

# The Effect of Return on Assets, Return on Equity, Current Ratio, and Debt to Equity Ratio on Stock Return on Coal Sub-Sector Companies Listed on the Indonesia Stock Exchange, 2017-2021

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## Abstract

Indonesia's economic growth requires substantial funding and investment to compete in the regional and global economy. Stock return is the level of profit obtained from stock investment. Stock return is significant for investors because it is one indicator to determine the success of an investment. Although several factors affect stock returns, this study only examined four variables: Return on Assets, Return on Equity, Current Ratio, and Debt to Equity Ratio. This study aimed to determine the effect of Return on Assets, Return on Equity, Current Ratio, and Debt to Equity Ratio on stock returns. The research population is 22 coal sub-sector companies on the Indonesian stock exchange in 2017-2021, and the chosen sample is 8 companies using the purposive sampling technique. The data analysis method used multiple linear regression with SPSS 20. The results showed that Return on Assets significantly negatively affected stock returns. Return On Equity has a significant positive effect on stock returns, the Current Ratio has no significant effect on stock returns, and the Debt-to-Equity Ratio has a significant negative effect on stock returns.

## Keywords:

Current Ratio (CR), Debt to equity ratio (DER), Return on assets (ROA), Return on Equity (ROE), Stock Return

## 1. Introduction

The Covid-19 pandemic has caused many companies in various sectors to be badly affected, one of which is the capital market sector. Reduced income during the pandemic affects investors' interest in investing in the capital market. The capital market plays an essential role in the economy of a country because the capital market is one of the means of effectively channelling funds from investors to companies to companies efficiently and functions to allocate funds optimally.

Indonesia's economic growth requires substantial funding and investment to compete in the regional and global economy. Indonesia is the fourth largest coal producer in the world. According to Pitoko, 2021, based on [idn.times.com](http://idn.times.com), it was recorded that Indonesia produced 616 million tons of coal in 2019. However, the Covid-19 pandemic also affected Indonesia's coal production due to the lack of market demand. As a result, Indonesia's coal production in 2020 decreased to 563 million tons. The decline in coal production was the driving force for selecting the research object, namely the coal sub-sector company. Stock return is the level of profit obtained from stock investment. Stock return is significant for investors because it is one indicator to determine the success of an investment. (Hanafi, 2020).

The company's profitability growth is an important indicator to see the company's prospects in the future. The two main profitability ratios commonly used in the analysis are Return on Assets (ROA) and Return on Equity (ROE). ROA is a ratio describing the extent to which the company's assets can generate profits. As for what is meant by ROE is a ratio that describes the extent to which shareholders can obtain the company's ability to generate profits. (Adnyana, 2020b)

The solvency of the company describes the ability of a company to meet its long-term obligations or debts. Debt to Equity Ratio (DER) is one of the solvency ratios. DER can be used as a comparison between external party funds and the owner of company funds. Meanwhile, corporate liquidity describes the ability of a company to overcome its short-term debt to short-term creditors. The current Ratio is beneficial for measuring the company's liquidity. (Kariyoto, 2017)

Several factors affect stock returns. This study only examined four variables: Return on Assets, Return on Equity, Current Ratio, and Debt to Equity Ratio. Research rona Tumiur Mauli Carolin Simorangkir (2019) shows that Return on Assets has a negative and significant effect on Stock Return. While in research Jaunanda & Fransesca (2015), Return on Assets has a positive and significant effect on Stock Return. Research Devi & Artini

(2019) shows that Return on Equity has a significant positive effect on Stock Return. However, research W.Hadiningrat et al. (2017) has a negative and significant effect on Stock returns.

Research Lestari & Cahyono (2020) shows that the Current Ratio has a significant effect on Stock Return, while research Allozi & Obeidat (2016) shows that the Current Ratio has no significant effect on Stock Return. Then research Devi & Artini (2019) shows that DER has a negative and significant effect on Stock Return. Previous empirical studies regarding differences in research results regarding their effect on returns.

So, this study aims to determine the effect of Return on Assets, Return on Equity, Current Ratio, and Debt to Equity Ratio on stock returns in coal sub-sector companies on the Indonesia Stock Exchange.

## 2. Literature Review & Hypothesis

### 2.1. Return on Assets (ROA)

Return on Assets is a ratio that describes the extent to which the company's assets can generate profits. (Adnyana, 2020)

$$\text{Return on Assets} = \frac{\text{Net Profit}}{\text{Asset}}$$

### 2.2. Return on Equity (ROE)

Return on Equity is a ratio that shows the results (Return) on the use of company equity in creating net income. In other words, this Ratio measures how much net profit will be generated from each rupiah of funds embedded in total Equity. (Hery, 2021)

$$\text{Return On Equity} = \frac{\text{Earning After Interest and tax}}{\text{Equity}}$$

### 2.3. Debt to Equirty Ratio (DER)

*Debt to Equity Ratio* is a ratio that shows the extent to which own capital guarantees all debts. This Ratio can also be read as a comparison between external party funds and company owner funds. (Hantono, 2018)

$$\text{Debt to Equity} = \frac{\text{Total debt}}{\text{Total equity}}$$

### 2.4. Current Ratio

The current Ratio is beneficial for measuring the company's liquidity. According to Hantono, 2018, the current Ratio shows the number of current liabilities guaranteed payment by current assets.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

### 2.5. Return Saham

Stock Return, according to Hanafi, (2020), is the level of profit obtained from stock investments. Returns can be in the form of capital gains and dividends. Capital gain is a positive rate of profit.

$$\text{Return (t)} = \frac{\text{Pt} - (\text{Pt} - 1) + \text{Dt}}{\text{Pt} - 1} \times 100\%$$

Description:

Return (t) = return in period t

Pt = price at the end of period (t)

Pt = price at the beginning of period (t-1)

Dt = dividends during period t

### 2.6. Thinking Framework

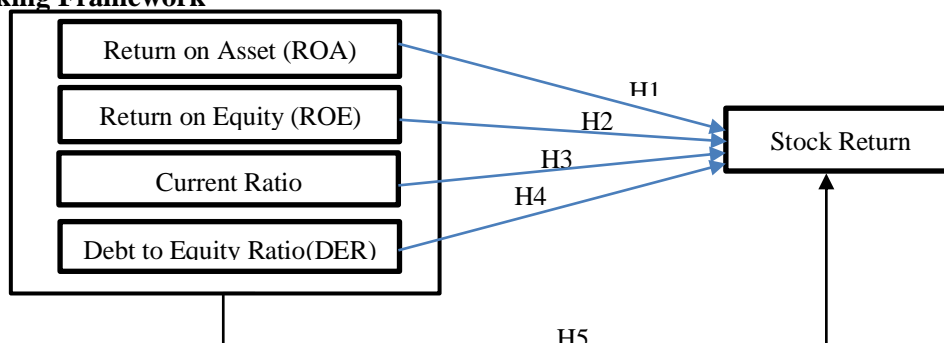


Figure 1. Thinking Framework

Description:

X1: ROA

X2: ROE

X3: DER

X4: CR

Y: Stock Return

## 2.7. Hypothesis

By the description of the problem and objectives above, the formulation of the hypothesis in this study is:

H1: Return on Assets partially has an effect positive and significant to stock return.

H2: Return on Equity partially positive and significant effect on stock return.

H3: Current Ratio partially positive and significant effect on stock return.

H4: Debt to Equity Ratio partially negative and significant effect on stock return.

H5: ROA, ROE, DER, and CR simultaneously have a significant effect on stock return.

## 3. Methodology

This type of research uses a quantitative approach. Quantitative research is basically about collecting numerical data to explain a particular phenomenon. Explain this phenomenon using questions that can be answered with the data presented and already available in the form of numbers. (Duli, 2019)

The source of data in this study is external secondary data obtained indirectly from the company but obtained in the form of collected data published by other parties. First, the data is obtained through the company's website that has been selected as the sample. Then the data was also obtained through the websites IDX.co.id and finance.yahoo.com.

The population in this study are all coal sub-sector companies listed on the Indonesia Stock Exchange during the 2017-2021 period with the following characteristics: 1) Publish financial statements every year during 2017-2021 and have gone through an audit process. 2) Its shares are actively listed on the Indonesia Stock Exchange. 3) Have financial data by the variables needed in this study.

Table 1. List of sample coal sub-sector companies

No.	Share Code	Company Name
1.	ADRO	PT Adaro Energy Tbk
2.	BSSR	PT Baramulti Suksessarana Tbk
3.	BYAN	PT Bayan Resources Tbk
4.	GEMS	Golden Energy Mines Tbk
5.	ITMG	PT Indo Tambangraya Megah Tbk
6.	MBAP	PT Mitrabara Adiperdana Tbk
7.	MYOH	Samindo Resources Tbk
8.	PTBA	Bukit Asam Tbk

The data analysis technique of this research uses multiple linear regression with classical assumption test, t-test, F test, and coefficient of determination ( $R^2$ ) test. Moreover, using SPSS software version 20.

## 4. Results and Discussion

### 4.1. Multiple Linear Regression

Test Multiple linear regression tests aim to test the effect of two or more independent variables on the dependent variable. Multiple regression test results can be seen in the following table:

Table 2. Multiple Linear Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	,317	,057		5,554	,000
ROA	-5,276	1,421	-.35212	-3,714	,001
ROE	4,827	,914	.47972	5,280	,000
CR	,000	,037	,022	,008	,994
DER	-,864	,176	-.12868	-4,915	,000

a. Dependent Variable: RETURN SAHAM

Based on the SPSS output above, the multiple linear regression analysis models between the X variable and the Y variable can be transformed into an equation model as follows:

$$Y = 0.317 - 5.276 \text{ ROA} + 4.827 \text{ ROE} + 0.000 \text{ CR} - 0.864 \text{ DER}$$

From the results of the linear regression equation with these multiple variables, each independent variable can be interpreted as its influence on stock returns as follows:

1. The constant value (0.317) means that if the regression coefficient value of the Return on Assets, Return on Equity, Current Ratio, and Debt to Equity Ratio is constant or zero (0), then the coefficient of Stock Return (Y) will increase by 0.317.
2. The regression coefficient of Return on Assets (X1) is negative, and its magnitude is -5.276, meaning that if on Assets has increased by 1 unit (assuming other variables remain), then the coefficient of Stock Return (Y) has decreased by 5.276 units.
3. Return on Equity (X2) is positive, and the magnitude is 4.827, meaning that if on Equity has increased by 1 unit (assuming other variables are fixed), then the Stock Return (Y) has increased by 4.827 units.
4. The Current Ratio (X3) is positive, and the magnitude is 0.000, meaning that if the Current Ratio has increased by 1 unit (assuming other variables remain), then the Stock Return (Y) has increased by 0.000 units.
5. The Debt-to-Equity Ratio (X4) is negative and the magnitude -0.864, meaning that if the Debt-to-Equity Ratio has increased by 1 unit (assuming other variables are fixed), then the Stock Return (Y) has decreased by 0.864 units.

#### 4.2. Statistical Test t

A partial test is used to see the effect of each independent variable individually on the dependent variable. The test is carried out with 1 side or One-Tailed test and 2 Two-Tailed tests with  $0.05 \text{ df} = n - k - 1$ . The following are the output results of the SPSS t-test:

Table 3. t Test  
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	,317	,057		5,554	,000
ROA	-5,276	1,421	-.352	-3,714	,001
ROE	4,827	,914	.479	5,280	,000
CR	,000	,037	,022	,008	,994
DER	-.864	,176	-.486	-4,915	,000

Results of the t-test in the table above with a one-sided and two-sided assessment, where to look for a t table ( $\alpha = 5\%$  with one-sided research,  $\text{df} = n - k - 1 = 40 - 4 - 1 = 35$  then the obtained value 1,689 as t table) And look for the t table ( $\alpha = 5\%$  with two-sided research  $\text{df} = 35$  then the value is 2.030 as t table). So that the following results are obtained:

1. Return on Assets (X1) to Return (Y)  
As seen in the Coefficients, there is a sig value of 0.001, and then the sig value is smaller than the probability value of 0.05, namely  $0.001 < 0.05$ . Variable X1 has t count -3.714 using one-sided assessment, then t count becomes 3.714 and t table 1.689 So, t count  $3.714 > t \text{ table } 1.689$ . Then  $H_1$  is rejected, and  $H_0$  is accepted. Moreover, it can be concluded that the X1 variable has a partially significant adverse effect on the Y variable.
2. Return on Equity (X2) on Return (Y)  
As seen in the Coefficients, there is a sig value of 0.000. The sig value is smaller than the probability value of 0.05, which is  $0.000 < 0.05$ , then  $H_2$  is accepted and  $H_0$  is rejected Variable X2 has a t count of 5.280 using a two-sided assessment. The value of the t table is 2.030. So, t arithmetic  $5.280 > t \text{ table } 2.030$ , it can be concluded that the X2 variable has a partially significant effect on the Y variable.
3. Current Ratio (X3) on Return (Y)  
As seen in the Coefficients, there is a sig value of 0.994. If the sig value is greater than the probability value of 0.05, namely  $0.994 > 0.05$ , then  $H_3$  is rejected and  $H_0$  is accepted. Variable X3 has a t-count of 0.008 using a two-sided assessment, so the t-table value is 2.030. So, t arithmetic  $0.008 < t \text{ table } 2.030$ , it can be concluded that the X3 variable does not have a partially significant effect on the Y variable.
4. Debt to Equity Ratio (X4) on Return (Y)  
As seen in the Coefficients, there is a sig value of 0.000. The sig value is smaller than the probability value of 0.05 is  $0.000 < 0.05$ , then  $H_4$  is Accepted and  $H_0$  is rejected Variable X4 has t count -4.915 using one-sided assessment, then t count becomes 4.915 and t table 1.689. So, t count  $4,915 > t \text{ table } 1,689$ , it can be concluded that the X4 variable has a partially significant effect on the Y variable.

### 4.3. Simultaneous Significant Test (Statistical Test F)

The F test was conducted to see whether the independent variables significantly affected the dependent variable. If the results of the simultaneous test are significant, it can be said that the relationship that occurs can apply to the population.

Table 4. F test

ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6,431	4	1,608	14,512	,000 <sup>b</sup>
Residual	3,878	35	,111		
Total	10,309	39			

a. Dependent Variable: RETURN SAHAM

b. Predictors: (Constant), DER, CR, ROE, ROA

$1 = 40 - 4 - 1 = 35$  So that the F results are obtained count is 14,512 with a significance value of 0.000. While the F table is 2.64 with a probability value of 0.05. So, it can be concluded that ROA, ROE, CR and DER have a simultaneous (together) effect on the Stock Return variable because F count > F table, namely  $14,512 > 2.64$ . And significant research  $< 0.05$  that is  $0.000 < 0.05$ . This research model is acceptable because these variables can be used as a tool to predict returns.

## 5. Conclusion

1. Return on Assets has a negative and significant effect on Stock return. The results show that the value of t count is negative, which is -3.714. The results obtained a significance value of 0.001 and less than 0.05. The Covid-19 pandemic had caused coal prices to drop drastically. The strict regional quarantine policy (lockdown) was the main trigger for the fall in coal prices. Therefore, ROA increases due to declining coal prices are more dominant in influencing it. In addition, the company distributes high dividends to keep attracting investors, as in PT. Bukit Asam Tbk and Indo Tambangraya Megah Tbk which increased their dividends in 2019-2020. If the dividend is high, the rate of stock return or returns will also be high.
2. Return on Equity has a positive and significant effect on stock return. The results show that the value of t count is positive, which is 5.280. The results obtained a significance value of 0.00 and less than 0.05. ROE always increases from year to year. Therefore, the company can be said to be able to maximize the Return on Equity to generate net income.
3. The Current Ratio does not affect the stock return. The results show that the value of the t count is positive, which is 0.008. In addition, the results obtained a significance value of 0.994 and were more significant than 0.05. ratio means that high liquidity also indicates that the company can less manage its current debt by using its current assets. As a result, causes investors tend not to pay more attention to the company's shares. So Current Ratio does not affect stock returns.
4. Debt to Equity Ratio has a negative and significant effect on stock return. The results show that the value of the t count is negative, which is -4.915. In addition, the results obtained a significance value of 0.00 and less than 0.05. A high DER illustrates that the company uses more debt than Equity in carrying out its operations and reflects the company's higher risk level, so that the company's shares are no longer attractive to investors, so investors will decide to sell company shares.
5. Return on Assets, Return on Equity, Current Ratio and Debt to Equity Ratio simultaneously have a significant effect on returns stock. The results show that the calculated F value is 14,512, and the F table is 2.64. Then F count > F table that is  $14,512 > 2.64$ . And significant research  $< 0.05$  that is  $0.000 < 0.05$ .

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