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The Influence of Return On Equity, Net Profit Margin, Debt To Equity Ratio, and Dividend Payout Ratio On Stock Returns In Coal Sub Sector Companies Listed On The IDX 2018-2022

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Abstract: : Happen fluctuations in stock returns in coal sub-sector companies for the 2018-2022 period. This research aims to determine the effect of return on equity, net profit margin, debt to equity ratio, and dividend payout ratio on stock returns in coal sub-sector companies listed on the IDX for the 2018-2022 period. The method used in this research is quantitative. The type of data used is secondary data with a population of 31 coal companies using a purposive sampling method and 19 companies used as samples. The data analysis technique used is panel data regression. The research results show that ROE, NPM, DER, and DPR influence stock returns.

Keyword: Stock Return, Return On Equity, Net Profit Margin, Debt To Equity Ratio, Dividend Payout Ratio.

INTRODUCTION

The increasing global economic growth currently makes competition between companies increasingly high, this situation emphasizes investors to be able to invest in the right companies. Investors invest to get a certain amount of money or profit in the future (Tandelilin, 2010). A company is said to be good to invest in when it has a high share price because when shares increase, investors will get capital gains, whereas if shares experience a decline, investors will experience capital losses. Mistakes in investing result in investors not getting the expected return. The following is a graph of the development of stock returns:



Figure 1. Development of Stock Returns
Source: "Idx data reprocessed, 2024"

Based on the picture above, it shows that in 2019 companies in the coal sub-sector experienced a significant decline from 19.1 to -29.1, while stock returns in 2020, 2021 and 2022 have increased. This is because there is a level of demand or supply from investors that will influence the high and low prices of company shares. If the share price is high then the returns that investors will get will also be high. A high level of return will increase the profits and income that investors will obtain in investment activities. Thus, investors must be more careful in investing in companies that experience quite sharp return fluctuations because investors in investing aim to obtain returns, so investors need to consider collecting various information needed before making investment decisions (Puspitadewi and Henry, 2016).

Shares are one of the most types of securities traded on the IDX. Shares are proof of ownership of the assets of the company that issues shares (Tandelilin, 2010). Meanwhile, “stock return is the difference between the current share price and the previous share price, where the difference in share price can provide profits or losses for shareholders who buy shares in companies listed on the Indonesian Stock Exchange” (Jogiyanto, 2010: 207). Higher offer return value of a company, better company's picture and the more it can draw in financial backers to contribute their capital. The concept of return is that the higher the normal degree of return, the higher the gamble that will be acknowledged and vice versa. Stock returns can be measured using the following formula:

$$R_t = \frac{P_t - P_{(t-1)}}{P_{(t-1)}}$$

ROE is the organization's capacity to produce benefits with its own capital Sutrisno (2017:223). A high ROE value mirrors that an organization has been able to gain profits on the organization capital. The results of company profits are important information for investors to examine when investing in a business (Nyoman et al., 2019). Thus, this will influence investors to make decisions to purchase company shares because, from an investor's point of view, profitability growth is an important indicator for assessing the company's prospects in the future. Appeal for organization shares when the deal is fixed will build the selling cost of company shares. High share prices will certainly increase the returns that investors will receive. The same as the study carried out by (Devi & Artini, 2019). The following is the formula for calculating the return on equity value:

$$\text{Return on equity} = \frac{EAT}{\text{Modal sendiri}} \times$$

NPM is the organization's capacity to create benefits contrasted with the deals accomplished (Sutrisno, 2017). A high NPM signals the company's success, a company that can generate profits will influence investors and potential investors to invest. A high NPM value makes investors interested in investing their funds so that share prices increase and cause the share returns obtained by investors to increase (Mahardika & Artini, 2017). Coming up next is the formula for computing the NPM value:

$$\text{Net profit margin} = \frac{\text{Laba bersih}}{\text{Net sales}}$$

DER is the harmony between the organization's obligation and its capital, the higher the obligation to value proportion shows that its own capital is less compared to debt (Sutrisno, 2017). Some DER investors see the organization's liability towards outsiders, specifically leasers who give advances to the organization. A high DER shows that debt is higher than equity so investor risk as a result of the interest burden borne by the company increases. This condition can cause a decline in share prices and stock returns (Puspitadewi & Rahyuda 2016). Coming up next is the formula for computing the DER value:

$$DER\ ratio = \frac{Total\ hutang}{Modal\ sendiri} \times 100\%$$

DPR is a proportion shows connection between cash dividends per offer and benefit per share. This ratio portrays how much benefit from each offer distributed as dividends Hery (2018:45). The dividend payout ratio mirrors the organization's arrangement regarding the amount of dividends distributed, increasing dividends indicates prosperity in a company. Companies that have a high dividend payout ratio cause the value of share prices to increase because investors have better certainty of distributing dividends on their investments (Kurniati, 2017). This increase causes the number of requests for shares to increase, so that there will be an increase in share prices and this will affect Coming up next is the formula for working out the DPR value:

$$DPR\ ratio = \frac{Total\ dividen}{Laba\ bersih}$$

METHOD

This research utilizes quantitative methods. The population is 31 organizations in the coal sub-area recorded on the BEI for 2018-2022 period. The sample collection technique was done utilizing purposive sampling, 19 companies were selected as samples from 31 coal sub-sector companies listed on BEI. The kind of data in this research is panel data with secondary data sources. This research uses Eviews 10 as a statistical tool for data processing.

RESULTS AND DISCUSSION

Table 1. Chow Test Results

Effects Test	Statistics	df	Prob.
“Cross-section F”	0.163214	(4,16)	0.9539
“Chi-square cross-section”	0.999824	4	0.9098

Source: “Results of data processing with Eviews 10, 2024”

It tends to be found in Table 1 that the Chow test results obtained probability values Chi-square cross-sections big as 0.9098. This result is greater than 0.05 (prob > 0.05), meaning accepted and H_a rejected means the data used has a common effect.

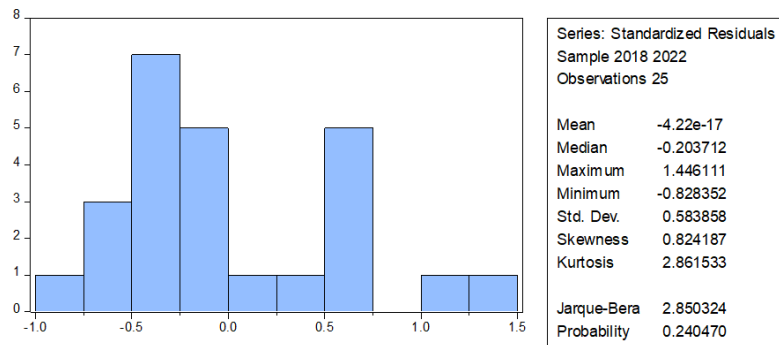
Table 2. Lagrange Test Results

“Null (no rand. effect) Alternatives”	“Cross-sect One-sided ions”	“Period One-sided”	“Both”
“Breusch-Pagan”	2.395374 (0.1217)	0.023586 (0.8779)	2.418960 (0.1199)
“Honda”	-1.547700 (0.9392)	0.153576 (0.4390)	-0.985794 (0.8379)
“King-Wu”	-1.547700 (0.9392)	0.153576 (0.4390)	-0.985794 (0.8379)
“GHM”	--	--	0.023586 (0.6860)

Source: “Results of data processing with Eviews 10, 2024”

It tends to be found in table that the outcome from the Lagrange test, namely 0.1217 is >0.05 (prob > 0.05) then H_0 accepted and H_a rejected means data used is a common effect. CEM is the best model in this study, according to the results of the Chow and Lagrange tests.

Classical Assumption Testing Normality test



Source: “Results of data processing with Eviews 10, 2024”

Figure 2. Normality Test Results

In view of Figure 1 above, shows probability value is $0.240470 > 0.05$ (prob > 0.05) then H_0 accepted and H_a dismissed implies the remaining is typically disseminated.

Multicollinearity Test

Table 3. Multicollinearity Test Results

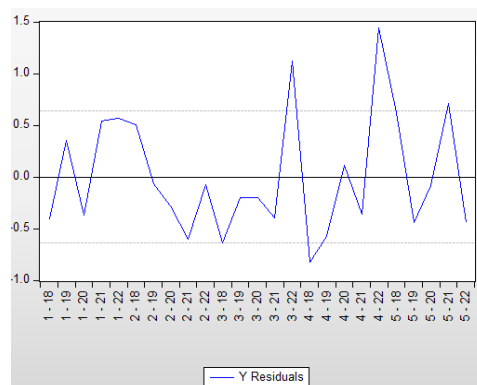
	X1	X2	X3	X4
X1	1,000000	0.674874	-0.699311	0.341671
X2	0.674874	1,000000	-0.649161	0.392089
X3	-0.699311	-0.649161	1,000000	-0.736435
X4	0.341671	0.392089	-0.736435	1,000000

Source: “Results of data processing with Eviews 10, 2024”

“The correlation coefficients X1 and X2 is $0.674874 < 0.85$
 The correlation coefficients X1 and X3 is $-0.699311 < 0.85$
 The correlation coefficient X1 and X4 is $0.341671 < 0.85$
 The correlation coefficient X2 and X3 is $-0.649161 < 0.85$
 The correlation coefficient X2 and X4 is $0.392089 < 0.85$
 The correlation coefficient X3 and X4 is $-0.736435 < 0.85$ ”

So it will in general be assumed that it is freed from multicollinearity or breezes through the multicollinearity assessment.

Heteroscedasticity Test



Source: “Results of data processing with Eviews 10, 2024”

Figure 3. Heteroscedasticity Test Results

From the residual chart (blue) it very well might be seen that it doesn't outperform the limits (500 and - 500), it is something almost identical to mean the residual variance. Thusly, there are no side effects of heteroscedasticity or finishing the heteroscedasticity assessment.

Panel Data Regression Equation Test

$$Y = -0.13081560168 + 0.0879288097214 * X1 + 0.24650231037 * X2 + 0.0275842975907 * X3 + 0.232888075256 * X4$$

As for the explanation:

1. The constant value is -0.13081560168 means that without variable values ROE (X1), NPM (X2), DER (X3), and DPR (X4), variable RS (Y) will experience a decrease of -0.13081560168.
2. The beta coefficient value of ROE variable (X1) is 0.0879288097214, on the off chance that the values of different variables are consistent and variable X1 increments by 1 unit, then, at that point, the variable RS (Y) will increase by 0.0879288097214. also, the other way around, on the off chance that the values of different variables are steady and variable X1 experiences a decrease of 1 unit, variable Y will experience a decrease of 0.0879288097214.
3. The beta coefficient value of NPM variable (X2) is 0.24650231037, in the event that the value of different variables is steady and the variable, variable RS (Y) will insight a decrease of 0.24650231037.
4. The beta coefficient value of DER variable (X3) is 0.0275842975907 on the off chance that the value of different variables is steady and the variable, variable RS (Y) will insight a decrease of 0.0275842975907.
5. The beta coefficient value of DPR variable (X4) is 0.232888075256, in the event that the value of different variables is consistent and the variable, variable RS (Y) will insight a decrease of 0.232888075256.

Autocorrelation Test

Table 4. Autocorrelation Test Results

R-squared	-0.006241	Mean dependent var	0.188308
Adjusted R-squared	-0.039414	SD dependent var	0.757260
SE of regression	0.772039	Akaike info criterion	2.361630
Sum squared resid	54.24006	Schwarz criterion	2.469162
Log likelihood	-108.1774	Hannan-Quinn Criter.	2.405081
Durbin-Watson stat	2.175583		

Source: "Results of data processing with Eviews 10, 2024"

In light of the table above, it shows DW value is 2.175583 means there is no autocorrelation.

Partial Test (T) and Simultaneous Test (F)

Table 5. T Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-0.130816	0.308921	-0.423460	0.6765
X1	0.087929	0.316367	0.277933	0.7839
X2	0.246502	0.678113	0.363512	0.7200
X3	0.027584	0.034902	0.790344	0.4386
X4	0.232888	0.129275	1.801488	0.0867

Source: "Results of data processing with Eviews 10, 2024"

Based on the table above, it shows that:

1. Effect of ROE. The prob value is 0.7839, these results show that $\text{prob} > 0.05$ ($0.7839 > 0.05$) meaning ROE positive effect on stock returns.
2. Influence of NPM. The prob value is 0.7200, these results show that $\text{prob} > 0.05$ ($0.7200 > 0.05$) meaning NPM positive effect on stock returns.
3. Influence of DER. The prob value is 0.4386, these results show that $\text{prob} > 0.05$ ($0.4386 > 0.05$) meaning DER does not affect stock returns.
4. Influence of the DPR. The prob value is 0.0867, these results show that $\text{prob} > 0.05$ ($0.0867 > 0.05$) meaning DPR positive effect on stock returns.

Table 6. F Test Results

“R-squared”	0.183849
“Adjusted R-squared”	0.020619
“SE of regression”	0.639584
“Sum squared resid”	8.181350
“Log likelihood”	-21.51073
“F-statistic”	1.126319
“Prob(F-statistic)”	0.037221

Source: “Results of data processing with Eviews 10, 2024”

In light of table above, shows the prob value is 0.037221. This shows $\text{prob} < 0.05$ ($0.037221 < 0.05$) meaning that there is a concurrent impact between all variables.

CONCLUSION

In view of the exploration results, it very well may be finished up that “ROE has a positive effect on stock returns”, “NPM has a positive effect on stock returns”, then the “DER does not affect stock returns” because some investors DER is seen as the extent of the organization's liability towards outsiders, to be specific banks who give advances to the organization so that the investor's risk as a result of the interest burden borne by the company increases, therefore the company will focus more on its own capital, the DPR has a positive effect on stock returns, ROE, NPM, DER, and DPR simultaneously influence stock returns.

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