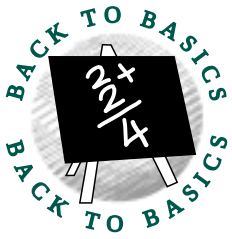

Economic value added – a useful tool in the kitbag?

Paul Wilkinson of Charter plc gives an overview of EVA and looks at the problems of calculating and applying EVA for maximum shareholder value.

What is economic value added (EVA)? Most readers will be familiar with the term. It draws on financial management concepts that have been used widely since the first half of the 20th century and which form the cornerstone of financial management education in most developed and developing economies.

The purpose of EVA is to provide a framework for evaluating returns generated by an investment in relation to returns expected by the providers of capital to that investment, given the risk class of the investment. It is a powerful tool for understanding that businesses must earn a return on the capital employed in the business that is at least sufficient to meet the expectations of its shareholders in the long term.

A useful tool?

EVA avoids the manipulation of profit as a performance measure and also avoids the lack of temporal resilience associated with cash generation as a performance measure. However, EVA is not a panacea and should be treated with care. It has its place, but as with all calculations its weaknesses must be understood if it is to be a useful tool for financial appraisal and performance measurement.

EVA is calculated as follows:

return on investment %
(ROI – *the actual return achieved by the capital invested in the business)*
less
weighted average cost of capital %
(WACC – *the return required by providers of capital)*
= economic value added % (EVA)

Furthermore, multiplying the EVA percentage by the amount of the investment will give a monetary amount of value created.

> EVA is not a panacea and should be treated with care. As with all calculations its weaknesses must be understood if it is to be a useful tool in the kitbag of financial appraisal

Because of its conceptual simplicity, EVA has been widely applied. Its apparent ability to align and compare the interests of shareholders and management has resulted in EVA being used to set performance targets for operational management and as a measure for the allocation of investment returns between shareholders and management (management bonuses). It is also used to appraise and rank capital investment projects. However, as with most financial management tools, the devil lies in the detail and users need to be aware of the weaknesses and conflicts inherent in the system.

Issues associated with the calculation of ROI and WACC are widely documented and are too numerous to explore here. The purpose of this article is to highlight some of the practical issues that should be considered when using EVA as a performance appraisal tool.

Periodic performance v absolute value generation

Equity analysts use often use EVA as a measure of whether the management of the business has created value (+'ve EVA) or destroyed value (-'ve EVA) for its shareholders.

Consider a business that started up ten years ago and which has continuously had a WACC of 9%. Assume that this business has generated a ROI of 7% per annum for each of the last ten years, but which in year five, sold part of the business and generated an exceptional return that increased ROI for that year to 107%.

Should the exceptional profit in year five be eliminated from the ROI calculation or should it be included? Analysts tend to eliminate exceptional items from ROI, arguing that they are 'one-off' items and that to include them would distort their ability to compare management performance across a number of periods and between companies. It is this approach that highlights one of the key structural issues associated with EVA.

In simple terms, the management of this business has created +'ve EVA of 80% over the ten-year period. Not a bad record by anyone's standard. After all, creation of value by building valuable businesses and then realising that value for the benefit of shareholders, can be one of the key roles of management. Furthermore, the very purpose of EVA is to move away from periodic profit and EPS-based performance measures. If shareholders were to ignore the value creation realised in year five, they would be effectively trying to measure the management on the basis of an annual performance calculation. In this case PBT or EPS may arguably prove to be just as useful measures as EVA.

The problem lies in the fact that EVA purports to be a measure of true value creation, yet by using ROI as the performance criterion it suffers from all of the periodic recognition problems associated with ROI. Has the management in the example above done a good job in creating shareholder value by year three? It has apparently destroyed value for three consecutive years and has nothing to show for the unlocked value in the business.

To a degree, this is fair. It would be premature to recognise unrealised value. However, by year seven, how should the management be appraised? Does it have a winning track record compared to its peers, or does it have a poor record with a lucky blip in year five that should be ignored? This dilemma debated continues to be between shareholders and companies, and no universally satisfactory resolution has yet been found.

Weighted average cost of capital

The calculation issues associated with WACC are many. However, some of the practical issues that can have a significant impact on the outcome of EVA analyses are worth mentioning.

WACC represents the return required by investors of debt and equity capital into the business. The cost of equity (return required by equity investors) can be derived from the capital asset pricing model (CAPM).

This model states that:

$$Ke = Rf + b(Rm-Rf)$$

where: Ke = the return required by equity investors;
Rf = the risk-free rate of interest (the yield on long-term government bonds);
Rm - Rf = the market risk premium required by investors for holding equity risk rather than a risk-free asset; and
b = the riskiness of the investment compared to the market as a whole.

The CAPM is a long-term portfolio measure and appropriately uses a long-term Rf rate. In the above example, assume that the business is un-geared and therefore the Ke equals the WACC of 9%. This is derived from (say):

$$Ke = 6\% + 1(3\%) = 9\%$$

Next, let us assume that the yield curve is positive sloping and the short-term gilt rate is only 3% (an artificial but not unbelievable long-term – short-term difference).

In this case: $Ke = 3\% + 1(3\%) = 6\%$

On this basis, the management has now exceeded its shareholders' expectations in each of the ten years. It is a remarkable turnaround compared to the previous example. But should the Rf rate to be used be the long-term or short-term rate?

Theoretically, it is the long-term rate that should be used. But let us consider what it is that is being measured. We have already established that investors want to see, at the very least, regular periodic statements of how well the business has performed compared to their expectations. This assumes that investors appraise the business on an annual basis and not over a ten-year period. Therefore, it can be argued that a better Rf rate to use would be the one-year gilt rate which more appropriately reflects the inflation and economic environment during the period in which the business is earning its return on investment. It is also the shareholders' opportunity cost of Rf investment during the period being measured. The result of the EVA analysis clearly can be very sensitive to the outcome of this debate, for which a consensus has yet to be reached.

More cost of capital considerations

The above example becomes even more problematic when trying to determine the Rf rate to be used for a business with investments earning a return in a number of different interest and inflation environments such as Brazil, UK and Japan. How should the Rf rate now be determined? It is too simplistic to argue that as a UK-based company the sterling Rf rate should be used. Alternatively, adjusting the WACC for constant changes to the location of investments also introduces a high level of uncertainty and complexity to a measure which claims simplicity as one of its main strengths.

Should goodwill be added to capital employed and if so over what period should it be amortised? How should the goodwill be apportioned to investments in each of the countries stated above? Various acceptable allocation methods are available.

> The more prescriptive the measure of financial performance, the more caution should be attached to its use

Gross debt or net debt?

Should EVA be based on the WACC or the Ke alone? Use of the WACC assumes that management has the ability to make an impact on the value of the business by managing its capital structure.

All of these issues, and many more, continue to be debated. By selecting a particular answer, many value creating businesses can be transformed into value destroying businesses – and vice versa.

A tool in the kitbag

This article is by necessity a brief overview. However, it is clear that the problems of calculating and applying EVA include many of the problems associated with ROI and WACC individually, together with a few more which expose their inconsistency and the conflicts that arise when the two measures are brought together.

EVA can be a useful tool to have in the kitbag and it has certainly made a positive contribution to increasing the focus on shareholder value. But care must be taken in understanding the weaknesses inherent in EVA and the sensitivity of the EVA calculation to the various assumptions that may be used, albeit with greater or lesser degrees of validity.

It is important not to lose sight of the underlying business dynamics. As a general rule, the more prescriptive the measure of financial performance, the more caution should be attached to its use. ■

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Note: EVA™ is a registered trademark.