
The Effect Of Der, Roa, And Npm On Share Prices In The Coal Subsector

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Abstract

This study aims to determine the effect of: (1) Debt to Equity Ratio on stock price, (2) Return On Assets on stock price, (3) Net Profit Margin on stock price, (4) Debt to Equity Ratio, Return On Assets, and Net Profit Margin on share prices in coal subsectors listed on the Indonesia Stock Exchange for the period 2015 – 2022. Data were collected by decision study techniques and documentation and analysis with SPSS. (1) Classical Assumption Test (2) Multiple regression analysis (3) Correlation Analysis (4) Determination Analysis (5) T and F tests. The results of this study show that (1) partially the Debt to Equity Ratio does not have a significant effect on stock prices. (2) partial Return On Assets has a significant effect on stock prices. (3) partially Net Profit Margini does not have a significant effect on the share price. (4) in terms of Debt to Equity Ratio, Return On Assets, Net Profit Margin has a significant effect on stock prices.

Introduction

Capital market companies can act as a window to raise additional funds to support their operational activities so that they can coexist with other companies. The capital market is a place where people in need and parties who have excess funds through stock trading. An investment is an investment in an asset or fund created by a company or individual over a period of time to generate higher returns in the future. Investment involves both profit and risk. The return and risk of investment are always directly proportional. In other words, the greater the profit, the greater the risk, and vice versa.

Stock prices can reflect the success of company management in carrying out activities that are used as company values. The higher the company's stock price, the higher the value of the company. Stock prices in the capital market fluctuate because they vary from time to time depending on the performance of the company.

In relation to fundamental analysis, namely ROA, DER, NPM on Stock Prices in mining companies, there is a study (Chaln Chavez, A. M., & Guevara Paredes, K. E., 2014) entitled The Effect of ROA, DER, NPM, and CR on Stock Prices in mining companies listed on the Indonesia Stock Exchange for the 2011-2013 period using hypothesis testing multiple regression analysis techniques. The data analysis technique uses t-test and f-test in testing its hypothesis. Shows that return on assets (ROA) has a significant effect on stock prices, while debt to equity ratio (DER), net profit margin (NPM) and current ratio (CR) do not have a significant effect on stock prices. Simultaneously, ROA, DER, NPM, and CR have a significant effect on stock prices.

Method

Population and Sample

Population is the total object or objects with certain characteristics or properties used by researchers in their research and from there conclusions are drawn (Sujarweni, 2018: 105). The population in this study is companies engaged in the Coal Mining sub-sector listed on the Indonesia Stock Exchange. The sample is part of a number of characteristics shared by the company used for research. If the population is large, research may not take all for research for example because of the limits of funds, energy and time, then research can use samples taken from the population. (Sujarweni, 2018:105). Sampel adalah bagian dari sejumlah karakteristik yang dimiliki oleh perusahaan yang digunakan untuk penelitian. bila populasi besar, penelitian tidak mungkin mengambil semua untuk penelitian misalnya karena batasnya dana, tenaga serta waktu, maka penelitian dapat menggunakan sampel yang diambil dari populasi. (Sujarweni, 2018:105). The sampling procedure in this study uses the Purposive Sampling technique, namely with certain criteria that have the following characteristics:

1. Coal mining subsector companies are consistently listed on the Indonesia Stock Exchange during observations.
2. The company publishes financial statements every year.
3. The sample taken is the average that has positive ROA and NPM during the observation method.

Data types and sources

The type of data used in this study is quantitative data. The source of data used in this study is Secondary Data where the data will be obtained in finished form (Documentation). Data is taken from the official Yahoo Finance website which contains monthly financial statements of each of these issuers. The population of this study is mining sub-sector companies listed on the Indonesia Stock Exchange (IDX) as many as 22 companies while those taken for up to 5 companies are PT Adaro Energy, PT Golden Energy Mines, PT Indo Tambangraya Megah, PT Tambang Batubara Bukit Asam, and PT Resource Alam Indonesia.

Data Collection Techniques

Data collection techniques are methods that researchers use to express or collect quantitative information from respondents, depending on the scope of the study.

a. Documentation

A document is a record of events that have passed, documents can include writing, drawings or someone's mental work.

b. Decision Studies

Examining a variety of reference evidence and the results of previous similar research can help provide a rationale for the question being examined.

Variable Operational Definition

Share Price According to Susanto and Umam (2017;175), shares are securities that are proof of ownership of a company by individuals or legal entities. Simply put, it can be defined as a sign that someone has an interest in a company and shareholders have a claim on the company's income and assets.

Debt to Equity Ratio (DER) According to (Darsono and Ashari, 2010: 54-55). "*Debt to Equity Ratio (DER)* included in the equity ratio or solvency ratio is a ratio that determines the ability of a company to pay its obligations if the company is liquidated. This ratio is also identified as a leverage ratio that estimates a company's borrowing limit."

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholder's Equity}}$$

Return On Assets (ROA) also known as financial profitability, is the profit from transactions with equity and external capital used to obtain this profit and is expressed as a percentage (Riyanto, 2005: 36).

$$\text{Return On Assets} = \frac{\text{Net Profit}}{\text{Total Aktiva}} \times 100\%$$

Net Profit Margin (NPM) is the profit from sales net of all expenses and income taxes. This margin shows net profit after tax in relation to sales (Harjito & Matono, 2018:60)

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Pendapatan Total}} \times 100\%$$

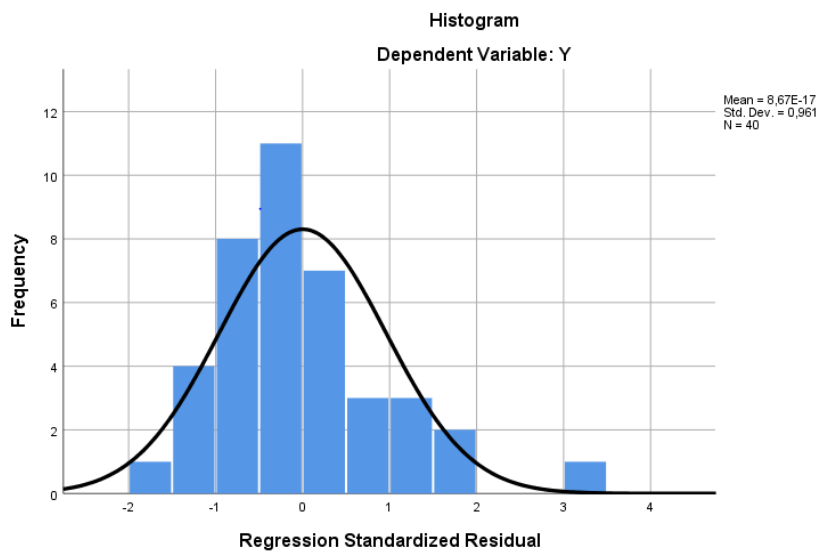
Data Analysis Methods

The data method aims to determine the effect of DER, ROA, and NPM on the stock price of the coal subsector. SPSS software will help calculate and analyze the data in this study.

Results

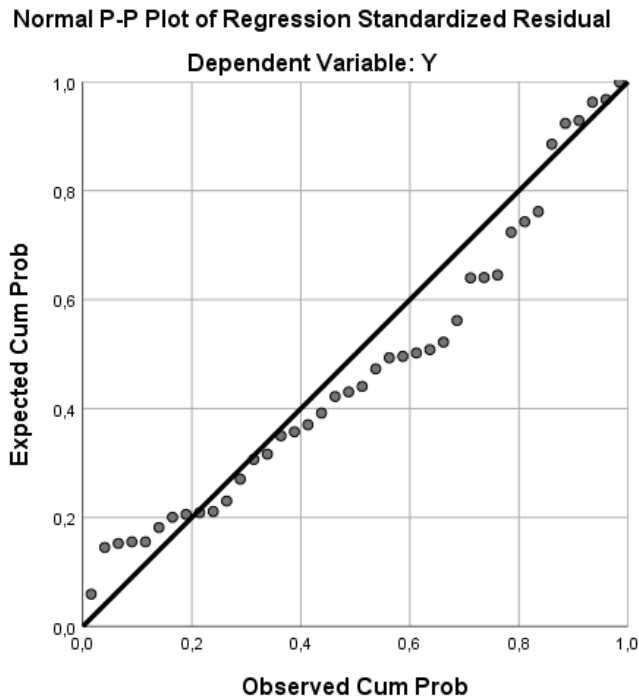
Classical Assumption Test

1. Normality Test



Sumber : SPSS 26.0 (Data Olahan)

The test results can be concluded that the regression model has a normal distribution pattern. Based on the graph, the test results look symmetrical and do not appear to lean left or right. It looks almost perfect curve shape.



Sumber : SPSS 26.0 (Data Olahan)

The Normal P-P Plot of Regression Standardized Residual test can be concluded that the data spread points tend to follow diagonally. Therefore, this regression satisfies the assumption of normality.

Tabel 1 One-Sampel Kolmogrov-Smirnov Test

Unstandardized Residual	
Asymp. Sig (2-tailed)	,021

Sumber : SPSS 26.0 (Data Olahan)

this is indicated by the value of Asymp. Sig of $.021 > 0.05$

2. Multicollinearity Test

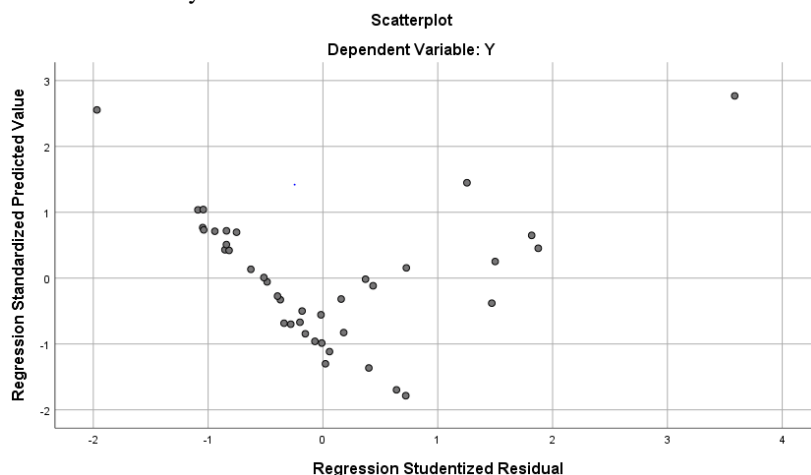
Tabel 2 Multicollinearity Test Analysis

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
DER (X1)	,913	1,096
ROA (X2)	,918	1,089
NPM (X3)	,992	1,008

Sumber : SPSS 26.0 (Data Olahan)

The VIF result from the SPSS 26.0 result can be seen that all independent variables (DER, ROA, and NPM) have a tolerance value of > 0.10 and a VIF value of < 10 , thus the three variables do not occur multicollinearity.

3. Heteroscedasticity Test



Sumber : SPSS 26.0 (Data Olahan)

From the scatterplot graphic image above, it can be said that in regression mode the effect of Debt to Equity Ratio (X1), Return On Assets (X2) and Net Profit Margin (X3) and Stock Price (Y) there is no problem of Heteroscedasticity

4. Autocorrelation Test

Tabel 3 Multicollinearity Test Analysis

Model	Durbin-Watson
1	,931

Sumber : SPSS 26.0 (Data Olahan)

The result of the DW value test is 0.931. When compared with the DW table at a significant 5% with the number of data (n) = 40 and the number of independent variables (k) = 3 obtained from the table $dL = 1.228$ and $dU = 1.6540$ so it can be calculated the values of $4-dL = 2.772$ and $4-dU = 2.346$. It can be concluded that the Durbin Watson value of $0.931 < dL$ means that there are symptoms of autocorrelation.

Multiple Linear Analysis

Tabel 4 Multiple Linear Regression Results

Variabel	Koefisien	t-Statistik	Probabilitas
Konstanta	6803,018	2,928	,006
DER	-93,226	-2,745	,009
ROA	325,734	3,764	,001
NPM	-,558	-,118	,907

Sumber : SPSS 26.0 (Data Olahan)

Based on table 4, it is known that the regression equation obtained $Y = 6803.018 - 93.226 + 325.734 - 558$ states that:

- a. Constant Interpretatio of 6803,018
If the variables Debt to Equity Ratio (DER) (X1), Return On Assets (ROA) (X2) and Net Profit Margin (NPM) (X3) are equal to 0, then the Stock Price is Rp. 6803,018
- b. Direction of Influence of Coefficients and Regression
The variable Debt to Equity Ratio (X1) of -93,226 indicates the influence of DER by 1 unit, so there will be an increase or decrease in the Stock Price of Rp. 93,226.
The variable Return On Asset (X2) of 325,734 indicates the effect of ROA of 1 unit, so there will be an increase or decrease in Stock Price of Rp. 325,734.
The variable Net Profit Margin (X3) of -558 indicates the influence of NPM by 1 unit, so there will be an increase or decrease in Share Price of Rp. 558.

Correlation Analysis and Determination

Tabel 5 Results of Correlation Analysis and Determination

R ²	R Square
,571 ^a	,326

Sumber : SPSS 26.0 (Data Olahan)

a. Correlation Analysis

The correlation analysis of the SPSS 26.0 results shows a correlation value (R2) of 0.571 which lies in the medium correlation value between Debt to Equity Ratio (DER) (X1), Return On Assets (ROA) (X2), and Net Profit Margin (NPM) (X3) to Stock Price (Y)

b. Determination Analysis

The analysis of the coefficient of determination (Rsquare) of 0.326 or 32.6% is a stratification of R, meaning that the stock price is influenced by 32.6% by the Debt to Equity Ratio (DER) (X1), Return On Assets (ROA) (X2), and Net Profit Margin (NPM) (X3), the remaining 67.4% is influenced by other factors that were not included in this study.

Conclusion

1) The results of partial data analysis of the variable Debt to Equity Ratio (DER) do not significantly affect the Stock Price. 2) The results of partial data analysis of the variable Return On Asset (ROA) have a significant effect on Stock Price. 3) The results of partial data analysis of Net Profit Margin (NPM) variables do not significantly affect the Stock Price. 4) The results of simultaneous data analysis of the variables Debt to Equity Ratio (X1), Return On Assets (X2), and Net Profit Margin (X3) to Stock Price from the results of SPSS 26.0 have a significant effect on Stock Price.