

## Stern Stewart Research

The Americas

# Enron Signals the End of the Earnings Management Game

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- Enron failed for many reasons, but one noteworthy cause was management's "laser focus on earnings-per share."
- Their EPS mania drove management to over-invest capital in their business for inadequate returns, to over-leverage their balance sheet, and to use "over-the-top" accounting.
- What's needed is nothing less than a wholesale blackballing of the entire "earnings management" game.
- By comparison with EPS, EVA is a far better way to keep score, a more challenging and meaningful goal, a more useful decision guide, and a truly superior metric for determining incentive compensation. It is, quite simply, the answer to the real issues that the Enron debacle has so starkly raised.

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If the demise of Enron proves anything it is that companies that manage for earnings per share (EPS) are asking for trouble. That has always been true, but Enron is so exemplary of the EPS pitfalls that this time managers and boards may pay attention.

Enron's managers certainly made no secret of their love affair with EPS, as this 2000 Annual Report excerpt clearly reveals:

**Companies that manage for earnings per share (EPS) are asking for trouble.**

*Enron's performance in 2000 was a success by any measure... The company's net income reached a record in 2000. Enron is laser-focused on earnings per share, and we expect to continue strong earnings performance.*

Enron's subsequent debacle is by itself a strong indication that something must be terribly wrong with slavishly worshipping an EPS idol. Indeed, I will argue that almost all of Enron's travails can be traced to their "laser-focus on earnings per share," but I will also show that even a "penlight-focus" on EPS is a big mistake.

**Enron was laser-focused on earnings per share.**

Growth in earnings per share is admittedly a seductive corporate goal. For one thing, EPS is the accepted "bottom line" in the accounting view of things. But, of course, accountants don't set stock prices. It also certainly *appears* as if the market reacts strongly to a management's ability to meet its quarterly EPS targets. But that is just an illusion. Getting off the EPS bandwagon becomes even more difficult when so many executives have incentive pay linked to EPS goals. But there are better ways to pay and motivate managers than through EPS.

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The superficial attraction of EPS is that it is grounded in what might be called the "accounting model of value." It states that a company's stock price is the result of multiplying its earnings-per-share by its price-to-earnings (P/E) multiple:

$$\text{Price} = \text{EPS} \times \text{P/E}$$

According to this mathematical tautology a company that has \$5 in EPS and that trades for 20 times its earnings is worth \$100 a share.

$$\begin{aligned} \text{Price} &= \text{EPS} \times \text{P/E} \\ \$100 &= \$5 \times 20 \end{aligned}$$

This accounting valuation formula suggests that if EPS increases, the stock price will go up and if EPS decreases, the stock price will come down. The formula predicts for example that if EPS rises to \$6 the stock price will climb to \$120 a share, and if EPS falls to \$4 the stock price will tumble to \$80.

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The underlying assumption in the accounting model is that the P/E multiple will remain the same regardless of what is driving EPS up or down. That is a highly theoretical proposition, and it happens to be dead wrong in practice.

Price-to-earnings multiples change all the time. They change in the wake of new corporate strategies and investments, in reaction to shifting returns on capital and growth rates, and in response to new financial structures and reporting practices. P/E ratios are always on the move to reflect a change in the *quality* of a company's earnings, and that fact alone makes the mere *quantity* of EPS an extremely unreliable gauge of corporate performance and stock market value.

Consider a hypothetical high tech company that increases spending on promising research and development. Accounting rules dictate that the stepped-up research outlays be immediately charged to earnings, making the firm's EPS lower than it otherwise would be. According to this accounting treatment, it never makes sense to boost research, no matter how promising it may be.



**This explains why it is common for rapidly-growing research-intensive firms to trade for high P/E multiples.**

**Tempting management to under-invest in research is only one of the problems brought about by a myopic focus on EPS. Others include over-investment, over-leverage, and over-the-top accounting, and Enron fell prey to them all.**

**Enron was only earning a 7% return on its capital.**

**EPS fanatic companies will always be tempted to live over the edge, to borrow too much, to raise too few new shares, just to keep their EPS growth as high as possible.**

But smart money investors look well beyond near term earnings in reaching a judgement about value. One sign—companies sell for different P/E ratios. If the market only cared about next year's earnings all companies would presumably sell for the same P/E ratio. Besides, if you paid even just 10 times earnings to buy a stock you would have to wait ten years just to get your original investment back, to say nothing about getting a return. The point is, investors do impound future payoffs into current values. Their perception of the long-run payoff from a boost in promising research spending usually convinces them to mark up a company's stock price. When the dust settles for our hypothetical company, its current EPS will go lower, but its stock price and price-to-earnings multiple will run higher. A boost to the quality of its earnings makes up for a lower quantity of earnings.

This explains why it is common for rapidly-growing research-intensive firms to trade for high P/E multiples. Even though the consequences are not always so apparent, the same principle applies equally to more established firms. So long as they have demonstrated a sound track record of generating attractive returns from their research budgets, stepped up research spending will expand their multiples and stock prices, too, even in the face of a reduction in their EPS. Top managers in many companies are reluctant to expand promising research spending, however, because they wrongly imagine EPS is important, or they find that their bonus has been tied to it. They are making the mistake of measuring and rewarding only one-half of the two-part formula that determines their company's share value.

Tempting management to under-invest in research is only one of the problems brought about by a myopic focus on EPS. Others include *over-investment*, *over-leverage*, and *over-the-top accounting*, and Enron fell prey to them all.

Any company can manufacture growth in its EPS by pouring capital into low returning projects. So long as a new project returns more than the after tax cost of debt capital, which these days may be as low as 4 or 5 percent in America, it will increase EPS. But if the project's return is not high enough to give shareholders a decent return on the equity they have put or left in the business, a return requirement of more like 10 to 12 percent these days, it will lead to a reduction in the stock price and price/earnings multiple.

Enron is a classic example of the over investment syndrome. Driven by their desire to maximize EPS growth, Enron management sunk billions in capital into low returning investments – in offshore utilities, in broad-band build-outs, and into risky and hard to value energy supply contracts. James Chanos, the renowned investor who shorted Enron stock a year before the bankruptcy, betting on its fall, based his decision on measuring that Enron was only earning a 7% return on its capital, far less than he thought investors should require from a risky company like Enron.

Another Enron strategy to boost earnings-per-share growth was over-leveraging the balance sheet. Management refrained from issuing new common shares to finance growth for fear of diluting EPS. As a result they employed debt financing to the hilt and beyond the brink of financial prudence. They over-leveraged their balance sheet so that when things started to fall apart far too little equity was available to cushion the blow. Lenders and investors lost confidence and were no longer willing to provide the overnight financing Enron needed to keep their trading positions in play. Former Enron CEO Jeffrey Skilling admitted that they fell prey to a classic bank run. That they did. But a well-managed company would not permit the firm or its stakeholders to be exposed to the risk of a run. Well-managed companies maintain a prudent balance of debt and equity in their capital structure, considering the risk of their business. The problem is that EPS fanatic companies will always be tempted to live over the edge, to borrow too much, to raise too few new shares, just to keep their EPS growth as high as possible.

Enron didn't have to go bankrupt to make the over-leveraging of its balance sheet a bad idea. True, raising debt instead of equity does help a company to boost its EPS as it avoids new share dilution. But relying on debt has an unfortunate and countervailing side effect. It raises the risk in the EPS, and reduces the P/E multiple investors will be willing to pay.



When a company borrows funds it commits to making relatively fixed interest payments out of its uncertain operating profits. The remaining profits available to the shareholders become more volatile and less predictable. As a firm's debt becomes more pronounced relative to equity in its capital structure its "bottom-line" profits exhibit wilder gyrations over the business cycle. Riding a bucking bronco may be fun for cowboys and kids, but it isn't much liked by investors. In fact, investors will demand a higher return to compensate them for taking a bumpier ride.

Investors will react by using a higher cost of capital to discount the riskier EPS, or said differently, they will pay a lower multiple for a less certain stream of earnings. By setting the P/E ratio lower, the company's earnings will provide a higher yield, a higher return, on the price the investors pay for the stock.

Increasing leverage is another classic example of where an apparent gain in EPS may not be a gain at all. It may be entirely offset by a mark down in the P/E ratio as investors judge the earnings to be riskier and therefore of lower quality. This reasoning makes Enron's decision to over-leverage its balance sheet a particularly unwise move.

After luring Enron into the dark side of debt, Wall Street bankers plied their wares throughout the power industry. But the utility that Fortune identifies as the most admired in its industry, Duke Energy, would have none of it.

*They told us we were being too conservative, that any problems would be unlikely, but these proposals didn't get beyond me.*

*We make our decisions based on the economics, not on the accounting implications.*

David Hauser, Senior Vice President and Treasurer  
"The Un-Enron" Fortune, April 15, 2002

**The company's top brass became so caught up in a vicious EPS management cycle that they resorted to deceitful accounting chicanery to hide much of the debt they were using to finance their EPS growth.**

Hauser went on to note the danger lurking behind the kind of deals that Enron used. "If the borrower's stock drops, a company could end up being forced to issue more and more shares in order to keep its collateral up." Unlike Enron's financial team, Hauser realized that the financing risk would more than counter the short-term EPS gain.

The most disturbing outcome of Enron's EPS mania, however, was tempting management to fall from grace. The company's top brass became so caught up in a vicious EPS management cycle that they resorted to deceitful accounting to hide much of the debt they were using to finance their EPS growth. They sold underwater assets at overvalued prices to off-balance sheet corporations whose debt was secretly secured by Enron stock, and they connived with their auditors not to disclose the substance of these transactions to investors. This "bet the ranch" financial strategy violated one of the most basic principles of sound corporate finance policy – risky growth should be financed with equity, not debt.

Enron CFO Andrew Fastow should be severely chastised for risking the fortunes of so many people on so slim a sliver of equity capital, but he should be skinned alive for using over-the-top accounting to keep the debt and the valuation losses from the prying eyes of investors – all for the sake of pushing EPS growth as far as possible. Let us pray that he and other culpable Enron executives spend time behind vertical lines as penance for their sins.

Enron is hardly alone in manipulating accounting rules to keep earnings growth on track. Almost every company favorably interprets accounting "principles" in order to boost and stabilize its reported profit, even if not to the fraudulent degree of Enron. Whether it is by prematurely booking sales, capitalizing expenses, manipulating pension fund assumptions and depreciation schedules, or establishing overly large restructuring reserves, managers have enormous latitude to massage EPS, even within the boundaries of established accounting rules.

In the Post-Enron world, however, such practices are coming under withering scrutiny. Bankers and rating agencies are taking a stern look at off-balance-sheet financings and are



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**EVA starts to register "earnings" only after the shareholders have also been rewarded with a fair return on their investment.**

**Because EVA sets a high, market-competitive hurdle, far higher than just the borrowing cost, companies that increase their EVA will also necessarily increase their EPS**

marking down the creditworthiness of firms like Krispy Kreme that have not fully disclosed their liabilities. Security analysts also have a renewed interest in getting behind and beyond the superficial reported numbers. They no longer trust the figures disclosed by corporate managers, particularly for hard-to-penetrate conglomerate firms like Tyco and GE that now suffer a credibility gap. Wall Street analysts are now more inclined to measure corporations by the size of their returns in relevant cash flow terms than by the rate of their earnings growth. Corporate managers are finding they have to report more information than ever before to restore investor confidence, but they are also wondering if that response is sufficient, and what else they should do.

Corporate managers ought to do far more. Their responses so far, while necessary, are only token reactions. They attack symptoms instead of disease. What's needed is nothing less than a wholesale rejection of the accounting model, a blackballing of the entire "earnings management" game. EPS should no longer be used as a corporate goal, as a performance measure, or as the basis of executive incentive compensation. What's needed in its place is an economic management model – a model firmly grounded in the fundamentals of value creation, and that can be used by managers and investors alike.

The best measure for this purpose has been identified and successfully employed in nearly 400 companies worldwide, including such well-known firms as Coca-Cola, Siemens, and Sony. My firm, Stern Stewart, developed it in the early 1980s, and is the leader in helping companies to adopt it. The measure is known as EVA<sup>®</sup>, or Economic Value Added.

EVA is a special way to measure profit. It is economic profit – profit the way that economists measure it. In simplest terms, EVA is a firm's net operating profit after taxes, or NOPAT, less a charge for using all capital, equity as well as debt. Unlike conventional accounting profit, in which only the after tax cost of borrowing money is subtracted, EVA starts to register "earnings" only after the shareholders have also been rewarded with a fair return on their investment.

The EVA capital charge is determined by multiplying the amount of "capital" a firm employs by an interest rate factor known as the "cost of capital." Capital is the sum of funds provided by the firm's lenders and shareholders. It may also be computed as the firm's total assets less the amount of trade financing provided by suppliers and deferred wages.

The cost of capital is the interest rate that the company must pay to finance its capital. In economics, that interest cost is not a cash cost. It is an opportunity cost equal to the rate of return that a firm's investors could expect to earn by investing in a stock and bond portfolio of equal risk. It might be anywhere from two to ten percent more than the prevailing rate on relatively risk free government bonds, depending on the company, its business, and its financial structure. With US government bonds yielding about 5% at writing, the overall cost of capital for most companies now ranges from 7% to 15% (compared to an after tax borrowing rate of 4% to 6% in most firms). EVA says that until a firm gives its investors at least the 7-15% return they could expect to earn on their own it is really losing money. It is misallocating scarce resources and is reducing the value of the shareholders' investment below the amount of capital that they have put or left in the firm.

Because EVA sets a high, market-competitive hurdle, far higher than just the borrowing cost, companies that increase their EVA will also necessarily increase their EPS. There simply is no conflict between producing more EVA and delivering more EPS. But the opposite is not the case. It is easy for a firm to misallocate or over-invest capital, increase its sales, gain market share, add to its earnings and EPS, and yet reduce its EVA, and its stock price. Just take a look at Enron's results from 1996 to 2000 on the following chart for a good example of how that can happen. EPS simply sets too low a standard to be a meaningful performance measure in today's demanding capital markets.

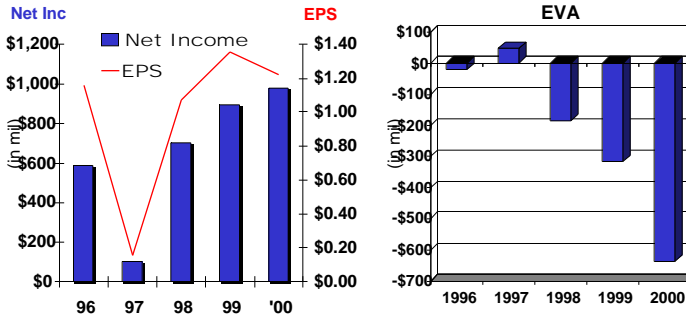


### Be careful what you wish for: Enron's Accounting and Economic Performance

From Enron's 2000 Annual Report (Letter to Shareholders):

"Enron's performance in 2000 was a success by any measure...The company's net income reached a record in 2000. Enron is laser-focused on earnings per share, and we expect to continue strong earnings performance."

**Managers' bonuses should be determined as a set percent of the improvement in EVA that they achieve over time rather than being tied to meeting a budgetary target.**



Compared to EPS, EVA makes it clear that capital is expensive to use, and that all companies are really in the same business – the business of allocating, managing and re-deploying capital resources of all kinds. EVA also automatically overcomes the three “overs” of the EPS game, particularly when companies use EVA as the basis for determining the bonuses that their managers will earn, as follows.

**EVA naturally clamps down on managers' incentive for over-investment.**

First, the managers' bonuses should be determined as a set percent of the improvement in EVA that they achieve over time rather than being tied to meeting a budgetary target. A second feature is that there should be no limit on the size of the bonus that managers can earn for improving EVA. They should be encouraged to think and act like owners, and to stretch for bold performance breakthroughs, by having the unlimited upside pay potential of an owner. However, to encourage long-range planning and accountability, a large part of large annual bonuses should be carried forward and paid out over time, but subject to cancellation if the prior EVA gains cannot be sustained, or if the manager leaves.

**EVA also discourages over-leveraging the balance sheet**

When it is used in this manner EVA naturally clamps down on managers' incentive for over-investment. Managers will only want to accept projects that they truly believe will cover the full cost of capital and add to shareholder value. Otherwise their bonus will suffer.

EVA also discourages over-leveraging the balance sheet in three ways. First, the mix of debt and equity capital employed in determining the cost of capital is not the actual blend the company uses. The cost of capital should be based on a “target” capital structure that balances reducing the overall cost of capital with the need to maintain prudent financial flexibility.

**EVA also discourages managers from using over-the-top accounting and overreacting to conventional accounting indicators**

Second, and more significantly, the amount of capital a company is considered to use for EVA measurement purposes will include all significant off-balance-sheet assets, such as those obtained through synthetic leases or special purpose financing vehicles. This treatment removes a huge incentive to over-leverage the business off-the-balance sheet because managers know they will be held accountable for earning a decent return on all of the assets they employ, no matter how those assets are financed. Out of sight is no longer out of mind.

The EVA bonus plan is a third deterrent to opportunistic financing. Managers will be reluctant to gamble on an over-leveraged balance sheet when their “banked” bonuses can be cancelled by a failure to maintain EVA down the road.

EVA also discourages managers from using over-the-top accounting and overreacting to conventional accounting indicators. It does so by invoking an alternative set of accounting rules that enable managers to measure their EVA profit more accurately and better guide their decision-making. The rules are to be approved by the board, and then applied consistently for internal management reporting purposes and possibly as a supplement to ongoing financial disclosures.



One rule is that, instead of charging research and brand building outlays to earnings, they are added to a new balance sheet account for “intangible assets.” The intangible asset is written off as an earnings charge over the future time periods when the benefits from such spending are expected to increase profit. This one-two punch gives managers more freedom to increase or maintain intangible spending without fearing their bonuses will suffer in the short term, but at the same time holds them accountable for subsequently earning enough profit to cover the full cost of the intangible investments over the long term.

Another recent example comes from Tyco, the beleaguered conglomerate. As reported recently in the *WSJ*, Tyco’s ADT alarm company will often purchase security-servicing contracts from its dealers as an alternative to developing new customers in-house. Although the economics of in-house versus dealer-sourced new customers may be similar, the accounting is anything but.

When ADT develops a servicing contract in-house the up-front marketing costs are charged to earnings, but when ADT purchases a service contract from a dealer the purchase price is added to its balance sheet assets. Dealer-sourced contracts thus contribute much more rapidly to earnings because the acquisition cost is spread over the anticipated life of the contract. Although investors can readily see these accounting differences and put them on the same footing, the company’s managers may actually prefer to source contracts through dealers because it has a more favorable impact on near term earnings and earnings per share, and their bonus. The ADT managers, in other words, will be swayed to manage by how they are measured. The incompatible measures applied to the two alternatives may very well lead to value incompatible decisions.

The solution once again is not to accept statutory accounting as reality. As SEC Commissioner Harvey Pitt has put it: “There is no true number in accounting, and if there were, auditors would be the last to find it.” In this case the EVA treatment would be to put the in-house contracts on the same treatment as the dealer purchased ones. ADT should keep track of its internal marketing expenses and initial contract servicing expenses, capitalize them as an asset, and write them off over the contract life, again for internal measurement, management and incentive purposes only. In this way the customer sourcing decision will be on a level playing field, and new contracts with new customers will be considered as assets to be nurtured rather than as expenses to be minimized.

By following rules such as these that convert accounting data to economic reality, managers have more useful information on which to judge results and base decisions, and more accurate incentives. Nearly 100 such rules have been identified to eliminate distortions and positively influence behavior. The rules vary quite a bit depending on the company and industry it is in. In practice companies usually apply only the five to fifteen most significant adjustments when they measure EVA in their internal management reports. They wisely balance the tradeoff between simplicity and precision.

EPS is the opium of the executive suite; it is the Don Juan of corporate value. As Enron discovered, worshipping at the EPS alter can lift a top team to a prominent pedestal in the short run but drag them down to a fiery grave in the longer term. Once management jumps on the EPS treadmill it will find it difficult to escape with impunity. They will be sorely tempted to fuel growth by abusing their balance sheet, by spending too much capital and using too much debt. They will likely make dumb strategic decisions like postponing promising research or delaying a restructuring, all to keep up the EPS appearances. And worst of all they may be drawn into the earnings management game. The more time they spend managing the earnings the less likely they are to be managing the economics of their business. And eventually, they may decide, as Enron apparently did, that reporting is reality, so bend it to suit your purposes.

By comparison with EPS, EVA is a far better way to keep score, a more challenging and meaningful goal, a more useful decision guide, and a truly superior metric for determining incentive compensation. It is, quite simply, the answer to the real issues that the Enron debacle has so starkly raised.

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