THE ANALYSIS OF THE INFLUENCE OF ECONOMIC VALUE ADDED AND MARKET VALUE ADDED TOWARD STOCK RETURN OF CONSUMER GOODS INDUSTRY LISTED IN THE INDONESIA STOCK EXCHANGE PERIOD 2009-2014

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Abstrak

Penelitian ini dilakukan bertujuan untuk mengetehaui secara empiris pengaruh Economic Value Added dan Market Value Added terhadap return saham. Populasi dari penelitian ini adalah perusahaan consumer goods. Teknik sampling yang digunakan adalah purposive sampling, dengan jumlah sampel adalah 14 perusahaan consumer goods yang terdaftar di Bursa Efek Indonesia periode 2009-2014. Teknik analisis data yang digunakan adalah Data Panel, dan berdasarkan Uji Chow, metode yang paling cocok untuk penelitian ini adalah metode common effect. Pengujian hipotesis menggunakan uji t untuk uji pasrial, uji f untuk uji gabungan, dan juga koefisien determinasi. Hasil dari penelitian ini menunjukan bahwa kedua variabel Economic Value Added dan Market Value Added secara parsial dan juga secara gabungan tidak mempunyai pengaruh terhadap return saham. Lebih lanjut lagi, koefisien determinasi adalah sebesar 0,0458 atau 4,58%, yang berarti bahwa variabel return saham dapat dijelaskan oleh variabel Economic Value Added dan Market Value Added sebesar 4,58,25%. Sedangkan sisa 95,42% dijelaskan oleh faktor lain di luar penelitian ini.

Kata Kunci: Economic Value Added, Market Value Added, Return Saham

Abstract

This research is done with the objective to know empirically the influence of Economic Value Added and Market Value Added toward stock return. Population of this study is Consumer Goods Companies. The sampling technique is purposive sampling, with total sample of 14 Consumer Goods Companies listed in the Indonesia Stock Exchange period 2009-2014. The technique of data analysis that is used is Data Panel, and based on Chow Test, the most suitable method for this research is Common Effect. Hypothesis testing using t-test for partial test, f-test for simultaneous test and coefficient of determination. The result of this research indicates that partially Economic Value Added and Market Value Added have no influence on the stock return. And for the simultaneous test, Economic Value Added and Market Value Added also have no influence on the stock return simultaneously. Furthermore, the coefficient of determination result is 0.0458 or in other words, the variable stock return can be explained by Economic Value Added and Market Value Added by 4,58%. While the 95.42% is explained by other factors outside this research.

Keywords: Economic Value Added, Market Value Added, Stock Return

1 Introduction

The impact of the American crisis that occurred in 2008, gave some influence on Indonesia. Indonesia is predicted to experience the flow of foreign funds massively [1]. IHSG during 2008-2014 experienced positive growth along with the recovery of economic Indonesia after the crisis that happened in 2008, and the willingness of local and foreign investors to invest in Indonesia Stock Exchange.

The object of this study is Consumer Goods Industry that listed in the Indonesia Stock Exchange, the Consumer Goods Industry experienced the greatest increasing compared with the other sectors during 2009-2014 in terms of stock prices. It can be concluded that the performance of companies involved in the Consumer Goods Industry has been doing well and there occurred an increasing in its investment. To date, the stocks of Consumer Goods Industry are very impressive and promising.

One of The Consumer Goods Industry ways to obtain additional funds is by issuing or selling shares in the Stock Exchange through a broker as an intermediary between issuers and investors.

The expectation of the investors or funders toward their capital invested in a company is to gain as much return as possible with a certain risk level. Return is the level of profit from an investment, that is, the reward for investing. The return on investment may come from more than one source. The most common source is periodic payments, such as dividends or interest. The other source of return is the increase (decrease) in the price of securities (stocks and long-term debt securities), which can provide gains (losses) for investors. When expressed as percentage, capital gain (loss) is calculated as the price change during the year divided by the price of the beginning of the year. Investors who invest their money hoping to obtain as much return as possible. Therefore, investors need various kinds of information so that investors can assess the performance of the company. The company that performs well, will attract many investors to buy its stocks, thus the price of the stock will increase and also the return will be high.

There are several methods for assessing financial performance. Besides of using financial ratios, financial performance can also be measured using a method based on the value (value-based). Since the 1990s, the business world was introduced with new tools for measuring the financial performance of a company, the tools are known as Economic Value Added (EVA) and Market Value Added (MVA). Economic Value Added (EVA) and Market Value Added (MVA) were initiated by Joen Stern and Bennett Stewart, co-founders of the consulting firm Stern Stewart & Company [2]

EVA is an estimate of a business' true economic profit for the year, which means that it recognizes that there is an opportunity cost for the capital used. When interpreting a set of accounts it is important that opportunity cost is looked and figured out. An ordinary shareholder who invests in a company forgoes the opportunity to invest elsewhere. In an efficient market such as is provided by the Stock Exchange the opportunity cost is provided by the earnings lost through not investing elsewhere [3].

MVA is not a performance metric like EVA, but instead is a wealth metric. MVA does not incorporate the opportunity cost of alternative investments, yet MVA represents the open market value of a business and is used by investors to determine the company's accumulation of wealth. Therefore the investors can determine whether they are gaining more wealth or not. As a company performs well over time, it will retain earnings. This will improve the book value of the company's shares, and investors will likely bid up the prices of those shares in expectation of future earnings, causing the company's market value to rise. As this occurs, the difference between the company's market value and the capital contributed by investors (its MVA) represents the excess price tag the market assigns to the company as a result of it past operating successes [4].

In accordance with the background of this study, the questions that can be made are: How is the performance of consumer goods industry that is analyzed using EVA and MVA, is there any influence of EVA and MVA partially and simultaneously. This study has the objectives to analyze the performance of consumer goods companies using EVA and MVA, also to analyze the influence of Economic Value Added (EVA) and Market Value Added (MVA) both partially and simultaneously.

Based on the background above, therefore this research is given the title "The Analysis of The Influence of Economic Value Added (EVA) and Market Value Added (MVA) toward Stock Return of Consumer Goods Industry Listed on The Indonesia Stock Exchange Period 2009-2014".

2 Theoretical Review

2.1 Stock Return

According to Tandelilin [5], return is the profit rate of investment earned that investors do. Investor's goal in investing is to maximize returns, without forgetting the investment risk factors that must be faced. Return is one of the factors that motivate investors to invest and also a reward for the courage of investors to bear risk on its investments. Sources of investment return consisting of two main components, Yield and Capital Gain (Loss). However, because of not all companies distribute a dividend periodically, then this research only uses the following formula in order to calculate the stock return [5]

$$\text{Stock Return} = \frac{(P_{t+1} - P_t)}{P_t} \quad (1)$$

Where:

Pt = Stock price at the end of previous year

P_{t+1} = Stock price at this year-end

2.2 Economic Value Added

Economic Value Added (EVA) is a method to measure the company's ability to create corporate value measured by the level of economic profit generated. EVA can be calculated by the following formula [2]

$$EVA = NOPAT - (WACC \times \textit{invested capital}) \quad (2)$$

The steps for calculating EVA is as follows:

1. Calculate cost of debt (k_d).
   The investor's required rate of return on debt is simply the return that creditors demand when they lend to the firm [13]. In this study, the cost of debt that is being used is the annual prime lending rate of Bank Mandiri from year 2009 until 2014.

2. Calculate cost of equity (k_e)
   The cost of common equity is the cost of common equity financing to the firm, and is the rate of return investors expect to receive from investing in the firm's stock, which in turn reflects the risk of investing in the equity of the firm [11].

$$R_c = R_f + \beta(R_m - R_f) \quad (4)$$

Where:
R_c : The required rate of return for the cth year
R_f : The risk-free return. In this study, the risk free is Central Bank Rate
R_m : The rate of return on the stock market (usually was measured with IHSG).
β : Stock beta

3. Calculate the proportion of debt and equity.
The proportion of debt can be calculated by dividing total debt with total debt and equity. While the total equity can be calculated by dividing total equity with total debt and equity.

4. Calculate Weighted Average Cost of Capital.
WACC is simply a weighted average of the cost of these sources of capital to the firm. As such, a firm's WACC is a blend of the costs of borrowing money (after-taxes) and cost of raising capital from common stockholders [11].

$$WACC = w_d k_d (1 - T_c) + w_c k_c \quad (5)$$

Where:

WACC : Weighted average cost of capital
kd : Cost of debt
kp : Cost of preferred stock
kc : Cost of common equity
wd : Proportion of debt financing

5. Calculate Invested Capital
Invested capital is the sum of all financial companies, regardless of short-term liabilities, the liabilities which do not bear interest (non-interest bearing liabilities), such as accounts payable, wages maturing (accured waged), and taxes will be due (accrued taxes).

Invested Capital = Total Debt and Equity - Short-Term Loans (which do not bear interest) (6)

6. Calculate Net Operating Profit After Tax (NOPAT).
NOPAT is the amount or profit a company would generate if it had no debt and held no financial assets.

NOPAT = EBIT (1-Tax Rate) (7)

7. Calculate EVA.

EVA = NOPAT – (WACC x Invested Capital)

2.3 Market Value Added

Market Value Added is the difference between the market value of the firm's stock and the amount of equity capital that was supplied by shareholders.

MVA = Market value of stock – Equity capital supplied by shareholders (8)
=(Shares outstanding)(Stock price) – Total common equity

2.4 Research Framework and Hypothesis

Based on the description in the introduction, a framework that is developed in this research shown in Figure 2. While the hyptohesis of this research are:

1. Economic Value Added and Market Value Added simultaneously have the influence on the stock return of Consumer Goods Industry listed in Indonesia Stock Exchange period 2009-2014
2. Economic Value Added partially has the influence on the stock return of Consumer Goods Industry listed in Indonesia Stock Exchange period 2009-2014?
3. Market Value Added partially has the influence on the stock return of Consumer Goods Industry listed in Indonesia Stock Exchange period 2009-2014.

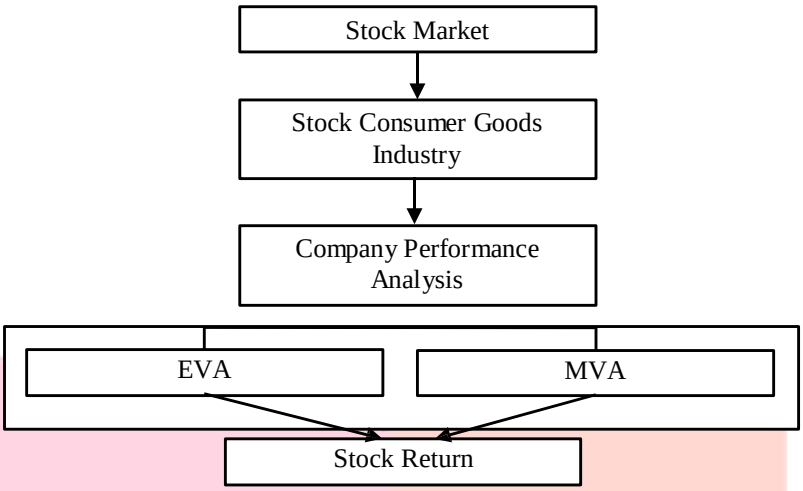

Figure 1. Research Framework

3 Results and Discussions

3.1 Descriptive Statistics

Based on the data that is produced with Eviews 8.1, and using Data Panel analysis, the result of descriptive statistics is as follows:

Table 1. Descriptive Statistics

	Return	EVA	MVA
Mean	0.479735	939.558	40.183.711
Median	0.250984	3.634,4	3.837.203.
Maximum	4.070588	8.858.316	300.454.650
Minimum	-0.697059	-3.672.108	-327.768.2
Std. Dev.	0.831418	2.226.358	69007678
Observations	84	84	84
Cross sections	14	14	14

From Table 1 it can be seen that during the period of this study which is 2009-2014, there are 84 number of observations obtained from multiplication of the number of consumer goods companies that become sample, as many as 14 companies, with the number of periods used in this study of 6 years (14 x 6 = 84). Based on data in Table 1, it can be seen also that the maximum value of the stock return of the 14 companies incorporated in the Indonesia Stock Exchange is 4,07 or 407% and the minimum value is -0,69 or -69% with an average is 0,47 or 47%.

Variable Economic Value Added (EVA) has a maximum value of Rp 8.858.316.000.000 and the minimum value of Rp -3.672.108.000.000 with an average of Rp 939.558.000.000 Variable Market Value Added (MVA) has a maximum value of Rp 300.454.650.000.000 and the minimum value of Rp -327.768.200.000 with an average value of Rp 40.183.711.000.000

3.2 Model Testing

1. Chow Test

   Conducted to determine whether the model used in the study are Common Effect or Fixed Effect Model, the decision making is taken with the following provisions:

   H0: Common Fixed Effect

   H1: Fixed Effect Model

   If the p-value cross section Chi-square < 0.05 or probability value (p-value) F-Test < 0.05 then H0 is rejected or the model that is used is a Fixed Effect model. If the p-value cross section Chi-square ≥ 0.05 or probability value (p-value) F-Test ≥ 0.05 then H0 is accepted or the model that is used is Common Effect model [12].

   The result of Chow Test result is stated in Table 2.

Table 2. Chow test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.884807	(13,68)	0.5723
Cross-section Chi-square	13.127580	13	0.4380

Based on Chow Test/Likelihood Ratio on Table 4.14 probability value cross-section Chi-square is 0,4380, that number is bigger than the significance level 5% or 0,05. In accordance with the decision making criteria, it can be concluded that H0 is accepted so the model that is used is Common Effect Model (Yamin *et al.*, 2011:201). Then, it is not necessary to do test between Fixed Effect Model and Random Effect Model with Hausmann Test (Simamora, 2014).

3.3 Data Panel Regression Equation

Based on the test that has been done, the model that is used in this study is Common Effect Model. The equation can be seen in Table 3.

Table 3. Common Effect Model

Dependent Variable: RETURN?

Method: Pooled Least Squares

Date: 01/03/16 Time: 09:34

Sample: 2009 2014

Included observations: 6

Cross-sections included: 14

Total pool (balanced) observations: 84

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.547963	0.105894	5.174612	0.0000
EVA?	1.72E-07	9.11E-08	1.887367	0.0627
MVA?	-5.72E-09	2.94E-09	-1.945653	0.0552

R-squared	0.045843	Mean dependent var	0.479735
Adjusted R-squared	0.022284	S.D. dependent var	0.831418
S.E. of regression	0.822102	Akaike info criterion	2.481156
Sum squared resid	54.74396	Schwarz criterion	2.567971
Log likelihood	-101.2085	Hannan-Quinn criter.	2.516055
F-statistic	1.945857	Durbin-Watson stat	1.365872
Prob(F-statistic)	0.149485		

The equiation of common effect model regression can be interpreted as: Stock Return = 0.547963 + 1,72E-07EVA – 5,72E-09MVA

Coefficient of Determination

According to Table 3 the R2 (R-square) is 0.0458 or 4.58%. From the result, it can be concluded that the independent variables consisted of Economic Value Added and Market Value Added can explain the dependent variable which is stock return of Consumer Goods Industry by 4.58%, while the rest is 95.42%, is explained by other variables outside this research.

F test

According to Table 4. the result of probability value (F statistics) is (0.599619 ≥ 0.05). In accordance with the decision making criteria, then H0 is accepted or in other words there is no significance influence of Economic Value Added and Market Value Added simultaneously to the stock return of Consumer Goods Industry.

T test

Variable Economoc Value Added (X1) has a probability value (p-value) 0.0627 > 0.05. In accordance with the decision making criteria, then H0 is accepted, or in other words Economic Value Added does not have a significance influence to the stock return of Consumer Goods Industry.

Variable Market Value Added (X2) has a probability value (p-value) 0.0552 > 0.05, In accordance with the decision making criteria, then H0 is accepted, or in other words Market Value Added does not have a significance influence to the stock return of Consumer Goods Industry.

3.4 Discussions

The Influence of Economic Value Added to the Stock Return

During the period of this research, the global economy are in an unstable condition. This instability is the effect of global economic crisis that is caused by the debt crisis that hit several European countries. As a result of this global economic crisis, some of them is the decline in stock prices, causing the stock returns to be received by the investor will be smaller / decrease. This is what might cause the EVA influence on stock returns is insignificant.

Another reason why EVA does not have influence on the stock return is because not many people are familiar with the terms of Economic Value Added, therefore they are not using it as a guide to analyze the performance of company and furthermore correlate it with the predictions of stock return.

This research result is in line with what Rahayu & Aisjah (2013) and Saputra (2010) their result indicates that EVA have no significant influence on the stock return [6,7]. However, this result is in contrast with Himawan & Sukardi (2009) and Husniawati (2012) which determines that EVA have an influence to the stock return [8,9].

The Influence of Market Value Added to the Stock Return

Based on the research, it turns out that MVA does not affect the value of the return received. The effect of the European Union financial and the United States budget deficit holds a big influence of slowing economic recovery trend after the crisis at the beginning of 2008. As a result, global economic conditions in 2011 again depressed which in turn affects the performance of stock markets around the world. In 2011 the majority of the company's stock price that became the object of this study decreased so that recorded a capital loss at the end of the year. The higher the capital loss on a stock, the stock returns will be smaller too.

This research result is in line with what Rahayu & Aisjah (2013) and Saputra (2010) their result indicates that EVA have no significant influence on the stock return [6,7]. However, this result is in contrast with Himawan & Sukardi (2009) and Husniawati (2012) which determines that EVA have an influence to the stock return [8,9].

The Influence of Economic Value Added and Market Value Added to the Stock Return Simultaneously

Based on research findings, it indicate that EVA and MVA together (simultaneously) has no influence on the level of stock returns received by shareholders. This may imply that the change in stock price is not influenced by the size of EVA and MVA.

This research corresponds with previous researches that have been done [6,7,10] their result showed that EVA and MVA has weak influence on the stock return. This means that the level of stock return is not affected by the size of EVA and MVA. However, [9] has a different research findings. Her result shows that EVA and MVA simultaneously have influence on the stock return. Husniawati also proposes investors can use EVA and MVA as the guide before making decisions.

4 Conclusions and Suggestions

4.1 Conclusions

Based on the analysis and discussions that have been done in the previous chapter, the conclusions of this research are:

1. The average performance of consumer goods companies that is analyzed using Economic Value Added has positive value each year. The positive value of EVA means that the company has succesfully created value added to their shareholder. However, the growth of EVA is fluctuative, from the year 2009 until 2012 EVA experienced positive growth, yet in 2013-2014 EVA experienced negative growth. The average MVA performance of consumer goods companies have positive value each year. Positive MVA means that the company has succesfully gaining more wealth to the shareholder, and the growth of MVA also increasing every year from 2009-2014.

2. The influence of Economic Value Added and Market Value Added simultaneously to the stock return of Consumer Goods Industry that listed in the Indonesia Stock Exchange period 2009-2014 through F test using Data Panel Analysis, indicates that EVA and MVA has no significant influence to the stock return.

3. The influence of Economic Value Added partially to the stock return of Consumer Goods Industry that listed in the Indonesia Stock Exchange period 2009-2014 through t test using Data Panel Analysis, indicates that EVA has no significant influence to the stock return.

4. The influence of Market Value Added partially to the stock return of Consumer Goods Industry that listed in the Indonesia Stock Exchange period 2009-2014 through t test using Data Panel Analysis, indicates that MVA has no significant influence to the stock return.

4.2 Suggestions

4.2.1 Theoretical Suggestions

For further research, it will be better to do research with following suggestions:

1. More number of samples, not only consumer goods industry but with other industry that listed in the Indonesia Stock Exchange in order to get clearer picture of the stock amrket of Indonesia.

2. Longer periods of study, can be 10 years or more in order to obtain valid results.

3. Future studies may use external factors as well as other internal factors to find the variables that affect stock returns received by investors.

For potential and existing investors, this research suggests:

4.2.2 Practical Suggestions

The results showed that EVA and MVA either partially or simultaneously have no effect on stock returns, then both prospective investors and existing investors will not have a high risk if it does not perform the analysis of EVA and MVA before making an investment decision. Investors and prospective investors are advised to consider other factors, both internal and external factors. Internal factors can be like profitability ratio, such as Retrun on Assets, Return on Equity, Net Profit Margin, etc. While the external factors can be like currency exchange rate, condition of country, world events, etc.

References:

[1] Pamungkas, R., A. 2010. *Siap-Siap, Indonesia Akan Banjir Capital Inflow Besar-Besaran* [Online] Available at:http://economy.okezone.com/read/2010/09/14/20/371945/siap-siap-indonesia-akan-banjir-capital-inflow-besar-besaran [Accessed 16 February, 2015)

[2] Brigham, Eugene F., & Joel F. Houston. (2011). Dasar-Dasar Manajemen Keuangan. Book 2, Jakarta: Salemba Empat.

[3] Harvey, David., McLaney Edward., Atrill Peter. (2013). Accounting for Business. Routledge [E-book] Available at: https://books.google.co.id/books?isbn=1136006982 [Accessed 3 November 2015]

[4] Pruthy, Shipra & Rajbir Kaur Hara. (2014). A Comparative Study of Economic and Market Value Added of IT Sector Companies in India.

[5] Tandelilin, Eduardus. (2010). Portofolio dan Investasi. Yogyakarta: Kanisius.

[6] Rahayu, Ury Tri., & Siti Aisjah (2013). The Influence of Economic Value Added (EVA) and Market Value Added (MVA) on Stock Return of Companies Listed in LQ 45 period 2009-2011. Thesis Faculty of Economics and Business, Brawijaya University, Malang.

[7] Saputra, Agung T. (2010). Analysis of Influence Economic Value Added (EVA) And Market Value Added (MVA) to Return Share in Manufacturing Companies Listed in Indonesia Stock Exchange. Thesis Economy Faculty, Gunadarma University, Jakarta.
[8] Himawan, Agung F. & Sukardi. (2009). The influence of Economic Value Added, Market Value Added and Operating Income to Stock Return on ng Industry in Indonesia Stock Exchange period 2003-2007. Journal Esensi Volume 12 No.3/2009.
[9[Husniawati. (2012). The Analysis of Economic Value Added, Market Value Added and Systematic Risk toward Stock Return of Food and Beverages Companies. Thesis Faculty of Economy, Gunadarma University, Bandung.
[10] Willem, Meigi Fransiska et al. (2014). Prediction of Stock Return on Banking Industry at The Indonesia Stock Exchange by Using MVA and EVA Concepts.
[11] Titman, Sheridan et al. (2011). Financial Management. Principles and Applications. Boston: Pearson Education.
[12] Yamin, Sofyan, Lien A. Rachmach, Heri Kurniawan. (2011). Regresi dan Korelasi dalam Genggaman Anda. Jakarta: Salemba Empat.
[13] Keown, Arthur J et al., (2010). Manajemen Keuangan, Prinsip dan Penerapan, Jilid 2. Jakarta: Indeks