

ECONOMIC VALUE ADDED – INDEX OF COMPANIES’ INTERNAL PERFORMANCE

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ABSTRACT: *Value added displays various opportunities for measuring and evaluating performance; it is the key element in determining certain indices that create value having a major significance within a company’s activity, either quoted or not on capital market. In case of quoted companies, value creation is the main criterion of performance evaluation by shareholders whose strategic objective is maximizing present and future profits. In order to carry out such an objective, the value created for shareholders can be measured through a system of indices that allow the determination of the value created during a financial exception or as compared with a certain reference period. The economic index Value Added (EVA) is relevant in quantifying a company’s capacity of creating value for capital suppliers.*

KEY WORDS: *performance, economic value added, invested capital, capital cost, net operating profit after taxes, weighed average cost of capital, real economic profit*

1. INTRODUCTION

EVA is the mostly encountered index of measuring economic profit. It is an index of measuring internal performance of companies being promoted by Stern Steward American consulting company. Eva index is relevant in quantifying the capacity of a company of creating value for capital suppliers; capital cost represents the index of the average efficiency expected by investors under similar risk circumstances.

EVA can be determined both at the global level of a company and at the level of various organizational sub-divisions, irrespective of the fact that the company is quoted or not on the capital market. The index allows the calculation of a company’s performance during periods shorter than a year as it is expressed according to the accounting exploitation result.

Capital owners and potential investors are not interested in getting a positive EVA during short periods or yearly, but in constantly maintaining or even in

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increasing economic profit. EVA has a predictive importance as its evolution reflects the growth or not of the shareholders' wealth.

2. CALCULATION OF EVA

The index can be easily determined in case the following data are known: net operating profit after taxes, capital employed, and capital cost. EVA is also called "economic income". As compared with "accounting income", EVA has a higher informational value as it not only considers the profits generated by the use of the company's active assets but also the associated cost of invested capital.

- The most employed EVA formula is the following one:

$$\text{EVA} = \text{NETOPERATINGPROFIT AFTERTAXES} - (\text{EMPLOYEDCAPITAL} \times \text{CAPITALCOST})$$

Net operating profit after taxes NOP is determined by subtracting profit taxes (T_p) from exploitation result (R_{exp}):

$$\text{NOP} = R_{\text{exp}} - T_p$$

Exploitation result (R_{exp}) is determined by subtracting exploitation expenditures (Ex_{exp}) from exploitation incomes (I_{exp}):

$$R_{\text{exp}} = I_{\text{exp}} - Ex_{\text{exp}}$$

Capital cost includes the cost of the company's own capital and the debt's cost. It is a weighed average cost (C_{wa}) of the costs of employed financing sources. It is determined as a weighed arithmetic mean of the cost of the company's own capital and of the cost of loaned capital:

$$C_{wa} = \frac{C_o}{C_i} \times P_f + \frac{D}{C_i} \times i \times (1 - t)$$

Where:

- C_o = Company's own capital;
- C_i = Invested capital;
- P_f = Rate of financial profitableness;
- D = Long term debts;
- i = Interest rate;
- t = Taxes.

- Another formula employed when calculating EVA starts with the fact that this index represents *real economic profit* as it regards the whole capital used for financing:

$$\text{EVA} = (P_i - C_{wa}) \times C_i$$

Where:

P_i = rate of profitability of total invested capital.

The following idea emerges out of this formula: the investor is going to require a profitability of invested capital able to overpass its cost in order to get economic value added.

- In case one decomposes the above formula in order to see the factors it depends on, the result is the following one:

$$EVA = \left(P_i \times N_a \times \frac{1}{Ra} - C_{mp} \right) \times C_i$$

where:

P_i = Rate of incomes profitability;

N_a = Number of rotations of total active assets;

Ra = Accounting structure rate that reflects the share of invested capital within total assets.

Accordingly, economic value added is not an independent index; it can be the result of other rates calculated within a company's economic and financial analysis.

3. EXAMPLE REGARDING THE CALCULATION OF EVA ACCORDING TO THE DATA SUPPLIED BY YEARLY FINANCIAL SITUATIONS

In order to exemplify we are going to focus upon a company that displays the following simplified accounting balance sheet and profit and loss account:

Table 1. Simplified accounting balance sheet:

Indices	Amount (Lei)
A. Fixed assets	775 000
B. Circulating assets	400 000
C. Advance payments	-
D. Short term debts	283 000
E. Net circulating assets, namely net current debts	117 000
F. Total assets minus current debts	892 000
G. Long term debts	380 000
H. Provisions	-
I. Advance incomes	-
J. Capital and reserves	512 000
I Subscribed given capital	150 000
IV Reserves	215 000
VI Result of exercise	147 000

Table 2. Simplified profit and loss account:

	Indices	Amount (Lei)
1.	Financial result (V_{exp})	1 300 000
2.	Exploitation expenditures (E_{exp})	1 025 000
3.	Exploitation result (R_{exp})	275 000
4.	Financial incomes	-
5.	Financial expenditures	100 000
	- interest expenditures	100 000
6.	Extraordinary incomes	-
7.	Extraordinary expenditures	-
8.	Gross result	175 000
9.	Taxes (16%)	28 000
10.	Net result	147 000

Further we are going to determine the indices required in order to calculate EVA:

1. Exploitation result (R_{exp}): $R_{\text{exp}} = 275.000 \text{ Lei}$

2. Profit taxes (T_p): $T_p = 28.000 \text{ Lei}$

3. Net operational profit (NOP): $NOP = R_{\text{exp}} - T_p = 247000 \text{ Lei}$

4. Tax share (t): $t = \frac{T_p}{R_{\text{exp}}} = 0.10$

5. Invested capital (C_i): $C_i = C_o + D = 512000 + 380000 = 892000 \text{ Lei}$

6. Profitableness of invested capital (P_i): $P_i = \frac{NOP}{C_i} = \frac{247.000}{892.000} = 27.69\%$

7. Company's own capital (C_o): $C_o = 512000 \text{ Lei}$
Share within total invested capital = 57.40%

8. Profitableness of the company's own capital (P_f):

$$P_f = \frac{NOP}{C_o} = \frac{247000}{512000} = 48.24\%$$

9. Long term debts (D): $D = 380000$ Lei
 Share within total invested capital = 42.60%

10. Interests expenditures (Exp_{int}): $Exp_{int} = 100000$ Lei

11. Interest rate (i): $i = \frac{Exp_{int}}{D} = \frac{100000}{380000} = 26.31\%$

12. Weighed average cost of capital (C_{wa}):

$$C_{wa} = \frac{C_o}{C_i} \times P_f + \frac{D}{C_i} \times i \times (1 - t) = \frac{512000}{892000} \times 48.24\% + \frac{380000}{892000} \times 26.31\% \times (1 - 0.10) = 37.77\%$$

13. Economic Value Added (EVA):

$$EVA = (P_i - C_{wa}) \times C_i = (27.69\% - 37.77\%) \times 892000 = -89913.6 \text{ Lei}$$

4. CONCLUSIONS

Economic Value Added is not an independent index. It can be the result of other rates calculated within a company's economic and financial analysis.

The main *advantages* of this index are the following ones:

- It is an index measuring a company's internal performance relying upon value;
- It reflects in absolute manner the value yearly added or destroyed according to the point of view of the investor;
- It a manner of choosing the most promising financial investment;
- It is a manner of protecting investors against the destruction of the value they detain;
- It is an index that tends towards maximizing.

EVA can be chosen in order to analyze the performance of a company as it matches the principle according to which value can be created only in case an investment brings to its investors not only a positive result but a result superior to the one expected by the investors. EVA intends to be a performance index of management. Under such circumstances, a company can get a profit when destroying value in case such a profit is inferior to the one it should achieve.

EVA is a measuring device of the value created by a company for its shareholders, calculated a posteriori according to *ascertained data*, easily being considered as an index of a company's *internal performance*. This is one of the *shortcomings* of the index as the value of a company also depends on its future development abilities.

Consequently, certain authors recommend the calculation of Eva according to the following relation:

$$\text{PERFORMANCE} = \text{GLOBAL RESULT} - \text{COST OF COMPANY'S OWN CAPITAL}$$

Theoretically, they have reached the notion of global result of the exercise according to the relation:

GLOBAL RESULT OF THE EXERCICE	=	NET RESULT OF THE PROFIT AND LOSS ACCOUNT	+/-	ADJUSTMENTS IN ORDER TO MAINTAIN CAPITAL	+/-	OTHER VARIATIONS OF COMPANY'S OWN CAPITAL NOT ASCERTAINED IN THE RESULT OF THE EXERCICE
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Defining performance through the net result of the exercise or through global result is a matter of vision. Global result reflects performance only to the extent to which it notices the incomes and the losses that comprise economic benefits and does not consider the surplus resulting out of increasing active assets' prices.

Global result is future directed as it considers not only achieved incomes but also possible future ones. Global result already includes the cost of financing the company by third parties. Consequently, in order to determine performance from the point of view of the shareholders (as EVA shows) one should subtract the cost of a company's own capital from global result.

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