



Original Article

Economic added value and performance measurement

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Abstract

Economic added value is an estimate of the true economic profit, or the amount of money which exceed the minimum amount accepted by investors. In other words, from the point of view of the shareholders, the economic added value represents the operational profit that exceeds the opportunity cost of the capital invested by them.

The economic added value indicator is not a new concept. It is nothing more than a variation of the residual profit mentioned by Alfred Marshall in 1890, with some adjustments to how profits and capital are calculated. Marshal defined the economic profit as the total net earnings deducting interest on invested capital calculated at the current rate. Added economic value has the advantage that it is conceptually simple and easy to explain to managers who do not have financial knowledge, can be calculated for the whole company, a business unit or a single office or assembly line and shows the importance of the funding structure used by each Company.

Often EVA is seen as a simple measure that faithfully plays the true picture of creating wealth for shareholders. Statistical reports show that EVA deployment is triggering an increase in company shares and causes managers to act as if they were shareholders.

Keywords: economic added value, performance measure



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Introduction

Added Economic Value (EVA) is commercially one of the most successful indicators that measures the financial performance of companies in terms of creating or destroying wealth over time for shareholders.

Economic profit or EVA - added economic value - is perhaps the most well-known modern financial value-creation indicator, circulated/appearing in many specialized papers and increasingly used in the practice of international firms. This indicator is based on the central idea that there is no real profit at the level of a company if it does not exceed the cost of the capital used.

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A century later, other authors (Dodd and Chen, 1996) argue/sustain/tell/observe/admit that the notion of residual profit first appears in the literature and accounting theory in 1917 (Church), and then in 1927 (Scovell). Also, in the Finnish academic environment and in the specialized press, this concept has been discussed since the early 1970s. The residual profit as a measure of the accounting performance was defined as the difference between the operating profit and the cost of capital.

Discussion

Historically, the EVA concept was introduced in 1920 by General Motors Corporation and was neglected until the 1980s when it was developed by the American consulting firm Stern Stewart (indicator proposed in 1991 by Bennet Stewart) as a replacement for Traditional measurement of value creation. It is a measurement tool that provides a clear picture of how wealth of capital owners is created or destroyed, highlighting the company's ability to earn higher than the real cost of capital.

After 1990, the correlation of performance with value measurement, with three methods such as EVA, has gained a lot of popularity, being used in over 250 large-scale companies. "Specialty literature reports that more and more companies are deciding to adopt the EVA to measure performance and guide their core corporate policies."

$$EVA = PON - CO_{KI}$$

Where: PON - net operating profit;

COKI - the opportunity cost of invested capital

The added economic value is determined as the difference between the net operating profit and the cost of the used capital

$$EVA = PON - K \times c_K$$

Where: K - capital;

CK - the cost of capital

EVA is therefore the net operating profit from which the opportunity cost of the entire invested capital is deducted, representing the measure of the actual economic profit obtained by the enterprise, which translates into:

$$EVA = (RI - cm_{pc}) \times Ki$$

where: RI - return on total capital used; Cmpc - the average weighted cost of the capita (or the average rate of return on total capital - RR); Ki - the invested capital (equivalent to the value of the capital used by the company - CT).

The modality of determinating the EVA

Added economic value has the advantage that it is conceptually simple and easy to explain to managers who do not have financial knowledge, can be calculated for the whole company, a business unit or a single office or assembly line and shows the importance of the funding structure used by each Company.

The EVA indicator is a way of allocating capital both at the company level and across the national economy. For the sake of completeness, any company must derive from its activities a minimum rate of return equal to the average rate of return on capital markets, both of which are determined under similar risk conditions. If a company is not able to generate the minimum return required by shareholders, then according to the substitution principle acting on any market, they will seek to invest their capital in other companies.

It is very well known that there are sectors of activity where the achievement of the minimum rate of return is made more difficult due to the action of some factors such as:

- the existence of surplus production capacities that generate discrepancies between supply and demand;
- the degree of maturity of the respective sectors;

- the existence of a large competitive pressure.

Several/More and more companies use a large number of indicators to express the same goals:

- Strategic plans are based on increased turnover and market share;
- individual products and business lines are evaluated on the basis of the gross margin or cash flow indicator;
- business units can be valued in terms of marginal return on assets or according to a budgeted profit level;
- The usual financial departments analyze capital investments in terms of net present value (VAN)
- Bonuses for managers and the leaders of business units are usually negotiated annually and are based on a profit plan.

There are many companies that break out of the normal business sector patterns and achieve higher levels of return, although the average sectoral rate is still low. These sectors include: the forestry industry, the motor vehicle industry, the steel industry, the assembly of electrical appliances, etc. It is not excluded that the aforementioned sectors will not improve their profitability over time, with the reduced values in certain periods being characteristic of the cycle of running the business. Identifying these less performing sectors in terms of profitable returns can be done relatively easily through market assessments.

Depending on Factorial Value Added Value (EVA) we have:

$$EVA = PON - CI \times c_{mpc} = CI \times (RCI - c_{mpc})$$

$$PON = CA - CH_{expl} - C_{imp}$$

$$c_{mpc} = \frac{CP}{CP + DAT \text{ tl}} \times c_{Kp} + \frac{DAT \text{ tl}}{CP + DAT \text{ tl}} \times rd \times (1 - t)$$

Where: CA - net turnover

DAT tl = long-term debt (long-term loans)

CHexpl - operating expenses

CKp = cost of equity

Cimp - profit tax expense

Rd = interest rate (cost of debt)

Cmpc - weighted average cost of capital

T = corporation tax rate

CP = equity

Net profit requires the highest return on company assets (invested capital), rising productivity and profitable growth.

The Capital Asset Pricing Model (CAPM) model using the following formula for quoted companies is used for estimating the cost of equity (ccp):

$$c_{kp} = R_f + (R_m - R_f) \times \beta$$

Where:

R_f = the rate of return on risk-free assets or the risk free rate

B = the systematic risk volatility coefficient

R_m = expected market return

The " $R_m - R_f$ " difference is a market risk premium.

The cost of capital requires capital structure optimization, and business assets need to be invested in value creation operations and the allocation of those assets from operations that lead to the destruction of value to those valuable creative operations, basically by asset management.

Unlike the net operating profit used by EVA, net profit is a residual value, which remains after all expenses have been recorded. This has led to net profit being the most used substitute for measuring value creation. Other performance indicators are also determined by net profit: return on assets (ROA), ROI, and ROE, which are heavily used. It is also used to calculate earnings per share (EPS).

Net profit remained popular despite two major inconveniences:

- mixes historical concepts such as depreciation, past costs, calculated costs (accruals) and others, with the market (current value);
- Does not reflect the different risk levels of companies.

The biggest contribution of the EVA indicator is that it brings to light the fact that equity also has a cost. In order to compete successfully for limited capital market resources, a company must earn for its shareholders an amount equal to the risk-adjusted rate that capital providers can earn from other investments.

The central message of EVA is that it is not enough to have a positive net profit or a certain level of earnings per share. Thus corporations must earn enough to cover the cost of debt and the opportunity cost of equity before they begin to create value.

Although conceptual EVA can also be applied by beginners due to the very easy to learn method, the numerous adjustments that need to be made in order to correctly estimate the situation of companies make it difficult to apply it. Companies generally make adjustments only for factors that are subject to

strong changes and there is no standard for them. Basically, if adjustments become very complex, the EVA utility becomes compromised.

An important factor in sizing value through the company's EVA is the use of this indicator to assess the management team's performance. Thus, management teams are urged to create value at the expense of budgeting. Compared with reporting on budget execution, EVA is a much better indicator of managers' performance.

Research has shown that EVA is an effective indicator of the quality of management team decisions, but also an indicator of future company developments [Fisher, 1995]. Under these circumstances, an EVA indicator that records positive values over time will increase the value of the company and, implicitly, the value created for shareholders. In contrast, a negative EVA means company degradation and implicitly the destruction of shareholder

It should be noted that EVA is the most trusted picture of a company's pluses and minuses. In implementing such a method, such as EVA, the most important and most difficult task to achieve is to get employees involved, ranging from top managers to workers, thus achieving a better understanding of the concept of EVA and The implications it has at each department level.

EVA sums up the most important financial aspects of companies and the value that they create, turning into an effective measurement tool and even a control tool.

Also, the direct comparability of EVA company reporting will always be a problem as long as companies do not show consistency in how they make adjustments. Until EVA standardization is achieved, it is much more suited for internal performance measurements than for company-based analyzes.

Often EVA is seen as a simple measure that faithfully plays the true picture of creating wealth for shareholders. Statistical reports show that EVA deployment is triggering an increase in company shares and causes managers to act as if they were shareholders.

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