

ANALYSIS OF SOME MEASURES OF THE ENTERPRISES FINANCIAL PERFORMANCE ON THE CASE OF A SELECTED SLOVAK COMPANY

KRISTÍNA JANČOVIČOVÁ BOGNÁROVÁ

Abstract: In financial theory and praxis there is a wide range of indicators of the company's financial performance. This paper is devoted to the relationship between selected traditional and modern financial performance measures on the one hand and share price and return on share on the other hand, with the aim to confirm or contradict the declaration of the creators of Economic Value Added (EVA) about the unicity of this indicator in means of the explanation of share price and return on shares and about the primacy over traditional measures. The analysis was carried out on a selected Slovak company in the years of 2000-2009.

Key Words: financial performance measures, share price, return on share, Economic Value Added

JEL Classification: O16, P47, F65, G32

1. INTRODUCTION TO FINANCIAL PERFORMANCE MEASUREMENT

In financial theory and praxis, financial performance of enterprise is mostly linked to the ability to evaluate the production factors, which were consumed in the transformation process itself. From a detailed view can be financial performance understood as the measure of appreciation of capital used in business.

The last fifty or sixty years brought a huge number of indicators in the field of financial performance measurement, which are in bases divided into traditional and modern. This labelling can be misleading in the sense, that traditional is equal to out-of-date, insufficient and modern indicators mean favourable, recommended. For all that, modern indicators come out from the traditional ones and involve some modifications, sometimes without adding a really new content.

Traditional measures have as core calculation value the basic book profit and there is a number of ratios, which are build on this fundament. On the other side, the modern measures are linked to the economic profit and uprose as reaction on the absence of equity costs in book profit. The main idea is, that the economic result (profit) is able to add value just then, when its value exceeds the requirements of all investors, who entrusted their capital to the company. That means, that it represents such level of profit, which incorporates all sources expended on companies financing.

2. ANALYSIS OF THE RELATION OF FINANCIAL PERFORMANCE OF A SELECTED COMPANY TO SHARE PRICE AND SHARE RETURN

Shareholders are primarily interested in answering the question, whether certain indicators of financial performance provide relevant information to the capital markets, whether the change in company's value is reflecting the change in the value of financial performance indicators or year-to-year change of these indicators. This can be explored in three ways. First of all, the reaction of stock market on publication of actual accounting data (decision-

making of investors). The second alternative is to monitor the relation between share return and financial performance of a company measured by traditional or modern indicators. The third way is to analyse the connection between the indicators of financial performance and market value of the company or market value added (MVA).

In this paper we are targeting the second approach, that means, the examination of the relation between financial performance of a selected company on the one hand and share price and share return on the other hand. A detailed calculation of net profit, ROA, ROE, EPS, particular components of EVA, EVA itself, EVA Momentum in time period 2000 – 2009 and consequently their comparison was carried out. Afterwards the relation between these measures and share price and share return was reviewed. The process of calculation is not involved in this paper.

At first stage, we were looking for an eventual dependency between share price and traditional and modern measures of financial performance in the case of a selected Slovak company. Results were figured in tables and diagrams.

Table 2 Correlation analysis of selected financial performance indicators and share price

Correlation analysis	
Variable	Correlation coefficient
NOPAT – share price	0,40470
EVA – share price	0,56873
EVA Momentum – share price	-0,11895
Net profit – share price	0,55200
ROA – share price	0,23660
ROE – share price	0,43600
EPS – share price	0,55195

From the cumulative data of correlation analysis comprises, that the observed indicators show a low level of linear dependence with share price. The lowest dependence was recorded by the measures ROA and EVA Momentum. Some higher, but still not enough significant correlation was registered between share price on the one hand and NOPAT and ROE on the other hand.

Table 1 ROA, ROE, EPS, EVA and EVA Momentum in particular years

Measure / Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
NOPAT (mil. EUR)	157	176	83	82	341	301	219	213	0,52	1,44
Net profit (mil. EUR)	61	145	84	91	322	307	212	218	4,2	1,16
ROA	12,26%	12,86%	7,07%	5,73%	23,66%	16,80%	11,70%	12,06%	0,28%	0,09%
ROE	5,75%	12,16%	6,75%	6,80%	20,56%	17,70%	12,57%	14,58%	0,27%	0,08%
EPS (EUR)	2,96	7,03	4,07	4,41	15,62	14,89	10,28	10,57	0,2	0,06
EVA (mil. EUR)	- 147	- 76	- 94	- 23	168	117	10	49	- 171,48	- 169,56
EVA Momentum (mil. EUR)	-	0,03	- 0,008	0,03	0,06	- 0,016	- 0,03	0,01	0,06	0,0005

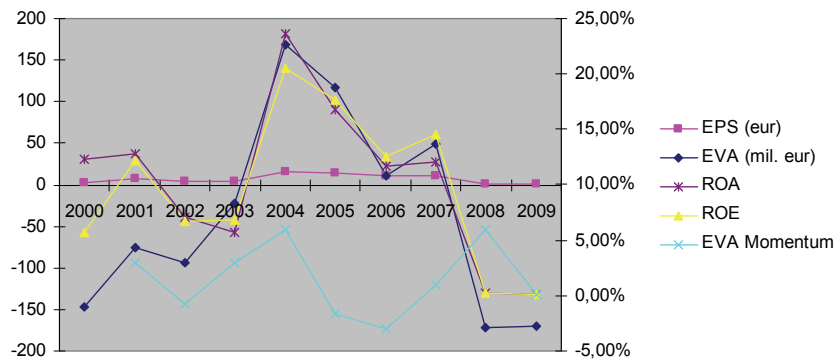


Diagram 1 Evolution of selected indicators of financial performance in an analyzed time period

The highest correlation coefficient and so the most intense link was described by the measures EVA, net profit and EPS.

Considering the low linear dependence of observed indicators with share price, it can be assumed, that linear regression analysis does not provide us with relevant results and does insufficiently describe the selected variables. This was also confirmed by the analysis itself, where not even by the highest values of linear dependency, the regression model is able to describe not more than third of the sample. This also can be noticed at the levels of determination coefficient (R^2), which reaches the highest value at the pair of EVA – share price (0,323) and at EPS – share price (0,304).

We can point out, that in the case of the analyzed company, 3 from the group of the selected financial performance indicators show almost equally intense relation to share price. One of these indicators (EVA) represents the group of modern measures of financial performance and two of them (net profit and EPS) belong to the group of traditional measures.

The second phase of the analysis focused on the relation between traditional and modern measures of financial performance on the one hand and share return on the other hand.

Table 3 Correlation analysis of selected financial performance indicators and share return

Correlation analysis	
Variable	Correlation coefficient
NOPAT – share return	0,67298
EVA – share return	0,66242
EVA Momentum - share return	0,47048
Net profit – share return	0,63874
ROA – share return	0,78427
ROE – share return	0,76914
EPS – share return	0,63875

In conformity with the results of the correlation analysis of selected variables and share return, the financial perfor-

mance indicators can be divided into three groups according to the linear dependency. The first group, made up only by the measure EVA Momentum, shows a low correlation (0,47). In the second group, incorporated by the measures EPS, EVA, NOPAT and net profit, the correlation coefficient varies between 0,638 for EPS and net profit and 0,67 for NOPAT. The third group is formed by measures ROA and ROE and shows the most intense correlation with share return (0,78 for ROA and 0,77 for ROE).

Considering the low level of linear dependency of observed indicators with share return in the first two groups, it can be assumed, that linear regression analysis does not offer relevant results and does not sufficiently describe the selected variables. This was also confirmed by the analyses itself, where not even by the highest values of linear dependency, the regression model is not able to describe even the half of the sample. This also can be noticed at the levels of determination coefficient (R^2), which reaches the highest value at the pair NOPAT – share return (0,452). The variables in the last group (ROA a ROE) have the best premises to model the share return linear, which is supported also by the highest values of determination coefficient (0,615 for ROA and 0,59 for ROE). In spite of the fact, that these values are the highest ones, they are not high enough to reliably model the share return.

In conclusion of this phase of analysis we can state, that traditional measures, specifically ROA and ROE, show more intense relation with share return than the selected modern measures of financial performance.

3. CONCLUSION

In the case of the analyzed company three indicators of financial performance show almost equally intense relation to share price. One of these indicators, EVA, belongs to the group of modern measures of financial performance and the other two, net profit and EPS represents the group of traditional measures. That means, that for relation with share price it is not possible to confirm primacy or dominance of

modern measures over traditional ones. The situation is different for the relation to share return. In this case we can confirm, that traditional measures ROA and ROE are more positively correlated with share return than modern measures EVA and EVA Momentum. It is necessary to em-

phasize, that the results of the analysis carried out in this paper refer to the selected company and it is not possible to deduce general findings for the whole business sector in the Slovak republic.

REFERENCES

- [1] ABATE, J. A., GRANT, J. L., STEWART, G. B. 2004. *The EVA Style of Investing: Emphasizing the fundamentals of wealth creation*. In: The Journal of Portfolio Management, Vol. 30, No. 4, 2004, s. 61-73.
- [2] ATHANASSAKOS, G. 2007. *Value Based Management, EVA and Stock Price Performance in Canada*. Management Decision, Vol. 45, No. 9, 2007, s. 1397-1411.
- [3] FABOZZI, F. J., GRANT, J. L. 2000. *Value-Based Metrics: Foundations and Practise*. USA, Pennsylvania, New Hope: John Wiley and Sons, Inc. 2000. 286 s. ISBN 1-883249-76-7.
- [4] GOSSELIN, M. 2005. *An Empirical Study of Performance Measurement in Manufacturing Firms*. In: International Journal of Productivity and Performance Management, Vol. 54, No. 5-6, 2005.
- [5] SIVÁK, R., JANČOVIČOVÁ BOGNÁROVÁ, K. 2011. *Príspevok ukazovateľa EVA momentum k meraniu finančnej výkonnosti podnikov*. In: Ekonomické rozhľady, 3/2011, ISSN 0323-262X.
- [6] JANČOVIČOVÁ BOGNÁROVÁ, K. 2011. *Application of selected traditional and modern measures of financial performance of enterprises*. In: Proceedings of the International Scientific Conference for Doctoral Students and Young Researchers, Vydavateľstvo EKONÓM 2011, ISBN 978-80-225-3265-5.

Mgr. Ing. Kristína JANČOVIČOVÁ BOGNÁROVÁ, PhD.

Department of Finance, Faculty of National Economy, University of Economics in Bratislava
Dolnozemska cesta č. 1, 852 35 Bratislava, Slovak republic
e-mail: bogmark@euba.sk