PREDICTION OF STOCK RETURN ON BANKING INDUSTRY AT THE INDONESIA STOCK EXCHANGE BY USING MVA AND EVA CONCEPTS

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ABSTRACT

Capital market is a tool that can be used to mobilize funds. To mobilize fund, capital market uses fundamental and technical analysis. In order to support the analysis, Steward (1989), Consultant Management Service in the US, in Astuti (2006), introduced MVA and EVA concepts to be used as measurement of financial performance to overcome the shortcomings of traditional accounting. The objectives of this research are to analyze the effect of MVA and EVA on stock returns of banking industry at Indonesian Stock Exchange. Theories support this research are Stock Return, MVA and EVA. To achieve the objectives, the research method used is associative with multiple regression analysis. The populations used in this study are listed banking industry at Indonesia Stock Exchange (IDX) in 2009 to 2012 with 10 banks as the samples. Results and conclusions are the effect of MVA and EVA to Stock Return do not have significant effect simultaneously; partially, MVA have negative relationship and does not have significant effect on Stock Return, while EVA have positive relationship but does not have significant effect on Stock Return. These indicate that MVA and EVA concept is not appropriate to be used to predict stock returns on banking industry. Perhaps traditional accounting is better to measure than MVA and EVA. This concept can be used in other industries to measure the company performance.

Keywords: Stock Return

INTRODUCTION

Research Background

Parents have teached their children to save and manage money as possible since childhood. The savings culture have shifted over the times. Modernization has formed the patterns of human thought to be more intelligent, which not only saved money, but also managed to generate more profit which is called investment. The rapid impact of modern era in the investment world influences humans to form a global fund management container. That is often known as the capital market. The presence of capital markets has an important influence in supporting the economy of a country. Capital market is a tool that can be used to mobilize funds, both from within and from outside the state. For investors, the stock market is a place to invest their funds. Investors invest their funds in the stock market is not only aim in the short term but also aims to earn revenue in the long term. Revenue desired by the shareholders is the dividend income and capital gains.

Dividend yield is used to measure the amount of dividends per share to share price in the form of a percentage. Capital gain is the difference between the market price of the current period and the prior period's price. Dividend yield and the capital gain is the total return to be received by the investors in the long term (Ang, 1997). Analysis of the stock return is required fundamental and technical information. Fundamental analysis is based on information published by the issuer and administrator stock exchange. The analysis starts from the cycle of companies in general, then the industrial sector, and to evaluate the price of the shares issued.

While technical analysis is based on data the stock price in the past in an attempt to predict future stock prices (Halim, 2005). Steward (1989), in Astuti (2006) introduced the concept of EVA and MVA as a measurement of financial performance to overcome the shortcomings of traditional accounting. Dodd and Chen (1996), in Astuti (2006) said EVA and MVA have been chosed as a performance measure in the belief that the company's EVA performance management group should correlate with stock returns than the comparison with other performance measures such as Return On Capital (ROC), Return On Equity (ROE), Earning Per Share (EPS), and cash flow growth have systematically higher correlation in creating value for our shareholders.

Research Objectives

The objectives of this research are to find the effect of:
1. Market Value Added and Economic Value Added simultaneously on stock return of banking industry at Indonesia Stock Exchange.
2. Market Value Added on stock returns of banking industry at Indonesia Stock Exchange.
3. Economic Value Added on stock returns of banking industry at Indonesia Stock Exchange.

THEORETICAL FRAMEWORK

Theories
Stock Return

Stock return is the result obtained from investing in the stock market. Stock return itself can be realized return (actual return) and return expectations (expected return). Stock return as the realization of a return has occurred and can be calculated with historical data (Halim, 2005). This Return is important because in addition to being one of the tools for measuring company's financial performance is also used as a basis in determining the return expectations and risk in the future. Stock Return as the return expectations will be obtained from the investors invest in the capital market. Component consists of a nevertheless a return type of the current income (current revenues) and capital gains (profits the difference in price) (Ang, 1997).

Market Value Added (MVA)

Market Value Added (MVA) is a cumulative measure of a company's stock market valuation shows at any given time than the present value of future EVA. EVA value changing (increases or decreases) causes a direct change in the value of MVA (Rousana, 1997). More specifically, MVA is the difference between the values of the stock market with their own capital paid by shareholders. Value of the stock market is multiplying the number of shares outstanding by the stock price. Stock price obtained from the average stock price in one year (Husnan and Pudjiastuti, 2004).

Economic Value Added (EVA)

Economic Value Added (EVA) is a financial analysis tools are relatively new to assess the performance of the company from the financial side. EVA introduced once by financial analysts, Stern Stewart & Co. of New York City (1989) in (Astuti, 2006) as long as it felt not to be a method of assessment that accurately and comprehensively able to provide a reasonable assessment of the condition of a company. If EVA is equal to zero then the company is in a break-even position, and if EVA is below zero, the operational performance of the company failed to meet the expectations of their investors (Mirza, 1997).

Previous Research

Astuti (2006). This research is performed in order to test the influence of alternative performance of economic value added (EVA)and market value added (MVA) and the traditional financial performance as Current ratio, return on asset (ROA), debt to equity ratio (DER), price to book value (PBV), and Total Asset Turnover (TATO) toward stock return. The purpose of this study is to measure and to analyze influence company financial performance by using EVA and MVA method as alternative method and the traditional financial performance (Current Ratio, Return On Asset (ROA), Debt To Equity Ratio (DER), Price to Book Value (PBV), and Total Asset Turnover (TATO)) toward stock return.

Bacidore et, al (1997). The use of variable EVA al REVA (estimating the cost of capital for the company at the end of period t period t-1 / t beginning), and stock returns. This study uses data used by Stern Stewart of the year 1982 - 1992 by using 600 samples. This study has also found that EVA and REVA have a significant influence on stock returns.

Alias (2001). Economic Value Added (EVA) was advocated by Stern Stewart and Co.in 1989. This study intended to identify any added value or added advantage in EVA compare to conventional methods such as percentage increase innettangible assets, profit margin, return on assets (ROA) and return on equity (ROE) as a performance measurement. This study is conducted in Malaysian business environment, as results of the previous researches are mixed regarding the efficacy of EVA. A sample size of 78 companies from Industrial Product sector of KLSE main board had been selected. In analysis of performance ranking and correlation between stock return and financial parameters, the outcomes have proved that there is no added value or added advantage in EVA compared to conventional methods as a performance measurement.
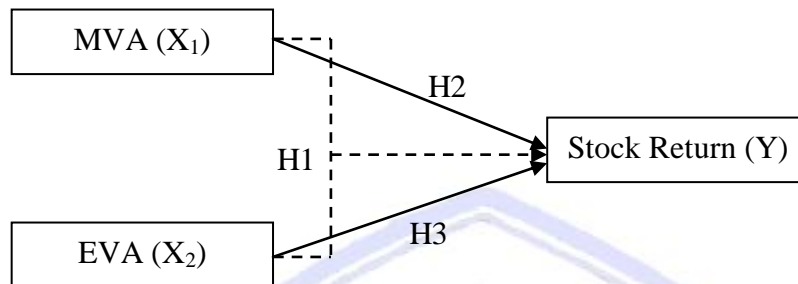

Figure 1. Conceptual Framework

Source: Theoretical Review 2013

Research Hypotheses

The hypotheses of this research are predicted as follows:

H1   :   EVA and MVA influence Stock Return of Banking Industry at Indonesian Stock Exchange (IDX) simultaneously.

H2   :   MVA influences Stock Return of Banking Industry at Indonesian Stock Exchange (IDX) partially.

H3   :   EVA influences Stock Return of Banking Industry at Indonesian Stock Exchange (IDX) partially.

RESEARCH METHOD

Types of Research

This research uses causal type of research where it will analyze the effects of MVA and EVA to Stock Returns of Banking Industry at Indonesia Stock Exchange (IDX).

Place and Time of Research

This study is conducted in the Indonesia Stock Exchange (IDX) by using secondary data taking from internet and Indonesian Stock Exchange representative in Manado. Research start and finish about between October to Desember 2013.

Population and Sample

The populations used in this study are 10 banks which listed on financial sector at Indonesia Stock Exchange (IDX) in 2009 to 2012.

Data Collection Method

Data used in this study is secondary data source obtained from the Indonesian Capital Market Directory (ICMD) and IDX Statistics. Secondary data refers to the data gathered for some other purpose than the immediate study. Sometimes it is called desk research while the primary data are called field research (Hair et, al. 2010).

Operational Definition and Measurement of Variables

1.   MVA is the difference between the values of the stock market with their own capital paid by shareholders. Value of the stock market is multiplying the number of shares outstanding by the stock price.

2.   EVA measures the value added produced by a company by way of reducing the burden of the cost of capital (cost of capital) arising as a result of the investment made.

3.   Stock return is the result obtained from investing in the stock market. Stock return itself can be realized return (actual return) and return expectations (expected return).

Data Analysis Method
Multiple Regresion Analysis Models
       The method of analysis used in this study is multiple regression analysis with panel data. Panel data or longitudinal data is called a data group of individuals who were followed for a certain time period. Panel data is a combination of time series data and cross section data. Gujarati (2003) said that some of the advantages of panel data obtained from the analysis of time series or cross section separately.

RESULT AND DISCUSSION

Result
Classical Assumption Test
Table 1. Multicollinearity

Model	Collinerity Statistics	
	Tolerance	VIF
1 Market Value Added	.732	1.366
Economic Value Added	.732	1.366

a. Dependent Variable: Stock Return
Source: data processed, 2013.

       Ghozali (2009) said the classic assumption test, statistical analysis multicollinearity symptom does not occur if the value of VIF (Variance Inflation Factor) less than ten value (<10). The tolerance value of market value added and economic value added is 0.732, which are more than 0.10. The VIF value market value added and economic value added is 1.366, which are less than 10. The result of the tolerance and VIF value shows that this research is free from multicollinearity.

       Ghozali (2009) said that one of the classical assumption that heteroscedasticity test in which to test based on the scatterplot graph, where the dots are formed must be spread evenly above and below the 0 on the y-axis. Based on the results of heteroscedasticity test using SPSS, result shows that the dots dispersed and scattered both above and below the 0 on the y-axis. It can be concluded that it is free of heteroscedasticity. Normality test aims to test whether the regression model or residual confounding variable has a normal distribution (Ghozali, 2009). This research shows that the graph Normal P Plot of Regression Standardized Residual describe the spread of data around the diagonal line and spread in the direction of the diagonal line graph, then the regression model used in this study to meet the assumptions of normality.

Multiple Regression Analysis
Table 2. Multiple Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-13.122	3.400		-3.859	.006
MVA	-.108	.133	-.310	-.812	.444
EVA	.244	.351	.265	.695	.510

a.   Dependent Variable : Stock Return
(Source: data processed, 2013)
Based on the data above, it is found that:

       The Multiple Linear Regression model is used to determine the influence of several independent variables on a dependent variable. Here is computed the analysis of MVA and EVA on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX). Base on Table 2, the model is defined as:

Y = - 13.122 - 0.108X1 + 0.244X2
where:
Y   :   Stock Return of Banking Industry at Indonesia Stock Exchange (IDX)
X1   :   MVA
X2   :   EVA

The Interpretation are:
1. Constant (α) – 13.122 shows the influence to relationship between MVA and EVA on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX). If all independent variables are equal to zero, the Stock Return is predicted to be decreased at least –13.122.
2. If the others are constant, an increase of one point in MVA will result in an average decrease of at least –0.108 on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX).
3. If the others are constant, an increase of one point in EVA will result in an average increase of at least 0.244 on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX).

Table 3. Table R and R^2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502[a]	.252	.038	6.95346116

a.   Predictors : (Constant), Market Value Added, Economic Value Added
Source: data processed, 2013.

The model summary shown in Table 4.5, value of R is equal to 0.502 or 50.2%. It means that there is strong positive relationship between independent and dependent variable. R Square is equal to 0.252 or 25,2%. It means that the effect of MVA and EVA on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX) are 0.252 or 25.2 per cent.

Hypotheses Testing

Table 4. F-test Result

	Model	Sum of squares	Df	Mean Square	F	Sig.
1	Regression	113.983	2	56.992	1.179	.362[b]
	Residual	338.454	7	48.351		
	Total	452.438	9			

a. Predictors: (Constant), Market Value Added, Economic Value Added
b. Dependent Variable: Stock Return.
   Source: data processed, 2013

The ANOVA F-test results on Table 4 Test F_{count} value is 1.179 with a significance level 0.362. F Test of this model is 0.362 or higher than 0.05 (5 per cent). This indicate that the model cannot predict the effect of MVA and EVA of this model.

H$_0$: $\beta_1=\beta_2=0$ (MVA and EVA have influenced the Stock Return of Banking Industry at Indonesia Stock Exchange (IDX), simultaneously).

H$_1$: $\beta_1=\beta_2\neq0$ (MVA and EVA have influenced the Stock Return of Banking Industry at Indonesia Stock Exchange (IDX), particularly).

If:
$F_{value} > F_{table}$ Reject H$_0$
$F_{value} < F_{table}$ Accept H$_0$

The ANOVA F-test found that $1.179 < 3.72$ by using the level of significance of 0.05 ($\alpha = 0.05$) and degree of freedom (df) = 9. H$_0$ accepted and H$_1$ is rejected since the F_{value} is less than F_{table}. F-Test result of this model is equal to 0.362 higher than 0.05 (5 per cent) which means MVA and EVA do not have significant effect on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX), simultaneously. Hypothesis one is rejected.

Table 5. t-test Result

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-13.122	3.400		-3.859	.006
	MVA	-.108	.133	-.310	-.812	.444
	EVA	.244	.351	.265	.695	.510

a. Dependent Variable : Stock Return

(Source: data processed, 2013)

T-test result on independent variable MVA on stock return shown on Table 4, the significant number is equal to 0.444 higher than 0.05 (5 per cent). It indicates that MVA do not have significant effect on stock return. So, hypothesis two is rejected. T-test result on independent variable EVA on stock return shown on Table 4, the significant number is equal to 0.510 higher than 0.05 (5 per cent). It indicates that EVA do not have significant effect on stock return. So, hypothesis three is rejected.

Discussion

The analysis of MVA and EVA on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX) some things to be discussed. This research discovers few things in the field to be solved.

1 The relationship among Market Value Added (MVA) and Economic Value Added (EVA) on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX), simultaneously. This research found F-Test is equal to 0.362 higher than 0.05 (5 percent) which means MVA and EVA do not have significant effect on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX), simultaneously. Hypotheses one is rejected.

2 The relationship between Market Value Added (MVA) on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX) in this research is negative relationship and do not have significant effect. Hypotheses two is rejected. This finding is consistent with the finding of Astuti (2006).

3 The relationship between Economic Value Added (EVA) on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX) in this research is positive relationship but do not have significant effect. Hypothesis three is rejected. This finding is consistent with the finding of Alias (2001).

4 This research found MVA and EVA which is introduced by Steward (1989) as consultant management service in US for purposing to measure financial performance like Stock Return to overcome shortcomings of traditional measure like ROC, ROE, EPS according to this research is not really good to measure Stock Return, especially on banking industry of financial sectors at Indonesia Stock Exchange (IDX). Perhaps traditional accounting is better to measure than MVA and EVA concepts.

CONCLUSION AND RECOMMENDATION

Conclusion

Conclusions of this research are:

1. Market Value Added (MVA) and Economic Value Added (EVA) do not have significant effect on Stock Return of financial sector at Indonesia Stock Exchange (IDX) simultaneously. These indicate that this concepts of measurement, MVA and EVA (independent variable) are not good to predict Stock Return (dependent variable).

2. Market Value Added (MVA) has negative relationship and does not have significant effect on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX).

3. Economic Value Added (EVA) has positive relationship but does not have significant effect on Stock Return of Banking Industry at Indonesia Stock Exchange (IDX).

4. Test results showed that the testing of Stock Return for Banking Industry using MVA and EVA concepts obtain the results that do not significant on all variables. So these concepts are not appropriate to be used for the prediction of stock returns on banking industry.

Recommendation

Recommendations of this research are:

1. MVA and EVA concepts should not be used in the banking industry, specifically to test the stock return. This method can be used in other industries to measure company performance.
2. This research can be a model for financial consultants and investors for finding better measuring tools to measure the financial performance in stock market especially in Indonesia Stock Exchange (IDX).
3. All the findings in this research can be used for supporting or even completing other studies with similar or same concept, after necessary adjustments have been made.

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