

External Measures of Manager's Success to Create Shareholder Value

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External value measures are the favorite tools of modern investors and managers to assess current and prospective company's ability to achieve the goal of maximizing shareholder value. They provide a market assessment of intrinsic value of a company, and management's performance and strategy. The aim of this paper is to examine the applicability of some external value measures for assessing the success of management to create shareholder value. The paper points out that managers can only partially affect the market share price, hence the amount of these measures. Therefore, a particular problem is to determine the part of shareholder value, which was created thanks to management of a company.

1. Introductory notes

The prevailing attitude in both the financial theory and practice is that the changes in the share prices are among the most reliable indicators of the actual value of the company. Simultaneously, the managers are believed not to be in a position to affect the share price to any significant extent, that is, that the share price is determined exclusively by the general economic conditions and the investors' expectations. Some studies find that managers can affect only 25 percent of the share price, while 70-80 percent is under the impact of the macroeconomic, industry branch and other factors the managers cannot affect [15]. The fact is, however, that in the same conditions, different companies achieve different results, reflected in different percentage changes in the share prices, as well as that investors do not invest only into promising industries, but also into promising companies with a good management. A number of studies have found that the investors in the U.S.A. and the UK are willing to pay up to 18% more for the shares of the companies with reliable management, rather than for the shares of the companies with similar performances, but with a weak corporate management [4]. Similar findings were obtained in the developing countries, where the investors are ready to pay 20-40% more for the shares with a good corporate management [2].

Modigliani and Miller studied the impact of managers upon the share prices. They have found that the market value of the company is affected by six factors, two of which are beyond the managers' control. Managers can only partially affect the cost of capital, primarily the desired shareholder return rate, as well as the length of the term in which the shareholders expect to achieve above average returns. The following four factors are under the exclusive impact of managers:

1. Financial structure, i.e., the amount of financial indebtedness;
2. Capital expenses;
3. Net operating profit after taxes or NOPAT;
4. Returns rate to new investments [15].

Especially important is the last factor, since together with the amount of new investments, it determines the prospective capacity of the company to create value.

If the assumption that managers affect the share prices by their decisions on the organizational structure, raising and using the capital is accepted as correct, what remains to be solved is the assessment of the value whose creation the management contributed to. The measure of the management success is the extent to which it manages to prosper better than its competition in the conditions of prosperity, or decline less than its competition in the conditions of recession. As the market (external) estimations of managers' activities are generally an underlying factor in the system of management rewards and bonuses and an important factor that conditions the managerial structure, several external value measures have been developed over time.

2. Market value added

The market value added, or the MVA for short, is a measure that was developed and registered as a trade mark by the Stern Stewart & Co. The MVA is the difference between the market value of the company and the book value of the capital invested into the company, and is calculated using the following model:

$$\text{MVA} = \begin{array}{c} \text{Market value} \\ \text{of the} \\ \text{company} \end{array} - \begin{array}{c} \text{Invested} \\ \text{capital} \end{array} \quad (1)$$

The MVA allows for the assessment of the effects the management of the company achieves investing the capital it is entrusted. The positive side of this measure points to the fact that the management has succeeded in creating value for the shareholders. The negative side of the MVA leads to a conclusion that the management made investments that caused value destruction.

If the company raises capital by issuing bonds and shares to trade on the stock exchange, then the market value of the company equals the sum of the market values of the issued securities. The market value of the issued securities is defined as the output of price multiplied by the number of securities of a certain type. The company's market value can also be established implementing the method of discounted free cash flow, using the corresponding rate of the investment criterion (e.g., cost of capital) as a discount rate. Since the market value of the borrowed capital in practice generally approximates its book value, the following method can also be implemented to establish the MVA:

$$\text{MVA} = \frac{\text{Market value of shares}}{\text{Capital subscribed by shareholders}} \quad (2)$$

As to the invested capital, it is generally defined as a sum of financial assets obtained from a variety of external sources, as well as by the profit accumulation, for the purpose of investing into further business operations of the company. The full amount of capital is taken into account, regardless of when it was obtained, that is, the entire capital since the moment the company was started. In practice, the value of the capital invested is calculated on the basis of the accounting data that rarely, except when the company is being established, display a really invested capital. The reasons for this departure from economic reality should be sought in accounting conventions, especially in the principles of historical expenses and realization.

The MVA is often said to be a reliable measure of the shareholder value created, as it takes into account the market estimation of the effectiveness of the management in the resources use, as well as the estimate of the success the management has in the long-term positioning of the company. Some research shows that the MVA approximates to the value that would be determined implementing the net present value method [16]. It is therefore believed that managers, whose rewards and bonuses depend on the MVA value, are not much in favour of deciding upon operations with a negative net present value. As it measures the value in absolute monetary units, the MVA takes into account the differences in the amounts of the capital invested, i.e., the fact that larger capital generates more value.

The criticism that is usually directed to the MVA is related to its feature of the absolute measure of value from the moment the company is established. Alistair Blair described this problem in the following way: "The MVA takes into account the historical and now irrelevant results, combined with the results of the previous year and the today's hopes or disappointments, mutually expressed in the current share price. The fact is that we are interested solely in the current achievements, or, more precisely, time-defined, for the achievements from the moment the presently ruling management took office in the company [according to 1, p.860]". This statement can be interpreted as a request that the MVA be converted into a measure to assess the achievement not from the moment the company was started, but over a given time, in order to identify the contribution of the current management to the shareholder value creation.

Close to the previous criticism is the fact that the MVA is a relevant information only for those shareholders who bought the stocks when the company was established. The investors who buy the stocks later, on the primary or secondary markets, earn the MVA only from the moment they invest. Some studies have shown that half of the shares of an average company change their owners every second year, and that only 3 percent investors hold their shares for a period longer than 10 years. Hence we can maintain that each shareholder have their own MVA, while the MVA calculation for the shareholders who bought their shares on several occasions remains a specific problem to be solved. It is for this reason that we cannot talk about the MVA adequate for all shareholders [9].

The MVA is an important external measure to assess the performance of the whole company and the value of the past and the intended investments, however, it is not really useful in everyday business-decision making and long-term planning. Since it is only the company that can issue stocks, the MVA cannot be calculated on the level of divisions, business units or production lines; hence it is difficult to directly affect its increase. For the purpose of daily running the company to maximize the MVA, the managers must therefore rely on internal measures of value. The internal measure, found by numerous studies to be in strong correlation with MVA, is the economic value added, shortened as EVA [13]. In the Stern Stewart & Company they maintain that the MVA is equal to the present value of all the future EVAs, namely:

$$\text{MVA} = \sum_{i=1}^n \frac{EVA_i}{(1+k)^i} \quad (3)$$

Starting from the formulae 1 and 3, it is clear that the market value of the company may be maximized if the present value of the future EVA is maximized, which can be seen in the following formula: The first research

$$\text{Market value} = \text{Capital invested} + \sum_{i=1}^n \frac{EVA_i}{(1+k)^i} \quad (4)$$

into the correlation between the EVA and the MVA was conducted by the Stern Stewart Company analysts in 1989, on a sample of 613 companies from the list of 1000 most successful companies in the U.S.A. They found that the correlation degree between the EVA and the MVA for the companies with a positive EVA was very high, whereas for the companies with a negative EVA the correlation was weak. Stewart attempted to explain the weak correlation in the companies with a negative EVA by the fact that the market share price reflects at least the net value of the assets, regardless of the company's returns (namely, the market value of the company does not fall significantly below its book value, except in cases of serious problems in business) [5].

Numerous studies, however, pointed to a much higher degree of correlation between the MVA and the accounting indicators such as the rate of return on business assets, business profit, and NOPAT [13]. Thus Kramer and Pushner conducted a performance analysis of 1000 companies on the Stern Stewart list and found that the changes and the level of the MVA are defined by the level and changes of the NOPAT to a much larger extent compared to that of the EVA. On this same sample Dodd and Chen found a 20% correlation between the MVA and the EVA, however a significantly greater between the MVA and the ROA (25%) [5].

Two weaknesses of the MVA are frequently pointed out:

1. The MVA does not take into account the cost of capital, that is, the opportunity to employ the capital with a more favourable investment MVA/risk ratio. It is likely that a company with a positive MVA achieves the rate of returns on investments lower than the cost of capital, i.e., that the market value of the company covers the value of the invested capital, but not the cost of that capital.
2. The MVA does not take into account the impact of the dividend policy upon the shareholder welfare. Between two companies that achieved the same amount of MVA, the one that pays the dividends regularly contributes to the shareholder value to a greater extent.

One way to surpass these problems is to compute the excess returns (ER) using the following formula:

$$ER = \text{Value created} - \text{Value expected} \quad (5)$$

The created value is equal to the present value of all money inflows the shareholders achieved (e.g., dividends), accrued for the current market share value. The expected value represents the present value of the initial and all the subsequent investments into the company. The discount rate is taken to be the investment criterion rate for a respective risk class. Hence the ER takes into account the possibility that the shareholders may have invested not only the invested capital, but also the dividend, into some other alternative and achieve the rate of returns larger than the one provided by the company. A lower than zero ER indicates that the company failed to achieve the minimum rate of return, i.e., that it destroyed the shareholder value.

3. M/B RATIO

The relationship between the market and the book values, market-to-book ratio (MBR) follows the MVA. While the MVA is an absolute expression of the value created, established as a difference between the market and the book value of the company (capital), the MBR is an indicator that measures the created value in a relative way, using the same inputs. The MBR is most frequently computed using the following formula:

$$MBR = \frac{\text{Market value of the company}}{\text{Capital invested}} \quad (6)$$

Similarly to the formula used to compute the MVA and due to the assumption that the market value of the borrowed capital approximates its book value, the MBR can in practice be computed using the following formula:

$$MBR = \frac{\text{Market value of shares}}{\text{Capital subscribed by shareholders}} \quad (7)$$

Regardless of the formula employed, this indicator is considered to be the expression of the market estimation of the company prospects, namely, the managers achievement on the value creation plan. Higher than 1 ratio (a positive MVA) indicates that the market estimates the company's capability to create shareholder value positively.

Although both MVA and MBR employ the same inputs, these measures can be differently ranked in companies from the point of view of their contribution to

value creation. The MVA expresses the value in its absolute amount, therefore it is likely that larger companies, or the companies that invested larger capital, will be at the top of the list of value creators. It is for this reason that the MVA is usually said to be under the impact of the company size to a larger extent than under the impact of its capacity to create value, and therefore an unbiased comparison of companies of different size is extremely difficult. Pointing out that the MVA does not take into account a systematic correlation between the investments and the created value, Keef and Roush listed examples of small investments that resulted into creating large amounts of value created (Microsoft, Dell Computers), but also large investments with a meagre effect (General Motors, Ford). On the list of the greatest value creators (measured by the MVA level) of the Fortune magazine 1998, the Dell Company ranked as only 42nd, although their MBR amounted the unbelievable 50 (\$25.7 billion MVA, created by investing \$0.5 billion) [9].

As the value is expressed in the form of the rate of returns and is not under the impact of the amount of the capital invested, it happens that the MBR ranks larger companies rather low, despite their creating large amounts of the MVA. This happens because the MBR shows how much value the company created per unit of invested capital, therefore it is possible that the companies with a larger amount of invested capital show a lower return per unit. This way of expressing value solves the problem of comparing the companies of different sizes, however, it raises another type of problems. The problem with the MBR may arise in its implementation in performance measuring and in defining objectives, as it may happen that projects whose net present value is positive be rejected, only because they reduce the average MBR of the company.

The financial theory often stresses the correlation between the the MBR and the ROE (rate of returns on equity). Consequently, the MBR can be calculated in the following way:

$$MBR = \frac{ROE - g}{k_e - g} \quad (8)$$

where k_e = the cost of equity, and g = the anticipated growth rate of the company (profits and/or dividends). It follows from the formula 8 that the MBR will increase with the growth of ROE and the anticipated growth rate, or decrease with the growth of the business operation risk expressed in k_e . It is also clear that the MBR grows when the ROE is bigger than k_e (a positive range of returns upon the invested equity) as the share prices are expected to rise in such situations. This means that the MBR rises when a company with a pos-

itive range of returns on equity grows. Namely, in order that the MBR be higher than 1, the management should invest on a return rate higher than the cost of capital.

The correlation between the MBR and the P/E ratio is also stressed, which is evident in the following formula:

$$MBR = ROE \times P/E \text{ ratio} \quad (9)$$

The MBR can be expected to rise with the rise of the ROE and the P/E ratios. It is interesting that Fama and French have found that the companies with lower MBR values earned higher returns (dividends and capital gain) to shareholders, and vice versa [8, p.99]. The research that earlier pointed to a high degree of correlation between the MVA and EVA, also revealed a high level of correlation between the MBR and the EVA [3, pp. 671-672]. This is not unusual if we have in mind that the MVA and the MBR, although they rank companies differently as regards their capacity to create value, mark these same companies as creators or destructors of value.

Above mentioned are a number of theoretical and in practice partially proven views as regards the power of the MBR to create value, or success of the management. Outstanding among them are those referring to the MBR being conditioned by the range of returns and the growth of the company. Much convincing as they seem, the fact remains that there is little empirical evidence to prove them, as well as the fact that the MBR, at least explicitly, does not take into account the cost of capital. Also, the MBR depends on the book value of the capital invested. This value is in turn intrinsically defined by the accounting standards, therefore it is possible that high-technology companies achieve a higher MBR due to large investments they make into assets whose activating is prohibited or is not recommended (software and pharmaceutical companies have, by a rule, a high MBR).

4. Total shareholder return

The total shareholder return (TSR) is generally calculated using the following formula:

$$TSR = \frac{\text{Dividend per share} + \left(\frac{\text{Current share price} - \text{Initial share price}}{\text{Initial share price}} \right)}{\text{Initial share price}} \quad (10)$$

Two basic elements of the total shareholder return (value) can be identified in the above formula: a) the dividend rate, as a ratio between the dividend and the price per share, and b) the percentile change in the share price (percentage of capital gain or loss). Hence the TSR is often said to be the favourite measure of value with the shareholders since it directly indicates the percentage by which the shareholders increased or de-

creased their wealth by leaving their capital with a certain company. In order that the conclusion on a real contribution of the company to the value creation should be made, it is necessary that we have appropriate standards. The basis for estimating the TSR company consists of three branches the company belongs to. The companies that manage to achieve a TSR larger than the average achieved by the industry branch may be ranked as real creators of value. This is meaningful, since holding shares of a company pays to the shareholders only if they use them to earn some returns, at least to the amount they would earn if they invested into the securities of another company.

The modern approaches to the TSR calculation and analysis are more comprehensive, as they take into account a somewhat larger number of factors. Within an integral approach to value creation developed by the consulting company BCG (Boston Consulting Group) it is possible to identify a number of crucial relations and links, important in the process of a value-oriented strategy creation and implementation. There are three basic dimensions of the value creation system of the BCG company:

1. **Intrinsic value**, understood as the present value of the future cash flow of the company;
2. **Shareholders' expectations**, expressed in the form of the expectation premium. We talk of the expectation premium when the market value of the company differs from its intrinsic value and often makes a significant portion of the total market value of the company.
3. **Free cash flow (FCF)**, directly returned to the investors in the form of debt repayment, or share or dividends buyout [11].

In order to maximize the TSR the managers have to understand the interrelations of these dimensions (Figure 1).

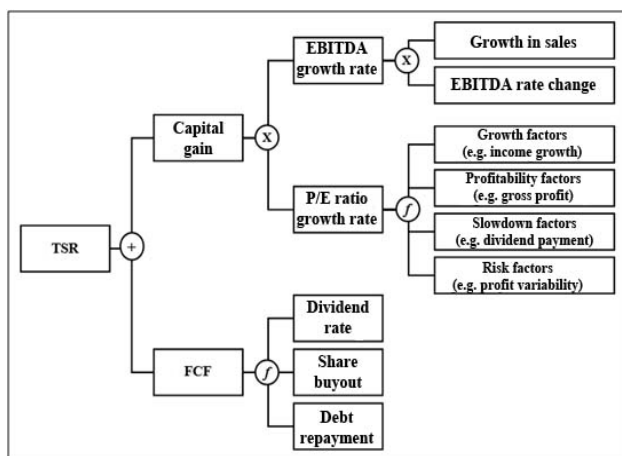


Figure 1. Value creation system

As the BCG consultants point out, the majority of activities within the system of value creation which are presented in Figure 1 directly or indirectly affect the TSR. Thus the managerial decision to increase the dividend payment ratio will directly lead to increasing the FCF, and indirectly it will reduce the risk for shareholders, increase the company's credibility as well as the shareholders trust in the management's commitment to achieve the goal to maximize the value, which will, in the long run, have an impact upon the increase in both the P/E ratio and the TSR [12].

As regards the above stated dimensions of value creation, the TSR is possible to decompose in order that the impact of certain value factors upon the TSR should be identified. This extended TSR formula consists of three elements:

1. **The rate of earnings before interest, taxes, depreciation and amortization, EBITDA** for short, as the output of the sales growth and the profit growth rates, points to the changes in the company's intrinsic value.
2. **The P/E ratio change percentile** shows how the changes in the shareholders' expectations affect the TSR.
3. **The FCF change percentile**, as a sum of the dividend rate and the percentage of the value of the shares bought from which the percentage of the repaid debt is subtracted, measures the impact of cash payments and the capital changes upon the TSR [11].

The TSR is therefore possible to calculate using the following formula:

$$\frac{TS}{R} = \frac{\text{Growth rate of EBITDA}}{\text{EBITDA}} + \frac{\% \text{ change of P/E ratio}}{\text{P/E ratio}} + \frac{\% \text{ change in FCF}}{\text{FCF}} \quad (11)$$

Although they seem to be meaningful, both the system of value creation and the formula 11, developed by the BCG company, have certain flaws. They do not allow for a sufficiently detailed insight into the factors that contributed to value creation. Namely, it is important to know whether the EBITDA growth is a result of investment into the projects with a high returns rate (e.g., the development of a new market segment for the existing products) or is the consequence of a low rate of returns (e.g., acquisition of a highly reputed company). Actually, the analysis must include the amount of the invested capital as well. It is also important to know what financial structure was employed to achieve the growth of EBITDA, since two companies achieving the same amounts of shareholder value may have different TSRs only because they differ in their financial structure and risk. The dividend payments, although a direct

return for the shareholders, can hardly be viewed as a value creation factor of a TSR growth factor, since they diminish the prospects of value creation. Hence the McKinsey consulting company (McKinsey&Co.) proposes a slightly more detailed decomposition of the TSR calculations in order that the impact of the following four factors should be observed:

1. **The percentage of the growth of the company's business results (EBITDA)**, which can, for the analysis purposes, be disassembled to a part achieved due to the net growth of returns (the growth of the rate of returns reduced for the growth rate of the capital required to support the return growth), the growth in the profits rate and/or the growth in the capital productivity. It is therefore the rate of returns to the equity (ROE) that should be taken into account, not the rate of profits.
2. **The company's growth rate, under the assumption of the zero growth**, is possible to calculate as inverse value of the P/E ratio (regardless of the indebtedness). This element reveals the market estimate of the company's value at the beginning of planned growth (the measurement period), and the estimate of the rate of returns the company would achieve even if it did not additionally invest into its growth.
3. **The percentage of the P/E ratio change**, as a measure of the change in market expectations as to the future company's performance. In this case, the P/E ratio has to be calculated under the assumption that the company is not in debt (the ratio of the market value of the company reduced by the value of debt and the profits gained), in order that the impact of the financial structure upon this indicator be excluded.
4. **The impact of company's indebtedness**, measured by the difference between the P/E ratio of the indebted company and the P/E ratio of the company that is not in debt [6].

Such a detailed calculation allows for a clear insight into the basic orientations of the real growth of TSR – the actual improvement of business performances (the growth rate of results reduced by the growth rate of the capital invested) and the real increase in market expectations (the P/E ratio regardless of the level of indebtedness). The increase in financial indebtedness and the dividend payment affects the nominal growth of the TSR, however, it does not mean that they affect the value creation; just the opposite.

The real importance of certain factors in the process of value creation and the TSR maximisation can be seen in Figure 2. Here we have a comparative analysis of the im-

part of the factors from the system of value creation upon the TSR of the 25 most powerful EU banks (their share amounts to 80% in the total assets of all the banks in the EU) in the 2002-2997 period, according to the BCG and McKinsey companies. If in the situation presented in Figure 2 the conclusions were drawn on the basis of the BCG analysis, the impression might be that the banks achieved a TSR of 15% due to high growth rates. The McKinsey analysis shows that the banks achieved the TSR due to a high rate of return on equity. The result in either case is the same, however, the McKensley company approach is more beneficial for the managers, as it can help them identify the value factors that in the past affected the growth of the TSR, as well as the factors whose impact will be felt in the future.

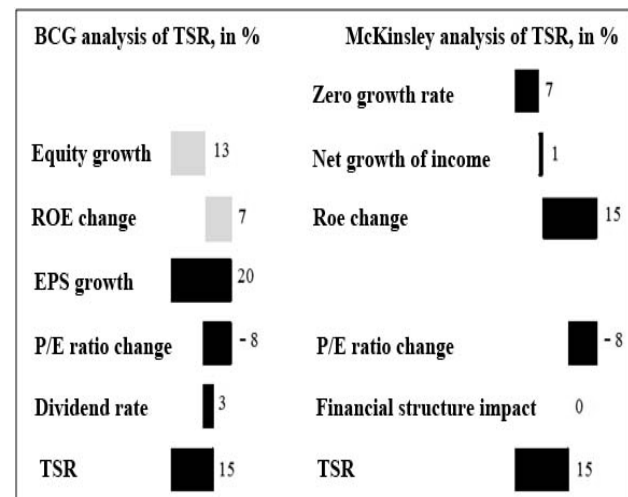


Figure 2. Analysis of the TSR of 25 most powerful EU banks

Regardless of the approach to the calculations and the analysis of the TSR, the market expectations are generally believed to crucially determine the TSR, especially in a short-term period. The BCG company implemented its approach to the TSR calculations to analyse the performance of the most successful companies in the S&P index, in the 1988-2006 period. The aim of the research was to determine the relevant importance of certain TSR factors for the market value of the companies in the periods of one, three, five and ten years. The research showed that, although the returns growth is the key impact factor upon the company's market value in the long term (can serve to explain about 60% of the TSR value), the short-term market value of the company is primarily determined by the market expectations (affect 39% of the TSR value) [11].

This can prove to be a serious problem for the companies that achieve a high performance level on a regular basis. Namely, although the market rates the company and its management as very good, this rating might already be included in the share price. This problem is

possible to explain on the example of an assembly line on which a company tries to maintain or improve its position. The market expectations contained in the share price are here recognized in the speed of the line. If the management succeeds in exceeding the expectations, the share price will rise, however, the speed of the line will increase too (market expectations increase). The more successful the management, the higher the market expectations from them (figuratively, the management have to run faster and faster so that the line should not drag them backwards). This explains why the successful companies often achieve an average TSR in the short term, while less successful ones create high amounts of TSR (good companies need not be good investments, and vice versa) [7].

The TSR is a measure that is related exclusively to corporations, as well as to the corporate top. Namely, it cannot be used by those companies whose shares are not traded, nor the business units, which is a significant constraint to this measure. Since it is within the jurisdiction of the corporate top, the TSR can serve as a reliable basis for strategic goals definitions, for guiding the business unit activities, and for adjusting internal goals. This value measure forces the managers to make decisions bearing in mind the key value factors, the risk level they are willing to accept, and the changes necessary for the goals to be achieved. The TSR is often said to summarize and intersect the impacts of several value measures, such as earnings per share and the P/E ratio, whose individual importance and reliability are relatively small or limited.

The primary reasons for the popularity of this measure are its direct relation with the explicit shareholder wealth flows, as well as the simplicity of calculation and interpretation. The TSR, however, has a number of weaknesses that bring in question its capacity of measuring the value created for the shareholders. Outstanding among these are the following:

- The TSR does not bring together the capital invested into the company and the shareholder returns. This is because it does not take into account the investments during the measuring period, but only the amount of investments at the beginning and at the end of the period of measuring. It is for this reason that companies that had different amounts of equity at disposal and achieved the same shareholder returns may have the same TSRs.
- The TSR does not take into account the cost of the employed capital, that is, the desired shareholder return rate. Thus it is possible that the company that created a large TSR, did not actually create value, as it failed to achieve percentage returns

larger than the cost of capital. This problem is especially evident in comparing the companies with the same TSR, but belonging to different risk classes.

- It is difficult to estimate to what extent the movements of share prices and the TSR are the result of the management decisions and activities, and how much they are under the impact of other factors, especially the investors' expectations that could be over-optimistic or over-pessimistic. The question then is to what extent the TSR is capable of measuring the performance of management and the intrinsic value of the company.
- The TSR is under a strong impact of the length of the selected period of observation, i.e., the TSR defined for a one-year period may significantly differ from that defined for a longer period of time. Hence it may happen that, if the rewards for the management are determined on the basis of a one-year TSR, the manages may be rewarded for the results they could not contribute to.

Regardless of the weaknesses, the TSR is a value measure that closely corresponds with the goal of maximising the shareholder value, simultaneously allowing for the assessments of the company's capability of creating value in the future and the expected business risk. In accordance with the regulations in the U.S.A., the companies are obliged to publish their TSR data. The companies whose stocks are traded in the UK are obliged to publish a five-year review which will make it possible to compare the company's TSR with the respective index.

5. The wealth added index

The Wealth added index, or WAI for short, is another value measure developed by the Stern Stewart company. It is defined as the shareholder wealth created in an amount larger than expected. The shareholder wealth consists of capital gains and dividend payments, and included are all shareholders, regardless of when they bought the company shares. The shareholders' expectations depend on the risk of investing into shares, and are expressed in the form of equity cost. Therefore, the company creates value for its shareholders only when the rate of shareholder returns is higher than the cost of capital. It is obvious that the WAI is an attempt to correct at least two TSR weaknesses – the neglect of investment during the measuring period and the cost of capital.

Two methods are used to calculate WAI. According to one, WAI is calculated in the following manner:

$$\frac{W_A}{I} = \Delta MC - \frac{E}{P} + \text{Dividende} - \Delta EC \quad (12)$$

Some elements of the formula 12 require a brief explanation:

- The change in the market capitalization of the company (ΔMC) is defined by comparing the market capitalisations at the end and at the beginning of the measuring period.
- The expected return (EP) is determined by multiplying the market capitalization at the beginning of the measuring period by the cost of equity.
- The “new issues of shares” (ΔEC), that is, shares issued during the measuring period, are calculated as an output of the values of the shares issued and the cost of equity. Namely, if the company issues shares during the measuring period, the new shareholders are assumed to have an expected rate of returns that is necessary to include into the calculations from the moment of new issuing.

The other approach to calculating WAI is presented in formula 13:

$$\frac{WA}{I} = (TSR - k) \times MC_0 \quad (13)$$

where k = cost of capital, and MC_0 = market capitalization at the beginning of the day.

This approach requires fewer data, however, it requires that the WAI be calculated daily. If, employing this formula, the WAI should be calculated for longer periods of time, the information on the value created would be only approximately accurate, since the formula does not take into account the expected returns of new shareholders. Regardless of the formula chosen, WAI expresses the value in its absolute amount, not in percentages, in the way the TSR does.

The WAI is defined by four factors: 1) **profitability value**, i.e., the present value of the cash flow created in the current period; 2) **prospective value**, as an expression of market expectations as regards the future yield of the company; 3) **financing**, which specifies the flows of financial returns (issued owners' and debt securities, retained profit) and financial outflows (dividends, share buyout, capital expenditure); 4) **expected shareholder rate of returns** [15]. The shareholder wealth grows with an increase in profitability, in prospective value of the company and in the flowout to the benefit of shareholders (dividends, share buyout), and declines with the increase in the sources of financing and the expected shareholder rate of returns.

Due to its capacity to measure not only the past, but also the future performance of the company, the WAI

can be implemented in strategic and financial planning and guiding the activities of the top management and the business units. It can also be used as basis for setting up a system of manager rewards and bonuses. Thus the managers can be said to be successful if they manage to create a positive WAI, i.e., a WAI higher than that of their direct competition. Due to the close correlation between the WAI and the value factors, it is possible to identify and use concrete opportunities for value creating in the company.

Although WAI is developed in answer to the TSR flaws, the assumption that the capital market is efficient is viewed as a problem with this measure too. Besides, critics point out that it often happens that the WAI is not a better value measure compared to the relative TSR (TDR of the company compared to TSRs of direct competition, industry branch average, etc.) [1, p.857]. For example, it is likely that the companies will achieve negative WAIs in the periods of economic recession, due to the decline in the returns in such period, while the cost of capital remains unchanged or rises. It is then that the rigour of this measure is evident, since even those managers who are much more successful in managing the company than their competitors will get poor estimates (due to a negative WAI).

Finally, since it measures value in an absolute amount, the WAI gives precedence to larger companies, with a larger investment basis.

6. Concluding remarks

The recent global economic crisis that escalated in the second half of 2008, again brought into focus, in addition to inadequately high manager reward and a poor regulatory framework, the decision making and performance measuring processes. This time the criticism is aimed at the value concept that Jack Welch terms “the stupidest idea in the world“, while Roger Martin insists on “rejecting the shareholder value theory“ [10]. They maintain that the problem arose because the value concept equals the rise in prices with the rise in shareholder value and hence encourages the implementation of measures that should make managers undertake only those activities that will maximise the share price.

Mauboussin, however, claims that a successful implementation of the value concept should result into the rise in the share price, but should be a result of the rise in the present value of the future expected cash flows of the company. He points out that the share prices are the result of the growth in the intrinsic value of the company, not vice versa, and that it is not the value concept that is inadequate, but its implementation [10]. The problems arise when managers set the share price max-

imization as their primary goal and work on maximizing the accounting and market measures, such as MVA and TSR. They should instead focus upon money flows, and the price will rise as a natural consequence of these. The share price and the external value measures are the expression of the intrinsic value of the company and the factors determining that value, not a goal the manager will blindly pursue, regardless of long-term consequences. Similar attitude is that of Shapiro, who insists that the financial market observes financial performance of the company and the quality of corporate management, since it is they that determine the long-term shareholder returns [14].

The external value measures are favourite instruments modern investors implement in assessing the current and the prospective capacity of the company to maximize value for its shareholders. They provide the market with a market estimate of the intrinsic value of corporate organizations, as well as performances and strategies of the top management. These measures cannot, however, be used for the companies whose shares are not publically traded, for the business units and lower organizational levels, nor do they allow for a direct assessment of the intrinsic value of the company based on discounting the current and the expected cash flows of the company. These are serious constraints to external measures, but then, one or a number of measures can hardly be expected to meet all the requirements of various interest groups, management levels and the concrete legal forms of the company.

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