

The Factors Which Influence Stock Return with Stock Price as Moderating Variable in Automotive Companies Listed in the Indonesia Stock Exchange

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ABSTRACT

The objective of the research was to find out and analyze the influence of Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER) on stock Return with stock price as moderating variable in automotive companies listed in BEI (Indonesia Stock Exchange). The Research used causal method, and the research object was Automotive Companies listed in BEI in the period of 2011- 2016, as secondary data. The data were analyzed quantitatively by using simple regression analysis. The Result of the research showed that, simultaneously, ROA, NPM, EPS, and DER had the influence on Stock Return Partially, ROA and DER had the influence on stock return, while NPM and EPS did not. Stock Price can only moderate the correlation between DER and stock return, while ROA, NPM and EPS were not able to moderate the correlation between stock price and stock return.

Key Words: Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER), stock return, stock price

INTRODUCTION

The capital market experienced a very rapid development from year to year, this was evidenced by the increasing number of shares in circulation and the increasingly high volume of stock trading. The capital market has a very important role in economic activities, especially in countries that adhere to the market economy system. The capital market has become a source of economic progress, because the capital market can be an alternative source of funds for companies (Lubis, 2008). From an economic point of view, the capital market functions as an efficient long-term fund mobility system for the government. Through the capital market, the government can allocate public funds to productive

investment sectors. From a financial point of view, the capital market serves as one of the efficient and effective media to allocate funds from parties who have excess funds or investors and those who need funds called the company.

The development of capital markets in many countries including Indonesia is closely related to the important role of capital markets in the economy of a country, this is because the capital market carries out economic functions as well as financial functions (Husnan, 2002). With the existence of a capital market, investors can invest in many investment choices, in accordance with their analytical capabilities and risk-taking courage where investors will always maximize returns combined with

certain risks in each investment decision. The increase in stock prices and high demand is a special attraction for companies to issue shares. Investors who buy shares mean they buy the prospects of a company. For those who lack funds, the capital market can be used as an alternative in providing funds. Alternative funding companies from the Indonesia Stock Exchange can provide benefits to the management of automotive companies by choosing the types of stocks that can provide higher returns if they have reserve funds (Siswanto, 1998). The increasing number of Automotive Companies going public will strengthen or weaken the stock price. Variables that cause the rise and fall of stock prices on the Indonesia Stock Exchange always follow the development of the market's will (Jumingan, 2005).

For investors, the annual financial statements are a source of various kinds of information, especially the company's balance sheet and income statement. Therefore, the publication of the company's financial statements (issuers) is a time awaited by investors in the capital market, because from the publication of the financial statements investors can find out about the issuer's progress, which will be used as one of the considerations to buy or sell shares - shares owned. The problem that arises is how the information of the publicly traded company affects the stock price in the capital market and what variables make the indicator, so that the company can control the increase in the value of the company by increasing the value of shares traded in the capital market. In making investments, investors will estimate how much the expected income (expected return) of the investment for a certain period in the future. However, after the investment period, it is not certain that the realized income level is the same as the expected income level, the expected level of income, the realized income level can be higher or lower. Uncertainty about the level of income is the core of investment, namely that investors must always consider the element of

uncertainty which is an investment (Farid and Siswanto, 1998). Investment decisions for investors contain risks and uncertainties. Knowledge about risk is an important thing to be owned by every investor and prospective investor. A rational investor, before making an investment decision must consider two things, namely expected return and risk depending on the type of investment. Investments in stocks are considered to have a greater level of risk compared to other investment alternatives such as bonds, deposits and savings. This is because the expected income from investments in shares is uncertain, where stock income consists of dividends and profits derived from an increase in securities prices (capital gains). The ability of a company to pay dividends is determined by the company's ability to generate profits, while capital gains are determined by fluctuations in stock prices. The risk of stock investment is reflected in the variability of income (return) of shares, both individual stock income and overall stock income (return market) in the capital market (Djakman, 1999).

From the perspective of prospective investors, to assess the company's prospects in the future is from the growth of the company's profitability. The most widely used indicator is Return on Equity (ROE) which describes the company's ability to generate profits that can be obtained by shareholders. The indicator used to assess the effectiveness and efficiency of the company in using Assets to obtain profit is widely used is Return on Assets (ROA). According to (Natarsyah, 2000) fundamental factors such as Return on Equity (ROE), affect the company's stock price. The higher the Return on Equity (ROE) value, the higher the net income of the company concerned. There is a positive relationship between Return on Equity (ROE), with the company's stock price which can increase the book value of the company's shares. Another fundamental factor that influences stock prices is dividends, that the variability of stock prices

depends on the earnings and dividends of a company (Fuller et al, 1987). The bird-in-hand theory states that there is a relationship between company value and dividend payment, that dividend payments show certain things related to stock price appreciation. Because dividends are assumed to be less risk than capital gains, companies should set a high dividend payout ratio and offer high yield dividends to maximize stock prices.

The aim of this research is to find out and analyze the influence of Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER) on Stock Returns in Automotive Companies in the Exchange Indonesian Securities (IDX) simultaneously and partially and to find out and analyze whether stock prices are able to moderate the relationship between Return on Assets (ROA), Net Profit Margin (NPM) Earning Per Share (EPS) and Debt to Equity Ratio (DER) to Return Shares in Automotive Companies on the Indonesia Stock Exchange (BEI).

LITERATURE REVIEW

Signalling Theory

Signaling Theory is how accounting can be used to express information signals about a company. Financial reports are often used to provide signals about a company, especially when income trends are in the spotlight to indicate possible future earnings. Signaling theory emphasizes the importance of information issued by the company to external investment decisions and the encouragement of companies to provide such information to external parties. In relation to signaling theory, audit quality provides a quality signal from the company and its shares. The quality of the company is described by its ability to survive for a long time (going concern). This condition will help convince investors to invest in the company. As has been mentioned in the background that going concern opinion will lead to a self-fulfilling proposal where this opinion will be a signal that the company

will doubt its ability to survive. When auditors who have good audit quality state going concern opinion on a company, then this will affect the investment decisions of potential investors and also previous investors have invested in the company.

Capital market

The capital market is essentially an order network that allows the exchange of long-term claims, the addition of Financial Assets (debt funds) at the same time, allowing investors to change and adjust investment portfolios through the secondary market. The process of capital formation clearly plays an important role in the development of an economy. Not all economic activities are able to meet their investment needs from their own savings. In reality, there are surplus units of economic activity, namely savings > investment and there is a deficit economic unit, namely savings < investment (Brealy et al, 2007). For this reason, intermediaries are needed that can channel excess funds from units that are in surplus to units that are in deficit and that is the role of money markets and capital markets. In surplus and deficit economic units can be met either directly (for example offering full shares and government bonds to the wider community) or indirectly through financial intermediary institutions (eg commercial banks). Capital market instruments are divided into two major groups, namely ownership instruments (equity) such as stocks and debt instruments (bonds or bonds) such as corporate bonds, subscription bonds, bonds that can be converted into shares, and so on. It is also well known; it is very different between portfolio investment which is usually by giving instruments in the capital market with direct investment and usually participate directly in the process of establishing a company. In the first case, investors are not interested and have no interest in running the business of the company he bought his shares; they are more interested in dividends and capital gains from the shares purchased. In the last case, the investor concerned wants to

control and execute the investment directly (Djakman, 1999).

Investment Theory

Investment is a delay in current consumption that is put into an efficient production process for a certain period of time which results for consumption in the future (Jogiyanto, 2003). According to Sunariyah (2004), investment is often interpreted as an investment for one or more assets owned and usually long-term in the hope of gaining profit in the future. The investment decision can be made by individuals or an entity that has excess funds. Investment is a commitment to a number of funds or other resources carried out at this time, with the aim of obtaining profits in the future. Investment consists of two main parts, namely: investment in the form of real assets and investment in the form of securities or securities (marketable securities or financial assets). Real investment is tangible assets or tangible assets such as houses, land, gold, and machinery. Whereas financial investments involve securities, for example deposits, stocks, or bonds which are basically claims on real assets that are controlled by an entity (Tandelin, 2001).

Capital Market Investment

The capital market has an important role in economic activities because the capital market can be an alternative source of funds for companies. With the development of the capital market will boost the economy of a country. Almost all countries in the world have a capital market, which aims to create facilities for industrial and whole entity needs in meeting capital demand and supply (Sunariyah, 2004).

In carrying out its economic function, the capital market provides facilities for transferring funds from parties who have excess funds (investors) to those who need funds (issuers). By investing the excess funds they have, the funders hope to get a reward from the delivery of the funds. For fund borrowers, the availability of these funds in the capital market allows them to conduct business activities without having

to wait for the funds they receive from the results of the operations of the company (Tendy et al, 2005).

Stock as an Investment Option

Stock (stock or share) can be defined as a sign of participation or ownership of a person or entity in a company or company limited. A tangible stock of a piece of paper that explains that the owner paper is the owner of the company that issued the securities. Portion ownership is determined by how much investment is invested inside the company (Darmadji and Fakhrudin, 2006). Shares can be traded on the Stock Exchange, which is a place used to trade securities after the primary market. Issuance of stock securities will provide various benefits for banking companies (Darmadji and Fakhrudin, 2006).

Stock price

Share price is the price per share that applies in the capital market. The stock price in the capital market consists of three categories, namely the highest price (high price), lowest price (low price) and closing price (close price). The highest or lowest price is the highest or lowest price that happened on one exchange day. The closing price is the price that occurs lastly at the end of the exchange hour (Darmadji and Fakhrudin, 2006). Based on these three categories can be seen that changes in stock prices occur, like each investor often has a different perception, so it is often wrong to make investment decisions. As a result, investors are often in a hurry to sell their shares without first calculating whether the shares have good prospects or not (Darmadji and Fakhrudin, 2006).

Concept of Return in Stock

Return is a return on an investment that is usually stated as annual percentage rate. Stock return is the level of profit that will be obtained by investors who invest their funds in the capital market. Stock returns this can be used as an indicator of trading activities in the capital market. According to Jogiyanto (2003), the Stock Return is divided into two, namely Return Realization (Realized Return) and Return Expectation

(Expected Return). Return Realization (Realized Return) is a return that has occurred which is calculated based on historical data and used as one of the measuring instruments for company performance. While Return Expectation (Expected Return) is a Return that is expected to be obtained by investors in the future. In contrast to Return Realization which has already occurred, while Return Expectations are not yet occurring. Return Realization is important because it is used as a measure of financial performance and is also useful as a basis for determining the Return on Expectations and risks in the future. In making investments investors are faced with uncertainty (Uncertainty) between Returns that will be obtained with the risk that will be faced. The greater the return that is expected to be obtained from the investment, the greater the risk, so that it is said that the expected return has a positive relationship with risk (Jogiyanto, 2003).

MATERIALS & METHODS

This research is a type of causal associative research using quantitative data types. According to Umar (2003: 30) causal associative research is research that aims to analyze the relationship between one variable and another or how a variable influences other variables. This type of research was conducted to examine the effect of Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER), on stock returns on Automotive Companies listed on the Indonesia Stock Exchange. The location of this study was carried out on automotive companies listed on the Indonesia Stock Exchange located in Jakarta. Sources of data were obtained through the Indonesian Capital market directory, the official website of the Indonesia Stock Exchange, www.idx.co.id. The populations in this study were all Automotive Companies listed on the Indonesia Stock Exchange in the 2011-2016 period as many as 14 companies. The sampling technique was carried out based

on purposive sampling method with the aim of getting a representative sample according to the specified criteria. In this study the data collection method used is the documentation method. According to Arikunto (2002) the documentation method is a way to find data about things or variables in the form of notes, transcripts, books, newspapers, magazines, meeting minutes, agendas and so on. The type of data in this study is secondary data in the form of data pooling which is a combination of the times series and cross section. Observations that become the object of research are Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS) and Debt to Equity Ratio (DER) as independent variables and stock returns as the dependent variable and stock prices as moderating variables in Automotive company.

Dependent Variables

The dependent variable is the dependent variable and is influenced by other variables (Ghozali, 2013). The dependent variable in this study is stock returns in Automotive Companies listed on the Indonesia Stock Exchange. stock return is an amount that is stated as a percentage and is obtained from the investment of the company's ordinary shares for a certain period, which is calculated based on the difference in changes in the share price of the current period and the previous period. On the basis that this year's financial performance will have an impact on the next stock price. the measurement scale used is the ratio scale. In this study stock return is a capital gain (loss). capital gain (loss) is the difference in profit (loss) obtained by shareholders because the current stock price is relatively higher (lower) than the previous stock price. Stock returns can be calculated by the following formula:

$$R_t = \frac{P_t - P_{t-1}}{P_{t-1}}$$

Where:

R_t = Stock Return

P_t = Share Prices

P_{t-1} = Previous period stock price

Independent variable

Return on Asset (X1)

Return on Assets (ROA) is a ratio that describes the ability of assets owned by a company in generating net income. this ratio can be calculated by dividing net income after tax with total assets of the company. the measurement scale used is the ratio scale with the following formula:

$$\text{Return on Asset (ROA)} = \frac{\text{Net profit}}{\text{Total assets}}$$

Net Profit Margin (X2)

Net Profit Margin (NPM) is this ratio used to measure the rupiah profit generated by each sale. this ratio provides an overview of earnings for shareholders as a percentage of sales. The measurement scale used is the ratio scale with the following formula:

$$\text{Net Profit Margin (NPM)} = \frac{\text{Earning after tax}}{\text{Sales}} \times 100\%$$

Earning Per Share (X3)

Earning Per Share (EPS) is a ratio that measures how much each share can generate profits for the company's shareholders. The ratio is calculated by dividing net income after tax with the number of shares outstanding. The measurement scale used is the ratio scale with the following formula:

$$\text{Earning Per Share (EPS)} = \frac{\text{Net profit}}{\text{Number of shares outstanding}}$$

Debt to Equity Ratio (X4)

Debt to Equity Ratio (DER) is the debt ratio used to measure the level of use of debt to own capital owned by a company. The value of Debt to Equity Ratio (DER) in this study comes from the comparison between total debt and equity. This ratio can be systematically formulated as follows: (Darmadji and Fakhruddin, 2006):

$$\text{Debt to Equity Ratio (DER)} = \frac{\text{Total Amoun of debt}}{\text{Total Own Capital}}$$

Moderating variable

Moderating variables are variables that strengthen or weaken the direct relationship between the independent variable and the dependent variable (Ghozali, 2013). The variables in this study are stock prices. The share price is the

realization of the stock price at the annual closing on the Indonesia Stock Exchange. the price of this stock is deemed feasible to represent the company's performance in a certain period of financial statements.

Statistical Analysis

Research using a quantitative approach with the tools used in this study is descriptive statistics and multiple regression analysis. For the validity of the results of the analysis, the first classical assumption is carried out.

Classic Assumption Testing

Data analysis method used in this study is a simple regression analysis model. The use of regression analysis method in testing hypotheses, first tested whether the model meets classical assumptions or not. Classical assumption test consists of normality test, heteroscedasticity test, multicollinearity test and autocorrelation test.

Normality test

The normality test used is the Kolmogorov-Smirnov test. the criteria that can be used are two-tailed test, which is comparing the p value obtained with a predetermined significance level. in this study, test the normality of the residual by using the Jarque-Bera (J-B) test. In this study, the significance level used was $\alpha = 0.05$. The basis for decision making is to look at the probability numbers of the J-B statistics, with the following conditions.

If the probability value $p > 0.05$, then the assumption of normality is met.

If the probability $p < 0.05$, then the assumption of normality is not met.

Multicollinearity Test

A good regression model should not have a correlation between the independent variables, to find out if there are symptoms of multicollinearity on the regression model which is done. In this study, the symptoms of multicollinearity can be seen from the correlation values between variables contained in the correlation matrix. Multicollinearity testing can be seen from the value of Tolerance or Variance Inflation Factor (VIF) (Nugroho, 2005). Tolerance

value >0.1 or VIF <10 , so there is no multicollinearity.

Heteroscedasticity Test

Testing whether or not heteroscedasticity is done by looking at the detection of the presence or absence of heteroscedasticity can be done by the Breusch-Pagan test (Gujarati, 2003, Gio and Elly, 2015).

Autocorrelation Test

Autocorrelation arises because of consecutive observations throughout the year that are related to one another. Assumptions regarding the independence of residuals (non-autocorrelation) can be tested using the Durbin-Watson test (Field, 2009: 220). The statistical value of the Durbin-Watson test ranges between 0 and 4.

There are three models used in the data panel analysis, namely Ordinary Least Square (OLS), Fixed Effect Model (FEM) and Random Effect Model (REM).

The steps to determine the panel data used in the study are through the following tests:

a. Chow Test

Chow Test is done to choose whether the model used is Common Effect Model (CEM) or Fixed Effect Model (FEM). Testing with the Chow Test is done with the following hypothesis:

Ho: $F_{stat} < F_{table}$, then a valid Common Effect Model (CEM) model is used

Ha: $F_{stat} > F_{table}$, then a valid Fixed Effect Model (FEM) model is used

b. Hausman Test

Hausman Test is used as a basis for consideration in choosing whether the model used is the Fixed Effect or Random Effect Model. The Hausman Test is carried out by the following hypothesis:

Ho: Random Effect Model (REM)

Ha: Fixed Effect Model (FEM)

The basis for rejecting Ho is to use Chi Square distribution statistics. If the Hausman test results are significant ($<5\%$) then Ho is rejected, meaning Fixed Effect Model (FEM) used.

c. Lagrange Multiplier test

The Lagrange multiplier test is used as a statistical consideration in choosing

Random Effect Model (REM) or Common Effect Model (CEM). This test is carried out if the results of the Chow test show that the model that is more appropriate to use is Common Effect Model (CEM) and the Hausman test shows that a more appropriate model to use is Random Effect Model (REM), with the following hypothesis:

Ho: Probability > 0.05 , then a valid Common Effect Model (CEM) is used

Ha: Probability < 0.05 , then a valid Random Effect Model (REM) is used

That is, the basis for the rejection of ho is to use Chi Square statistics. If the results of the calculation of the LM test are significant (more than 0.05) then Ho is rejected, meaning Random Effect Model (REM) is used.

Hypothesis testing

Hypothesis testing is carried out using a regression analysis model that aims to predict how much influence the independent variable has on the dependent variable through t test and F test with static models and dynamic models. Static model regression equations and dynamic models are:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Information:

Y = Stock Return

A = Constants

b_1 - b_4 = Regression coefficient variable X_1 - X_4

X_1 = Return on Assets

X_2 = Net Profit Margin

X_3 = Earning Per Share

X_4 = Debt to Equity Ratio

ϵ = Turn of Error

Simultaneous Test (Test F)

The F test is used to determine whether there are simultaneous effects of independent variables on the dependent variable. The testing criteria used are if the probability value (p value) < 0.05 , then Ha is accepted and if p value > 0.05 , then Ha is rejected. F test can also be done by comparing F-count and F-table values. If F-count $> F$ -table, then Ha is accepted. That is, statistically the data of independent

variables affect the dependent variable. If F-count is <F-table, then Ha is rejected. That is, statistically available data can prove that all independent variables have no effect on the dependent variable.

Partial Test (t test)

The t test is used to determine the effect of each independent variable on the dependent variable. The testing criteria used are if the p value is <0.05, then Ha is accepted and if the p value is > 0.05, then Ha is rejected. The t test can also be done by comparing t count with t table with the degree of freedom (number of freedom) number of observations (n) minus the number of parameters in model (k) including intercept, with the provisions that is if t count >t table (α 0.05) then Ha is accepted and Ho is rejected, if t count <t table (α 0,05) then Ho is accepted and Ha is rejected.

Moderating Test

In this study to test the regression with moderating variables, namely the interaction test. Interaction test or often referred to as Moderated Regression Analysis (MRA) is a special application of linear multiple linear regression in which the regression equation contains elements of interaction (multiplication of two or more independent variables). Regression equation for absolute residual test can be described as follows:

$$Z = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5Z + b_6X_1Z + b_7X_2Z + b_8X_3Z + b_9X_4Z + e$$

Information:

- Y = Return Saham
- a = Constants
- b₁-b₉ = Regression coefficient
- X₁ = Return on Asset
- X₂ = Net Profit Margin
- X₃ = Earning Per Share
- X₄ = Debt to Equity Ratio
- Z = Stock price
- € = Turn of Error
- X₁Z = Interaction between X₁ and Z
- X₂Z = Interaction between X₂ and Z
- X₃Z = Interaction between X₃ and Z
- X₄Z = Interaction between X₄ and Z

RESULT

Descriptive Statistical Analysis

Descriptive statistical analysis is used to determine the description of a data which is seen from the maximum value, minimum value, mean value, and standard deviation value. In this study, the variables used in the calculation of descriptive statistics are Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER), to stock returns with stock prices as variables moderating at Automotive Companies listed on the Indonesia Stock Exchange. Based on descriptive statistical analysis obtained sample description as follows.

Table 1. Descriptive Statistics Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER), Stock Returns and Share Prices in Automotive Companies listed on the Indonesia Stock Exchange year 2011 -2016

	Y	X1	X2	X3	X4	Z
Mean	0.152730	3.784310	2.688975	136.8486	75.37508	3916.512
Median	0.046222	1.360000	3.000000	50.00000	2.585000	2150.000
Maximum	4.944444	24.00000	33.00000	1549.000	1438.310	21250.00
Minimum	-0.809524	-13.00000	-45.00000	-2394.000	-4.400000	98.00000
Std. Dev.	0.777181	6.756569	9.578379	459.9596	227.4287	4921.592
Skewness	3.484318	1.006290	-1.573862	-0.851871	4.110462	1.831623
Kurtosis	20.02305	4.209543	10.70768	14.71816	20.63630	5.810866
Jarque-Bera	1184.211	19.29714	242.6075	490.7634	1325.179	74.62117
Probability	0.000000	0.000065	0.000000	0.000000	0.000000	0.000000
Sum	12.82929	317.8820	225.8739	11495.29	6331.507	328987.0
Sum Sq. Dev.	50.13283	3789.051	7614.864	17559718	4293075.	2.01E+09
Observations	84	84	84	84	84	84

Source: Research Results, 2018 (Data Processed)

Based on Table 1, it is known that the minimum value of stock returns is -0.809524, while the maximum value of stock returns is 4.944444. The mean value of stock returns is 0.152730, while the standard deviation value of stock returns is 0.777181. By looking at the rate of growth of stock returns in an area, it can provide an overview of how development and stock prices have been achieved by the area.

Based on Table 1, it can be seen that of the total N samples as many as 84, where the average number of ROA of Automotive Companies listed on the Indonesia Stock Exchange was 3.784310 with the lowest number of -13.00000 and the highest was 24.00000 with a standard deviation of 6.756569. The minimum value of the NPM is -45.00000, while the maximum value of the NPM is 33.00000. The mean value of the NPM is 2.688975, while the standard deviation value of the NPM is 9,578379. The minimum value of EPS is known as -2394,000, while the maximum value of EPS is 1549,000. The mean value of EPS is

136.8486, while the standard deviation value of EPS is 459.9596. Given the minimum value of DER is -4.400000, the maximum value of the DER is 1438,310. the mean value of DER is 75.37508, while the standard deviation value of DER is 227.4287. The minimum value of the stock price is 98.00000 while the maximum value of the stock price is 21250.00. The mean value of the stock price is 3916,512, while the standard deviation value of the stock price is 4921,592.

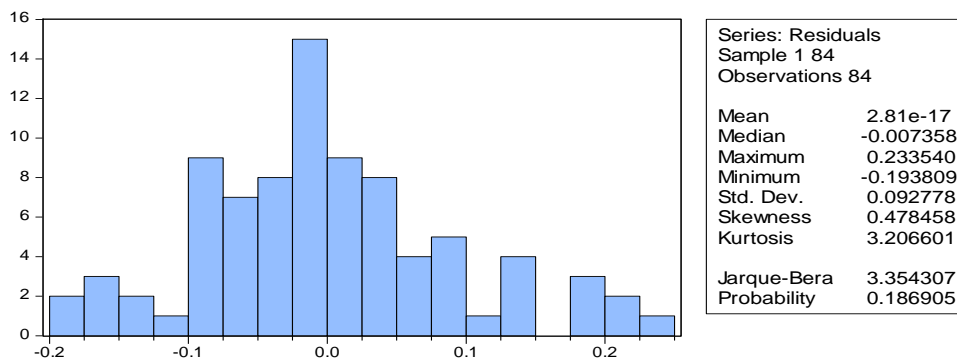
Classic assumption test

Normality test

In this study, test the normality of the residuals using the Jarque-Bera (J-B) test. In this study, the significance level used was $\alpha = 0.05$. The basis for decision making is to look at the probability numbers of the J-B statistics, with the following conditions.

If the probability value is $p \geq 0.05$, then the assumption of normality is met.

If the probability $p < 0.05$, then the assumption of normality is not met.



Source: Research Results, 2018 (Data Processed)
Figure 1. Normality Test with Jarque-Bera Test

Note that based on Figure 5.1, it is known that the probability value of the J-B statistic is 0.186905. Because the probability value p, which is 0.186905, is greater than the level of significance, which is 0.05. This means that the assumption of normality is met.

In this study, the symptoms of multicollinearity can be seen from the correlation values between variables contained in the correlation matrix.

Multicollinearity test results are presented in Table 2.

Table 2. Multicollinearity Test

Variance Inflation Factors			
Date: 06/10/18 Time: 23:43			
Sample: 1 84			
Included observations: 84			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.007136	66.28141	NA
X1	0.000103	1.225314	1.220027
X2	0.041871	4.188150	2.214532
X3	0.032651	9.101815	2.092776
X4	0.002976	56.96430	1.015249

Source: Research Results, 2018 (Data Processed)

Based on Table 2 the results of multicollinearity testing, it can be concluded that there are no symptoms of multicollinearity between independent variables. This is because the value of Variance Inflation Factors (VIF) is not more than 10.

Heteroscedasticity Test

Detection of the presence or absence of heteroscedasticity can be done with the Breusch-Pagan test. Following are the results of the Breusch-Pagan test.

Table 3. Heteroscedasticity Test (Breusch-Pagan Test)

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	2.220845	Prob. F(4,79)	0.0742
Obs*R-squared	8.490843	Prob. Chi-Square(4)	0.0752
Scaled explained SS	8.285912	Prob. Chi-Square(4)	0.0816

Source: Research Results, 2018 (Data Processed)

The value of Prob Obs * R-Squared is $0.0752 > 0.05$, which means that heteroscedasticity does not occur.

Autocorrelation Test

Assumptions regarding the independence of residuals (non-autocorrelation) can be tested using the Durbin-Watson test. The statistical value of the Durbin-Watson test smaller than 1 or greater than 3 indicates autocorrelation.

Table 4. Autocorrelation Test with the Durbin-Watson Test

Log likelihood	83.20251	Hannan-Quinn criter.	-1.732915
F-statistic	0.682598	Durbin-Watson stat	1.975977

Source: Research Results, 2018 (Data Processed)

Based on Table 4, the value of the Durbin-Watson statistic is 1.975. Note that because the Durbin-Watson statistical value is between 1 and 3, which is $1 < 1.975 < 3$, the assumption of non-autocorrelation is fulfilled. In other words, there are no symptoms of high autocorrelation in the residuals.

Determination of Estimation Model between Common Effect Model (CEM) and Fixed Effect Model (FEM) with Chow Test

To determine whether the CEM or FEM estimation models form a regression model, the Chow test is used. The hypothesis tested is as follows.

The following results are based on the Chow test:

Table 5. Results from the Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.343888	(41,38)	0.0046
Cross-section Chi-square	105.923586	41	0.0000

Source: Research Results, 2018 (Data Processed)

Based on the results of the Chow test in Table 5.5, it is known that the probability value is 0,000. Because the probability value is $0.000 < 0.05$, the estimation model used is the Fixed Effect Model (FEM) model.

Determination of the Estimation Model between Fixed Effect Model (FEM) and Random Effect Model (REM) with the Hausman Test

To determine whether the FEM or REM estimation models form a regression model, the Hausman test is used. The hypothesis tested is as follows.

The following results are based on the Hausman test:

Table 6. Results from the Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.527238	4	0.0219

Source: Research Results, 2018 (Data Processed)

Based on the results of the Hausman test in Table 5.6, it is known that the probability value is 0.0219. Because the probability value is $0.0219 < 0.05$, the estimation model used is the Fixed Effect Model (FEM) model.

Hypothesis testing

In testing the hypothesis, the determination coefficient analysis, simultaneous influence test (F test), and partial effect test (t test) will be carried out. Statistical values of the coefficient of determination, F

Determination Coefficient Analysis (R^2)

Based on Table 7, it is known that the coefficient of determination (Adjusted R-squared) is $R^2 = 0.573000$. This value can be interpreted that the variables Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER), are able to provide an explanation or variation of 57.3%, the

remaining 42, 7% was influenced by other study. factors, which were not included in this

Table 7. Statistical values of the Determination Coefficient, F Test, and t Test

Dependent Variable: Y?				
Method: Pooled Least Squares				
Date: 06/10/18 Time: 23:56				
Sample: 2011 2012				
Included observations: 2				
Cross-sections included: 42				
Total pool (balanced) observations: 84				
Cross sections without valid observations dropped				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.486432	0.092911	-5.235459	0.0000
X1?	0.033310	0.011359	2.932464	0.0057
X2?	-0.287739	0.224738	-1.280335	0.2082
X3?	-0.195670	0.220810	-0.886149	0.3811
X4?	0.179094	0.061983	-2.889418	0.0063
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.804506	Mean dependent var	-0.243369	
Adjusted R-squared	0.573000	S.D. dependent var	0.111701	
S.E. of regression	0.072991	Akaike info criterion	-2.094946	
Sum squared resid	0.202454	Schwarz criterion	-0.763784	
Log likelihood	133.9877	Hannan-Quinn criter.	-1.559830	
F-statistic	3.475093	Durbin-Watson stat	3.906977	
Prob(F-statistic)	0.000076			

Source: Research Results, 2018 (Data Processed)

Significance of Simultaneous Effect Test (Test F)

The F test aims to examine the effect of independent variables simultaneously or simultaneously on non-independent variables. Based on Table 7, the Prob value is known. (F-statistics), i.e. 0.000076 < 0.05, it can be concluded that all independent variables, namely Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER) simultaneously, have a significant effect on stock return variables.

Panel Data Regression Equation and Partial Effect Significance Test (t test)

Based on Table 7, the panel data regression equation is obtained as follows:

$$Y = -0.486432 + 0.033310X1 - 0.287739X2 - 0.195670X3 + 0.179094X4$$

Based on Table 7, it is known that the coefficient value of the independent variable ROA is 0.033310, which is positive, meaning that the coefficient of b1 = 0.033310 against this variable X1 (ROA), can be interpreted that every increase of 1% ROA will increase stock return (Y) by 0.033310%. Judging from the significance value, ROA is worth 0.0057. This shows that the effect of ROA will directly have a

significant effect on increasing stock returns (Y) at a significance level of 5%. Based on Table 7, it is known that the coefficient value of the independent variable NPM is -0.287739 which is negative which means that the coefficient is b2 = -0.287739 against this variable X2 (NPM), it can be interpreted that every 1% increase in NPM will decrease stock return (Y) by 0.287739% . Judging from the significance value, NPM is worth 0.2082. This shows that the effect of NPM has no significant effect on increasing stock returns (Y) at a significance level of 5%. Based on Table 7, it is known that the coefficient value of the EPS independent variable is -0.195670, which is negative, meaning that the coefficient b3 = -0.195670 on this X3 variable (EPS) can be interpreted that every 1% increase in efficiency ratio will decrease stock return (Y) by -0.195670%. Judging from the significance value, EPS is 0.3811. This shows that the influence of EPS has no significant effect on increasing stock returns (Y) at a significance level of 5%. Based on Table 7, it is known that the coefficient value of the DER independent variable is 0.179094, which is positive, meaning that the coefficient of b4 = 0.179094 against this

variable X4 (DER) can be interpreted that every 1% increase in activity ratio will increase stock return (Y) by 0.179094%. Judging from the significance value, the DER is worth 0.0063. This shows that the effect of DER will directly have a significant effect on increasing stock returns (Y) at a significance level of 5%.

Moderation Significance Test (Interaction Test)

Following the results of testing the significance of stock prices in moderating the influence of Return on Assets (ROA), Net Profit Margin (NPM), Earning Per Share (EPS), and Debt to Equity Ratio (DER), on stock returns using interaction tests.

Table 8. Test of the Significance of Share Prices in Moderating the Effect of ROA on Stock Returns

Dependent Variable: Y				
Method: Least Squares				
Date: 06/10/18 Time: 00:59				
Sample: 1 84				
Included observations: 84				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.890573	0.934349	-0.953148	0.3434
X1	-0.825870	0.832986	-0.991457	0.3245
X1Z	0.901047	0.878576	1.025577	0.3082
Z	0.684010	0.983991	0.695138	0.4890
R-squared	0.097676	Mean dependent var		-0.243369
Adjusted R-squared	0.063838	S.D. dependent var		0.111701
S.E. of regression	0.108077	Akaike info criterion		-1.565502
Sum squared resid	0.934447	Schwarz criterion		-1.449749
Log likelihood	69.75110	Hannan-Quinn criter.		-1.518971
F-statistic	2.886637	Durbin-Watson stat		1.289637
Prob(F-statistic)	0.040691			

Source: Research Results, 2018 (Data Processed)

Based on Table 8, the interaction test moderation equation is obtained as follows:

$$Y = -0,890573 - 0,825870X_1 + 0,684010Z + 0,901047X_1Z$$

The coefficient value of X₁ Z is 0.901047, which is positive. these values can be interpreted as stock prices strengthen the

effect of ROA on stock returns. The Prob value of X₁Z_Interaction is 0.3082 > 0.05, so the stock price is significantly unable to moderate the effect of ROA on stock returns.

Table 9: Test the Significance of Stock Prices in Moderating the Effect of NPM on Stock Returns

Dependent Variable: Y				
Method: Least Squares				
Date: 06/10/18 Time: 01:00				
Sample: 1 84				
Included observations: 84				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.865617	1.320444	-0.655550	0.5140
X2	-8.407117	12.23412	-0.687186	0.4940
X2Z	8.457265	12.88470	0.656381	0.5135
Z	0.628802	1.394311	0.450977	0.6532
R-squared	0.070794	Mean dependent var		-0.243369
Adjusted R-squared	0.035949	S.D. dependent var		0.111701
S.E. of regression	0.109675	Akaike info criterion		-1.536146
Sum squared resid	0.962285	Schwarz criterion		-1.420393
Log likelihood	68.51813	Hannan-Quinn criter.		-1.489614
F-statistic	2.031666	Durbin-Watson stat		1.474018
Prob(F-statistic)	0.116058			

Source: Research Results, 2018 (Data Processed)

Based on Table 9, the following interaction moderation equation is obtained.

$$Y = - 0.865617-8.407117X_2 + 0.628802Z + 8.457265X_2 Z$$

The coefficient value of X₂ Z is 8.457265, which is positive. these values can be interpreted as stock prices strengthen the effect of NPM on stock returns. It is known

that the Prob value of X₂Z Interaction is 0.5235 > 0.05, so the stock price is significantly unable to moderate the influence of NPM with stock returns.

Table 10. Significance of Share Prices in Moderating the Effect of EPS on Stock Returns

Dependent Variable: Y				
Method: Least Squares				
Date: 06/10/18 Time: 01:00				
Sample: 1 84				
Included observations: 84				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.700874	2.134584	0.796817	0.4279
X3	-7.414912	12.69554	-0.584056	0.5608
X3Z	7.250946	13.39679	0.541245	0.5898
Z	-1.959913	2.242965	-0.873804	0.3848
R-squared	0.149135	Mean dependent var		-0.243369
Adjusted R-squared	0.117228	S.D. dependent var		0.111701
S.E. of regression	0.104950	Akaike info criterion		-1.624223
Sum squared resid	0.881155	Schwarz criterion		-1.508470
Log likelihood	72.21737	Hannan-Quinn criter.		-1.577691
F-statistic	4.673992	Durbin-Watson stat		1.518262
Prob(F-statistic)	0.004638			

Source: Research Results, 2018 (Data Processed)

Based on Table 10, the following interaction moderation equation is obtained:

$$Y = 1.700874 - 7.414912X_3 - 1.959913Z + 7.25094X_3 Z + e$$

The coefficient value of X₃ Z is 7.25094, which is negative. This value can be

interpreted as the stock price weakens the influence of EPS on stock returns. Known Prob value of X₃Z_Interaction is 0.5898 > 0.05, so the stock price is significantly unable to moderate the influence of EPS with stock return.

Table 11. Test of the Significance of Stock Prices in Moderating the Effect of DER on Stock Returns

Dependent Variable: Y				
Method: Least Squares				
Date: 06/10/18 Time: 01:01				
Sample: 1 84				
Included observations: 84				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.71206	7.060752	1.942012	0.0557
X4	10.14424	4.948057	2.050146	0.0436
X4Z	10.96466	5.270301	-2.080461	0.0407
Z	-15.09810	7.520380	-2.007624	0.0481
R-squared	0.116960	Mean dependent var		-0.243369
Adjusted R-squared	0.083845	S.D. dependent var		0.111701
S.E. of regression	0.106916	Akaike info criterion		-1.587105
Sum squared resid	0.914476	Schwarz criterion		-1.471352
Log likelihood	70.65843	Hannan-Quinn criter.		-1.540574
F-statistic	3.532024	Durbin-Watson stat		1.378905
Prob(F-statistic)	0.018465			

Source: Research Results, 2018 (Data Processed)

Based on Table 11, the following interaction moderation equation is obtained:

$$Y = 13.71206 + 10.14424X_4 - 15.09810Z + 10.96466X_4Z + e$$

The coefficient value of X₄ Z is 10.96466, which is negative. This value can be interpreted as stock prices strengthen the effect of ROA on stock returns. Known Prob value of X₄Z_Interaction is 0.0407 < 0.05, so the stock price is significantly able to moderate the influence of DER with stock returns.

DISCUSSION

The test results from the first hypothesis conclude that the variables ROA, NPM, EPS, and DER simultaneously have a significant effect on stock returns.

Effect of ROA on Stock Returns

The results of testing the effect of ROA on stock returns by t test shows the results that the coefficient value of the ROA independent variable is positive, meaning

that each additional ROA will increase the next year's stock return assuming other variables are constant. The value can be interpreted as a variable ROA has a positive effect on the stock return variable. Positive influence indicates the meaning that ROA is in line with stock returns, where increasing ROA will increase stock returns.

The focus of attention on ROA is due to the aspect of profitability in which the company generates profits for a certain period. Profitability as a form of the ability of a business entity to use its funds to make a profit. Profitability proxied by ROA seeks to describe the company's ability to generate profits, by comparing earnings with assets or capital that generate profits. The higher the ROA variable, the higher the stock price level so that future stock returns will be obtained. Rentability issues are more important than profit problems because large profits are not a measure of how efficiently a company can work. Efficiency can be known by comparing the profit obtained with the capital used to generate the profit. The important thing that must be considered by the company is not only how the business to get a large profit, but also must strive to increase its profitability because the high level of profitability reflects high acceptance as well.

Effect of NPM on Stock Returns

The results of testing the effect of NPM on stock returns by t test shows the results that the coefficient value of the NPM independent variable is negative, meaning that each additional NPM will decrease the stock return next year assuming other variables are constant. This value can be interpreted as an NPM variable negatively affecting the stock return variable. it is known that the NPM variable has a significant effect on the stock return variable.

Negative influence indicates the meaning that NPM is not in line with stock returns, where the decreasing NPM will increase stock returns. The results of this study indicate that investors do not consider the profitability ratio (NPM) as a benchmark

for making decisions in buying shares and considering other factors. This is due to the net profit generated from the total assets and total sales of the company in the period of 2011-2016 experienced an average decline resulting in fluctuations in stock prices which resulted in decreased stock returns.

Effect of EPS on Stock Returns

The results of testing the effect of EPS on stock returns by t test shows the results that the coefficient value of the EPS independent variable is negative, meaning that each addition of EPS will reduce the stock return the following year assuming other variables are constant. These values can be interpreted as EPS variables have a positive effect on stock return variables. It is known that EPS variable does not significantly influence the stock return variable. Based on the partial test results it can be concluded that the EPS variable does not have a significant effect on stock returns. The results of this study indicate that the EPS value of the company is not able to attract the attention of investors to buy shares of the company so that the stock price has decreased and caused the rate of return on stock returns also decreased.

Effect of DER on Stock Returns

The results of testing the effect of DER on stock returns by t test shows the results that the coefficient value of the DER independent variable is positive, meaning that each addition of DER will increase the stock return the next year assuming other variables are constant. This value can be interpreted by the DER variable to have a positive effect on the stock return variable. it is known that the DER variable has a significant effect on stock return variables.

Debt to Equity Ratio (DER) is the ratio used to assess debt and equity by comparing all debt with all equity. This ratio is often associated with liquidity which means the company's ability to fulfill all its financial obligations. According to Sugiarto (2009) the high Debt to Equity Ratio (DER) shows the composition of total debt is greater than the total capital itself which will have an impact on the greater the

burden borne by the company on external parties, it shows that the company is very dependent on external parties so that high risk company. This will have an impact on investor interest in investing in the company, and a decrease in investor interest will affect the decline in stock prices which in turn affects the lower return of shares received by investors.

Influence of Stock Prices as Moderation on Stock Returns

For the influence of stock price variables as a moderating variable partially, this can be seen from the t test of the interaction variable between stock prices and ROA, the interaction of stock prices and NPM, the interaction of stock and EPS prices, the interaction of stock prices and DER. From the results of the t test, the stock price is able to moderate DER with stock returns. While ROA, NPM, and EPS are not able to moderate stock prices with stock returns, so the hypotheses 10, 11, 12, and 13 are rejected. From the results of the t-test the interaction of the independent variable and the moderating variable is known that the moderating variable is the stock price can moderate the DER variable in the same direction, but it is not able to moderate the variables of ROA, NPM, and EPS on stock returns. The results of this study also indicate that the company does not pay close attention to the movement of stock price changes in planning so that the variation in changes in stock price variables has no effect and is not significant to changes in the variables of ROA, NPM and EPS

CONCLUSION

Based on the hypothesis and analysis testing described in the previous chapter, conclusions can be drawn, namely:

1. Partially the variable Return on Assets (ROA) and Debt to Equity Ratio (DER) have a positive and significant effect on stock returns in Automotive Companies on the Indonesia Stock Exchange (BEI), while Net Profit Margin (NPM) and Earning Per Share (EPS) has a negative

and insignificant effect on stock returns in Automotive Companies on the Indonesia Stock Exchange (BEI). Simultaneously the variables Return on Assets (ROA), Debt to Equity Ratio (DER), Net Profit Margin (NPM) and Earning Per Share (EPS) have a significant effect on stock returns in Automotive Companies on the Indonesia Stock Exchange (BEI).

2. The stock price is able to moderate the relationship between Debt to Equity Ratio (DER) to stock returns in Automotive Companies on the Indonesia Stock Exchange (BEI) while Return on Assets (ROA), Net Profit Margin (NPM) Earning Per Share (EPS) is unable in moderation by stock prices on stock returns in Automotive Companies on the Indonesia Stock Exchange.

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How to cite this article: Abdullah U, Muda I, Syahyunan. The factors which influence stock return with stock price as moderating variable in automotive companies listed in the Indonesia stock exchange. *International Journal of Research and Review*. 2018; 5(10):421-436.
