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Measuring Economic Value Added (EVA): How Corporate Governance Works for Shareholders

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The term "Economic Value Added (EVA)" is a registered trademark of Stern Stewart & Co, a consulting firm which implements the EVA concept for large companies. Joel M. Stern, managing partner of Stern Stewart since its inception, is a recognised authority on corporate performance measurement and a pioneer and proponent of shareholder value. Stern recently delivered the Shaw Foundation Distinguished Faculty Lecture at the Singapore Management University on how to make corporate governance work for shareholders. This article explains why EVA as a way of measuring a firm's performance matters.

What is Economic Value Added (EVA)?

Economic Value Added (EVA) sharpens the view of corporate governance by redefining its goal. It has long been accepted that companies should seek to maximise profits. The firm of Stern and Stewart attempts to change the target somewhat by saying that shareholders will benefit if the firm maximises EVA instead of accrual profits.

Economic value added (EVA) uses accounting information to improve decisions and motivate employees. According to Erik Stern, president international of Stern Stewart, "Although EVA is based on accounting, when implemented the system must be simple and operational or it is irrelevant. EVA is not a metric but a way of thinking, a mindset. While the language is technical, the lifestyle is operational." Central to the concept is the idea of opportunity cost. Capital is used in each division of the organisation. That division is required to earn a rate of return based on the amount of capital it uses and the cost of that capital. The firm's cash flow is subtracted from the required profits, based on the rate of return, to give economic profits.

Using this method, the divisions earning the highest returns are favoured. More capital is invested in them. Those which earn less but are still above the target return also receive capital allocations. Divisions below the target return are re-evaluated. These are sold off if it appears they will be unable to meet the threshold. The term used for terminating a division is "harvesting". The thinking is that the division may have grown ripe (mature), thereby making it eligible for harvest (sale or discontinuation).

Four-step Calculation

The four steps to calculating EVA are: calculate the net operating profit after tax (NOPAT); calculate total invested capital (TC); determine a cost of capital (WACC); and calculate $EVA = NOPAT - WACC\% * (TC)$

Accounting professor Steven Orpurt from Singapore Management University explains: "One of the primary insights from the EVA concept is recognition that growing earnings does not necessarily increase firm value or stock price. EVA focuses attention on how a firm uses its capital by asking, "Is a firm generating earnings above and beyond that expected by the market (the providers of the capital)?"

The first step, calculating NOPAT, requires conversion of the company's accrual to cash accounting. Under some accounting regimes, a step by step add-back of cash items is required if cash statements are not available. For publicly traded US companies and others which follow US GAAP, one can simply refer to the required statement of cash flows, one of the four required financial statements. Non-public and small companies may not fall under GAAP requirements, so the add-back may be required. The same applies to non-US accounting where statement of cash flows is not required. Many large firms, however, will include it voluntarily with their financial statements.

The Need for EVA

How relevant is EVA today? Responds Stern, "Some may say that EVA was a fad of the 1990s, but earning more than the cost of capital is not a fad. It is what all companies should do all of the time. That they do not is surprising. All of the talk on governance, also not a fad, never demanded this simple requirement. Until boards do, EVA will remain as relevant as it was in the 1990s."

There is a long history in economics of preferring "economic" over "accounting" profits. The difference is that the former subtracts opportunity costs, in particular, a "fair" rate of return on investment. Accounting profits do not. The opportunity cost of equity capital has been estimated as high as US\$300 billion. It is an opportunity cost to shareholders.

In its basic form, EVA is the Net Operating Profit After Taxes (NOPAT) minus the money cost of capital. Money cost of capital means the dollar value of that cost rather than a rate of return. It adds back to the accounting profits the

amortisation of goodwill or capitalisation of brand advertising. There are other similar adjustments of intangibles which EVA considers important. Shareholders of the company receive positive value added when the return from the capital employed in the business operations is greater than the cost of that capital.

The EVA concept believes that for every performance measure there is a corresponding wealth measure. For example the P/E ratio is the wealth measure that corresponds to return on equity. Market capitalisation (price x number of shares) corresponds to free cash flow, while total shareholder return corresponds to cash flow return on investment.

To calculate NOPAT, EVA starts with income before income taxes and minority interests. Then it adds interest expense to get earnings before interest and taxes (EBIT). Next, it makes two adjustments. First, it adds and subtracts non-cash items to put EBIT on a cash basis. An alternative would be to take the information from the firm's cash flow statement, if available. Then, it capitalises expenses which it believes should be treated as investments. The effect of this is to move certain expense items to the balance sheet.

Examples of converting accrual information to cash are adding increases in LIFO reserves. Another is adding increases in the allowance for bad debts. An example of capitalising debt/equity equivalents is to convert operating to capital leases. It takes an off-balance sheet type of financing (the operating lease) and puts it back onto the converted balance sheet. The preferred way to do this is to take the present value of the lease payments for the period of the lease.

The interest rate for the discounting is usually available from the company – its ratio of lease payments for the year to total lease obligations. If not available, a reasonable discount rate can be estimated based on the firm's cost of debt and equity capital. Next, in converting to a cash basis, the company subtracts cash taxes paid. One can do this by subtracting increases in deferred tax liability and adding tax subsidy on deductible expenses. The result is cash operating taxes.

A key step is to determine the weighted average cost of capital and multiply it times the capital that the company uses. This is the "opportunity cost" concept that is at the heart of the economic profits approach. Estimating the cost of debt is relatively straight-forward. The exception is if the debt is not publicly traded and therefore hard to value (such as CDO debt). In the absence of such problems, the standard way is to look at debt costs on the income statement and divide by the total debt outstanding on the balance sheet. Another way is to estimate the cost of debt from the company's debt rating from rating agencies such as Moody's or Standard and Poor's.

Cost of Equity

Estimating the cost of equity capital uses capital asset pricing. It takes the beta for the company which is published for most large companies. If not, one can regress the firm's returns against the market's returns over some time period (usually monthly data for five years). The resulting slope coefficient is the firm's beta. One multiplies the beta times the market's equity risk premium. This risk premium is the difference between the total market returns (such as for S&P 500) minus the risk-free rate of return (such as for treasury bills). This gives the cost of equity capital = risk-free rate + (beta x equity risk premium).

Next, one multiplies the cost of debt and equity capital times the weights of debt and equity in the capital structure. The weights are equal to the debt and equity, each as a per cent of the firm's assets. The result is the overall weighted average cost of capital of the firm (WACC).

If the number might be 8%, for example, one would then multiply this times the total capital the firm uses – its assets. If assets are \$1 billion and the weighted average cost of capital is 8%, the capital charge is \$80 million. This is subtracted from the firm's cash flow which EVA calls its net operating profit after tax (NOPAT). If the cash flow is \$65 million and the capital charge is \$80 million, the economic profit is a negative \$15 million. It shows the firm is not paying its economic rent. It is destroying value. The capital could be better employed in another use.


The same concept can be applied to divisions of a company. Those with negative economic profits are ripe for harvesting. They are candidates for sale of assets or sale of the entire business unit.


Implementation

The EVA concept is not a new one. It is a basic part of accounting and finance. The key to it all is successful implementation. That is, calculating the numbers and then committing management to act on them, such as to increase funding to divisions with positive EVA, and to harvest (sell) divisions with negative EVA.

Another important implementation is to reward or punish managers for generating positive or negative EVA. Incentive schemes based on the EVA are shown to be more motivating than other company-wide or accrual-based incentives. According to Stern, "EVA attempts to bring the concept of the franchisee into the corporate world. Most franchisees outperform company operated businesses. Ownership makes a difference. EVA-based compensation mimics the ownership mindset and encourages the company manager to take decisions as would the franchise owner."

Orpurt gives his take on implementation: "EVA is an incentive system so employees need a reward for creating and sustaining it. Successful implementation requires a substantial commitment by managers and employees at all levels of an organisation."

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