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# Effect of Current Ratio, Return on Equity, Debt to Equity Ratio, and Earnings per Share on Stock Returns of Mining Companies Listed on the Indonesia Stock Exchange

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## Abstract

*This study was conducted to analyze the development of stock values in the mining companies listed on the Indonesia Stock Exchange (IDX) using the ratio of profitability, liquidity, and debt to stock returns for 2015–2019 period. Purposive sampling technique was used for data collection with the following criteria: (1) companies listed on the IDX during the observation period (2015–2019) for consecutive years; (2) companies that continually provide financial reports during the observation period (2015-2019); (3) companies that have complete data in accordance with the research variables required in this study. Based on those criteria, the data obtained from the report published by the IDX were comprised of 15 companies as the study samples. Meanwhile, the study used panel data regression with least-squares equation and hypothesis testing using t-statistics to test the partial regression coefficients. Furthermore, f-statistics was used to test the simultaneous effect at the significance level of 5%. Based on the analysis results using software eviews version 10, it revealed that: (1) current ratio had no effect on stock return; (2) return on equity had no effect on stock return; (3) debt to equity ratio had no effect on stock return; (4) earnings per share had no effect on stock return; (5) current ratio, return on equity, debt to equity ratio, earnings per share simultaneously had no effect on stock return.*

Keywords
current ratio (CR); return on equity (ROE); debt to equity ratio (DER); earnings per share (EPS); stock returns

## I. Introduction

Investment is one of the vital mechanisms to improve the capability of those who seek for funds with those who have excess funds. In addition, the existence of capital market can encourage the creation of an efficient fund allocation because those who have excess funds (investors) can choose investment alternatives that provide the most optimal returns. Investors as users of financial statements, do not use quarterly earnings movement information in determining company risk (Firmansyah et al, 2020). Basically, investors expect that they will earn a profit return in the form of ownership of capital gains and dividends from their investment (Tandelilin, 2010:102). When the investors buy shares as financial assets, the gain or loss from this investment is called returns of accumulating and maintaining wealth. Currently, there are various alternative instruments of investment activities in Indonesia. One of the alternatives often in demand by investors is the purchase of shares in the capital market (Tandelin, 2010:26), which can function as an intermediary institution. This mediating function reveals the vital role of the capital market in supporting the economy because it can link with investment. In stock, the purchased value of an asset may change, which means there will be either a capital gain or loss due to changes in the securities price.

To perform an assessment on investments, investors often use information that can be used to analyze the respective companies. One of the most commonly used methods to assess the companies is the fundamental approach as Crabb (2003) proposed, "Fundamental analysis is an examination of corporate accounting reports to assess a company's value that investors can use to analyze its stock prices." Furthermore, Bismark (2008) asserted that the fundamental factors that are often used to estimate stock prices or stock returns are financial ratios and market ratios. Bahar Putri (2012) and Riska et al, (2019) stated that through financial ratios we can make meaningful comparisons in two ways.

Firstly, we can compare a company's financial ratios from time to time to observe the current trend. Secondly, we can compare its financial ratios with others that are still operating in a similar industry for a certain period. According to Ulupui (2007), one of the objectives and advantages of using the ratios is to compare companies' returns and risk relationships with different sizes. These ratios can also showcase a company's profile, economic characteristics, competitive strategy, and unique operating, financial, and investment characteristics. In fundamental analysis, several financial ratios reflect a company's financial condition and performance. Gitzman and Zutter (2012) classify financial ratios into five ratios, namely: (1) liquidity ratio; (2) profitability ratio; (3) solvency ratio; (4) activity ratio; and (5) market value ratio. These financial ratios are used to explain the strengths and weaknesses of a company's financial condition, growth, and predict stock returns in the capital market.

Based on the previous studies, the research results varied, revealing inconsistency of empirical evidence that the variables current ratio, return on equity, debt to equity ratio, earnings per share affect stock returns. Therefore, this research aims to determine whether there is an effect of the variable current ratio, return on equity, debt to equity ratio, earnings per share on stock returns. This study is focused on mining sector companies listed on the Indonesia Stock Exchange from 2015 to 2019.

## II. Review of Literature

### 2.1 Analysis of Financial Statements

According to Kurniatun, Susanta N, Saryadi (2015), financial statements analysis aims to break down financial statement items into smaller units of information and find out the significant relationship that is meaningful for each other, both quantitative and non-quantitative data. It aims to dive into financial conditions, which are vital in the decision-making process. Financial statement analysts aim to provide a more reasonable and systematic basis for sound judgment in predicting what may happen in the future, considering that the data presented in the financial statements describe what has happened. The methods in financial statement analysis are divided into three as follows:

1. Horizontal analysis. It is a method to evaluate a series of financial statement data over a certain period. Horizontal analysis researches comparative financial statements.
2. Vertical analysis. It analyzes financial statements that only cover one period or one time by comparing one post to another in the financial report. Thus, only the financial condition or operational results at a particular time will be revealed.
3. Ratio analysis. The ratio describes a relationship or balance (mathematical relationship) between a certain amount and another amount. It uses an analytical tool in the form of this ratio to explain or give an overview to the analyst about a company's condition or financial position, primarily if the comparison ratio figures are used as the standard.

Gitman dan Zutter (2012:84) stated that an analyst frequently wishes to capture a

firm’s financial performance and status overall. There are two popular approaches in a complete ratio analysis: (1) summarizing all ratios and (2) the DuPont system of analysis. The summary analysis approach tends to view all aspects of the firm’s financial activities to isolate key areas of responsibility for the firm’s financial condition.

Financial ratio analysis that includes the strengths and weaknesses in the financial aspects will be meaningful in determining a firm’s past, present, and future financial performance. According to Gitman and Zutter (2012), financial ratios can be grouped into five types, namely:

- Liquidity ratio, which is a ratio that describes the relationship between cash and other current assets to current liabilities assets. Measuring liquidity is performed by comparing a company's current assets with its current liabilities. The higher the current ratio, the better the liquidity of the company.
- Profitability ratio, which is a ratio that describes the combined effects of asset management liquidity and the results of operating activities from debt (Brigham and Houston, 2016).
- Solvency ratio, which is the proportion of total assets of the company's creditors. The higher this ratio, the greater the foreign capital used to earn profits (Gitman and Zutter, 2012).
- Activity ratio, which is used to measure how quickly various accounts are converted into sales or cash in or cash out.
- Market value ratio, which indicates the relationship between the company's market value and the size of the nominal share price with various accounting values.

### 2.2 Stock Returns

Gitman and Zutter (2012:311), proposed that a total gain or loss resulting from an investment over a given time period is calculated by dividing the asset’s cash distributions during the period, plus changes in value by its beginning-of period investment value. According to their statement, we can straightforwardly understand that the total profit or loss gained in a certain investment period is calculated by comparing the cash distributed over a certain period, plus changes in value, in the initial investment period.

According to Jogiyanto (2007) in Hermawan (2012) stock returns can be divided into two types, i.e., realized and expected stock returns. While realized stock returns refer to what has occurred and calculated using historical data, the expected stock returns are those investors expect to earn in the future. Realized returns are salient because it is used as a measure of a company's performance. The realized returns are also useful as a basis for determining the expected returns and future risks. In contrast to realized stock returns, the expected stock returns have not yet occurred. (Tandelin, 2010:102) suggested that stock returns are one of the motivating factors for investors to invest, and it is also a reward for their courage to take risks on the investments decision. The point of view of an investor when viewed from the classical theory (utility theory) will have investment desires based on two things, namely, portfolio and profitability (Aminatuzzahra, in Baihaqqy, 2020).

### 2.3 Theoretical Framework

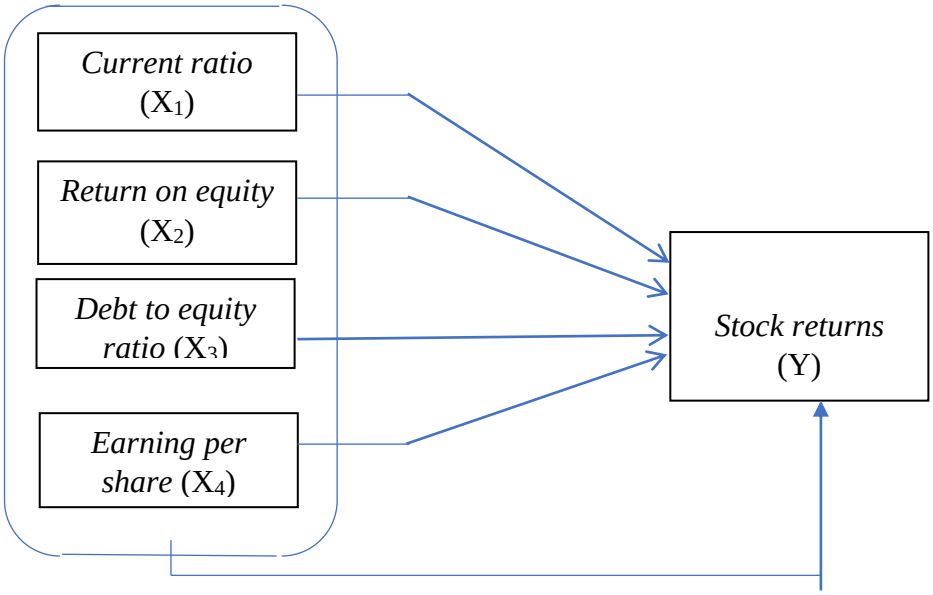


***Figure 1.*** *Theoretical Framework*

## III. Research Methods

In this study, panel data regression was used to determine each direction and the influence between the independent variables of panel data regression. The observations used in this study consisted of several companies (cross-section) during several years (time series). In this study, the authors wished to determine the influence of the current ratio, return on equity, debt to equity ratio, earnings per share on the dependent variable of stock returns of mining companies listed on the Indonesia Stock Exchange for 2015 – 2019 period. The data were collected from the financial statements of these companies for 5 years, from 2015 to 2019. The obtained data were then analyzed using the software Eviews 8.

**Table 1.** Variable operationalization

| Variable | Concept of variables | Measurement | Scale |
|---|---|---|---|
| Stock returns (Rt) | Realized stock returns are those have occurred, calculated using historical data. They are essential as a measure of a company's performance | $R_t = \frac{P_t - P_{t-1}}{P_{t-1}}$ Unit: percentage | Ratio |
| Current ratio | Current assets/current liabilities measure a company's ability to pay its current liabilities by liquidating its current assets | $CR = \frac{CA}{CL}$ Unit: percentage | Ratio |
| Return on equity | Return on equity measures the returns on shareholders investment by comparing net income to share capital | $ROE = \frac{EAT}{TE}$ Unit: percentage | Ratio |
| Debt to equity ratio | DER is a company's ability to meet long-term and short-term obligations. It can also be used to measure the proportion of total assets from its financing | $DER = \frac{TL}{TE}$ Unit: percentage | Ratio |
| Earnings per share | A company's EPS indicates the amount of its net profit ready to be distributed to all its shareholders | $EPS = \frac{earnings\ aft.tax}{outstanding\ shares}$ Unit: Rupiah | Ratio |

### Selection of Panel Data Regression Model

To find out the proper method in this research, several tests are required to determine the panel data regression estimation technique. The tests required to achieve the proper model include the Chow test, Hausman test, and Lagrange multiplier (Widarjono, 2013: 364). Based on the description previously presented, the determination of the regression model can be seen in Figure 2.

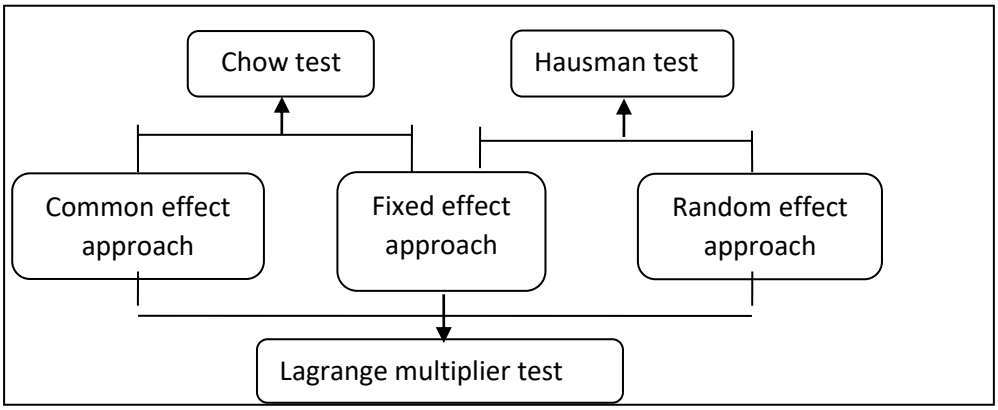


***Figure 2.*** *Selection of panel data regression model (Widarjono, 2013)*

## IV. Results and Discussion

The research objects in this study were mining companies listed on the Indonesia Stock Exchange for 2015 – 2019 period. The population of the public mining companies listed on IDX comprised of 52 companies. More specific based on the criteria, there were 15 mining companies which had been listed on the Indonesia Stock Exchange for five consecutive years, published financial reports for 5 consecutive years, had never been delisted on the Indonesia Stock Exchange for five consecutive years, and had made a profit for five consecutive years.

### 4.1 Descriptive Statistical Analysis

The descriptive analysis describes data phenomena or characteristics. In this study, the financial ratios were tested, comprising current ratio (CR), return on equity (ROE), debt to equity ratio (DER), and earnings per share (EPS) as the independent variables while stock returns as the dependent variable. The results of descriptive statistical analysis of the data are presented the following table.

**Table 2.** Descriptive analysis results

| | RS | CR | ROE | DER | EPS |
|---|---|---|---|---|---|
| Mean | 1.151223 | 2.553563 | 1.152396 | 1.745099 | 1.031988 |
| Median | 0.010100 | 1.440000 | 0.112200 | 0.659000 | 0.010100 |
| Maximum | 2.666900 | 4.300000 | 0.552500 | 2.880000 | 0.240000 |
| Minimum | -0.676800 | 0.006800 | 0.000700 | 0.006000 | 0.000000 |
| Std. Dev. | 0.651161 | 1.087486 | 0.128864 | 0.544843 | 0.052420 |
| Skewness | 1.931754 | 0.544796 | 1.085383 | 1.402924 | 2.343890 |
| Kurtosis | 7.206009 | 2.668056 | 3.730451 | 5.398341 | 8.057455 |
| Jarque-Bera | 101.9288 | 4.054366 | 16.39308 | 42.57759 | 148.6035 |
| Probability | 0.000000 | 0.131706 | 0.000276 | 0.000000 | 0.000000 |
| Sum | 11.34170 | 116.5172 | 11.42970 | 55.88240 | 2.399100 |
| Sum Sq. Dev. | 31.37678 | 87.51438 | 1.228840 | 21.96719 | 0.203340 |
| Observations | 75 | 75 | 75 | 75 | 75 |

(Source: *Eviews* 10.0 data processing)

Based on Table 2, we can observe that the number of valid observations (N) for data processing accounts for 75 data, while no data are missing. It indicates that all data are ready to be processed. Meanwhile, panel data regression analysis uses three approaches: the common effect, fixed effect, and random effect approach (Widarjono, 2013: 355). The approaches were previously tested prior to finding out the proper method to explain the research. The following describes two estimation methods:

### a. Ordinary Least Square Or Common Effect

For the coefficient of panel data regression determination with more than two independent variables in this study, the adjusted $R^2$ is used to determine at what degree the effect of independent variable is on the dependent variable.

**Table 3.** Ordinary least square

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| CR | 0.130435 | 0.079052 | 1.649981 | 0.1034 |
| ROE | -0.056061 | 0.632549 | -0.088627 | 0.9296 |
| DER | 0.054463 | 0.151906 | 0.358530 | 0.7210 |
| EPS | 0.792445 | 1.512505 | 0.523929 | 0.6020 |
| C | -0.108802 | 0.233987 | -0.464989 | 0.6434 |

| | | | |
|---|---|---|---|
| R-squared | 0.039895 | Mean dependent var | 0.151223 |
| Adjusted R-squared | -0.014969 | S.D. dependent var | 0.651161 |
| S.E. of regression | 0.656016 | Akaike info criterion | 2.059078 |
| Sum squared resid | 30.12502 | Schwarz criterion | 2.213577 |
| Log likelihood | -72.21543 | Hannan-Quinn criter. | 2.120768 |
| F-statistic | 0.727165 | Durbin-Watson stat | 2.927577 |
| Prob(F-statistic) | 0.576375 | | |

(Source: *Eviews 10*.0 data processing)

Using the ordinary least square approach reveals that the adjusted $R^2$ result is -1.4969%, indicating that in the regression model, the independent variable can explain the stock return variable as the dependent variable of mining companies listed on the Indonesia Stock Exchange by -1.4969%. Meanwhile, the remaining -98.5031% is explained by other factors outside the model. Also, it is evident that the variables CR, ROE, DER, and EPS are significant because the probability value is less than $\alpha = 5\%$.

### b. Fixed Effect Model

In this study, the authors used adjusted $R^2$ to determine the percentage of independent variable effect on the dependent variable.

**Table 4.** Fixed effect model

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| CR | 0.349483 | 0.182271 | 1.917380 | 0.0603 |
| ROE | 0.620295 | 1.259930 | 0.492325 | 0.6244 |
| DER | 0.276169 | 0.373416 | 0.739576 | 0.4626 |
| EPS | 0.004658 | 3.481109 | 0.001338 | 0.9989 |
| C | -0.692174 | 0.517304 | -1.338040 | 0.1863 |

| Effects Specification | | | |
|---|---|---|---|
| Cross-section fixed (dummy variables) | | | |
| R-squared | 0.102342 | Mean dependent var | 0.151223 |
| Adjusted R-squared | -0.186191 | S.D. dependent var | 0.651161 |
| S.E. of regression | 0.709195 | Akaike info criterion | 2.365158 |
| Sum squared resid | 28.16563 | Schwarz criterion | 2.952255 |
| Log likelihood | -69.69342 | Hannan-Quinn criter. | 2.599579 |
| F-statistic | 0.354696 | Durbin-Watson stat | 3.106528 |
| Prob(F-statistic) | 0.991104 | | |

(Source; *Eviews 10* data processing)

It is seen from Table 4. that the value of adjusted $R^2$ is greater than that of the common effect model, which is -18.6191%. It is evident that the variables CR, ROE, DER, and EPS are significant because the probability value is less than $\alpha = 5\%$.

### c. Random Effect Model

In this study, the authors used adjusted $R^2$ to find out the percentage of the independent variable effect on the dependent variable.

**Table 5.** Random effect model

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| CR | 0.130435 | 0.085461 | 1.526257 | 0.1315 |
| ROE | -0.056061 | 0.683826 | -0.081981 | 0.9349 |
| DER | 0.054463 | 0.164220 | 0.331646 | 0.7411 |
| EPS | 0.792445 | 1.635114 | 0.484642 | 0.6294 |
| C | -0.108802 | 0.252955 | -0.430122 | 0.6684 |
| Effects Specification | | | S.D. | Rho |
| Cross-section random | | | 0.000000 | 0.0000 |
| Idiosyncratic random | | | 0.709195 | 1.0000 |
| Weighted Statistics | | | | |
| R-squared | 0.039895 | Mean dependent var | | 0.151223 |
| Adjusted R-squared | -0.014969 | S.D. dependent var | | 0.651161 |
| S.E. of regression | 0.656016 | Sum squared resid | | 30.12502 |
| F-statistic | 0.727165 | Durbin-Watson stat | | 2.927577 |
| Prob(F-statistic) | 0.576375 | | | |
| Unweighted Statistics | | | | |
| R-squared | 0.039895 | Mean dependent var | | 0.151223 |
| Sum squared resid | 30.12502 | Durbin-Watson stat | | 2.927577 |

(Source; *Eviews 10* data processing)

Based on Table 5, we can observe that the value of adjusted $R^2$ is equal to that of the Common effect model, which is -1.4969%. Obviously, the variables CR, ROE, DER, and EPS are significant because the probability value is less than α = 5%.

### 4.2 Selection Of Panel Data Regression Model

#### a. Chow Test

The Chow test is used to determine whether the model used is more appropriate with the ordinary least square (common effect) model or with the fixed effect model. This test was carried out by statistical tests of cross-section F and cross-section Chi-square. The selection of the appropriate model between ordinary least square (common effect) or fixed effect is conducted as follows:

1. If the value of F count (F-test) and chi-square test are greater than α = 0.05, the model follows the ordinary least square or common effect.
2. If the value of F count (F-test) and chi-square test are less than α = 0.05, the model follows the fixed effect.

**Table 6.** Chow test

| Effects Test | Statistic | d.f. | Prob. |
|---|---|---|---|
| Cross-section F | 0.278267 | (14.56) | 0.9944 |
| Cross-section Chi-square | 5.044016 | 14 | 0.9852 |

(Source; *Eviews 10* data processing)

Based on the results of the Chow test as shown in Table 4.5, we can see that the probability value of the F-test and Chi-square is greater than α = 5% (0.05). Therefore, the correct model follows the ordinary least square (common effect) model. In other words, the ordinary least square (common effect) model is preferential to use in estimating panel data than the fixed effect model. Furthermore, based on the selection results of the panel data regression model we have carried out, the following results are obtained:

**Table 7.** Selection results of panel data regression model

| Method | Test | Result |
|---|---|---|
| Chow test | OLS vs. fixed effect | OLS method |

The best model for estimating panel data is using the ordinary least square (common effect) model. It can be seen from the results of the test method that produces an ordinary least square (common effect) model in the Chow test.

#### b. Lagrange Multiplier Test

The Lagrange multiplier test is used to select the model whether it is more appropriate with the ordinary least square (common effect) model or the random effect model. This test was carried out using the Breusch-Pagan statistical test. The selection of the correct model between ordinary least square (common effect) or random effect is as follows:

1. If the value of the Breusch-Pagan test is greater than α = 0.05 then the model follows the ordinary least square or common effect.
2. If the value of the Breusch-Pagan test is less than α = 0.05, the model follows a random effect.

**Table 8.** Lagrange multiplier test

| Null (no rand. effect) Alternative | Cross-section One-sided | Period One-sided | Both |
|---|---|---|---|
| Breusch-Pagan | 6.181060 | 39.22617 | 45.40723 |
| | (0.0129) | (0.0000) | (0.0000) |
| Honda | -2.486174 | 6.263080 | 2.670676 |
| | (0.9935) | (0.0000) | (0.0038) |
| King-Wu | -2.486174 | 6.263080 | 4.351524 |
| | (0.9935) | (0.0000) | (0.0000) |
| GHM | -- | -- | 39.22617 |
| | -- | -- | (0.0000) |

(Source; *Eviews 10* data processing)

Based on the results of the Lagrange Multiplier test shown in table 4.7, it can be seen that the Breusch-Pagan probability value (0.0129) is less than α = 5% (0.05), so the suitable model follows the random effect model. In other words, the random effect model is better used in estimating panel data than the ordinary least square (common effect) model. From the selection of the panel data regression model we have carried out, the following results are presented in the table below:

**Table 9.** Selection result of Panel data regression model

| Method | Test | Result |
|---|---|---|
| Lagrange Multiplier test | OLS vs. Random effect | Random effect method |

The most appropriate model for estimating panel data is using the random effect model. It can be revealed based on the test method results that produce a random effect model in the Lagrange Multiplier test.

### 4.3 Regression Model Assumption Test

The study used the fixed effect model with eliminated heteroscedasticity by transforming the residuals to a constant using white heteroscedasticity, given that the model is the fixed effect method. The data in this study are panel data. Thus, the problem of autocorrelation, multicollinearity and normality is not required in panel data because these problems are common in all time series data.

### a. Heteroscedasticity Test

Heteroscedasticity test is used to examine whether there is a similarity in variance from the residuals of one observation to another. The model contains heteroscedasticity if the residual and error variances are not constant or changing (Nachrowi and Usman, 2006: 109). A sound regression model is in a homoscedasticity condition where the residual and error variances have the same variance. According to Winarno (2011:5), in reality, it is difficult that the residual value has a constant variance. Frequently it occurs in data that is cross-sectional. Since the panel data contains cross-section data, it is assumed that there is heteroscedasticity (Nachrowi and Usman, 2006:330).

Heteroscedasticity usually occurs in cross section data types. Because a panel data regression has these characteristics, it is likely that there is heteroscedasticity. Out of the three panel data regression models, only CE and FE allow heteroscedasticity to occur. On the other hand, RE does not since the estimation of CE and FE still employs an ordinary

least square (OLS) approach. At the same time, RE uses a generalized least square (GLS) as one of the regression healing techniques (Nachrowi and Usman, 2006).

### b. Panel Data Regression Analysis

A panel data regression analysis was performed to determine whether there is an effect of CR, ROE, DER, and EPS on stock returns. This model is known as the random effect regression model. Based on Table 4.4, the panel data regression equation is:

$$\mathbf{Y = - 0.108802 + Cfe + 0.130435X_1 - 0.056061X_2 + 0.054463X_3 + 0.792445X_4}$$

Where: Y = stock returns , $X_1$ = Current ratio (CR), $X_2$ = Return on equity (ROE) $X_3$ = Debt to equity ratio (DER), $X_4$= Earnings per share (EPS)

### c. Hypotheses Testing

**1. Partial Test ($T_{test}$)**

The $T_{test}$, known as partial test, is used to determine the individual effect of the independent variables on a dependent variable. An independent variable is said to significantly affect the dependent variable if the probability value of each independent variable is less than that of $\alpha$ or (p-value) < $\alpha$. The hypothesis on the $T_{test}$ is as follows:

a. Current ratio (CR):
   H0: CR has no significant effect on stock returns;
   Ha: CR has a significant effect on stock returns.
b. Return on equity (ROE)
   H0: ROE has no significant effect on stock returns;
   Ha: ROE has a significant effect on stock returns.
c. Debt to equity ratio (DER)
   H0: DER has no significant effect on stock returns;
   Ha: DER has a significant effect on stock returns.
d. Earnings per share (EPS)
   H0: EPS has no significant effect on stock returns;
   Ha: EPS has a significant effect on stock returns.
   Conditions: If p-value > $\alpha$, H0 is accepted; If p-value < $\alpha$, H0 is rejected.

**Table 10.** $T_{test}$ results

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| CR | 0.130435 | 0.085461 | 1.526257 | 0.1315 |
| ROE | -0.056061 | 0.683826 | -0.081981 | 0.9349 |
| DER | 0.054463 | 0.164220 | 0.331646 | 0.7411 |
| EPS | 0.792445 | 1.635114 | 0.484642 | 0.6294 |
| C | -0.108802 | 0.252955 | -0.430122 | 0.6684 |

(Source: Eviews 10 data processing)

For the CR variable, the t-statistic value is 1.526257 with a probability value of 0.1315, which is greater than the significance level of 0.05. Therefore, H0 is accepted while Ha is rejected. We can explain that the CR variable has no significant effect on stock returns at a 95% confidence level. Nevertheless, this empirical finding is opposed to the initial hypothesis, which states that CR has a positive and significant effect on stock returns in mining companies listed on the Indonesia Stock Exchange in 2015 – 2019.

For the ROE variable, the t-statistic and probability values are -0.081981 and 0.9349, respectively, which are greater than the significance level of 0.05. Therefore, H0 is accepted while Ha is rejected. So, we may conclude that the ROE variable has no significant effect on stock returns at the 95% confidence level. However, this empirical finding is not in line with the initial hypothesis, which states that ROE has a positive and significant effect on stock returns in mining companies listed on the Indonesia Stock Exchange in 2015 – 2019.

For the DER variable, the t-statistic and probability values are 0.331646 and 0.7411, respectively, which are greater than the significance level of 0.05. Thus, H0 is accepted, whereas Ha is rejected. We can conclude that the DER variable has no significant effect on stock returns at 95% confidence level. Nevertheless, this empirical finding is not in line with the initial hypothesis, which states that DER has a negative and significant effect on stock returns in mining companies listed on the IDX in 2015 – 2019.

For the EPS variable, the t-statistic and probability values are 0.484642 and 0.6294, respectively, which are greater than that of the significance level, 0.05. Thus, H0 is accepted, while Ha is rejected. Therefore, we know that the EPS variable has no significant positive effect on stock returns at a 95% confidence level. However, this empirical finding is not in line with the initial hypothesis, which states that EPS has a positive and significant effect on stock returns in mining companies listed on the IDX in 2015 – 2019.

**2. Simultaneous Test ($F_{test}$)**

The $F_{test}$ or simultaneous test is used to test the independent variables' simultaneous effect on the dependent variable. The hypotheses on the F test are as follows:
$H_0$: CR, ROE, DER, and EPS simultaneously have no significant effect on stock returns.
$H_a$: CR, ROE, DER, and EPS simultaneously have a significant effect on stock returns.
Provided that: if prob. (F-statistic) < α, $H_0$ is rejected.

**Table 11.** The $F_{test}$ results

| | | | |
|---|---|---|---|
| R-squared | 0.039895 | Mean dependent var | 0.151223 |
| Adjusted R-squared | -0.014969 | S.D. dependent var | 0.651161 |
| S.E. of regression | 0.656016 | Sum squared resid | 30.12502 |
| F-statistic | 0.727165 | Durbin-Watson stat | 2.927577 |
| Prob(F-statistic) | 0.576375 | | |

(Source: Eviews 10 data processing)

Based on the $F_{test}$ results (see Table 11), we obtained the prob value (F-statistic) of 0.576375, which is greater than alpha 0.05. It indicates that H0 is accepted while $H_a$ is rejected. As such, we can conclude that CR, ROE, DER, and EPS simultaneously have no significant effect on stock returns. This empirical finding does not agree with the initial hypothesis, which states that CR, ROE, DER, and EPS simultaneously and significantly affect stock returns in mining companies listed on the IDX in 2015 – 2019.

**3. Determination coefficient test ($R^2$)**

A determination coefficient ($R^2$) determines the extent to which an independent variable influences a dependent variable. The following table presents the results of the determination coefficient by referring to the adjusted R-squared.

**Table 12.** Adjusted R-square

| | | | |
|---|---|---|---|
| R-squared | 0.039895 | Mean dependent var | 0.151223 |
| Adjusted R-squared | -0.014969 | S.D. dependent var | 0.651161 |
| S.E. of regression | 0.656016 | Sum squared resid | 30.12502 |
| F-statistic | 0.727165 | Durbin-Watson stat | 2.927577 |
| Prob(F-statistic) | 0.576375 | | |

(Source: Eviews 10 data processing)

Based on the adjusted $R^2$ value of 0.014969, we can infer that the independent variables, i.e., CR, ROE, DER, and EPS can explain the dependent variable stock returns by 1.4969%, while other variables outside of this study explain the rest, accounting for 98.5031%.

### 4.4 Discussions of Research Results

#### a. Current Ratio (CR) to Stock Returns

Based on the T-test results (partially), we obtained a P-value CR of 0.1315, which is greater than the level of $\alpha = 0.05$, indicating that CR has no significant effect on stock returns. It means that whether CR increases or decreases does not significantly increase or decrease the stock returns. It might have occurred due to a decline in profits at mining companies in 2015 and 2016 globally. However, the decline occurred in income posts. CR did not significantly affect stock returns because the variables in CR were current assets and current liabilities whose position was in the balance sheets. The insignificance of CR variable on stock returns is in line with research results conducted by Estuari (2010), Kurniatun, Susanta, and Saryadi (2015), Prasetya, Adiputra, and Atmada (2014), Johanes and Arisandi (2013), and Simu and Thrisye (2014), which concluded that CR had no significant effect on stock return. However, this result is contrary to that conducted by Purnamasari, Nur DP, and Satriawan (2014), Ulupui (2007) and Valintino and Sularto (2013) which found that CR had a positive and significant effect on stock returns.

#### b. Return on Equity (ROE) to Stock Returns

Based on the results of the T-test (partially), it is found out that the ROE variable obtained a p-value of 0.9349, which is greater than the level of $\alpha = 0.05$, indicating that ROE has no significant effect on stock returns. Given such a condition, an increase or decrease in ROE cannot significantly increase or decrease stock returns. It might have occurred due to fluctuating changes in profit. In 2015 and 2016, there was a global decline in profits at mining companies and affected ROE to become smaller. It is believed to be the reason why in this study ROE does not have a positive and significant effect on stock returns. The insignificant effect of ROE variable on stock returns is in line with research conducted by Susilowati and Turyanto (2011) and Purnamasari, Nur DP, and Satriawan (2014), which concluded that ROE had no significant effect on stock returns. Nevertheless, this finding is contrary to the study results conducted by Juwita (2012), Pinatih and Lestari (2014), Hamka (2013), and Valintino and Sularto (2013), which stated that ROE had a positive and significant effect on stock returns.

#### c. Debt to Equity Ratio (DER) to Stock Returns

Based on the T-test results (partially), the DER variable has a p-value of 0.7411 which is greater than the level of $\alpha = 0.05$, indicating that DER has no significant effect on stock returns. It means that an increase or decrease in DER does not significantly increase or decrease stock returns. When viewed from the data, it probably occurred due to the

companies' fairly high DER and their low debt payment ability in this study. However, these findings are not in line with the hypothesis that less DER will have a high effect on stock returns. It is assumed that DER does not have a significant effect on stock returns in this study. The insignificance of DER variable on stock returns is also confirmed in the research conducted by Estuari (2010), Kurniatun, Susanta, and Saryadi (2015), Juwita (2012), Ulupui (2007), Ghozali (2013), Johanes and Arisandi (2013), and Valintino and Sularto (2013), concluding that DER had no significant effect on stock returns. However, it is not in line with the research results conducted by Susilowati and Turyanto (2011), Prasetya, Adiputra, and Atmadja (2014), Purnamasari, Nur DP, and Satriawan (2014), Putri (2012), Simu and Thrisye (2013), and Wulandari (2009), finding out that DER had a significantly negative effect on stock returns.

### d. Earnings Per Share (EPS) to Stock Returns

Based on the T-test results (partially), the EPS variable has a positive value obtained from the t-statistic of 0.484642. In addition, the p-value of 0.6294 is greater than $\alpha = 0.05$, which indicates that EPS has no significantly positive effect on Stock Return. It means that an increase or decrease in EPS does not positively and can significantly decrease or increase stock returns. It might have been due to the global decline in mining companies profits in 2015 and 2016, which led to a decrease in earnings after tax as a variable in the earnings per share calculation. The non-positive and insignificant EPS variable on stock returns is in agreement with research results conducted by Susilowati and Turyanto (2011), Estuari (2010), and Purnamasari, Nur DP, and Satriawan (2014), which concluded that EPS had no significantly positive effect on stock returns. However, these findings are contrary to the research results conducted by Juwita (2012), Pinatih and Lestari (2014), Hamka (2013), Ghozali (2013), Valintino and Sularto (2013), and Wulandari (2009), revealing that EPS had a significant effect on stock returns.

### e. Current ratio (CR), return on equity (ROE), debt to equity ratio (DER), and earnings per share (EPS) to stock returns

Based on the data processing results using Eviews 10.0 software, the F-test (simultaneously) shows that the prob (F-statistic) value of 0.576375 is greater than $\alpha = 0.05$, indicating that CR's variables, i.e., CR ROE, DER, and EPS do not simultaneously have a significant effect on stock returns. It means that any changes in the independent variables, i.e., CR, ROE, DER, and EPS, simultaneously do not affect the stock returns of mining companies listed on the IDX.

## V. Conclusion

Based on the analysis results of the influence of current ratio (CR), return on equity (ROE), debt to equity ratio (DER), and earnings per share (EPS) on stock returns of mining companies listed on the IDX during the 2015-2019 period, it should be concluded that:

1. Current ratio (CR) has no significant effect on stock returns.
2. Return on equity (ROE) has no significant effect on stock returns.
3. Debt to equity ratio (DER) has no significant effect on stock returns.
4. Earnings per share (EPS) has no significant effect on stock returns.
5. CR, ROE, DER, and EPS simultaneously do not affect stock returns.
6. Based on the coefficient of determination test ($R^2$), it should be concluded that CR, ROE, DER, and EPS can explain the stock returns of 1.4969%, while the rest of 98.5031% is explained by other variables outside of this study.

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