

Effect of Earnings per Share and Reference Coal Price on the Stock Price of PT Indotambang Raya Megah, Tbk During Period 2010 - 2020

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Abstract:- The purpose of this research is to know if PT Indotambang Raya Megah’s stock price in 2010 – 2020 is affected by Earnings per Share and Reference Price for Coal. The method that is used for this research is Multiple Linear Regression. Coefficient of Determination resulting 0,6629 or 66,29%. The result of Simultaneously test (F Test) showed both independent variables simultaneously affected dependent variable. Meanwhile, if the variable dependent was tested partially (T Test) the result was both independent variables didn’t affect the variable dependent significantly toward PT Indotambang Raya Megah, Tbk in 2010 – 2020.

Keywords:- Component; Formatting; Style; Styling; Insert.

I. INTRODUCTION

The economic’s growth of one country was determined by many factors, one of the factor is export and import, especially for Indonesia’s matter, export plays a significant role. Indonesia was famous for its commodities related, especially coal. Indonesia was the fourth largest coal producers in the world with the average numbers of production approximately 550 million tons each year. Not only that, Indonesia also the largest coal exporter which the destination’s country are China and India. Indonesia has the sixth largest coal reserves in the world which this country relays so much on coal commodities.

public companies. Capital market is a place for a deficit side to raise cash from the investors which is a surplus side by buying securities such as equity or debt to finance firm’s operational activities or to expand their business scale. Firm which already go public means they already divest their shares to investors, the purpose of doing that is to raise cash and also restructuring their capital structure if one firm’s is over leveraged, it can be restructured by raising the equity financing and more of that, the advantage of go public for public firm is becoming more accountable and transparent.

For a public companies, one way to maximize the wealth of shareholders is to raise the market capitalization or firm’s value which reflects in their stock’s price, thus the board of executive when making decisions are always based on considerations on the creation of firm’s value in the long run. There are many factors the determine the share prices, especially for coal companies, one of them are by looking at financial ratios such as Earnings per Share which is a profitability indicator of how the company’s ability to generate net income for shareholders, and also non financial ratios such as Reference Coal Prices which released by Ministry of Energy and Mineral Resources, Indonesia.

Previous research conducted by (Monny, 2016) shows that Earnings per Share does not significantly have a positive effect on stock prices, this is contrary to the results of previous research conducted by (Lisdawati et al., 2021) which shows that Earnings per Share has a significant positive effect on the stock price of coal companies, and also research conducted by (Sinaga et al., 2015) shows that Earnings per Share has a significant positive effect on mining sector companies listed on the Indonesia Stock Exchange for the period 2009 – 2013. Previous research conducted by (Kumbayana, 2012) shows that the Reference Coal Price is not significant, this is contrary to the results of research conducted by (Sundari, 2015) and also research conducted by (Anindita & Syaputra, 2018) whose research results show that the Reference Coal Price has a positive effect and significant n to the share price of coal companies. Research conducted by (Sari et al., 2017) shows that simultaneously Earnings per Share, Net Profit Margin, and Return on Equity have a significant effect on the stock price of coal mining companies listed on the Indonesia Stock Exchange for the period 2015 – 2019.

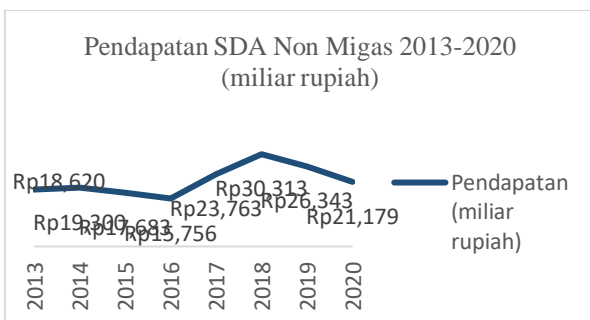


Table 1:- Contribution on Coal Revenues 2013 – 2020

The contribution of coal commodities for Indonesia not only public firm who gets the beneficial, but also government in the form of non tax revenues which contributes for almost 21.17 Trillion Rupiah in the last 2020. One of the strategies that is commonly used by firm to raise capital is to become a

The main problem is that often the share price of coal company does not increase with the increase in the Reference Coal Price or financial ratios such as EPS, this is because the movement of coal stock prices is determined by many factors. Based on the phenomenon and description above, the authors are interested in analyzing the variables that affect the stock price of coal company listed on the Indonesia Stock Exchange for the period 2010-2020, with the title "Effect of Earnings per Share and Reference Coal Prices on the stock price of PT Indotambang Raya Megah, Tbk during Period 2010-2020"

II. THEORETICAL FOUNDATION AND DEVELOPMENT OF HYPOTHESIS

A. Earnings per Share

Earnings per Share (EPS) or net income per share is the company's net profit divided by the total number of ordinary shares traded on the Indonesia Stock Exchange. Earnings per Share is one indicator to measure the company's profitability, the higher the EPS value, the better the company's profitability. Earnings per share is a metric or indicator to measure the company's ability to generate net income per share. According to (Hery, 2016) the formula for Earnings per Share is as follows:

$$EPS = \frac{\text{Net Income}}{\text{Outstanding Ordinary Shares}}$$

B. Reference Coal Prices

Reference Coal Price (HBA) based on the Regulation of the Director General (Perdirjen) of Mineral and Coal No. 515.K/32/DJB/2011 concerning the Formula for Determination of Coal Benchmark Prices is the average price of the coal price index in the previous month. The Coal Reference Price (HBA) is also regulated in the Perdirjen which is obtained from the average index of the Indonesia Coal Index (ICI), Newcastle Export Index (NEX), Globalcoal Newcastle Index (GCNC), and Platt's index of 5900 in the previous month with a weight of each. 25% each, with quality equivalent to 6322 kcal/kg GAR calories, 8% total moisture, 0.8% sulfur content (total ash), and 15% ash content (total ash). The formula for determining the Reference Coal Price formula (in equivalent calorific value of 6322 kcal/kg GAR) is:

$$HBA = 25\%ICI1 + 25\%Platts59 + 25\%NEX + 25\%GC$$

Where as:

HBA = Reference Coal Price
 ICI = Indonesian Coal Index
 NEX = Newcastle Export Index
 GC = Newcastle Global Coal Index
 Platts = Platts Benchmark Price

C. Stock Prices

Stock prices are the price which is formed according to supply and demand in the stock trading market and is generally the closing price. Stock prices reflect the value of a

company, the higher the stock prices, the better indicator for a company to conduct its business and maximize the shareholders' wealth in the long run.

D. Hypothesis

Hypothesis is a temporary answer or guess that must be tested again for truth. The research hypothesis is a hypothesis formulated to answer the problem by using theories that are relevant (relevant) to the research problem and are not based on facts and real data support in the field. Hypothesis will be accepted if the results and data proof are shown correct, and vice versa.

- i. The influence of Earnings per Share towards the Stock Price of PT Indotambang Raya Megah, Tbk during period 2010 – 2020.

(Lisdawati et al., 2021) has explained Earnings per Share has a significant positive effect on the stock price of coal companies, the higher the Earnings per Share, the more cash can be attributable to investors as a dividend or retained to strengthen the capital structure, thus it can boost the stock price of PT Indotambang Raya Megah, Tbk.

- ii. The influence of Reference Coal Prices towards the Stock Price of PT Indotambang Raya Megah, Tbk during period 2010 – 2020.

Previous research conducted by (Sundari, 2015) and also (Anindita & Syaputra, 2018) showed that the Reference Coal Price had a positive and significant effect on the stock price of coal companies. The higher the coal price leads to higher average selling price for coal companies, thus its revenues will also soar and net income will also be higher.

III. RESEARCH METODOLOGY

In this study, the population and sample are the Company's Financial Statements of PT Indotambang Raya Megah, Tbk which have been audited for the period 2010 to 2020. The type of research used is associative research which aims to determine the cause and effect relationship between two independent variable or more with the dependent variable (Waruwu, 2017). In this study, the data analysis method used are descriptive analysis, multiple linear regression analysis, correlation coefficient, coefficient of determination, and hypothesis testing (T test and F test) and the classical assumption test includes normality, multicollinearity, heteroscedasticity, and autocorrelation with the following equation:

$$Y = a + b_1x_1 + b_2x_2 + E$$

Where:

Y = share price of PT Indotambang Raya Megah, Tbk
 a = intercept
 b1, b2 = coefficient regression
 x1 = Earnings per Share
 x2 = Reference Coal Price
 E = Error Regression

A. Descriptive Analysis

	LOGY	LOGX1	LOGX2
Mean	9.913976	-1.819596	4.388839
Median	9.915910	-1.714798	4.403666
Maximum	10.83467	-0.733969	4.724463
Minimum	8.652598	-3.218876	3.979869
Std. Dev.	0.637787	0.730780	0.248291
Skewness	-0.323720	-0.475925	-0.281304
Kurtosis	2.552937	2.615273	1.747166
Jarque-Bera Probability	0.283728 0.867739	0.483098 0.785410	0.864472 0.649056
Sum	109.0537	-20.01555	48.27723
Sum Sq. Dev.	4.067720	5.340396	0.616485
Observations	11	11	11

Table 2:- Descriptive Analysis

Based on the results of descriptive statistics above can be explained as follows:

- The stock price has value a minimum of 8.65 in 2015 and a maximum value of 10.83 in 2010. Overall overall obtained average of 9.91 and standard deviation the dependent variable is 0.63.
- Earnings per Share has value a minimum of -3.21 in 2020 and a maximum value of -0.73 in 2011. By overall obtained average of -1.81 and standard deviation dependent variable is 0.73.
- The Reference Coal Price has minimum value of 3.97 on 2015 and maximum value amounted to 4.72 in 2011.

B. Classical Assumption Testing

Based on the results of the classical assumption test for this study, here are the following results:

1) Normality Test

Normality test was conducted to determine whether the distribution of sample data in the study was normally distributed or not. The normality test used in this study is the Jarque Bera test with the following hypothesis: H0 = normal distribution H1 = distribution is not normal H0 is accepted if the Jarque Bera prob value is > a and H0 is rejected if the Jarque Bera prob value is < a.

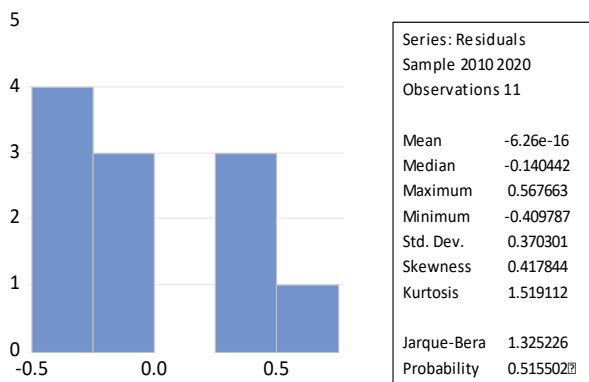


Table 3:- Normality Test

Based on table, the Jarque Bera prob value is 0.51, which indicates higher than alpha degree 5% (0.51 > 0.05) then H0 is accepted, so it can be concluded that the sample data is normally distributed.

2) Multicollinearity Test

Multicollinearity test was conducted to determine whether in the regression model there was a correlation between the independent variables. To find out whether in the regression model there is multicollinearity or not, it can be known by the value of Variance Inflation Factor (VIF). If the VIF value is > 10, it is certain that there is multicollinearity between the independent variables, if the VIF value is < 10, the regression model is free from multicollinearity.

Variance Inflation Factors
Date: 08/21/21 Time: 13:17
Sample: 2010 2020
Included observations: 11

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LOGX1	0.066329	16.16027	2.066594
LOGX2	0.574583	712.3383	2.066594
C	13.54278	869.1215	NA

Table 4:- Multicollinearity Test

Based on table, it can be explained that the VIF value for the independent variable Earnings per Share (X1) and Reference Coal Price (X2) is 2.066 where the VIF value is less than 10, it can be ascertained that there is no multicollinearity between independent variables.

3) Heteroscedasticity Test

The heteroscedasticity test is one of the classical assumption tests that is carried out to test the regression model whether there is an inequality of variance from the residual value or not. If there is heteroscedasticity in the regression model, the regression model is not feasible to be used in research. Heteroscedasticity test in this research was done by using Eviews 12, with the Glejser test by looking at the F-Statistic Prob value (F-count). If the prob F-Statistic value is greater than alpha 0.05 then the regression model does not have heteroscedasticity, if the prob F-Statistic value is less than alpha 0.05 then the regression model has homoscedasticity.

Heteroskedasticity Test: Glejser
Null hypothesis: Homoskedasticity

F-statistic	1.947225	Prob. F(2,8)	0.2046
Obs*R-squared	3.601591	Prob. Chi-Square(2)	0.1652
Scaled explained SS	1.228420	Prob. Chi-Square(2)	0.5411

Table 5:- Heteroscedasticity Test

Based on table, it is found that the F-Statistic prob value is 0.2, which means it is greater than the 0.05 alpha level, so it can be concluded that the regression model is free from heteroscedasticity.

4) Autocorrelation Test

Autocorrelation test is used to determine whether there is a correlation between errors in the current period compared (t) with the previous period (t-1) in the regression model.

How to find out whether there is autocorrelation in the regression model can be done with the Durbin-Watson test with the following test results criteria:

Positive Autocorrelation:

- a. If $d < dL$ then there is a positive autocorrelation
- b. If $d > dU$ then there is no positive autocorrelation
- c. If $dL < d < dU$ then the test cannot be concluded

Negative Autocorrelation:

- a. If $4-d < dL$ then there is a negative autocorrelation
- b. If $4-d > dU$ then there is no negative autocorrelation
- c. If $dL < 4-d < dU$ then the test cannot be concluded

The values of dL and dU are obtained from the Durbin-Watson table assuming an alpha of 0.05 $k = 2$ and the number of samples is 11.

Dependent Variable: D(LOGY)
 Method: Least Squares
 Date: 08/21/21 Time: 13:48
 Sample (adjusted): 2011 2020
 Included observations: 10 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGX1)	0.109789	0.230626	0.476047	0.6485
D(LOGX2)	1.339979	0.623733	2.148321	0.0688
C	-0.039623	0.142578	-0.277902	0.7891
R-squared	0.547693	Mean dependent var		-0.129863
Adjusted R-squared	0.418463	S.D. dependent var		0.575277
S.E. of regression	0.438698	Akaike info criterion		1.433313
Sum squared resid	1.347191	Schwarz criterion		1.524089
Log likelihood	-4.166567	Hannan-Quinn criter.		1.333733
F-statistic	4.238111	Durbin-Watson stat		1.974749
Prob(F-statistic)	0.062232			

Table 6:- Autocorrelation Test

Based on table, it is found that the Durbin-Watson (d) value is 1.9747. From these results, it is tested whether there is a positive and negative autocorrelation or not. The result is that the value of $d > dU$ ($1.9747 > 1.6044$) then there is no positive autocorrelation, then to test the negative autocorrelation can be seen in the table that $(4-d) > dU$ ($2.0253 > 1.6044$) then there is no negative autocorrelation, Thus it can be concluded that in this regression model there is no autocorrelation disorder.

C. Quantitative Analysis

1) Multiple Linear Regression Analysis

Dependent Variable: LOGY
 Method: Least Squares
 Date: 08/21/21 Time: 13:15
 Sample: 2010 2020
 Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGX1	0.332926	0.257544	1.292696	0.2322
LOGX2	1.273256	0.758012	1.679730	0.1315
C	4.931649	3.680051	1.340103	0.2170
R-squared	0.662900	Mean dependent var		9.913976
Adjusted R-squared	0.578625	S.D. dependent var		0.637787
S.E. of regression	0.414009	Akaike info criterion		1.301144
Sum squared resid	1.371229	Schwarz criterion		1.409661
Log likelihood	-4.156291	Hannan-Quinn criter.		1.232739
F-statistic	7.865910	Durbin-Watson stat		1.149856
Prob(F-statistic)	0.012913			

Table 7:- Regression Analysis

Based on the table of multiple linear regression analysis above, the regression equation can be formulated as follows:

$$\log Y = 4.9316 + 0.3329 \log X_1 + 1.2732 \log X_2$$

From the multiple linear regression equation, the interpretation results obtained include:

- a. Constant The constant value in the multiple linear regression equation above is $a = 4.9316$, which means that if the value of the independent variable Earnings per Share and Reference Coal Price is 0, then the share price of PT Indotambang Raya Megah will be 4,931.
- b. Variable Coefficient X_1 The variable coefficient of Earnings per Share in the above equation is 0.3329. This coefficient shows that Earnings per Share has a positive relationship to the share price of PT Indotambang Raya Megah, and if Earnings per Share is worth \$0.1 then the share price of PT Indotambang Raya Megah will increase by \$0.03 assuming the Reference Coal Price variable is constant. The opposite is also true, if Earnings per Share is worth -\$0.1 then the share price of Indotambang Raya Megah will decrease by -\$0.03.
- c. Variable Coefficient X_2 The coefficient of the Reference Coal Price variable in the above equation is 1.2732. This coefficient indicates that the Reference Coal Price has a positive relationship to the stock price of PT Indotambang Raya Megah. This also means that if the Reference Coal Price increases by \$1 PMT, the share price of PT Indotambang Raya Megah will increase by 1.2732/share, assuming Earnings per Share and the constant is considered constant.

2) Coefficient Correlation Analysis

R-squared 0.662900

Table 8:- Coefficient Correlation Analysis

The correlation coefficient is used to determine the magnitude of the relationship between the independent variables in this case Earnings per Share and Reference Coal Prices with the dependent variable being the Share Price of PT Indotambang Raya Megah. In the table it can be seen that the coefficient of determination or R-Squared is 0.6629 or 66.29%, so the Correlation Coefficient is 0.8141 or 81.41%. This correlation value indicates that the relationship between the independent variable and the dependent variable is high.

3) Coefficient Determination Analysis

R-squared 0.662900

Table 9:- Coefficient Determination Analysis

The coefficient of determination is used to determine how much influence the independent variables used in the study have on the dependent variable. The high value of the coefficient of determination indicates that the contribution of the independent variable simultaneously affects the dependent variable. In the table, it can be seen that the coefficient of

- 2) In the event that the Reference Coal Price is high, then there is an insignificant positive relationship with the share price partially, because the reference coal price will affect earnings per share and will increase the company's stock price simultaneously, therefore the reference coal price is one of the variables. determining the company's stock price simultaneously.
- 3) It is necessary to do a similar test by adding a sample of companies with a longer time horizon and more interesting independent variables to dig deeper into what things affect the share price of coal companies.

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