to

optimism. Moreover, they may well be "conflicted". This can happen if the sell-side analyst works for a house that also has an investment banking relationship with the company under review. This conflict is rather similar to the one faced by the auditor who is also a consultant.

A Simple Return on Capital Analysis of Enron

The intense focus on Enron's accounting, and on the auditors' alleged role in it, is distracting attention from investors and what they were doing. Indeed, investors are emerging as the victims of the piece. What would the investor have observed, applying the basic tools and thought processes of financial analysis to the accounts, *as published,* of Enron?

Return on capital is key

Managers try to make profits and they try to ensure the stream of profits is growing over time. Enron established a reputation for delivering earnings growth to investors. In the words of the company *"Enron is laser focused on earnings per share growth"*.

But, though earnings are necessary and earnings growth is desirable, neither is sufficient. Firms need assets, and they finance those assets using capital provided by investors. What really matters is the relationship between the profits the firm is earning and the capital it needs in order to earn them, the *return on capital*. The return that investors could get elsewhere on their capital is the firm's *cost of capital*. The firm is making its investors better off – it is "creating value" in current parlance – only when it earns a return on capital that is greater than the cost of capital.

In a highly competitive sector, where firms struggle to differentiate themselves and where innovations can quite easily be copied, firms are destined to earn a fair return on capital, no better. Food retailing is a good example. In that industry firms have found it difficult to sustain a return on capital much above the cost of capital. In consequence, food retailers have not created much value for shareholders. Firms will sustain a superior return on capital when they have some sustainable source of competitive advantage: strong brands, valuable intellectual property, unique competencies, or a good, old-fashioned monopoly. It is the ability to combine *both* growth *and* a superior return on capital that defines the value-creating firm. There is no value in growing a business that returns only its cost of capital. For a firm that returns below its cost of capital, growth destroys value.

Growth and return at Enron

Table 1 contains summarised financials for Enron for the years 1992 to 2000, including estimates of two commonly-used measures of return on capital. One is the *(after-tax) operating return*, which is a broad measure of the profitability of the underlying business in terms of the capital provided both by stockholders and by borrowing (debt). The second measure is *return on equity,* which relates the bottom-line earnings available for ordinary stockholders to ordinary stockholders' equity capital.

Table 1
Enron Financials 1992-2000

	2000	1999	1998	1997	1996	1995	1994	1993	1992
figures in $bn or %									
Revenue $bn	100.9	40.4	31.4	20.5	13.5	9.3	9.1	8.1	6.4
Revenue Growth %	*150*	*29*	*53*	*52*	*46*	*2*	*13*	*26*	*na*
Stockholders' equity	10.3	8.4	6.9	5.5	3.6	3.0	2.7	2.5	2.4
Minority interest	2.4	2.4	2.1	1.1	0.8	0.5	0.3	0.2	0.2
Debt	16.6	13.8	12.8	11.2	7.1	6.6	6.1	5.8	5.3
Cash	1.4	0.3	0.1	0.2	0.3	0.1	0.1	0.1	0.1
Avg op'ting assets	26.2	23.0	19.7	14.4	10.6	9.5	8.7	8.1	7.7
figures in $m or %									
After-tax op'ting profit (est) $m	1,464	1,736	1,168	569	947	920	694	583	470
Earnings $m	896	827	686	88	568	504	438	316	285
Operating return %	*5.6*	*7.5*	*5.9*	*3.9*	*8.9*	*9.7*	*8.0*	*7.2*	*6.1*
Return on equity %	*9.5*	*10.8*	*11.1*	*1.9*	*17.2*	*17.5*	*16.8*	*13.1*	*14.0*
Operating margin %	*1.5*	*4.3*	*3.7*	*2.8*	*7.0*	*9.9*	*7.6*	*7.2*	*7.4*
*Asset turnover**	*3.9*	*1.8*	*1.6*	*1.4*	*1.3*	*1.0*	*1.1*	*1.0*	*0.8*

*Revenue/capital

In the late-1990s, Enron management was busy turning an old-economy gas pipeline and utilities business into what was to be dominantly a trading and a market-making "new economy" business. Enron's revenue growth has reflected the shift in the mix of its activities towards businesses with a very different revenue model. Over the five years 1996 to 2000 Enron reported impressive growth in revenues, including a spectacular 150% increase in 2000. But earnings

growth was more erratic, and though the compound earnings growth rate was 12.1% between 1996 and 2000, it had been 18.8% from 1992 to 1996.

The corollary of the shifting business model was selling off asset-heavy businesses and replacing them with businesses requiring a lighter balance sheet. So investors might have expected to see an increasing return on capital. Instead, what is striking about Enron is the decline in its return on capital during the second half of the 1990s, even in the original published figures in Table 1.

Enron had an operating return of 7.5% in 1999 and 5.6% in 2000, and a return on equity of 10.8% in 1999 and 9.5% in 2000. Estimating the cost of capital is a famously inexact science. But, assuming a 5% equity risk premium on the market as a whole, then, in happier, pre-scandal times, Enron's equity-owners were expecting a return of perhaps 9%-10%. This can serve as the benchmark for the return on equity. To benchmark the operating return we use the average cost of Enron's equity and debt capital. Debt capital is cheaper than equity because the interest is tax deductible. But relative to the market value of Enron's equity at the time, the proportion of (on-balance sheet) debt was not particularly high. So Enron's average cost of capital was perhaps one or two percentage points lower than the cost of equity capital. So a comparison of either measure of return on capital to the cost of capital suggests that Enron was probably not creating value by 1999 and 2000.

In November 2001 Enron announced that some affiliates, hitherto off balance sheet, should have been consolidated. This entailed the retrospective accounting adjustments shown in Table 2. The effect these restatements had on return-on-equity is shown in the third line.

Table 2
Retrospective Accounting Adjustments

	2000	1999	1998	1997
Change in earnings $m	-132	-250	-113	-96
Change in borrowings $m	+628	+685	+561	+711
Revised return on equity	8.7%	8.2%	10.3%	-0.2%

The next step for the analyst is to decompose the operating return (profit/capital) into *profit margin* (profit/revenue) and the *asset turnover* (revenue/capital). These are calculated at the bottom of Table 1 and suggest that, although Enron's business model was delivering more revenue per dollar of capital, it was at the price of a much lower margin. The decline in margin was outweighing the improvement in asset turnover so that, overall, operating return was also in decline.

The analyst needs to be able to calculate return on capital, margin, and asset turn, business by business. The divisional data for 2000 provided by Enron in its financial statements is shown in Table 3.

Enron's disclosures do not allow us to calculate and analyse divisional operating returns. The company provides a "total assets" figure for each division rather than a "net assets" figure, and the income numbers are pre-tax. However, there is enough data to support the initial assessment. Although the wholesale operation is dominant in terms of revenue, it appears less profitable than the transportation and distribution business; the asset turnover in trading being more than offset by a poorer margin. It was sometimes conjectured by analysts that underperforming legacy assets in power generation and pipelines were weighing down Enron's balance sheet. There is no evidence for this in the disaggregated data.

Table 3
Enron Divisional Data

	Transport and distrib	Wholesale services	Ret'l energ services	Broadband services	Corp and other	**Total**
Total rev ($bn)	2.96	94.91	4.61	0.41	2.10	**100.79**
Op'ting inc ($m)	565	1,668	58	-64	-274	**1,953**
Ebit ($m)	732	2,260	165	-60	-615	**2,482**
Total assets ($bn)	8.28	47.93	4.37	1.34	3.58	**65.50**
Op prof/total assets (year-end) %	*6.8*	*3.5*	*1.3*	*-4.8*	*-7.7*	***3.0***
Op profit/rev %	*19.1*	*1.8*	*1.3*	*-15.7*	*13.1*	***1.9***
Rev/total assets	*0.36*	*1.98*	*1.06*	*0.31*	*-0.59*	***1.54***

Are Investors Helpless Victims of Accounting?

The return on capital analysis of Enron in the previous section was deliberately simple. We used data from Enron's financial statements, and we did not make any adjustments to it. This invites the

obvious question – surely, it is dangerous to take accounting data at face value in this way? Indeed, don't the subsequent revelations from Enron show just how unreliable accounting data can be?

The limitations of accounting data are something that analysts have to deal with on a daily basis. These are of two sorts, to do with biases in measurement, and to do with insufficient disclosure and detail.

Accounting biases

The rules that accountants follow in preparing balance sheets and income statements generate biased measures of return on capital. Ideally, the balance sheet would need to provide a *complete* list of the assets and liabilities of the firm, and these would need to be measured at *fair values*. The income statement would need to give a measure of profit that was *comprehensive* in the sense that all revenues and costs and gains and losses were included. Unfortunately, company accounts just about never meet this *complete/fair value/comprehensive* ideal. Skilled analysts are aware of this and respond by keeping a checklist of accounting practices in their back pockets – or at least in the back of their minds – to alert them to what they should look for and worry about in different contexts.

In the high-inflation environment of two decades ago, the big concern was fair value. Historic cost accounting led to assets being understated and income overstated, both of which flattered return on capital. These days, the main concerns are balance sheet completeness and earnings manipulation. When the balance sheet is incomplete, capital is understated and this generally has the effect of flattering return on capital.

Balance sheets may be incomplete for two main reasons. First, conservatism in accounting rules essentially excludes home-grown intangible assets from the balance sheet, even though these may be the most valuable assets the firm has. Second, the balance sheet may understate the firm's debt through mechanisms such as operating leases, receivables factoring, and unconsolidated associated entities. Enron used affiliates in this way – borrowing was being undertaken in vehicles that were structured to be excluded from Enron's balance sheet.

Should we have expected analysts to have spotted the problem in Enron? The case for the defence would go as follows. Generally Accepted Accounting Principles (GAAP) in the US have been permissive in their treatment of off-balance-sheet affiliates, and Enron's affiliate structure appears to reflect an extraordinarily complex piece of financial engineering. Though the nature and purpose of Enron's affiliates seem to have been well understood on Wall Street, the vulnerability of the edifice seems not to have been appreciated until quite late in the day. Nonetheless, it remains the case that analysts get paid handsomely to probe and reveal the risks as well as the rewards of business.

A useful general rule is that, mostly, the biases in accounting work in the same direction: *mostly, accounting flatters*. So, if analysts see a company earning a return on capital of, say, 25%, they need to do further work before feeling fully confident that it is creating value. But if they see a company with a return on capital of 10% this strongly suggests that it is not creating value.

Lack of detail

The second besetting limitation of accounting statements is a lack of detailed disclosure. This particularly afflicts the calculation and analysis of operating return.

The calculations of Enron's operating return made earlier were, in an important sense, estimates. They were estimates because we had to make judgments about what to include in income and what to include in capital. Partly, this reflects the fact that precisely how to define operating return is arguable; different analysts measure it in slightly different ways. But the real headache is that there are frequently income statement items involving gains on disposal of assets, exceptional charges and so forth, and balance-sheet liabilities, whose provenance is unclear. This is a real problem with Enron's and many other companies' accounts.

"If they see a company with a return on capital of 10% this strongly suggests that it is not creating value "

When a firm is complex, certainly when it is as complex as Enron became, we need it to disclose enough data so that investors can tell where value is being created or destroyed, and at least start to figure out why. Analysts should be probing and looking for clues and potential biases. Faced with a lack of

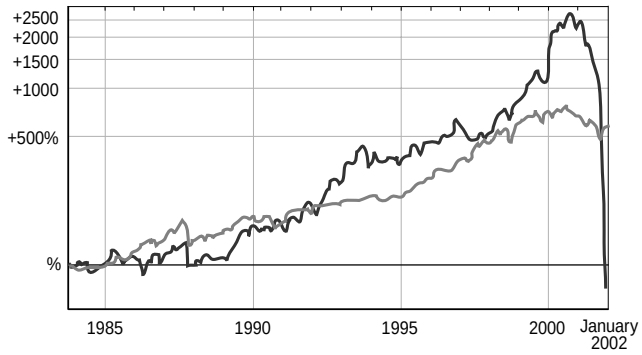
disclosure or transparency, they should be asking the firm for more information. If they do not get it, and if the accounting still lacks transparency, analysts should invoke their own bias, which is the bias to scepticism.

Uninformative and opaque accounting should be seen as a strong negative signal in valuation. What is quite striking when reading research on Enron is how often analysts referred to a lack of transparency, or expressed difficulty in understanding how Enron really made money, yet how rarely this translated into a negative rating.

Coda: What Were Investors Doing?

The chart shows Enron's stock price against the S&P 500. Enron started to significantly outpace a rising stock market in 1998, and its stock price almost doubled in 2000.

Enron Share Price



Financial statements tell us what has happened in the past, and we interrogate them for what they reveal about the economics of the business. The analyst then has to develop reasonable expectations about the future. In the case of Enron, just as investors were marking up Enron's stock in 2000, they would have had in front of them financial statements suggesting that, thus far at least, Enron had been unprofitable in economic terms. It was reporting rapidly growing wholesale revenues, but at lower and lower margins, and as a result it was failing to earn an adequate return on capital.

These things – a high stock price and poor profitability – are not *necessarily* inconsistent. Our own modelling at LBS suggests that to justify a premium rating in 2000 in free cash flow terms would have required Enron to maintain, say, a 10% rate of growth in revenues over a long horizon, but at much higher margins there it was currently achieving, thus generating a positive spread of return to the cost of capital. So the analyst would have to develop a powerful transformational story in which Enron was able to create and sustain competitive advantages that would support higher margins. Alternatively, the analyst would need to develop a convincing evidence-based argument that Enron's margins were currently depressed, perhaps because of heavy current investments in IT and in other intangibles.

While it was possible to model a view of Enron's future that would justify its 2000 stock price, the LBS analysis suggested this outcome was improbable. In any case, in the face of such uncertainty, single valued forecasts make little sense. The analyst should be weighting the optimistic story against other lower-value outcomes for Enron. In practice, however, analysts rarely do this. They frequently just go with the optimistic story.

In the March 2000 edition of this journal, we described the internet bubble which was then at its peak (Higson and Briginshaw 2000). Investors were excited by the unknown potential of new technology. But stock prices were capitalising unrealistic expectations both about the potential for revenue growth and about margins. This focus on revenue growth was associated with the widespread use of price-to-revenue multiples in valuation. In the case of Enron, as with the internet bubble, the question of whether the growth would be allied to sustainable competitive advantage – that is, whether it would be *valuable* growth – was rarely discussed.

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Reference

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