MODERN INDICATORS OF MEASURING A FIRM'S COMPETITIVITY

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Abstract: The traditional financial ratios reflect the historical performance of the companies, having a limited relevance in the forecasting of their future evolution. The modern financial ratios are based on the concept of value creation, having a high relevance on expressing the real financial performance of the firm. The main modern financial ratios used for the evaluation of the firms financial performances are: *Market value added-MVA, Excess return, Economic value added-EVA, Return on Capital Invested–ROCI, Cash Flow Return on Investment–CFROI, Total Business Return–TBR, Total Shareholder Return - TRS.*

Key words: financial ratios, market value, profitability, capital, firm

Reaching the major objective of the firm, maximizing global value, could be done just be creating value at the level of the whole firm. Global performance is defined depending on a firm's capacity of creating value to all it's interest holders, meaning shareholders, credits, employees, suppliers, the local community, etc.

Traditional financial indicators reflect the historical performance of the companies, having a limited relevance in predicting the future evolution of these. Modern financial indicators are based on the concept on creating value, having a strong relevance about expressing the real financial performance. Maximizing the value of these indicators leads to creating value, so increasing the global value of the firm. Main modern indicators of measurement of firm performances, promoted by different famous consultancy firms, are: Market value added (MVA), Excess return, Economic value added (EVA), Return on Capital Invested (ROCI) or Return on Capital Employed (ROCE), Cash Flow Return on Investment (CFROI), Total Business Return (TBR), Total Shareholder Return (TSR).

In the specialty literature there are mentioned other modern indicators of measuring performances, less known or similarly to the anterior mentioned ones, such as economic profit, shareholder value added, etc. All these indicators are based on the concept of creating value, what offers them a superior relevance unlike the classical financial indicators. Following the evolution of these indicators by managers and the effects over modifying the market value of quotated firms represent efficient criteria of establishing and remunerating management team results but also instruments of improving the corporate governance of quotated enterprises.

The market value added (MVA) represents the difference between the market value of an enterprise (sum of equity and debts) and the invested capital of this, according to the formula:

MVA = Market Value - Invested Capital

Thus, the market value added includes the market value of all it's capitals, respectively the market value of it's equity and the market value of borrowed capital.

The invested capital presents the capital invested by capital suppliers of the firm. It is considered that the firm creates value when the MVA indicator is positive; respective the market value of the capital, which depends on the expectations of the investors concerning future cash-flows of liquidities, outruns the capital invested in the business. Contrary, the negative value of MVA demonstrates that predictions about the management's capacity of using efficiently the capital are unfavorable, so the market value associated to the firm is inferior to the invested capital.

Apparently, the maximization of MVA is automatically followed by the growing of the firm's value. There are yet cases when the maximization of the MVA leads to the reduction of the firm's value, as a result of some inefficient investment projects with an rate of intern return (RIR) inferior to the capital's cost, or a negative net present value (NPV). Also, increasing sales trough extending distribution networks, appropriate promotion of the products, improving the quality of the products or extending the market quote, doesn't always represent a safe way of increasing the firm's value. So MVA is majored only if supplementary invested capital generates a higher return then the present cost of the capital.

Considering that what was mentioned earlier, this indicator does not surprise the cost of the capital invested in the company, but just the capital invested in it's integrality. Another disadvantage of this indicator is that it does not take into consideration the dividend policy of the firms, of giving or not giving dividends, or their level. No doubt that a firm which distributes significant dividends to it's shareholders has a higher capacity of generating value than a similar one from the point of view of the MVA obtained, but which never gave dividends.

Excess return represents an indicator with an informational value superior to the MVA, because it also considers the cost of the capital at the begging of the calculation period, as well as sums distributed towards the shareholders as dividends, stocks redemption, etc.

Excess return represents the difference between present earnings (at N periods) and earnings predicted by shareholders:

$$\textbf{Excess Return} = \textbf{Present Earnings}_N - \textbf{Estimated Earnings}_N$$

Predicted earnings are equivalent with the present value of the capital invested initially, and present earnings are determined on the base of present stock capitalization and the actualized value of the historical dividends, depending on the return rate estimated by the investors. Dividends include all payments to the shareholders, respectively the proper dividends, stock redemption etc. So, excess return may be calculated with the next formula:

$$\textbf{Excess return} = \textbf{Dividends}_1 (1+k_e)^{N-1} + \textbf{Dividends}_2(1+k_e)^{N-1} + \\ + \textbf{Dividends}_3(1+k_e)^{N-1} + ... + \textbf{Dividends}(1+k_e)^{N-1} + \\ + \textbf{Stock Capitalization} - \textbf{Capital Value}_0(1+k_e)^N$$

where:

$Dividends_1$, $Dividends_2$, $Dividends_3$, ... $Dividends_N$ = historical payments (dividends, shares redemption etc.) made towards the shareholders by the time of the evaluation;

Stock Capitalization = the value of the owned capital at the end of the evaluation period;

Capital $value_0$ = the value of the capital at the beginning of the evaluation period.

Because excess return is calculated depending on the market value of the equity results that this indicator is useful just for appreciating the performance of the quotated firms. Also, the indicator is used just for expressing performance from the perspective of maximizing the shareholders fortune, and it is not relevant for evaluating and motivating managers. The excess return indicator determines the excess of value created by managers over the investor's expectations, but can not be applied on different levels of the organizational structures of the company.

Similarly to the MVA indicator, excess return can be calculated just at the level of the company. Despite all it's limits, there is yet a direct connection between the value of the firm and excess return obtained. Thus, competitive enterprises with an efficient management, which generate high profits and implicitly consistent dividends trough valorizing their competitive advantage, are appreciated by present and potential investors, and so they create value to the shareholders. Firms with positive excess return, record, usually, significant increases on the price of their stocks.

Economic value added (EVA)

EVA is an indicator of measuring the performance of an enterprise promoted by the Stern Stewart consulting agency. The economic value added represents the difference between the operational profit and expenses afferent to the invested capital, accordingly to the formula:

EVA = Operational Profit - Invested capital's expenses =
Operational Profit - Ci x Kc

where:

Ci = the entire capital invested in the enterprise;
Kc = cost of the total capital invested (medium weighting cost of the capital);
Ci x Kc = expenses afferent to the invested capital.

This indicator is relatively simple to calculate if there is known the operational result, the capital invested and the weighted average cost of the capital. Unlike the MVA and Excess Return, EVA can be determined at the global level of the enterprise, and at the level of different organizational subdivisions, lines of production, no matter if the respective society is quotated or not on the capital market. More, EVA allows calculation of the performance of the enterprise for periods of time shorter than a year because it is expressed depending on the accounting result from exploitation.

Comparatively to the accounting profit, the economic value added - generically named "economical profit"- has a superior informational value because it takes into consideration not just the earnings generated by using the firm's capital, respectively the accounting profit, but also the cost associated to this capital. Thus, it is noticed the relevance of EVA in quantification the capacity of the firm of creating value for capital suppliers, the cost of the capital being the measure of medium return expected by the investors in similar conditions of risk.

What matters for capital owners and potential investors, is not obtaining positive EVA on short periods or annually, but maintaining constant or even increasing the value of the economic profit. The value of the firm increases only if the level of the EVA realized by a company on a certain period of time outruns the investors expectations concerning the level of this indicator. It could be said that there is a direct tight relation between the value of the firm and economical profits realized by it.

Considering the formulas of the EVA, MVA and excess return indicators, it is noticed that there is a connection between these indicators of measurement of a firm's

performance. Thus, MVA is the equivalent of actualized value of future EVA, and excess return is equal to the actualized value of future increases of EVA, to which it is added the actualized value of other increasing of distributions towards the shareholders. Therefore, in the situation when the managers of the firms realize investments or adopt decisions of increasing EVA, the result will be a simultaneous increase of MVA and excess return. Yet, the limited informational content of MVA at short periods of measurement and accomplishing, as well as not considering the cost of the capital, allows just the comparison between the levels of the three indicators at a certain moment, not on a certain period of time.

Although theoretically, EVA is equal with the difference between the operational profit and expenses afferent to the capital invested, yet in practice, calculating EVA requires certain accounting adjusting of the operational profit. These accounting adjustments lead finally to the relative equivalency between future EVA with future cash-flows generated by the firm's activity

If there is considered the efficiency of using the invested capital, which is equivalent with the net assets from the active part of the balance, EVA may be expressed depending on net assets return with the help of the next formula:

$$\mathbf{EVA = (R_{An} - K_c)x\ C_i}$$

where:

Ran = return on net asstes;

Kc = weighted average cost of capital (WACC);

Ci = capital invested.

A company realizes positive EVA just when the return of it's assets outruns the cost of the capital, and when the cost of the capital or the return expected by the shareholders surpasses the efficiency of using net assets, the enterprise has negative EVA or decreases the value of the firm. Considering that the factors which influence the level of EVA, it results that firms may create value acting on the next instruments:

- Increasing the return of the invested capital, if the efficiency of using net assets increases, at the same time maintain constant the cost of the invested capital, economic profit will increase;
- The ulterior profitable growth, which may be accomplished through a return superior to the cost of the capital, even in the circumstances of investment projects with an internal return inferior to the weighted average cost of the capital;
- Restructuring of the activity, respectively the elimination or reduction of activities with a return smaller than the cost of the capital, with the condition of exceeding the unfavorable results caused by the diminishing the level of the invested capital, with the favorable effects of the difference between return and the cost of the capital;
- Reduction of the cost of the capital, by reducing the equity cost of the shareholders and the cost of the borrowed capital, as well as improving the financial structure of the enterprise in favor of the one's own capital.

The previous formula allows the comparison between the two indicators, EVA and the return of the net assets as a traditional financial indicator. The return of the net assets is an important financial indicator which surprises the capacity of the firm of making a profit through using efficiently the assets financed on the equity and other sources, but can not be used separately as a measurement of the global performance of the company. Using exclusively the return rate of the net assets as a expression of the firm's performances, may lead at developing rentable activities from the point of view

of the efficiency of using the capital, but inefficient from the point of view of the cost of the capital used for their processing.

Return on Capital Employed (ROCE)

The return on Capital Employed (ROCE) is determined with the formula:

$$ROCE = \frac{Gross\ \Pr ofit}{Total\ Assets - Curent\ \ Debts}$$

Return on Capital Employed has to be higher than the rate at where the firm is borrowing. Contrarily, any increase of the credit rate will lead to reducing the shareholders winnings.

Cash Flow Return on Investment (CFROI)

The Cash Flow Return on Investment represents the internal rate of return of the cash-flows generated by the activity of the enterprise, being considered the main "contestant" of the EVA at the international level. The superiority of CFROI is generated especially by the fact that is determined on the base of future cash-flows, it takes into consideration the inflation rate and it is a relative measurement that allows comparing results of a firm on different periods of time, between different firms, etc. Anyway, CFROI is calculated on the base of historical cash-flows and not estimated ones. CFROI is determined in the same way as the Return Investment Rate (RIR), considering four variables:

-*The gross capital invested* in existent assets; the value of the gross capital is determined by adjusting the gross value of the fixed assets and the net current assets with the decreasing due to inflation afferent to assets, as well as decreasing because to the FIFO method of evaluating stocks;

- *The gross cash-flow*, which is calculated by adjusting the net profit with the amortization of corporal assets, interests expenses, restructuring cost, etc, as well as with decreasing or increasing due to inflation;

-The *economical lifetime* of existent assets, the estimation is done on the base of gross value of the depreciable assets and amortization expenses;

- *The residual value of existent assets* at the end of the economical lifetime.

After determining the variables mentioned before, CFROI may be calculated as the rate of internal return which makes the actualized value of gross cash-flows and the residual value be equal with the value of the gross invested capital. Because of adjustments to inflation made over the gross capital invested and the gross cash-flow, CFROI represents a real return rate, but not a nominal one. Anyway, the methodology is complicated, the calculation of this indicator requires some accounting adjustments, relatively easy to understand for economists, but difficult for managers of different organizational structures of the companies.

Although it is used frequently as an indicator of appreciating firm's performances as a result of it's special informational relevance, the most common practical application of this indicator is the cash-flow method of evaluating based on CFROI, and with this can be estimated the global value of the firm. According to this method, the value of the firm is influenced by net present cash-flows, as well as cash generated by new investments achieved at a return rate equivalent to future estimated CFROI.

Total business return (TBR)

This indicator is calculated through a similar methodology to CFROI, but based on future estimated cash-flows, not historical. So is determined the gross capital invested initially, gross cash-flows future estimated and the residual value of the existent assets. As CFROI indicator, TBR may be calculated at the level of organizational structures of the enterprises, and, more, it contains adjustments to inflation generated by the decreasing of it's assets.

Total shareholder return (TSR) represents the direct expression of modifying the fortune of the shareholders on a certain period of time. Being expressed relatively, this indicator may be used for doing the horizontal comparisons in the same firm, but also on the vertical one inside economical sectors.

TSR represents a function of two variables, the value of the dividends (including the special dividends and redemption stocks), as well as the increase or diminishing of the price of the stocks. So, this indicator depends of the return rate of existent assets, growing rate, the cost of the capital and the cash-flows. Anyway, this indicator can be calculated just for quotated enterprises and at the level of the whole firm.

The general conclusion of the comparison study of classical and modern financial indicators is that no matter the criteria of analyzing these indicators, the superiority of modern measurement indicators is obvious. The main advantage of modern indicators is that they consider the cost of the capital, that is the average rate of return on the market, or it is calculated based on the value on the market. In the meanwhile, the classical financial indicators express just historical results of using a firm's capital. Likewise, CFROI represents a real return rate, which includes adjustments to inflation as well as the value of future investments, comparatively to the traditional rate of return which expresses the current historical profitability of the enterprise.

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