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.

![Graph showing coal revenue contributions](image)

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 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 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.
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:

\[ EPS = \frac{Net\ Income}{Outstanding\ Ordinary\ Shares} \]

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:

\[ HBA = 25\% ICI + 25\% Platts59 + 25\% NEX + 25\% GC \]

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.


(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.


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:

\[ Y = \alpha + b_1x_1 + b_2x_2 + E \]

Where:

Y = share price of PT Indotambang Raya Megah, Tbk
\( \alpha \) = intercept
\( b_1, b_2 \) = coefficient regression
\( x_1 \) = Earnings per Share
\( x_2 \) = Reference Coal Price
E = Error Regression
A. 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 > α and H₀ is rejected if the Jarque Bera prob value is < α.

![Histogram of Residuals](image)

Table 3: Normality Test

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Uncentered Variance</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGX1</td>
<td>0.066329</td>
<td>16.16027</td>
</tr>
<tr>
<td>LOGX2</td>
<td>0.574583</td>
<td>712.3383</td>
</tr>
<tr>
<td>C</td>
<td>13.54278</td>
<td>869.1215</td>
</tr>
</tbody>
</table>

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](image)

Table 4: Multicollinearity Test

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.

![Heteroscedasticity Test](image)

Table 5: Heteroscedasticity Test

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 \( d < d_L \) then there is a positive autocorrelation
- b. If \( d > d_U \) then there is no positive autocorrelation
- c. If \( d_L < d < d_U \) then the test cannot be concluded

Negative Autocorrelation:
- a. If \( 4 - d < d_L \) then there is a negative autocorrelation
- b. If \( 4 - d > d_U \) then there is no negative autocorrelation
- c. If \( d_L < 4 - d < d_U \) then the test cannot be concluded

The values of \( d_L \) and \( d_U \) are obtained from the Durbin-Watson table assuming an alpha of 0.05 \( k = 2 \) and the number of samples is 11.

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

\[
logY = 4.9316 + 0.3329 logX_1 + 1.2732 logX_2
\]

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

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

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...
determination or R-Squared is 0.6629 or 66.29%, which means that 66.29% of the Earnings per Share variable and the Reference Coal Price are able to explain its effect on the stock price of PT Indotambang Raya Megah, the rest is explained by other variables not included in this research model.

D. Hypothesis Test

1) T Test (Partial)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGX1</td>
<td>0.329282</td>
<td>0.257544</td>
<td>1.289286</td>
<td>0.2322</td>
</tr>
<tr>
<td>LOGX2</td>
<td>1.273256</td>
<td>0.758012</td>
<td>1.679730</td>
<td>0.1315</td>
</tr>
<tr>
<td>C</td>
<td>4.901649</td>
<td>3.680051</td>
<td>1.340103</td>
<td>0.2170</td>
</tr>
</tbody>
</table>

Table 10: T Test

Based on the table above, the T test can be interpreted as follows:

The Earnings per Share variable has a probability t value greater than the significant level used, namely 0.05 (0.2322 > 0.050). This shows that H1 is rejected, so it can be concluded that the Earnings per Share variable has no significant effect on the stock price of PT Indotambang Raya Megah, Tbk. The Reference Coal Price Variable has a probability t value greater than the significant level used, namely 0.05 (0.1315 > 0.050). This shows that H1 is rejected, so it can be concluded that the Reference Coal Price variable has no significant effect on the share price of PT Indotambang Raya Megah, Tbk for the period 2010 - 2020.

2) F Test (Simultaneous)

F-statistic 7.865910  
Prob(F-statistic) 0.012913  
Table 11: F Test

Based on table, the F-test can be interpreted that the F-Statistic Probability value is 0.04 or smaller than the significant level used, namely 0.05 (0.01 < 0.05) so it can be concluded that accept H1. Thus, this explains that the independent variables used in the study, namely Earnings per Share and Reference Coal Prices simultaneously have a significant effect on the Share Price of PT Indotambang Raya Megah.

IV. CONCLUSIONS AND SUGGESTIONS

A. Conclusions

Based on the results of the research that has been done, the following it can be concluded:

1) Earnings per Share does not significantly have a positive effect on the share price of PT Indotambang Raya Megah for the period 2010 - 2020. This is in accordance with previous research conducted by (Monny, 2016) and contrary to previous research conducted by (Lisdawati et al., 2021). Earnings per Share is one of the ratios to measure profitability which is commonly used in assessing company performance, how the company's ability to record net profit per share for shareholders. High Earnings per Share indicates the company, in this case PT Indotambang Raya Megah is good enough to increase the net worth of shareholders, high Earnings per Share also means the potential for dividend payments will increase the assumption of Dividend Payout Ratio is the same as last year. High Earnings per Share, which exceeds analyst consensus, or also called Earnings Surprise is also one of the factors why Earnings per Share that exceeds analyst consensus can increase PT Indotambang Raya Megah's stock price.

2) The Reference Coal Price does not significantly have a positive effect on the Share Price of PT Indotambang Raya Megah for the period 2010 to d. 2020. This is in accordance with previous research conducted by (Kumbayana, 2012) and contrary to research (Sundari, 2015) and also research conducted by (Anindita & Syaputra, 2018). Reference Coal Price is important because it determines the average selling price for the entire volume of coal exported and sold in the domestic market. The high Reference Coal Price will widen the net profit margin of PT Indotambang Raya Megah and the impact is that the company's performance will be better which will later be reflected in its share price.

3) Earnings per Share and Reference Coal Price significantly have a positive effect on the share price of PT Indotambang Raya Megah for the period 2010 to d. 2020. This is in accordance with research conducted by (Wahyuni & Peranginaning, 2019); then research conducted by (Pratama & Yuliarto, 2016) that Earnings per Share and Reference Coal Price have a positive and significant effect on stock prices with a contribution of 66.29%. A low coefficient of determination indicates that many independent variables have not been included in this research model.

B. Suggestions

Based on the results of the research that has been done, the following it can be concluded:

1) Companies can make strategic decisions in terms of increasing stock prices, so one way to do that is to increase and maintain the level of profitability growth as measured by Earnings per Share so that the company's stock price is maintained at the desired level.
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.

REFERENCES


