



Using EVA in Pay-for-Performance Analysis

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Context: Why EVA May Help with Pay-for-Performance Analysis

While TSR is a great market metric, it may render a blurry picture of operating performance

Performance-based long-term executive compensation is generally determined by a company's achievements over three-year measurement periods. TSR, however, doesn't always accurately reflect the performance of a company or management team during that period. Macroeconomic factors, tax policy, financial leverage, investor sentiment, the stage of the business cycle, and more can influence and in some ways distort the meaning of TSR measurements.

Investors recognize shortcomings with relying on TSR alone to judge CEO pay. They tell us they are looking for other sources of information to give them a better, more complete sense of how well a company is performing. When responding to ISS' 2016-2017 annual policy survey, 79 percent of investors – and 68 percent of non-investors – supported incorporating performance measures in addition to TSR in ISS' quantitative pay-for-performance methodology.

GAAP-based measures do not always accurately portray true economic performance

In response, starting two years ago, ISS instituted Financial Performance Assessment, or FPA. The assessment employs three or four GAAP-based metrics for each company—selected from ROIC (return on invested capital), ROE (return on equity), ROA (return on assets), Operating Cash Flow Growth, and EBITDA Growth, all rated against peers—to provide a secondary perspective on company performance. The assessment has proven useful, but ISS also sees significant issues with it – notably, the metrics are inherently influenced by accounting statement standards that can at times distort true economic performance. To that end, ISS will begin to provide additional information to investors – over and above the TSR and GAAP-based metrics – to assist them in evaluating pay and performance alignment.

EVA represents a valuable additional assessment of company performance

ISS believes that Economic Value Added (EVA) concepts may offer a valuable tool to supplement TSR and help investors better assess pay and performance alignment. EVA represents the economic profit a company earns after meeting all its obligations – including the demands of capital providers.

A company with positive EVA is performing well. It is generating a return on capital high enough to more than meet its cost of capital. And if EVA is negative, a company is falling short of this competitive hurdle (i.e., it earns less than its cost of capital), and it may do so while its book income and cash profits are strongly positive and rapidly growing. EVA thus introduces a more demanding and at the same time more reliable means of assessing the profit performance of a company. Once EVA is computed, ISS uses a variety of size-adjusted EVA-based ratio metrics that enable comparisons with peers.

EVA complements TSR in pay-for-performance evaluations. Unlike TSR, which is a market measure that depends on investor expectations and is amplified by financial leverage, EVA reflects actual results, cuts through differences in capital structures and business models, and can be traced to a firm's business fundamentals and financial statements.

ISS will present EVA metrics for informational purposes in the 2019 proxy season

TSR and the existing GAAP-based FPA metrics will remain determinative in pay-for-performance assessments during the 2019 ISS policy year. However, ISS will compute, report and analyze a set of

EVA metrics, and include them in this year's proxy reports. ISS will pay close attention to, and attempt to learn from, situations where the EVA metrics notably diverge from TSR and the four conventional GAAP metrics used in FPA. ISS will also seek input from institutional investors regarding the value they see in the EVA metrics.

ISS remains neutral on executive compensation performance measures

ISS has consistently taken the position that the adoption of TSR as a measure to test pay alignment should not be construed as a preference or recommendation for using TSR to determine executive pay; in fact, in 2012, when first describing the quantitative pay-for-performance assessment methodology, ISS noted that it "does not advocate that companies use TSR as a metric underlying their incentive programs; on the contrary, shareholders may prefer that incentive awards be tied to the company's short- and long-term business goals." That holds true today as it did then; ISS still does not take a position on whether any one metric or set of metrics – including TSR and EVA – should be used in a company's executive compensation program.

Introduction to EVA: Measuring Economic Performance

At its essence, EVA is a simple three-line calculation – it is sales, less all operating costs, including taxes and depreciation, less a full weighted-average cost-of-capital charge on all the capital, or net assets, used in business operations:

$$EVA = Sales - Operating Costs - Capital Costs$$

Sales less operating costs can be defined as NOPAT, or Net Operating Profit After Tax; the capital charge, moreover, is computed by multiplying the firm's capital base by its cost of capital. Thus, EVA can also be stated as:

$$EVA = NOPAT - Cost of Capital * Capital$$

EVA recognizes investors' needs by deducting a required return on capital before it counts profit. To increase EVA, managers must increase profits above the opportunity cost of funding any new capital investments. EVA naturally holds managers accountable as stewards of investor money.

NOPAT and Capital also incorporate the standard set of adjustments. For example, they exclude excess cash and the related investment income, and reflect writing off R&D over time instead of expensing it. EVA is thus a better indication of how well a company's business is performing from a strategic perspective.

EVA starts with GAAP financials and makes rules-based adjustments

Company managers often reject reported financial metrics in favor of "Non-GAAP" metrics that they feel better portray their firm's true performance. However, the adjustments to arrive at the Non-GAAP metrics are not standardized; they typically vary even among companies in the same industry, and frequently vary from period to period. And, in a compensation context, the non-GAAP adjustments that companies make for calculating goal achievement are sometimes different from the adjustments explained in the financial statement reconciliation.

EVA mitigates these issues by consistently applying a standard set of rules to adjust the reported results for all companies. As a result, EVA produces a profit performance measure that is generally

more tightly linked to value and more comparable across companies and over time than can be obtained from reported results or ad hoc measures.

The table below displays a few of the adjustment rules; for a full list, refer to the additional EVA resources linked at the end of this paper.

Sample of Accounting-to-EVA Adjustment Rules		
Adjustment	Technique	Impact
Capitalize Investments in Intangible Assets	Instead of deducting R&D and Advertising from profit, add it to Capital, subject to a capital charge, and amortize the spending over 5 years for R&D and 3 years for Advertising.	EVA is smoothed and more comparable; it motivates managers to step up spending on promising opportunities, and to resist cuts just to make near term earnings.
Capitalize Unusual and Non-Recurring Charges (Less Gains)	Do not deduct the one-time charges from profits; rather, add them to Capital, subject to an on-going capital charge.	Impairments are inconsequential; there is an impetus to restructure promptly and efficiently, sell assets worth more to others, manage risks and minimize non-recurring charges.
Eliminate Excess Cash	Remove excess cash from Capital and the associated investment income from NOPAT.	EVA measures business performance; it is unaffected by retaining or paying out excess cash, because shareholders own the cash whether it is in the firm or in their hands.
Smooth Taxes	Compute tax at an assumed standard tax rate; credit EVA with the cost of capital saved on the net balance of deferred tax.	Eliminates noise in the tax calculation; recognizes the value of paying taxes later.

The Link Between EVA and TSR

EVA and TSR are fundamentally linked and, over the very long term, are equivalent

This is a crucial point, and it is not just an assertion; it is *mathematically* true. The present value of the EVA profit that is forecast over the life of a business or business plan is always identical to the net present value of the forecast cash flows. The derivation is available,¹ but the basic idea is easy to

¹ Many academic scholars have derived the exact mathematical link between EVA and NPV. One good example is: Discounted Cash Flow and Residual Earnings Valuation: A Comparison in the Context of Valuation Disputes, by Dr. Bradford Cornell, California Institute of Technology, bcornell@hss.caltech.edu, published March 2013, and available at https://www.researchgate.net/publication/235983747_Discounted_Cash_Flow_and_Residual_Earnings_Valuation_A_Comparison_in_the_Context_of_Valuation_Disputes. The article abstract states: "Using actual data from a disputed acquisition, this paper presents a comparison of two related income approaches to valuation – discounted cash flow (DCF) and residual earnings (RE) [note: residual earnings, or RE, is synonymous with EVA]. Although the DCF approach remains predominant in practice, the data and analysis presented here indicate that the RE [i.e., EVA] approach is often a better choice, particularly

grasp. By deducting the capital charge, EVA sets aside the profit that must be earned in each period to recover the value of the capital that has been or will be invested in a business, and thus, EVA always discounts to the net present value of future cash flows. To increase EVA is to increase a firm's intrinsic discounted cash flow (DCF) value.

And, because TSR is derived from the rate of increase in a firm's NPV over time, relative to an initial market valuation, TSR is a direct function of the EVA profit a firm is earning and how rapidly it is increasing EVA over time (which has also been demonstrated in a mathematical proof²). EVA, and the change in EVA, are thus strong proxies for wealth creation and a firm's TSR. EVA is wholly consistent with TSR and reinforces the message it sends to corporate managers, which is: make decisions that will maximize your firm's intrinsic value.

EVA and TSR are not identical, however, and it is the differences that make the case for including both in assessing company performance.

Over the shorter term, EVA and TSR will often present different pictures of company performance

Many factors can intervene to drive a wedge between EVA and TSR. Four of these stand out as most influential:

	TSR	EVA
Assessment Basis	Actual <i>and</i> Forecast Results	Actual Results
Leverage	Equity Performance	Enterprise Performance
Source Data	Market Data	Company Financial Data
Interval	Point-to-Point	All Observations Count

Assessment Basis

Over a typical three-year LTIP cycle, TSR is determined more by the revisions in a company's projected outlook than for the actual EVA profits a company earned over that interval. Said differently, TSR often has more to do with investors' anticipation of value than it does with managers producing the results that underpin the value. As a result, the two metrics, TSR and EVA, one a forward-looking, leading indicator, the other, EVA, a lagging, retrospective measure, work well together to quantify how well management is performing in creating a valuation expectation and how well it is doing on delivering actual economic performance.

Leverage

A second difference is that EVA measures the performance of the enterprise, based on the yield on all the capital tied up in operating assets, and TSR measures the return to the shareholders, on just the equity money they have invested. TSR is thus dependent, as EVA is not, on a firm's debt-equity ratio.

Take two firms that are identical, but one uses more debt and less equity than the other. The more-leveraged firm will produce a much higher TSR in good times and a much lower TSR in downturns—*even if the underlying EVA profits of the two companies are identical in each period.*

in the context of disputes and litigation. The RE approach is more anchored on observable data, is less sensitive to parameters that can be subject to discretionary adjustment and is more economically transparent.”

² For the derivation and simple numerical examples, refer to the whitepaper, TSR and EVA (forthcoming)

What's more, if a firm's leverage ratio changes (for example, after making a debt-financed acquisition) then the degree to which enterprise returns are magnified into equity returns changes. There's no constant ratio between business performance and shareholder value.

A further complication is that the leverage that matters is not the book debt/equity ratio on a firm's balance sheet. It is the market value ratio of debt-to-equity. This ratio is swayed by fluctuations in the value of a company's equity and is largely outside of management's control. It can be a significant source of noise in the TSR that companies report.

For example, suppose a company stumbles badly and generates a large negative return that sends its stock price reeling and erases a sizable portion of its equity value. Going into the next period, its market-value leverage ratio is unintentionally much higher because its equity value is unexpectedly much lower. Its TSR is "spring-loaded." Even a relatively modest recovery in business performance, even much lower than what peers produced over the same period, can produce a stellar, top-of-class TSR, which is misleading and should be discounted. It is a higher return, but, off of a depressed valuation base.

ISS believes both perspectives are important. EVA allows investors to understand and rate how well a company's underlying business is performing, and TSR can show what returns end up in the hands of shareholders.

Source data

A third point of departure is that TSR is derived from market data – stock appreciation and dividend yield – while EVA is computed directly from company financials, from profit and loss schedules and balance sheets. It is difficult to trace a company's TSR to its underlying operating performance or management decisions. It is likewise a challenge for investors to understand the underlying drivers of TSR, and thus, to fully apprehend the quality of management

But EVA makes those linkages much more clear and direct. EVA recognizes the value companies derive by cutting costs and expanding margins, turning assets faster and running leaner, investing capital carefully and conservatively, and by aggressively pursuing profitable growth opportunities.

Interval

A final point is that TSR is typically measured point-to-point – from a day three years ago to today, for example – which puts a lot of weight on those days. (ISS' TSR calculation methodology, which averages share prices both at the beginning and at the end of the measurement period, helps mitigate the point-to-point problem, without completely solving it.) By contrast, and as discussed in the next section, ISS has constructed the EVA metrics in such a way that they depend on and reflect a company's performance in each quarter over the past three years.

In sum, ISS recognizes that TSR has shortcomings and blind spots. It can be distorted by leverage and changes in the market value ratio of debt-to-equity, is subject to the whims of investor perceptions at the beginning and end of the measurement period, and is typically measured point-to-point, or nearly that, ignoring what happens in between. It also is an impractical tool for managers to apply in running a business. There's a strong case, therefore, for including both TSR and EVA in the pay-for-performance analysis.

Introduction to the EVA Measures: The Four Key Ratios

Of the many EVA concepts available to assess company performance, ISS has selected four EVA ratio measures to complement TSR, which are shown in the table below.

The ratios running down the first column measure a firm's ability to earn EVA, and the ratios in the second column measure the company's ability to increase EVA. The first column rates profitability, and the second column rates progress. The ratios running across the rows adjust for the firm's size in relation to sales and to its capital. The two versions stabilize comparisons when the balance between sales and capital varies.

	Profitability: Earn EVA	Progress: Increase EVA
Vs Sales	EVA Margin = EVA/Sales	EVA Momentum vs Sales = the <i>Change in EVA/Lagging Sales</i>
Vs Capital	EVA Spread = EVA/Capital	EVA Momentum vs Capital = the <i>Change in EVA/Lagging Capital</i>

The four ratios, in sum, are strong proxies for the net present value a company is creating due to the EVA profit it is earning and the growth in EVA it is achieving. As was said, EVA performance ratios provide a window into the TSR a company is earning as it is earning it, and not as it is projected to earn it. To rate a company's performance, the EVA ratios are compared with the results generated by its peer set.

ISS adjusts and interprets the EVA ratio metrics in special ways, as discussed below:

Profitability is averaged over three years

ISS averages a firm's EVA Margin and EVA Spread over three years. Averaging the ratios smooths business cycles and lessens the impact of currency swings and other sporadic items. This approach renders a sounder measure of a firm's underlying profitability as the basis for making comparisons; managers need to sustain improvements in performance over a period of years before they have full impact on the measures. Transitory blips do not substantially drive EVA metrics – either on the upside or the downside.

Momentum is measured over three years and along a trend line

Rather than looking at EVA Momentum over the most recent year, ISS computes the average EVA growth rate over a span of three years. The calculation is made by running a regression line through the EVA profits a company earned over the past four years and then dividing the slope of that line by the average of the firm's sales or capital in the first three years.

The regression technique avoids the distortions in point-to-point growth rates, which entirely depend on the beginning and ending values but not intervening ones. With the ISS method, all four EVA observations have a magnetic pull on the slope of the line. Each period counts. As computed, Momentum measures the fundamental long-range growth trajectory for a company's EVA along a

trend line. That measure is much less volatile and much less subject to manipulation than a point-to-point measure would be.

Two measures are better than one

As has been noted, the EVA ratios are calculated twice, once versus sales and a second time versus capital. The redundancy is intentional. One reason is that margin measures relative to sales, and yield measures relative to capital, offer different insights; they have different economic interpretations, as will be discussed. But more importantly, looking at results scaled to sales and capital neutralizes comparisons when the mix of sales and capital varies.

Even within the same business sector, for example, some companies are more vertically integrated than others. Some reach further back or further forward in the supply chain and add a lot more to their capital without adding anything or only a little to sales (or the opposite). Sourcing strategies also can change suddenly, and such moves also can alter the amount of capital that stands behind a company's sales in ways that may have nothing to do with how well the firm is performing or how much EVA it is earning. Judging performance relative to sales or capital alone simply cannot be as reliable, as fair, or as robust as reaching a conclusion based on both.

Moving measurement windows

ISS uses quarterly financial data to construct a running series of annual results. EVA and sales in each quarter are computed and then summed over moving four-quarter periods to create a stream of annualized results (dubbed TFQ, for "trailing four quarters"). Measuring Capital is also a two-step process. The average of the Capital outstanding at the beginning and end of each quarter is computed (and used to compute EVA in each quarter), and then the running four-quarter average of the quarterly averages of Capital is used to compute the Capital ratios.

A strategic cost of capital

The cost of capital ISS uses to measure EVA is computed using a company's running three-year ratio of debt-to-capital and not the actual financing proportions employed in the period. As a result, and unlike EPS, the EVA metrics are resilient to transitory shifts in a company's capital structure, such as when a company concludes a debt-financed acquisition or borrows to buy back its stock. EVA supports a basic principle of corporate finance, which says: do not mix operating and financing decisions. Rather, judge each decision as if it is being financed at a target blend of debt and equity. EVA does that.

How EVA Can Support Pay-for-Performance Analysis

Each investor is likely find specific ways to incorporate EVA during the 2019 proxy season. ISS, too, will evaluate if and how EVA fits into its quantitative pay-for-performance analysis process. Pending those determinations, here are some preliminary ways in which EVA may prove informative.

Parsing performance in borderline TSR cases

Suppose a company's standing in ISS' Relative Degree of Alignment (RDA) or Pay-TSR Alignment (PTA) scores is borderline – close to the investor's (or the ISS Benchmark Policy) elevated quantitative concern threshold. In that case an investor may wish to consult the EVA metrics for insights that might tilt the scales one way or the other.

For example, if the firm's EVA performance is strong, investors may opt to support the pay plan alignment, whereas if the firm's EVA performance is notably weak compared with peers, an investor could accelerate a concern about the pay plan, and they would have the EVA metrics to help make the case.

Helping interpret turnaround situations

Companies that are in the process of engineering a turnaround pose a distinct set of pay issues. These firms may be challenged with broken business models, high costs, misallocated capital, and/or inefficient corporate structures. Understandably, their recent TSR and their current EVA Margin and Spread metrics do not tend to stack up well. But if management is making progress in its restructuring, and if the benefits of a successful turnaround are beginning to take hold, the EVA Momentum metrics will show it. For one thing, EVA is not burdened with one-time restructuring and extrication costs – those are capitalized. In addition, Momentum is based on the *change* in EVA, not the level. If management is making a negative EVA less negative, that will be measured as positive EVA Momentum. The Momentum metrics, in short, could provide investors with a justification for supporting competitive pay packages for the managers in turnaround companies even if the company's overall performance is not yet fully competitive.

Identifying companies that are losing their edge

Fading stars are the opposite of turnarounds. These firms look strong on the surface, but trouble may be brewing beneath. Alert investors may want to look deeper into the compensation programs at these companies to ensure that the pay plan addresses the issues.

Fading stars are unquestionably profitable—a legacy of established brands, innovation, and scale. But they are maturing and suffering from growing competition, shifting consumer tastes, or disruptive technologies. For whatever reason, their EVA profits, while positive, and possibly very positive, are slipping. And if EVA is slipping – if it is positive but becoming less positive – then the Momentum ratios are negative.

Momentum is generally a sooner, surer measure that the economic vitality of a business model is fading and that management responses to it aren't helping because it brings all the pressure points to bear. A compression in gross margin, a slowing asset turnover rate, a misallocation of capital, an inefficient restructuring, an overpriced acquisition, or a softness in sales all come home to roost in the Momentum ratio score.

A notable advantage to EVA Momentum is that it ignores how profitable a firm is, or how rapidly its sales or book profits are growing, or how high its margins or return on capital happen to be. It cannot be misled by those metrics. It focuses on the change in economic profit, on the company's progress, or lack thereof, at the margin, due to new investments, new decisions, and new developments. It harvests the news in the financial data.

In sum, when other metrics look good, but the EVA growth trajectory doesn't, that's a sign to look deeper into a compensation plan and make sure it is motivating managers to address strategic challenges rather than papering them over.

Identifying companies that are not as good as they look

Many companies that appear to be thriving because of impressive growth in sales, EBITDA or EPS, can have little EVA to show for it. A company that is just earning its blended cost of debt and equity capital, for example generates plenty of book income and cash in its business – it is after all earning

a decent, market-competitive return on equity. But its EVA is zero and the growth in its EVA is zero, too, no matter how fast its sales, EBITDA, or EPS are growing. Even if a company earns a noticeable premium to its cost of capital, say, its EVA is positive and runs at a 2 percent EVA Margin versus sales, then it can generate substantial sales growth but only a very small portion, just 2 percent of it, translates into EVA growth. The EVA metrics thus can help investors to spot companies that may be overpaying managers based on conventional metrics, when the company is in fact failing to pass the more stringent EVA performance test.

Summing Up: EVA as a Measure of Management Performance

The four EVA ratio metrics ISS has selected should provide a useful and reliable way of comparing companies in terms of the underlying financial performance that shareholders care about and that managers can manage. Unlike TSR, EVA metrics are not swayed by fluctuations in stock prices. And unlike conventional ratios, EVA ratios correctly account for the full cost of using capital and the value of managing it, and they systematically mitigate distortions introduced by GAAP accounting rules. The bottom line is that the new EVA ratio metrics hold the promise of complementing TSR and providing significant new insights into the alignment of pay-for-performance.

For more information, please download the following whitepapers:

[The EVA Measurement Formula](#); explains the adjustments used to compute EVA

The Four Key EVA Performance Ratios; an in-depth examination of the four key EVA ratios ISS is presenting in pay-for-performance analysis

EVA and TSR; an explanation of the link between TSR and EVA (and the four key EVA ratios), with empirical validation (Forthcoming)

Another resource is the book, *Best Practice EVA*, by Bennett Stewart, Senior Advisor to ISS, available on [Amazon](#).

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