

## The Analysis Of The Influence Of Economic Value Added and Market Value Added Toward Stock Return (Study at Agriculture Industry listed in IDX Period 2009-2015)

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### Abstrak

Penelitian ini dilakukan bertujuan untuk mengetahui secara empiris pengaruh Economic Value added (EVA) and Market Value Added (MVA) terhadap return saham. Populasi dari penelitian ini adalah perusahaan agrikultur. Teknik sampling yang digunakan adalah purposive sampling, dengan jumlah sampel adalah 10 perusahaan yang terdaftar di Bursa Efek Indonesia antara periode 2009-2015. 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 parsial, uji f untuk gabungan, dan juga koefisien determinasi. Hasil dari penelitian ini menunjukkan bahwa variabel Economic Value Added memiliki pengaruh signifikan terhadap return saham secara parsial. Sedangkan Market Value Added tidak memiliki pengaruh signifikan terhadap return saham secara parsial. Secara gabungan atau simultan juga tidak mempunyai pengaruh terhadap return saham. Lebih lanjut lagi, koefisien determinasi adalah sebesar 0.063086 atau 6.36 %, menunjukkan variable return saham dapat dijelaskan oleh variabel Economic Value Added dan Market Value Added sebesar 6.36%. Jumlah sisa dari 0.9364 atau 93.64% dijelaskan oleh variabel lain di luar penelitian ini.

Kata kunci : *Economic Value Added, Market Value Added, Stockreturn*

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### Abstract

This research is conducted with the objective to find out empirically the influence of Economic Value Added (eva) and Market Value Added (MVA) toward stock return. Population of this study is Agriculture companies. The Sampling technique is purposive sampling, with total sample is 10 Agriculture Companies Listed in IDX periodically 2009-2015. The technique data analysis that is used is Data Panel, based on Chow Test and most suitable method for this research is Common Effect. Hypothesis testing using t-test for partial test and, f-test for simultaneously test and coefficient of determination. The result of this research indicates that partially Economic Value Added has influence toward stockreturn. While Market Value Added does not have influence toward stockreturn partially. Simultaneously both of variables do not have influence toward stockreturn. Furthermore, the coefficient of determination is 0.063086 or 6.36%. while the 0.09364 or 93.64% is explained by other factors outside

Keywords : *Economic Value Added, Market Value Added, Stockreturn*

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## 1 Introduction

The objects of this study is agriculture sector since Indonesia is an agriculture country. The Agriculture provides the sources of basic needs, clothing and shelter, jobs, country income and foreign exchange. The agriculture sector gives impact into high economic multipliers with low import dependency. The impact of economic multiplier is relatively high. Thus this sector could be the security in national economy. When the growth consistently positive, this sector would play a big role in order to maintain the economic growth [1].

The agriculture sector growth in Indonesia Stock Exchange is fluctuative. One of the agriculture companies way to obtain additional fund is by issuing or selling shares in stock exchange. The expectation of stock return is very high by investors. Return is the reward for conducting investment such as dividends and earning per share. When the companies gain increase or decrease in the profit, thus, it will provide gains or losses to the investors. The investors are expecting to gain return as much as possible. Therefore investors need informations in term of financial performance that can be accessed from the companies.

There are several tools to measure financial performance. Stern and Stewart introduces new method for measuring financial performance. The methods are known as Economis Value Added (EVA) and Market Value Added (MVA) [2]. The EVA and MVA have a better view in the measuring financial performance rather than Return on Investment (ROI) or Return on Asset (ROA). The measurement based on financial ratio does not reflect real performance e company. Therefore, a lot of companies seems to be consistent. This condition reverse with the reality where the company's performance is declining. The measurement instruments are needed to provide an added value activities. Therefore EVA and MVA are relevant to measure financial performance [3].

EVA generally is a net profit after substracted by the cost of capital EVA is the remaining profit deducted with cost of capital which is invested to achieve [4]. On the contrary, Market Value Added (MVA) can be translated as the differenciation between market value and the investment itself. MVA could be a measurement for investor to determine company's wealth. Where the company perform consistently, the investor could retain more earnings [5].

In relation to the background this study, the questions that are made: How is the performance of agriculture industry that is analyzed using EVA and MVA, is there any significance influence of EVA and MVA partially and simultaneously to the stockreturn. The objective of this study that are made are: to determine the performance of Agriculture industry using EVA and MVA which also to determine significance influence of EVA and MVA toward stockreturn in agriculture industry.

2 Theoretical Review

2.1 Economic Value Added

Economic Value Added is a economic benefit for a real certain period. This is different with the accountability benefit which is not deducted by the equity cost. Thus, in EVA, equity cost will be included in the calculation. The calculation as follows [6] :

$$EVA = NOPAT - (WACC \times Invested\ Capital) \dots\dots\dots (2.1)$$

The steps in EVA calculation :

1. Calculate Net Operating After Tax (NOPAT)

NOPAT is the amount of profit of a company would generate if it had no debt and held no financial assets.

.....(2.2)

2. Calculate Cost of debt

Cost of Debt is required of return of creditors demand. From 2009 – 2015, cost of debt that is used is annual prime lending rate of Bank Mandiri.

.....(2.3)

3. Calculate Cost of Equity

Cost of Common Equity is the rate of return investors expect to receive from investing the firm stock.

.....(2.4)

4. Calculate proportion of debt and equity

The calculation can be measured by dividing Total Liabilities and Total Equities for proportion of debt. While dividing Total Equities with Total Liabilities for proportion of equity. It will be resulted as percentage proportion.

5. Calculate WACC

WACC is an average of components consist of liability cost, preferred stock and equity cost. WACC is a function from individual cost of capital and percentage of debt and common equity [7].

.....(2.5)

6. Calculate Invested Capital

Investment capital is a sum of total funding which is invested except for short term loans. The formulation of investment capital as follows [8] :

.....(2.6)

7. Calculate EVA

.....(2.7)

2.2 Market Value Added

The primary goal of most firms is to maximize shareholder's wealth. This goal obviously benefits shareholders, but it also helps to ensure that scarce resources are allocated efficiently, which benefit the economy. The calculation as follows [9]:

.....(2.8)

2.3 Stock return

The return is a level of investation benefit which can be collected from investment transaction. The goal from investation is maximizing the return after analyzing the risk itself. The return seems to be a motivation factor for conducting the investment [10].

.....(2.9)

## 2.4 Research Framework and Hypothesis

Based on the formulation of research background, problem, literature review and framework, the hypothesis in this study as follows :

1. Economic Value Added partially has the influence to the stock return of Agriculture Industry listed in Indonesia Stock Exchange period 2009-2015.
2. Market Value Added partially has the influence to the stock return of Agriculture Industry listed in Indonesia Stock Exchange period 2009-2015.
3. Economic Value Added and Market Value Added simultaneously have the influence to the stock return of Agriculture Industry listed in Indonesia Stock Exchange period 2009-2015.

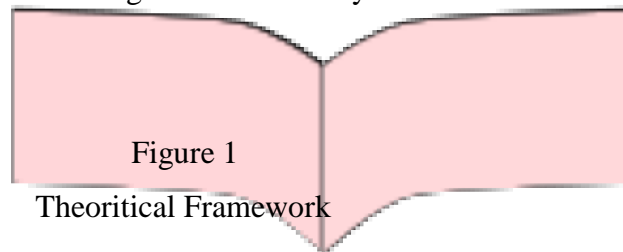
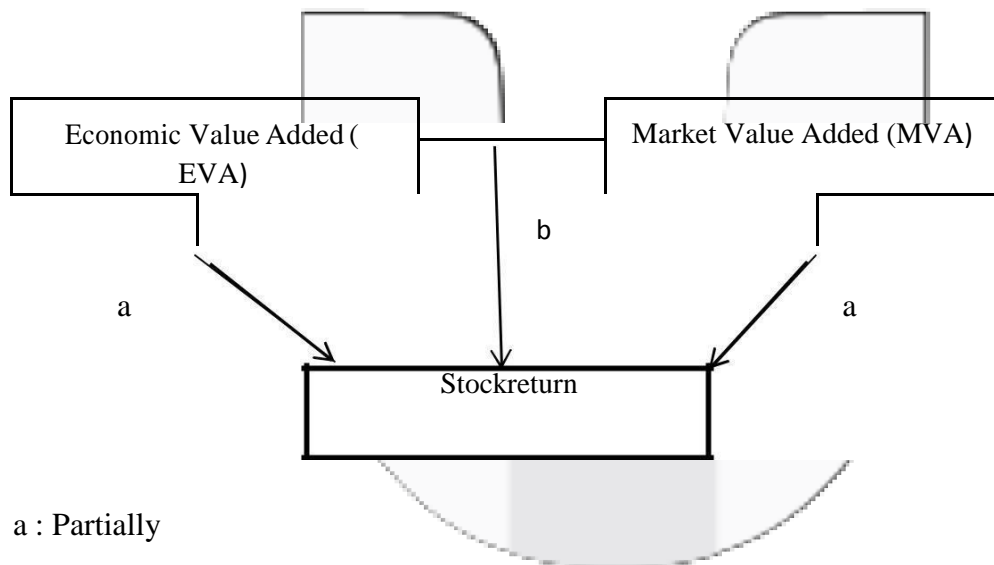


Figure 1  
Theoretical Framework



a : Partially

b : Simultaneously

### 3 Results and Discussions

#### 3.1 Descriptive Statistic

The data that is produced with Eviews 8.1 with and using Data Panel analysis. The results are:

Table 1. Descriptive Analysis

	<b>RETURN?</b>	<b>EVA?</b>	<b>MVA?</b>
<b>Mean</b>	0.144308	-37617.45	7067379.
<b>Median</b>	0.000000	-393351.95	2330288..
<b>Maximum</b>	2.921569	1831316	38525662
<b>Minimum</b>	-0.824903	-3431570	-2023536
<b>Std. Dev.</b>	0.635450	853990.2.	10563285
<b>Observations</b>	70	70	70
<b>Cross sections</b>	10	10	10

From Table 4,13, it can be seen that during the period of this study which is 2009-2015, there are 70 number of observations which is the result of 10 companies multiple with 7 years ( $10 \times 7 = 70$ ). Based on data in Table 4.13, it can be seen also that the maximum value of the stock return of the 10 companies incorporated in the Indonesia Stock Exchange is 2.92 or 292% and the minimum value is -0,82 or -82% with an average is 0,14 or 14%.

Variable Economic Value Added (EVA) has a maximum value of Rp 1.831.316.000.000 and the minimum value of Rp -3.431.570.000.000 with an average of Rp -37.617.450.000. Variable Market Value Added (MVA) has a maximum value of Rp 38.525.662.000.000 and the minimum value of Rp -2.023.536.000.000 with an average value of Rp 7.067.379.000.000

#### 3.2 Model Testing

##### 1. Chow Thest

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  $H_0$  is rejected or the model that is used is a Fixed Effect model. If the p-value cross section Chi-square  $\geq 0.05$  or probability value (p-value) F-Test  $\geq 0.05$  then  $H_0$  is accepted or the model that is used is Common Effect model.

According to Chow Test/Likelihood Ratio, then the result that can be obtained as follows:

**Table 4.14**  
**Chow Test / Likelihood Ratio**

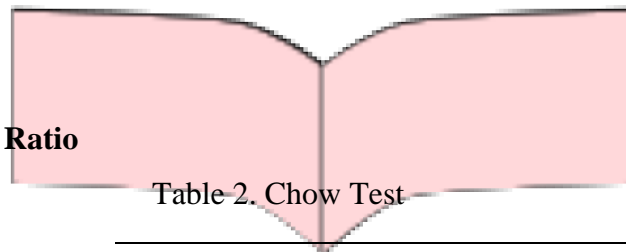


Table 2. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.089877	(9,58)	0.9997
Cross-section Chi-square	0.969502	9	0.9995

*Source: Produced Data*

Based on Chow Test/Likelihood Ratio on Table 4.14, probability value cross-section Chi-square is 0,9995, that number is bigger than the significance level 5% or 0,05. In accordance with the decision making criteria, it can be concluded that  $H_0$  is accepted so the model that is used is Common Effect Model [11]. Then, it is not necessary to do test between Fixed Effect Model and Random Effect Model with Hausmann Test.

### 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 4.15****Common Effect Result**

Dependent Variable: Y?

Method: Pooled Least Squares

Date: 08/14/16 Time: 16:54

Sample: 2009 2015

Included observations: 7

Cross-sections included: 10

Total pool (balanced) observations: 70

Table 3 Common Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.213379	0.099686	2.140511	0.0360
X1?	2.32E-07	1.11E-07	2.084699	0.0409
X2?	-8.54E-09	8.98E-09	-0.950796	0.3451
R-squared	0.063086	Mean dependent var		0.144308
Adjusted R-squared	0.035118	S.D. dependent var		0.635450
S.E. of regression	0.624192	Akaike info criterion		1.937194
Sum squared resid	26.10424	Schwarz criterion		2.033558
Log likelihood	-64.80179	Hannan-Quinn criter.		1.975471
F-statistic	2.255672	Durbin-Watson stat		1.921411
Prob(F-statistic)	0.112706			

The equation of common effect model regression can be interpreted as follows

$$\text{Stock Return} = 0.213379 + 2.32\text{E-}07\text{EVA} - 8.54\text{E-}09\text{MVA}$$

The equation above can be defined follows:

- Intercept coefficient of 0. 213379, means that if there is no changes in EVA and MVA, the stock return of agriculture industry will increase by 0.213%.
- EVA coefficient of 2.32E-07 or 0,000000232 which means that if the EVA increase by 1% (assuming other variable is constant), so the stock return of agriculture industry will increase by 0,000000232%.



- c. MVA coefficient of  $-8.54E-09$  or  $-0,00000000854$  which means that if the MVA increase by 1% (assuming other variable is constant), so the stock return of agriculture industry will increase by  $-0,00000000854\%$ .

### 3.4 Coefficient of Determination ( )

Coefficient of determination indicates the percentage of total variation of dependent variables explained by independent variables. According to Table 4.15, the (R-square) is 0.063086 or 6.36%. 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 Agriculture Industry by 6.36%, while the rest is 93.64%, is explained by other variables outside this research.

### 3.5 Hypothesis Testing

#### 1) Simultaneous Test (F Test)

F test basically is used to determine whether all independent variables included in the model have influence together on the dependent variable. The decision making criteria in simultaneous test is when the probability value (F-statistics)  $\geq 0.05$  (significance level 5%) then  $H_0$  is accepted, which means that the independent variables do not have influence on the dependent variable simultaneously. Otherwise, if the probability value (F statistics)  $< 0.05$  then  $H_0$  is rejected, which means that the independent variables have influence on the dependent variables simultaneously.

#### 2) Partial Test (t Test)

T Test is done to determine how far the influence of independent variable individually to the dependent variable. The decision-making criteria in partial test is when the probability value (p-value)  $\geq 0.05$  (significance level 5%) then  $H_0$  is accepted, which means that the independent variables do not have significance influence on the dependent variable partially. Otherwise, if the probability value (p-value)  $< 0.05$  then  $H_0$  is rejected, which means that the independent variables have significance influence on the dependent variables partially.

### 3.6 Discussion and Results

The result of this research shows that Economic Value Added has probability value (p-value) of 0.0409 which is smaller than the significance level 0.05. This indicates that EVA

has significance influence to the stock return of agriculture companies listed in the Indonesia Stock Exchange. This also indicates that measuring performance of companies using EVA is an important decision before investor begin to invest their money in stock.

The positive value of EVA indicates that the company has been able to generate the effective and efficient of financial performance, which means that the rate of return produced by the company exceeds the cost of capital on the rate of return expected by investors. Positive value of EVA also indicates that the company has been able to create added value for the capital holders. The value of the company that is added should bring a positive influence on the company's stock price so that it will raise the return on the capital gain, the same when EVA is negative, it will bring negative influence to the stock return.

Positive value of MVA indicates that the company's market value is higher than the book value of the company. This should make investors interested to invest in the company. The number of investors who are interested should be able to raise the amount of demand for the shares so as to raise the stock price. Rising stock prices will bring a positive influence on the return of the capital. However, based on the results of the research that has been done, it turns out that MVA does not affect the value of the return received. One of the reason is because investors did not see MVA as a guide to make decision whether invest in one company or not. Investors still consider performance analysis such as EVA, and other ratios like ROA, ROE, NPM.

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.

## 4 Conclusion and Suggestion

### 4.1 Conclusion

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 agriculture companies that listed in the IDX period 2009-2015 which is analyzed using Economic Value Added has positive and also negative value. The positive value of EVA means that the company has successfully created value added to their shareholder. While the negative EVA means that the companies did not successfully created value added to their shareholders. The average MVA performance of agriculture companies have positive value each year. Positive MVA means that the company has successfully gaining more wealth to the shareholder, and the growth of MVA also increasing every year from 2009-2015.
2. There is a significant influence of Economic Value Added partially to the stock return of Agriculture Industry that listed in the Indonesia Stock Exchange period 2009-2015 through t test using Data Panel Analysis.
3. There is no significant influence of Market Value Added partially to the stock return of Agriculture Industry that listed in the Indonesia Stock Exchange period 2009-2015 through t test using Data Panel Analysis
4. There is no significant influence of Economic Value Added and Market Value Added simultaneously to the stock return of Agriculture Industry that listed in the Indonesia Stock Exchange period 2009-2015 through F test using Data Panel Analysis.

### 4.2 Suggestion

#### 1. Theoretical Aspects

For the further research, it will be better to conduct research with more number of samples or longer periods for example 10 years of study in order to obtain valid results. Future studies may use external factors as well as other internal factors to find the variables that affect stock returns received by investors. External factors can be like interest rate, oil price, inflation and exchange rate. While internal factors such as probability ratio, ROA, ROE, EPS, etc.

#### 2. Practical Aspect

The results showed that EVA partially have influence to the stock return. Therefore companies have to maintain positive EVA in order to attract more investors, and investors also have to consider EVA as a tool to measure the performance before making decision. However, MVA partially have no effect on stock returns, then both prospective investors and the existing investors will not have a high risk if it does not perform the analysis of MVA before making an investment decision. Both of investors are advised to consider other factors. Internal factors can be like traditional accounting such as profitability ratio, such as Return on Assets, Return on Equity, etc. The external factors can be like currency rate, government condition, another world crisis, etc.

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