

ECONOMIC VALUE ADDED: PROS AND CONS

Assoc. Prof. Laura VASILESCU, PhD
Prof. Ana POPA, PhD
University of Craiova

1. Introduction

The financial theory emphasizes the importance of maximizing shareholder wealth as the ultimate goal of business firms. Therefore, there have been developed modern techniques for measuring the performance of companies that offer more flexibility to financial managers, both in terms of operational aspects and evaluation parameters. Economic value added (EVA) is one of such innovative tools.

At present the business environment is faced with numerous challenges that can have a major impact on the performance of firms. Thus, the increased competition on domestic and international markets, the changes in exchange rates, the high volatility in interest rates have generated confusion within companies and led managers to focus on value creation.

During periods of economic fluctuations, reanalysis of performance measurement tools became a necessity.

Alongside classical rates - such as the Return on Asset, Return on Equity - EVA is an indicator that can be used in modern business and financial analysis that can boost the performance of firms.

2. Concept of Economic Value Added

The idea of economic value is based on research findings of teachers Franco Modigliani and Merton H. Miller (1961). Later the idea was taken over and expanded the concept of economic value added - EVA - by Bennett Stewart and Joel Stern (Stern Stewart &

Company). They have managed to build a performance measurement system that is different from the assessment methodology, have created a vocabulary and a scheme to encourage managers of large U.S. companies.

This new financial instrument has gained popularity because of the innovative approach to real profitability of the firm. Unlike the traditional performance measurement tools, EVA reflects "residual profitability" of the company, taking into account both the direct cost of borrowed capital and indirect cost of equity. In this way, EVA serves as a modern tool for measuring the financial results, being closely correlated with the requirement of maximizing shareholder wealth.

Economic value added is calculated as the difference between net operating profit and opportunity cost of capital employed. The opportunity cost is determined by the weighted average cost of capital and capital employed:

$$EVA = NOPAT - (K \times Ca)$$

where:

NOPAT = net operating profit after taxes;

K = weighted average cost of capital;

Ca = capital employed.

The average cost of capital is determined by the cost of equity and cost of borrowed capital, as follows:

$$K = R_C \times \frac{C_{pr}}{C_{pr} + D} + r_D \times \frac{D}{C_{pr} + D}$$

where:

R_C - cost of equity;

r_D - cost of borrowed capital;
 C_{pr} - equity;
 D - borrowed capital.

The cost of equity can be interpreted in terms of size of dividend that a company distributes. The question is determining the remuneration of capital to shareholders that allows both satisfaction of shareholders and optimization of financial structure.

The cost of borrowed capital is determined based on interest and fees that the company must pay to the creditors. Because investors have more choice of placing their capital, they will choose to pay a placement that ensures superior free rate of risk return.

Economic added value expresses the net profit after payments made to creditors and shareholders. This indicator is designed to establish what happened to wealth for shareholders. Therefore, getting a higher return than the cost of capital will increase the firm value and vice versa.

The idea behind the EVA is that shareholders must earn income to compensate the risk. In other words, equity should generate similar income for risky investments on capital markets. If this target is not achieved, there will not be a real profit and the company will record the loss in terms of shareholders. On the other hand, if EVA is zero, this can be considered a sufficient goal that shareholders have realized a gain to offset the risk.

Conceptually, EVA is superior to accounting profit as a measure of value creation because it recognizes the cost of capital and therefore the risk level of business operations. Rates of return based on accounting data (Return on Assets - ROA, Return on equity - ROE) do not underline real income because they are based on historical data, influenced by the rate of inflation or other factors.

3. Advantages and disadvantages of EVA

EVA indicator is constructed thus maximization to be considered an objective while the traditional indicators are not built that way. Thus, rates of return are traditionally used to measure performance, using different formulas (Return on Assets, Return on Investment Return on Equity, Return on Resources Consumed, etc.).

The main weakness of these rates is that in all cases, maximizing profits does not mean maximizing shareholder wealth. For example, the Return on Investment (ROI) - which is determined by comparing net operating profit to economic asset - is an indicator that takes into account the risk component:

$$ROI = \frac{PNE}{Ae} \cdot 100$$

where:

PNE = Net operating profit;

Ae = economic asset or invested capital.

Therefore capital can be allocated inefficiently based on this indicator. Secondly, ROI does not recognize that shareholder wealth is maximized when the rate of return is maximized.

The same deficiencies present the Rate of Equity (ROE) which expresses the ability of businesses to achieve net profit based on equity:

$$ROE = \frac{Pn}{Cpr} \cdot 100$$

where :

Pn = net profit

Cpr = equity.

In this case, the risk component is also not included. Besides, the indicator does not indicate if the company creates wealth for shareholders or not. In practice, along with the notion of Economic Value Added there are also used notions such as Adjusted Economic

Value Added - AEVA and Refined Economic Value Added - REVA which are actually modified versions of EVA indicator.

AEVA uses the current value of assets instead of book value and the market value REVA uses the book value of assets from the beginning of period instead of the accounting value.

EVA indicator is the most widely used from the modern indicators for measuring the firm's performance. Arguments for using this indicator are summarized by Stern Stewart's EVA four applications:

- Measurement;
- System management;
- Motivation;
- Way of thinking.

Thus, EVA is a financial performance measurement tool in a certain period. It can be said that EVA turn the accounting profits into an economic reality. However in order to calculate the indicator, a series of adjustments should be made (conventional revenue, inventory costs, depreciation, reserves, goodwill, etc.) to eliminate the accounting anomalies and to reflect accurately the economic results.

The cost of capital is one of the most important aspects reflected by EVA. When using traditional indicators, most companies appear profitable even in reality they are not. EVA corrects this error, explicitly recognizing that when managers use the capital, must pay for it. By taking into account the cost of equity, EVA indicates the profit made or not in each reporting period.

While measuring the indicator EVA indicates the performance of the company, its true value lies on its use as a basis for a comprehensive financial management system that includes all procedures, policies, methods and measures that guide operations and business strategy. EVA system covers a wide range of managerial decisions, including strategic planning, capital allocation, procurement, setting daily

goals. In all cases, it is intended to increase EVA.

Managers of companies that use this type of financial management system, know that there are only three ways to increase value:

- revenue growth through efficient exploitation of the assets already in service without investing capital,
- additional capital investment and business expansion as long as expected profits exceed the cost of capital for new investments,
- capital release, both by selling assets and by increasing the efficiency of the existing capital.

In order to foster long-term prospects of companies, Stern Stewart introduced motivating managers by providing "cash bonus plans". The introduction of these financial incentives leads the managers to create more money for them by creating value for shareholders.

When fully implemented - and the financial management system and incentive compensation system of EVA - these systems can transform corporate culture and thinking within firms. By putting all financial and operational functions on the same basis, EVA system provides a common language for employees on all company functions. Thus, EVA facilitates communication and cooperation between different departments of the company and contributes to elimination of existing differences between financial and operational department. In fact, the EVA is an internal system of corporate governance which automatically guides managers and employees.

The system also facilitates EVA decisions in a decentralized manner that leads managers to take decisions in a responsible way and rewards them when they create value.

In addition to these functions, EVA has other advantages. Thus, EVA is a tool for the allocation of capital within a firm, as long as it establishes a minimum

level of performance of rate of return on long-term. This level is determined by the average rate of return on capital markets. If the firm does not achieve the average, means that shareholders would take

- the first is that any company should maximize shareholder wealth,
- the second is that the value of a firm depends on the extent to which future profits will exceed the cost of capital.

Therefore, a sustained increase of EVA indicator will increase the company's market value. This approach proved effective in all types of firms because, in reality, the indicator is not really relevant but especially its growth will increase shareholder wealth.

EVA has the advantage that it is conceptually simple and easily explained to the non-financial managers, starting from operating profit and deducting the cost of capital invested in the company, in a given unit of production, factory or assembly line. By deducting the cost of capital, managers will monitor the effective use of assets and income.

Also, EVA eliminates confusion caused by multiple targets, using a single financial indicator that determines the convergence of all decisions to a common goal: how to improve EVA.

EVA provides a common language for both managers and employees and allows the management decisions to be modeled, monitored and communicated in order to achieve the objective of creating added value for shareholders. Therefore, EVA encourages long-term prospects of managers and employees of companies. In fact, through this it is justified the long-term investment for companies that must produce at least a profit to cover the cost of capital. This approach emphasizes that the company tries to operate without excessive capital and the ultimate goal is to create value for shareholders.

Implementation of EVA should be more than a simple indicator added to the company's financial reports. EVA

more advantages if invested in another sector or another company.

EVA can help managers to incorporate two basic principles in the decision-making process:

affect the way capital is viewed and, therefore, may cause a certain change in the attitude of managers. As long as the introduction of EVA may be a change in the firm, understanding the concept and significance of the indicator is essential.

Despite these advantages, there are some disadvantages arising from the use of EVA indicator. Thus, EVA is not effective in periodization of income for a single investment. Thus, it may underestimate revenue and may overestimate the beginning of the end.

Some companies in the development phase make more investment and can record negative values of EVA on short-term even the rate of return is higher. This is why the EVA is criticized as being a tool to measure the short-term performance. Indeed reducing the level of investment may increase the EVA on short-term. Therefore, some companies that have made long term investments concluded that EVA is not a suitable indicator to reflect their performance.

In fact, the reduced time horizon is an inevitable feature of all profitability indicators. All these indicators measure the current profitability. The real income or the true value of EVA for long-term investment can not be measured objectively with none of the indicators because the future earnings can not be measured, they can only be estimated subjectively.

The problem of periodization the indicators of measuring financial performance must be addressed by long-term objectives. Even if the current financial performance is low, there is no reason to analyze this limited aspect on short-term. This problem can be remedied in the long run, if the investments prove profitable. In addition, this problem can be solved by taking into

account the average period of maturity for the portfolio of company's assets in periodic interpreting for EVA. Therefore, it is expected that companies with lots of new and impaired assets to register negative values of EVA in the near future.

The companies that make major investments and expect positive cash-flow in the future are quite rare cases. For companies in the growing stage - and which record negative cash flow on the short term in prospect of long-term financial opportunities - EVA is not the best indicator. Performance of firms in the development phase (such as those in telecommunications or high-tech) is better measured by indicators such as percentage of sales growth, market share, etc.

Another disadvantage of using EVA indicator is that the periodical level of the indicator does not estimate (on average) the shareholders' value added due to inflation or other factors. Using the current value of assets instead of book value will lead to the elimination of this problem almost completely. But solving this problem depends also on the structure of assets (the ratio of fixed assets, the depreciable or non-depreciable assets) and the duration of the investment project. Also, EVA indicator's targets may be adjusted accordingly, although this is not a simple operation.

Firms can adopt different strategies of development based on the profitability levels achieved, ranging from conservative to aggressive. It has been confirmed that EVA or other indicators for measuring the financial performance are affected by the company's development policy.

It is the question of whether EVA or other financial performance indicators provide sufficient information for managers. Often, these indicators do not reflect the causes for a high or low profitability. Other indicators can better express the current situation or the

factors that determine the success. Therefore, every company should use several indicators to assess development plans and strategic objectives. In this context it is important to understand the concept of EVA - economic value added indicator is not a creator of value but only an instrument to measure the value - and its adaptation to the situation of each company.

4. Conclusions

Economic value added (EVA) is a modern tool for measuring managerial performance through the value created for shareholders.

Using the systems based on the value measurement has many practical advantages. Besides the fact that they motivate managers to create value for shareholders, because it is used the compensatory system in direct proportion to the results obtained. EVA can help managers to adopt the best investment decisions, to identify opportunities for improvement and to take into account both short-term benefits and those of long term.

EVA can be also calculated for the corporative evaluation and analysis of capital, motivating managers and setting organizational goals.

While measuring of the EVA indicator reveals the performance of the company, its true value consist in using as basis for a comprehensive financial management system that includes all the procedures, policies and methods which guide the operations and business strategy.

Economic value added present also some limitations such as: the perioditization of income for a single investment; do not estimate the added value for shareholder because the inflation and other factors; stresses the need to generate immediate results and therefore does not stimulate investment in innovative products.

Despite the few limitations it presents, EVA can be regarded as a complex of the most important financial aspects of a company and the value this creates, becoming an effective tool for measuring and control.

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