Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
www.bircu-journal.com/index.php/birci
Budapest Institute

Effect of Return on Equity and Firm Size on Stock Return in Coal Mining Companies

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Abstract

This study aims to determine effect of return on equity and firm size on stock return in Coal Mining Companies. The type of research use in this research is associative research. The population in this study are Coal Mining Companies listed on the Indonesia Stock Exchange for the period 2013-2020. Companies that meet the criteria to be sampled are 17 samples. The regression model estimation method uses panel data to test the hypothesis using analysis of partial significance test (t test) and simultaneous significance test (F test). The results show that return on equity has positive and insignificant effect on stock return. Firm size has negative and significant effect on stock return. Return on equity and firm size simultaneously have significant effect on stock return.

Keywords
return on equity; firm size; stock return

I. Introduction

Mining companies require very large capital in exploring natural resources in developing mining. For this reason, many mining companies enter the capital market to absorb investment and to strengthen their financial position. The capital market has a big role in the economy of a country because the capital market performs two functions at once, namely the economic function and the financial function. Investment in stocks depends on fluctuations in stock prices on the exchange, volatility in interest rates, market volatility and also the financial performance of the company. For this reason, in investing in shares, investors must analyze the factors that can affect the condition of the company. The main goal of a person investing in a company is to get the maximum return on his investment with minimal risk. The high and low returns received by investors can describe the state of a company whether it is making a profit or experiencing a loss. The higher the return obtained by investors means that the company has succeeded in creating added value for the company itself and for the prosperity of shareholders (Tandelilin, 2010).

Stock return is the result obtained from an investment consisting of dividends and capital gains (loss). Dividends are the distribution of profits to shareholders, while capital gains are the difference between the purchase price and the selling price of a security. Capital gain is an increase in the price of a stock and capital loss is a decrease in the price of a stock.

Increased profits or company profits from year to year will affect the level of stock returns that will be received by shareholders. Therefore, the size of the stock return will affect the interest of investors in investing.

According to Arista (2012), stock return is the selling price of shares above the purchase price. The higher the selling price of the stock is above the purchase price, the higher the return that investors will get. If an investor wants a high return then he must be willing to bear a higher risk, and vice versa if he wants a low return then the risk to be borne is also low.

Return on equity is very important for shareholders and potential investors, because a high return on equity means that shareholders will receive high dividends as well and an increase in return on equity will cause an increase in stock prices. Firm size is a measure of the size of a company. The increase in the value of the company's shares, the higher the company value, the higher it will be (Katharina, 2021). In the current economic development, manufacturing companies are required to be able to compete in the industrial world (Afiezan, 2020). The existence of the company can grow and be sustainable and the company gets a positive image from the wider community (Saleh, 2019). Firm size is a measure of the size of the company as measured by the natural logarithm of total assets (Ln total assets). Total assets are used as an indicator of company size because they are long term compared to sales.

This study aims to determine effect of return on equity and firm size on stock return in Coal Mining Companies.

II. Review of Literature

2.1 Stock Return

Brigham and Houston (2006) stated that what is meant by return or rate of return is the difference between the amount received and the amount invested. Stock return is the income earned during the investment period per a number of funds invested in shares. According to Jogiyanto (2008), factors that affect stock returns are variations in stock returns caused by an assessment of the company's performance. All positive perceptions of the company's performance will bring stock prices to a higher level than before. This is because these stocks provide optimal returns. Conversely, if it turns out to create a negative perception for investors, then the stock price will move in a lower direction than before.

2.2 Return on Equity

Return on equity is the ratio between the profit available to shareholders after tax (less common stock dividends) with the equity that has been invested during the calculation period. According to Habib (2008), return on equity is a ratio used to measure the effectiveness of the company in utilizing the owner's contribution or how effectively the company uses other sources for the benefit of the owner. Although measuring profits, this ratio does not calculate dividends or capital gains. The reason is that this ratio is not a true measure of shareholder returns. The return on capital ratio compares net income with owner's capital, the bigger it means the better. According to Murhadi (2013), return on equity reflects how much return is generated for shareholders for every rupiah of money invested. The higher the return on equity, the better it will be. Return on equity provides an indication of how well a company will use investors' investment money to generate profits. The amount of return on equity is strongly influenced by the amount of profit earned by the company, the higher the profit earned, the more the return on equity will increase. Meanwhile, return on equity is the ratio between profit after tax to total own capital originating from owner's deposit, unshared profit and other reserves owned by the company.

2.3 Firm Size

Firm size is a measure of the size of a company. Based on the firm size, companies are divided into big and small companies. In other words, firm size is the market value of a company. Market value can be obtained from the calculation of the market price of shares multiplied by the number of shares issued. This market value is commonly referred to as market capitalization (Fitriati, 2010). Firm size is a measure of the size of the company as measured by the natural logarithm of total assets (Ln total assets). Suwito and Herawaty (2005) say firm size or firm size is a scale where large and small companies can be classified according to various ways, where company size is only divided into 3 categories, namely large companies, medium companies, and small companies. Total assets are used as an indicator of company size because they are long term compared to sales.

III. Research Methods

The type of research use in this research is associative research. Associative research is research that aims to determine the relationship between two or more variables (Asyraini et al., 2022; Pandiangan et al., 2021; Pandia et al., 2018).

According to Octiva (2018); Pandiangan (2015); Pandiangan et al. (2022), population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The population in this study are Coal Mining Companies listed on the Indonesia Stock Exchange for the period 2013-2020. Companies that meet the criteria to be sampled are 17 samples.

Panel data regression model according to Pandiangan et al. (2018); Octiva et al. (2018); Pandiangan (2022), the regression model estimation method using panel data can be done through three approaches, including: common effect model, fixed effect model, and random effect model. The regression model estimation method uses panel data to test the hypothesis using analysis of partial significance test (t test) and simultaneous significance test (F test). t test is any statistical hypothesis test in which the test statistic follows a student's t-distribution under the null hypothesis. The t-test is most commonly applied when the test statistic will follow a normal distribution if the value of the scaling term in the test statistic is known (Pandiangan, 2018; Octiva et al., 2021). F test is a statistical test in which the test statistic has an F-distribution under the null hypothesis. It is most often used when comparing statistical models that have been fitted to a data set, to identify the model that best fits the population from which the data is sampled (Tobing et al., 2018).

IV. Discussion

Overview Mining is an activity that starts from searching, finding, mining, processing, to marketing minerals (minerals, coal and oil and gas) that have economic value. The mining industry is widely known as an industry that has a high risk as a business related to non-renewable natural resources and as a business whose economy is largely determined by the highly seasonal nature of the market. Indonesia is one of the countries with high mineral and mining potential because it is located in the area of the “ring of fire” geological phenomenon, which is an indicator for the presence of mineral deposits, especially hydrothermal deposits. Indonesia's mineral potential, which is considered very promising, is seen from the length of Indonesia's magmatic arc system, which is twice as long as the stretch of the South American continent as one of the largest mining areas in the world today (15,000 km compared to 6,250 km). With such conditions, Indonesia has become the second largest tin producer in the world, the third largest thermal coal exporter in the world, the third largest copper producer in the world and is in fifth and seventh place for nickel and gold production, respectively.

Indonesia hosts world-class mines, including the Grasberg copper and gold mine in Irian Jaya, the Batu Hijau copper mine in Sumbawa, the Nickel mine in Inco Soroako, the Kaltim Prima Coal in East Kalimantan and the Tin mine from PT Timah in Bangka.

Since the enactment of the Mining Law Number 11 of 1967 and the Foreign Investment Law Number 1 of 1967 over a period of approximately three decades, our mining sector has undergone an impressive transformation until the Mining Law, Law Number 4 of 2009 Regarding Mineral and Coal Mining, a mining business license is a permit granted to carry out a mining business. The Indonesian mining industry has seen a convincing leap of progress. The status of the Indonesian state has changed from an insignificant country to one of the most important mining-producing countries in the world. The products produced from the mining industry are very diverse. The product can be; petroleum, natural gas, coal, tin, nickel, bauxite, iron sand, gold, silver, copper, granite, group C minerals (such as kaolin, manganese, asphalt, iodine, sulfur, phosphate, asbestos, marble, stone) limestone, feldspar, bentonite). Mining companies are one of the industrial sectors listed on the Indonesia Stock Exchange. The development of the mining industry is so rapid at this time and will be even greater in the future. This is due to Indonesia's geological potential which is very rich in mining materials. In early 1938, the mining industry began to emerge and starting in the 80s, the mining industry was listed on the Indonesia Stock Exchange.

4.1 Descriptive Statistical Analysis

Descriptive statistical analysis is used to determine the description of a data seen from the minimum value, maximum value, average value (mean) and standard deviation value. In this study, the variables used in the calculation of descriptive statistics are return on equity, firm size, and stock returns. Based on descriptive statistical analysis, the sample description is obtained as follows:

Table 1. Descriptive Statistical

Variable	Observation	Minimum	Maximum	Rata-Rata	Standar Deviasi
Stock Return	136	-0.960000	1.990000	0.356346	0.526236
Return on Equity	136	0.000705	2.178850	0.261954	0.349577
Firm Size	136	5.530000	9.940000	8.688603	0.774055

Source: Research Results (2021)

Based on the results obtained from Table 1, stock return has a sample size of 136, a minimum value of -0.960000, a maximum value of 1.990000, an average value of 0.356346, and a standard deviation or standard deviation of 0.526236. Based on the results obtained from Table 1, return on equity has a sample size of 136, a minimum value of 0.000705, a maximum value of 2.178850, an average value of 0.261954, and a standard deviation of 0.349577. Based on the results obtained from Table 1, firm size has a sample size of 136, a minimum value of 5.530000, a maximum value of 9.940000, an average value of 8.688603, and a standard deviation of 0.774055.

4.2 Hypothesis Test

In testing the hypothesis, the coefficient of determination analysis will be carried out, simultaneous effect testing (F test), and partial effect testing (t test). The following is the output of eviews panel data regression using the common effect model (CEM).

Table 2. Common Effect Model (CEM) Panel Data Regression

Dependent Variable: LOGRS?
Method: Pooled Least Squares
Date: 04/01/21 Time: 21:34
Sample: 2013 2020
Included observations: 8
Cross-sections included: 17
Total panel (balanced) observations: 136

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.869523	2.926016	2.689501	0.0081
LOGROE?	0.453823	0.473544	0.958354	0.3396
LOGFS?	-6.813059	3.061783	-2.225193	0.0278

R-squared	0.541225	Mean dependent var	-0.698614
Adjusted R-squared	0.527217	S.D. dependent var	0.396914
S.E. of regression	0.272915	Akaike info criterion	0.276761
Sum squared resid	9.757242	Schwarz criterion	0.383844
Log likelihood	-13.81977	Hannan-Quinn criter.	0.320277
F-statistic	38.63577	Durbin-Watson stat	3.538874
Prob(F-statistic)	0.000000		

Source: Research Results (2021)

The results show that return on equity has positive and insignificant effect on stock return. Firm size has negative and significant effect on stock return. Return on equity and firm size simultaneously have significant effect on stock return.

V. Conclusion

The results show that return on equity has positive and insignificant effect on stock return. Firm size has negative and significant effect on stock return. Return on equity and firm size simultaneously have significant effect on stock return.

As a follow-up activity, based on the conclusions above, the suggestions that can be submitted in this research are as follows:

1. For Corporate Finance Managers, they can determine a policy of increasing net profit margins to attract investors to increase welfare and company profits from the results and discussion of this research so that investors can make the right investment decisions.
2. As an investor or potential investor, you must be more careful and master what kind of company you will invest in fundamentally and in terms of macro factors (systematic risk).
3. Non-financial factors are factors that are no less important to be considered before making a decision to invest, especially for investors or potential investors. For companies, to maintain sustainability and sustainability through sustainable growth, it is best if they always pay attention not only to financial factors, but also non-financial factors such as good corporate governance, intellectual capital, and corporate social responsibility.

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