

## Effect of Return on Asset, Return on Equity, Debt to Equity Ratio to Return Stock Company Property and Real Estate In Indonesia Stock Exchange

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**Abstract:** This study aimed to determine the effect of Return on Assets, Return on Equity and Debt to Equity Ratio on stock returns Property and Real Estate in the Indonesian Stock Exchange. The sample used in this study as many as 29 companies Property and Real Estate in Indonesia Stock Exchange period 2012 - 2016. The technique of sampling using purposive sampling method. Testing the hypothesis in this study using multiple regression analysis. Results shows simultaneously throughout the study variables affect the stock returns, while partially 1) Return on Assets no effect on stock returns, 2) Return on Equity effect on stock returns, 3) Debt to Equity Ratio has no effect on stock returns.

**Keywords:** ROA, ROE, DER and stock returns

### 1. INTRODUCTION

Business property and real estate is projected to improve by the end of 2017. This is because the ASEAN Capital Markets Forum (ACMF) standard launched a Green Bond ASEAN to accelerate their sustainable development in the ASEAN region (Financial Services Authority, 2017). Green bonds are one type of financing the infrastructure and construction sector. ACMF is a group of high-level capital market regulators of ASEAN countries such as Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam, to encourage its members active in building the system of financing for sustainable development (Financial Services Authority, 2017).

ASEAN Capital Market Forum (ACFM) projected 2020 financing projects environmentally friendly (green financing) increased to 1 trillion dollars (Financial Services Authority, 2017). The prospects of a good response in the

Indonesian capital markets by encouraging issuers engaged in property and real estate sector to actively meet their green program of this bond. The project is expected to stimulate business growth in property and real estate in Indonesia.

Capital market an investment alternative for investors (Marfuah & Nurlaela, 2017), Capital markets bring together owners of the funds with the funds for medium-term investment objectives and long-term (Sari, Subroto, & Nurlaela, 2016), The main motivation of investors to invest is to obtain returns that much. Return the results obtained from investing activities (Listianingrum, Wijayanti, & Nurlaela, 2016), Return can be divided into two, namely, the realization of returns (returns that have already occurred) and the expected return (return is not yet occurred) or the return expected by investors in the future. Changing the return is caused by many factors.

There are several factors that affect stock returns, such as Return on Assets

(ROA), Return on Equity (ROE), and Debt to Equity Ratio (DER). ROA and ROE reflects the company's ability to generate profits (Purnamasari, 2015), The higher the ROA and ROE then the ability to generate profit is also high. While the DER is the ratio of debt to capital, the lower the higher DER capital owned by the company (Acheampong, Agalega, and Shibu, 2014),

ROA is the company's ability to generate profits using existing total assets (Rahadia, Nurlaela, & Titisari, 2013), With a high profit, the investors get a high return.

*Return on Equity*(ROE) is the company's ability to generate profits based on capital owned net. Companies that have a high ROE tends to be favored by investors, for companies that have a high ROE will generate high profit anyway, so it will be a positive influence on stock returns (Sailendra & Suratno, 2014)

*Debt to Equity Ratio* (DER) is the ability to meet the company's short- and long-term liabilities. DER provide a guarantee about how much debt the company that secured the company's capital used as sources of business funding. The greater the value of DER indicates capital structure more use of debt relative to equity, so that a high DER reflect the company's risk is relatively high, as a result investors tend to avoid stocks that have a high DER. The higher debt (DER) tends to lower stock returns (Sudarsono, Bambang, & Sudiyatno, 2016),

According to research Listianingrum et al (2016) in the "influence of financial ratios on stock returns on property and real estate companies listed on the stock exchanges of Indonesia". Statistical test results showed Debt to Equity Ratio (DER) has no impact on stock return, this is contrary to research (Arista, 2012) in his research stating that Debt to Equity

Ratio (DER) has a significant effect on stock returns.

According to research Arista (2012) in the "analysis of the factors that affect stock returns in manufacturing companies that went public on the Stock Exchange 2005-2009". Statistical test results showed Return On Asset no significant effect on stock returns. This contrasts with researchSudarsono (2016) stated Return On Asset (ROA) has a positive effect on stock returns.

Differences in results conducted previous research related to the Return on Assets (ROA), Return on Equity (ROE), and Debt To Equity Ratio (DER), have inconsistent results. it makes researchers want to examine more deeply these variables do influence the stock return. Based on this background, the researchers interested in conducting a study entitled Effect of Return on Assets, Return on Equity, Debt To Equity Ratio on stock returns Property and Real Estate in the Indonesian stock exchange 2012-2016 period.

## 2. METHODOLOGY

This type of research used in this research is quantitative research using the data in the form of figures and statistical analysis (Sugiyono, 2015), The dependent variable in this study is a stock return. The independent variable in this study is ROA, ROE and DER. The population in this study is the property and real estate company listed on the Stock Exchange in 2012-2016. The criteria for sampling in this study are as follows:

- a. Property and Real Estate companies that publish financial reports are complete and consecutive years from 2012 to 2016.
- b. Property and Real Estate Company that are not delisting and re-listing between the years 2012-2016.

- c. Property and Real Estate Company did not experience losses during the year of the observation period 2012-2016.
- d. Property and Real Estate Company uses as the functional currency rupiah rupiah, to avoid any bias on the exchange rate.

### 3. DATA ANALYSIS METHOD

#### 3.1 Test Descriptive

Descriptive statistics include the mean, minimum, maximum, and standard deviation which aims to determine the distribution of data in the research samples (Arikunto, 2006).

#### 3.2 Classical Assumption Test

Testing the assumptions of classical regression model is required before testing the hypothesis. This test consists of normality test, multikolinearitas, autocorrelation test, and test heterokedastisitas.

#### 3.3 Regression Analysis

Multiple regression analysis was conducted to test the effect of two or more independent variables to the dependent variable (Ghozali, 2016),

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Description:

- Y = *return stock*
- a = *constant*
- b1-3 = *Coefficient of regression*
- X1 = *Return On Asset (ROA)*
- X2 = *Return On Equity (ROE)*
- X3 = *Debt to Equity Ratio (DER)*
- e = *Error*

##### 3.3.1 Test t

The test is performed to determine the effect of each independent variable or partially ROA, ROE, and DER on stock returns on property and real estate company

listed on the Stock Exchange 2012-2016 period

##### 3.3.2 Test f

Test Goodness of Fit is one form of testing the feasibility of a model that aims to describe the interactions between the variables studied (Ghozali, 2016),

##### 3.3.3 Test Coefficient of Determination

The coefficient of determination used to determine the effect of independent variables on the dependent variable. The coefficient of determination is essentially measuring how far the model's ability to explain variations in the dependent variable.

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

Descriptive statistics include the mean, minimum, maximum, and standard deviation which aims to determine the distribution of data in the research samples.

Table 1 Descriptive Statistics Test Results

variable	N	Mean	Min	Max	Std. dev
ROA	136	5.4577	0,003	16.870	4.060290
ROE	136	12.102	0,003	33 130	8.603144
DER	136	1.4428	0.074	23.950	2.206187
Stock returns	136	0.1763	-0.875	2,630	0.548832
valid N (Listwise)	136				

Source: Data processed, 2017

Based on the results of the descriptive statistics on the data above, the number of observation data as much as 136. The variable ROA with 0,003

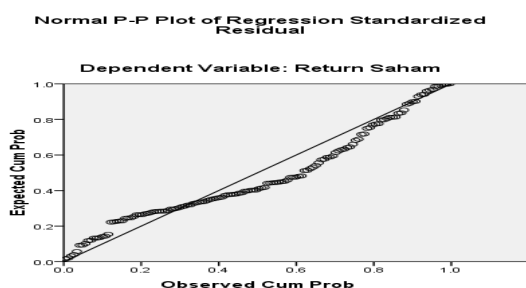
minimum value and a maximum value of 16.870. While the mean value of 5.45775, a standard deviation value of 4.060290. ROE for the minimum values obtained 0,003 and a maximum value of 33 130. As for the obtained at 12.10280 mean, standard deviation value of 8.603144. DER variables obtained minimum value of 0.074 and a maximum value of 23.950. As for the mean of 1.44285, a standard deviation value of 2.206187. Stock returns obtained minimum value of -0.875 and a maximum value of 2,630. As for the mean obtained at 0.17631, a standard deviation value of 0.548832,

## 4.2 Classical Assumption Test

### 4.2.1 Normality Test

Testing for normality in this study can be conducted via the approach charts. After testing the results are as follows:

Normality test :



Normality Test Results

Source: Data processed, 2017

Based on the value of normality test results in Figure 4.1 above it can be concluded that the data spread around the diagonal line and follow the direction of the diagonal line, the regression model to meet the assumption of normality. ,

### 4.2.2 Test Multicollinearity

Multicollinierity test aims to test whether the regression model found a high correlation between independent variables or perfect.

Table 2 Test Results Multicollinearity

Independent variable	tolerance	VI F	Information
ROA	0,276	3,623	No multikolinearitas
ROE	0,282	3.543	No multikolinearitas
DER	.853	1,172	No multikolinearitas

Source: Data processed, 2017

Tolerance value for 0276 ROA, ROE for 0282, the variable DER of 0853. As for the value of 3,623 VIF ROA, ROE for 3543, the variable DER of 1172. Tolerance value for all variables > 0:10 and VIF all variables <10, it can be concluded that the results of this test indicate the analyzed data satisfy the assumptions of classical multikolinearitas.

### 4.2.3 Test of autocorrelation

Autocorrelation test is intended to determine whether in a multiple linear regression model was no correlation between bullies error in period t with an error in period t-1 (previous).

Table 3 Result Autocorrelation Test

Durbin-Watson	dL	Du	4-DI	4-Du	Conclusion
2,142	1,690	1,749	2,310	2,251	Non autocorrelation

Source: Data processed, 2017

It can be seen that the DW is 2,142. For value dU and dL can be seen from the table DW 0.05 to n (amount of data) = 136 and k (the number of independent variables) = 3 value obtained was 1.690 dL and dU value is 1,749. DW value is in the region  $Du < DW < 4 - dU$ , so that we can conclude the regression model is free from problems of autocorrelation and fit for use. In this study, the value of DW should be between 1,749 (dU)

and 2251 (4 - dU), in order not to run into a problem of autocorrelation. The analysis showed DW value for the variable is the stock return has been among 1,749 2,142 (dU) and 2251 (4 - dU), so that we can conclude the regression model is free from problems of autocorrelation and fit for use.

### 4.3 Regression Analysis

Regression analysis used in this research is multiple linear regression. Multiple regression analysis was conducted to test the effect of two or more independent variables to the dependent variable (Ghozali, 2016),

Table 4 Multiple Regression Test Results

Model		
	B	Sig
Constanta	-0074	0381
ROA	-0035	0092
ROE	0036	0000
DER	0002	0921

Source: Data processed, 2017

- Constant value of -0074 (negative), meaning that if ROA, ROE, and DER in the model assumed to be equal to 0 or constant, stock returns will be reduced by -0074
- ROA regression coefficient value of -0035 (negative). This means that every increase of 1 unit of ROA will lower stock returns by -0035.
- ROE regression coefficient of 0.036 (positive). This means that every increase of 1 unit ROE will increase stock returns for 0036.
- DER variable regression coefficient of 0.002 (positive). This means that every increase of 1 unit of the DER will increase stock returns for 0002.

### 4.4 Hypothesis Testing

#### 4.4.1 Test t

The t-test was conducted to measure how far the influence of the independent variables individually in

explaining the dependent variable (Ghozali, 2016)

Table 5 T Test Results

Model	t	T Table	Sig.	Std	Conclusion
H1	-1.698	1,978	0.09 2	0:05	Rejected
H2	3,757	1,978	000 0	0:05	Be accepted
H3	0,100	1,978	.921	0:05	Rejected

Source: Data processed, 2017

Based on the above test, can concluded as follows:

- The value of  $t < t_{table}$  (-1698 < 1,978) and the significance of  $> 0.05$  (0.092 > 0.05), meaning that  $H_0$  is rejected while  $H_1$  is rejected, so that it can be concluded that the ROA has no effect on stock returns.
- The value of  $t_{count} > t_{table}$  (3,757 > 1,978) and the significance of  $> 0.05$  (0.000 < 0.05), meaning that  $H_0$  rejected while  $H_2$  is received, so that it can be concluded that the ROE effect on stock returns.
- The value of  $t < t_{table}$  (0.100 < 1,978) and the significance of  $> 0.05$  (0.921 > 0.05), meaning that  $H_0$  is accepted while  $H_3$  is rejected, so that it can be concluded that the DER has no effect on stock returns.

#### 4.4.2 Test F

Test Goodness of Fit is one form of testing the feasibility of a model that aims to describe the interactions between the variables studied (Ghozali, 2016).

Table 6 F Test Results

Description	Fhit	F Table	Sight	Sig.	Result
test F	76 83	2,67	0,000	0.05	Eligible models

Source: Data processed, 2017

The results show that  $F_{count} > F_{table}$  (7683 > 2.67) and the significance  $< 0.05$  (0.000 < 0.05), so it can be concluded that the  $H_0$  is rejected, while  $H_a$  accepted, meaning ROA, ROE, and DER effect on stock returns.

#### 4.4.3 Coefficient of Determination

The coefficient of determination used to determine the effect of independent variables on the dependent variable. The coefficient of determination is essentially measuring how far the model's ability to explain variations in the dependent variable.

Table 7 Coefficient Determination Test Results

Model	R	R Square	Adjusted R Square	Conclusion
1	0386	0149	0129	The independent variables can explain the dependent variable of 12.9%

Source: Data processed, 2017

Adjusted R Square value is 0129, or by 12.9%. This means that 12.9% of the stock returns, can be explained by the independent variables ROA, ROE, and DER. The remaining 87.1% (100% - 12.9%) is explained by variables other than the explanatory variables or independent variables outside the model researchers this.

## 5. DISCUSSION

### 5.1 Effect of ROA on stock returns

Based on the testing that was done, the results of this study indicate that ROA has no effect on stock returns. It is

seen from the value of  $t < t_{table}$  (-1698 < 1,978) and a significant value  $> 0.05$  (0.092 < 0.05), meaning that  $H_0$  is rejected while  $H_1$  is rejected. Thus the first hypothesis of this study was rejected. This is because the return on assets is the company's ability to generate net profit of the company through the total assets owned by the company. The management company can not use the total assets owned by the company in generating net income so it will not affect stock returns.

The results are consistent with research conducted by (Purnamasari, 2015) which states that the return on assets (ROA) was not effect on stock returns that are not supported by any empirical evidence. However, contrary to the results of this research study conducted by Anwar (2016) which states that the return on assets (ROA) affects stock returns.

### 5.2 ROE influence on stock returns

Based on the testing that was done, the results of this study indicate that the ROE effect on stock returns. It is seen from the value  $t_{count} > t_{table}$  (3,757 > 1,978) and the significant value of  $< 0.05$  (0.000 < 0.05), meaning that  $H_0$  rejected while  $H_2$  is accepted. Thus the second hypothesis of this study is accepted.

The results of this study indicate that the high or low return on equity will affect stock returns. This is because the return on equity is a company's ability to generate net profit of the company through capital owned by the company. The management company may use capital effectively in net income that would affect rising stock returns.

The results are consistent with research conducted by (Alkaditiya, 2017) which states that the return on equity (ROE) terhdap affect stock returns *returnstock*. However, this result is contrary to research conducted by

Listianingrum et al (2016) which states that the return on equity (ROE) has no effect on stock returns.

### 5.3 DER influence on stock returns

Based on the testing that was done, the results of this study indicate that the DER has no effect on *return* stock, It is seen from the value of  $t < t_{table}$  (0,100 < 1,978) and a significant value > 0.05 (0,931 > 0.05), meaning that  $H_0$  is accepted while  $H_3$  is rejected. Thus the third hypothesis of this study was rejected.

The results of this study indicate that the higher as well as lower debt to equity ratio will not affect stock returns. This is because the debt to equity ratio is a company's ability to meet all of its obligations with equity held by the company. Companies tend to use debt to finance all the activities of the company so that the profits to be generated decreases, it is this which will affect the company's declining stock returns and make investors unwilling to invest their shares.

The results are consistent with research conducted by (Verawaty, Jaya, & Mandala, 2015) And Listianingrum et al (2016) which states that the debt to equity ratio (DER) has no effect on stock returns. However, this result is contrary to the research conducted Sudarsono et al (2016) which states that the debt to equity ratio (DER) terhdap affect stock returns,

## 6. CONCLUSIONS AND RECOMMENDATIONS

This study aims to determine the effect of influences Return on Assets, Return on Equity, Debt to Equity Ratio on stock returns. This study uses independent variables ROA, ROE, and DER. While the dependent variable is the stock return .. The analytical tool used to

test the effect of independent variables on the dependent variable is a multiple regression analysis. This study population using property and real estate company listed on the Indonesia Stock Exchange (BEI) in the period 2012-2016. Sampling was taken with purposive sampling method as many as 20 property and real estate company listed on the Indonesia Stock Exchange (BEI) in the period 2012-2016.

The test results simultaneously with the F test can be concluded that the ROA, ROE, and DER together influential and significant impact on stock returns, Based on the analysis and discussion can be concluded that the ROA and ROE have a significant effect on stock returns. while the DER has no effect on stock returns.

Suggestions for perfection further research as follows: 1) For researchers who want to do further research should use a sample of companies that are larger than this study, such as the use of company property and real estate and corporate non-property and real estate listed on the Stock Exchange in order to be in generalize. 2) For researchers with topics similar to reviewing further by including other independent variables, such as inflation, interest rate, exchange rate and external factors and can be analyzed by fundamental factors other coming from the internal environment in addition to ROA , ROE and DER, such as current ratio, TATO and PBV.

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