The Effect of Liquidity, Leverage, Profitability and Company Size on Stock Prices in Mining Companies Listed on the Indonesia Stock Exchange in the Period of 2013-2017

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ABSTRACT

This research aims to specify the effect of liquidity, leverage, profitability and company size on the stock price of mining companies listed on the Indonesia Stock Exchange in the period of 2013-2017. This type of research is descriptive statistical research. The object of this research had been done on 26 mining companies listed on the Indonesia Stock Exchange that were collected by purposive sampling. The data type that used in this research is called secondary data in the configuration of mining company financial statements for the period 2013-2017. The ratios used during this research are Current Ratio representing Liquidity, Debt to Equity Ratio that represents Leverage, Return On Assets representing Profitability and LN (Total Assets) representing Company Size. The analysis used is descriptive analysis, graph analysis also multiple linear regression analysis. The conclusion showed that liquidity had a positive and significant effect on stock prices. Leverage has a negative and not significant effect on stock prices. Profitability has a positive and significant effect on stock prices. Company Size has a negative and significant effect on stock prices.

INTRODUCTION

Liquidity described as a ratio that represent one company's capability to meet short-term obligations (debt) (Kasmir 2015: 129). Hanie and Saifi (2018) state that, liquidity is used to measure a company's capability to settle company's obligations when due. A company is said to be liquid if it is able to turn assets into cash without impairment. Based on Hery (2017: 284) liquidity is a ratio used to gauge how liquid the firm is.

As revealed by Fahmi (2012: 87), solvency ratio described as a picture of a company's capability to meet and maintain the company's ability to always be able to meet its obligations in paying debts in a proper time. Hery (2015: 190) states that, solvency ratios are ratios used to gauge the standard to which one company's assets are founded with debt. Jusuf (2014: 55) states that, leverage described as a ratio that signifies the composition of one company's funding sources, especially debt.

Profitability described as a ratio that rates the capability of companies to look for benefit, namely by comparing between various components in financial statements, especially financial statements and income statements (Kasmir 2015: 196).
Hery (2017: 317) states that, profitability described as a ratio used to gauge the percent of net income on sales. And according to Munawir (2010: 89) that, profitability is the magnitude of operating profit stated in percentage and net sales.

The size of a company, which is a large-scale company, is generally easier to obtain debt than from a small company because it relates to the creditor’s trust in large companies (Namjudin 2013: 316). Sitanggang (2013: 76) states that, the size of companies with large market capitalization or sales shows the company's achievements, companies will more easily get access to sources of funds to obtain additional capital with debt. Ningsapati (2010: 49) also states that, company size described as a rate that represent the size from a company.

According to Hartono (2013: 392), the variable asset size is measured logarithm of the total assets. Asset size is used as a proxy for the size of the company.

As stated by Darmadji and Fakhruddin (2011: 5) that, shares can be described as a mark of ownership of a person or corps in one company or qualified company’s liability. Utani (2014: 245) states that, a company that can live all the time is a company that has a retained profit greater than its share capital, it shows that the company from time to time is able to accumulate capital through retained earnings. Meanwhile According to Wira (2011: 7) Share Prices are a reflection of company performance. In a short period, prices may fluctuate. According to Darmadji and Fakhruddin (2011: 135), supply and demand for stock prices always change every time.

Brigham and Houston (2010: 150) state that, if liquidity ratios, asset management, debt management, and profitability all seem nice if these conditions run steadily then the market value ratio will also be high.

As stated by Fahmi (2014: 69) that, indeed for the manager of the company having a high current ratio is considered good, even for creditors considered the company is in a strong state. But for shareholders this is considered not good.

According to Kasmir (2015: 151), leverage is used to gauge the range of which one company's assets are cost with debt. This means what is the amount of debt burden born by the company sacked up to the company's assets.

Arisona (2013: 104) states that, the bigger the debt to equity ratio depict the lower its leverage so that its capability to repay debt is low. This tells that this company’s risk (financial risk) is relatively high. This means that if the debt to equity ratio is high, the value of the stock price will go down.

As stated by Sartono (2015: 257) that, the used of assets and funding sources that are used by companies that have fixed costs by an outlook to increase beneficial shareholder profits is called leverage.

According to Harahap (2015: 304), profitability shows the number of percentages of net income earned from each sale. If this ratio shows high percentage it will be better since it rates the company's capability to get high benefits. Jumingan (2014: 161) states that, the value generated from profitability gives an important picture because it shows the level of sales success and achievement of the company's profit targets.

As stated by Harmono (2014: 110) that, profitability has a causal relationship to firm value in general the dimension. While the value of the company in a basic concept can be described by the value determined by the price of shares traded in the capital market.

Pujo Gunarso (2014) states that a company is considered as developing if its company size shows the large size so that investors will give good responds and it will bring up the worth of the company. This statement also confirmed by research by Sasongko & Wulandari (2006) in which company size has an influence on stock prices.

According to Gumanti (2011: 222), there are four exogenous or independent variables that clearly affect stock prices. The four variables are:

1. Corporate tax rates
2. Changes in State expenditure or expenditure
3. Changes in nominal money and
4. Potential economic output

In this research, there are some independent variables used. They are Liquidity (X1), Leverage (X2), Profitability (X3) and Company Size (X4), while the dependent variable is Stock Price (Y). Where this research purposes to specify and analyse whether the effect of these independent variables on stock prices, the conceptual framework can be described as follows.

![Figure 1. Conceptual Framework](image-url)

- **Liquidity (X₁)**
- **Leverage (X₂)**
- **Profitability (X₃)**
- **Company Size (X₄)**
- **Stock Price (Y)**
MATERIALS AND METHODS

This research was established on mining sub-sector companies listed on the Indonesia Stock Exchange in 2013-2017 through the website www.idx.co.id, and through each company's official website. The research approach used in this research is a quantitative research method. Based on Sugiyono (2017: 7), quantitative research methods are often called traditional, positivistic, scientific and discovery methods. This method is called the traditional method because this method has been used for a long time so that it has been inherited as a method for research. The type of research that is used in this research is descriptive statistical research. As stated by Sugiyono (2017: 35), descriptive statistical research is a problem statement regarding the question of independent variables, whether only on one or more variables (independent variables). The nature of this research is a causal relationship. According to Sugiyono (2017: 37), causal relationships are causal relationships. So in this study can be found independent variables (variables that affect) and dependent (influenced).

According to Sugiyono (2017: 80), population can be described as one generality zone coinciding of subjects / objects that fulfill several qualities and characteristics specified by researchers to be analyzed and later conclusions given. The population taken in the study were 47 mining sub-sector companies listed on the Indonesia Stock Exchange in 2013-2017. According to Sugiyono (2017: 81), the sample described as section of the number of characteristics owned by the population. Sampling is done by purposive sampling. As stated by Sugiyono (2017: 85), purposive sampling can be described as one sampling technique that requires some considerations. Some of the criteria specified are:


Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>130</td>
<td>0.05239</td>
<td>20.16748</td>
<td>2.228629</td>
<td>2.84954571</td>
</tr>
<tr>
<td>Leverage</td>
<td>130</td>
<td>0.04245</td>
<td>14.81270</td>
<td>1.426619</td>
<td>1.92494048</td>
</tr>
<tr>
<td>Profitability</td>
<td>130</td>
<td>0.78422</td>
<td>19,9570315</td>
<td>2,2286297</td>
<td>4,22547558</td>
</tr>
<tr>
<td>Company Size</td>
<td>130</td>
<td>12,66406</td>
<td>28500,00000</td>
<td>2626,3461538</td>
<td>4591,72031856</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

The Descriptive Statistics Table above shows the data used in this study were 130, which was obtained from a total sample of 26 companies multiplied by the study period of 5 years. The table gives the value of the minimum value, maximum value, average value (mean), and standard deviation of the variable Liquidity (X1), Leverage (X2), Profitability (X3), Company Size (X4) and Stock Price (Y) with details as follows.

1. Variable X1 (Liquidity) has a sample (N) of 130 with a minimum value of 0.05239 at PT. Astrindo Nusantara Infrastructure and a maximum value of 20.16748 at PT. Central Omega Resources with an average value of 2.228629 and a standard deviation of 2.84954571.
2. Variable X2 (Leverage) has a sample (N) of 130 with a minimum value of 0.04245 at PT. Central Omega Resources and a maximum value of 14.81270 at PT. Delta Dunia Makmur Tbk. with an average value (mean) of 1.4266192 and a standard deviation of 1.92494048.
3. Variable X3 (Profitability) has a sample (N) of 130 with a minimum value of -0.78422 at PT.
Mitra Investindo Tbk. and a maximum value of 0.39316 at PT. Baramulti Suksesarana Tbk. with an average value (mean) of 0.205485 and a standard deviation of 0.11249675.


5. Variable Y (Share Price) has a sample (N) of 130 with a minimum value of 50 at PT. Darma Henwa Tbk. and a maximum value of 28500 at PT. Indo Tambangraya Megah Tbk. with an average value (mean) of 2626.3461538 and standard deviation of 4591.72031856.

The aim of the normality test is to tell whether in the regression model, confounding or residual variables there is a normal distribution. When this normality test is conflicted then the statistical test becoming invalid for the smaller number of samples. Histogram Normality Test Results and P-P Plots will be shown in the figure below:

The histogram graph in Figure 2 above shows the tendency of the symmetry curve (U), so it can be told that the data is normally distributed. In addition to the histogram test, the normality test in this study uses the normal P-P plot graph as seen in the following figure:

The histogram graph in Figure 2 above shows the tendency of the symmetry curve (U), so it can be told that the data is normally distributed. In addition to the histogram test, the normality test in this study uses the normal P-P plot graph as seen in the following figure:

P-P Normality Graph The plot in Figure 3 above, seen the points far away from the diagonal line, it can be described that the data is not normally distributed. Normality Test results above indicate the data are not normally distributed, it is important to transform data.

In the P-P Normality chart the plot after the transformation above shows the points go close to the diagonal line, and keep up the way of the diagonal line so that the data is normally distributed.

In addition to using the Histogram Normality Test and the P-P Plot Normality, this research also uses the Kolmogorov-Smirnov analysis to ascertain if the regret model has actually been normally distributed with the conditions stated below:

- If the significant shows a value > 0.05 then it is normally distributed.
- If the value of the significant < 0.05, then the distribution is not normal.
To test if the regression model found any correlation between independent variables, multicollinearity test is required. To discover the present or absent of multicollinearity in the regression model can be told from the mark of tolerance and variance inflation factor. The method of decision making is tolerance value > 0.1 and VIF < 10 then multicollinearity free regression.

Table 4. Multicollinearity Test Results Before Transformation

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1. (Constant)</td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.931</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.934</td>
</tr>
<tr>
<td>Profitability</td>
<td>0.935</td>
</tr>
<tr>
<td>Company Size</td>
<td>0.936</td>
</tr>
</tbody>
</table>

a. Dependent Variable : Stock Price

From the table above, it shows that the magnitude of tolerance values obtained for the variable Liquidity 0.931> 0.1, Leverage 0.934> 0.1, Profitability 0.935> 0.1 and Company Size 0.936> 0.1 and the VIF value of the variable Liquidity 1.074 <10, Leverage 1.071 <10, Profitability 1,069 <10, and company size 1,068 <10, it means that there isn't any multicollinearity among independent variables.

Table 5. Multicollinearity Test Results After Transformation

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1. (Constant)</td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.669</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.684</td>
</tr>
<tr>
<td>Profitability</td>
<td>0.944</td>
</tr>
<tr>
<td>Company Size</td>
<td>0.908</td>
</tr>
</tbody>
</table>

a. Dependent Variable : Stock Price

The multicollinearity test results above show that the Liquidity variable has a tolerance of test results of 0.669> 0.10 with a VIF value of 1.494 <10. The leverage variable shows a tolerance value of 0.684> 0.10 with a VIF value of 1.462 <10. The profitability variable has a tolerance value of 0.944 with a VIF value of 1.060 <10. The company size variable shows a tolerance value of 0.908 with a VIF value of 1.101 <10. So it can be seen from the multicollinearity testing of variable Liquidity, Leverage, Profitability, Company Size multicollinearity does not occur.
Autocorrelation test is a test used to see if in a linear regression model there is any correlation between the error of the intruder in period 1 and the error of the intruder in the period t-1 (the previous period). One measure in determining the present or absent of autocorrelation problems with the Durbin - Watson test (DW - test).

Table 6. Autocorrelation Test Results
Model Summary\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.917</td>
</tr>
</tbody>
</table>

a. Predictors:(Constant), LN_CompanySize, LN_Profitability, LN_Leverage, LN_Liquidity
b. Dependent Variable: LN_Stockprice

The results tested in the Autocorrelation Test Results table above, Durbin Watson in the study is du < dw < 4- du (1.77 < 1.91 < 2.22), it can be concluded that there was no autocorrelation in the regression model formed.

Table 7. Results of Multiple Linear Regression Analysis Results
Coefficients\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>(Constant)</td>
<td>15.260</td>
<td>2.116</td>
<td>7.212</td>
</tr>
<tr>
<td></td>
<td>LN Liquidity</td>
<td>.632</td>
<td>.192</td>
<td>.329</td>
</tr>
<tr>
<td></td>
<td>LN Leverage</td>
<td>-.086</td>
<td>.182</td>
<td>-.047</td>
</tr>
<tr>
<td></td>
<td>LN Profitability</td>
<td>.308</td>
<td>.086</td>
<td>.302</td>
</tr>
<tr>
<td></td>
<td>LN Company Size</td>
<td>-2.547</td>
<td>.706</td>
<td>-.311</td>
</tr>
</tbody>
</table>

a. Dependent Variable: LN_Stockprice

The Heteroscedasticity test is useful for testing if we can find dissimilar variance from the residuals of one observation to another in the regression model. How to make decisions is to look at the Scatterplot graph as follows.

In research using related variables are Price (Y), while the independent variables are Liquidity (X1), Leverage (X2), Profitability (X3), and Company Size (X4) in manufacturing companies listed on the Indonesia Stock Exchange in the period 2013-2017. After being analyzed using multiple linear regression techniques through the SPSS 20.0 program using the LN transformation as follows.

\[ Y = 15.260 + 0.632X_1 - 0.086X_2 + 0.308X_3 - 2.547X_4 + e \]

The meaning of the multiple linear regression equation above is:

1. A constant of 15.260 states that if Liquidity, Leverage, Profitability and Company Size are constant 0, the Mining Company Stock Price is 15.260.
2. Liquidity regression coefficient of 0.632 units and positive value states that each increase of 1 unit of Liquidity variable will cause an increase in Share Price of 0.632 while having assumption that the other variables are constant.
3. Leverage regression coefficient of -0.086 units and negative value states that every increase of 1 unit of variable Leverage will cause a decrease in Share Price of -0.086 with other variables constant.

4. Profitability regression coefficient of 0.308 units and a positive value states that each increase of 1 unit profitability variable will cause an increase in Share Price of 0.308 with the assumption that other variables are constant.

5. Regression coefficient of the company size of -2,547 units and a negative value states that every increase of 1 unit of the size of the company size will cause a decline in stock price of -2,547 with other variables constant.

The coefficient of determination (R²) is a number that indicates the degree or ability of the independent variable (X) in explaining the dependent variable (Y). The greater the coefficient of determination, the greater the independent variable influences the dependent variable.

**Table 8. Results of the Determination Coefficient R²**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.665*</td>
<td>.442</td>
<td>.415</td>
<td>1.18700</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), LN_Company size, LN_Profitability, LN_Leverage, LN_Liquidity
b. Dependent Variable: LN_Stock price

Based on the Determination Coefficient Results Table R2 above, it can be seen that the results of the RSquare determination coefficient test of 0.442 indicate that the correlation or closeness of the liquidity (X1), Leverage (X2), Profitability (X3), Company Size (X4) is 44.2%. And the value of Adjusted R Square of 0.415 shows that the variable Liquidity (X1), Leverage (X2), Profitability (X3), Company Size (X4) explains the effect on the Share Price of 41.5% and the remaining 58.5% is explained by other variables outside the research variable.

Simultaneous Hypothesis Testing (F) is used to test whether the independent variables together or simultaneously affect the dependent variable.

From the F Statistical Test Results table on top it shows that the simultaneous significance test (F statistical test) produced a Fcount of 16.428. At free degrees 1 (df1) = k - 1 = 5 - 1 = 4, and free degrees 2 (df2) = n - k = 88 - 5 = 83, the ttable value at the 0.05 significance level of confidence is 2.44. Then the conclusion Fcount>F table = 16.428> 2.44 with a significance level of 0.000 <0.05. Then H0 is rejected and Ha is accepted, which means Liquidity, Leverage, Profitability and Firm Size simultaneously and significantly affect the Stock Price.

Partial Hypothesis Testing (t) aims to test whether the independent variables (independent individually or partially affect the dependent variable).

Based on the above T test results table can be described as follows:

1. Liquidity variable has a tcount> t table 3.281 > 1.979 with a significant value of 0.002 < 0.05 then Ha is accepted and H0 is rejected, which means that the Liquidity variable partially influences and significantly affects the Stock Price.

2. Leverage variable has a tcount> ttable -0.476> 1.979 with a significant value of 0.635> 0.05 then Ha is rejected and H0 is accepted, which means that the Leverage variable is partially influential and not significant to the Stock Price.

3. Profitability variable has a tcount> ttable 3.580> 1.979 with a significant value of 0.001 <0.05 then Ha is accepted and H0 is rejected, which means that the Profitability variable partially influences and significantly affects the Stock Price.

4. Company Size Variable has tcount> ttable -6.610> 1.979 with a significant value of 0.001 <0.05 then Ha is accepted and H0 is rejected, which means that the Company Size variable partially influences and significantly affects the Stock Price.

From the above data it can be explained the discussion regarding the results of the analysis that has been carried out are as follows:

**Table 9. Statistical Test Results F ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>92,589</td>
<td>4</td>
<td>23,147</td>
<td>16,428</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>116,945</td>
<td>83</td>
<td>1,409</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>209,534</td>
<td>87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: LN_Y
b. Predictors: (Constant), LN_X4, LN_X3, LN_X2, LN_X1
1. Effect of Liquidity on Stock Prices

From the research results obtained \( t \) count \( > t \) table or 3.281 \( > 1.979 \) with significance 0.002 thus H1 which states that Liquidity has a positive and significant effect on stock prices. These results indicate that good liquidity can lead to high stock prices.

The results of this study are in line with research by Ummu Putriana Hanie, and Muhammad Saffi (2018) which states that the smaller the risk of liquidation experienced by the company reflects that the company is able to pay off its obligations.

Thus, if the company's liquidity is good, investors will not doubt whether the capital they invested in the company will return and provide benefits for them or not. Because if a company's liquidity is not good, it has the tendency to be shunned by investors. The results of this study are in line with research conducted by Santi Oktaviani and Dahlia Komalasarai (2017) which states that liquidity had no significant effect on stock prices.

2. Effect of Leverage on Stock Prices

From the research results obtained \( t \) count \( > t \) table or -0.476 \( > 1.979 \) with a significance of 0.635 thus H2 which states that leverage has a negative and not significant effect on stock prices. This research is supported by Sari Ariyanti, et al (2016) who state that leverage has a negative and not significant effect on stock prices. High leverage indicates a company's ability to carry out more operational activities derived from debt. Basically, investors will choose companies that have low leverage in investing to avoid risk.

3. Effect of Profitability on Stock Prices

From the research results obtained \( t \) count \( > t \) table or 3.580 \( > 1.979 \) with a significance of 0.001, thus H3 which states that profitability has a positive and significant effect on stock prices. These results indicate that profitability is able to generate profits from assets used by the company. The results of this study are in line with research by Santi Oktaviani, and Dahlia Komalasarai (2017) which states that profitability has a significant effect on stock prices. Thus, the higher the profitability of a company, the higher the value of the company's assets and can achieve a good profit or profit in each period. So that investors do not need to worry that the company will experience a loss or bankruptcy, but it opens up the possibility of new investors who want to invest their capital there and can increase the company's stock price.

4. Effect of Company Size on Share Prices

From the research results obtained \( t \) count \( > t \) table or -3.610 \( > 1.979 \) with a significant value of 0.001 thus H4 which states that company size has a negative and significant effect on stock prices.

The results of this study are in line with research by Muhammad Sukarno, Riana Sitawati, and Sam'ani (2016) which states that company size has a significant effect on stock prices. Thus, if the size of a large company, the company's share price will also be high, and vice versa if the size of a small company, the share price will also be low. This is because the greater the size of the company is an attraction for investors to invest because the size of the company has a positive effect on investors so that it will make demand for these shares go up.

CONCLUSIONS AND SUGGESTION

The aim of this research was to specify the effect of Liquidity, Leverage, Profitability and Company Size on Stock Prices. Based on the results of research established, it can be concluded that partially, Liquidity and Profitability has a positive and significant effect on Stock Prices. Leverage has a negative and not significant effect on stock prices. While the size of the company has a negative and significant effect on stock prices.
effect. Simultaneously Liquidity, Leverage, Profitability, and Company Size significantly influence the Stock Price.

REFERENCES


