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STOCK PRICE VOLATILITY IN VIEW OF PROFITABILITY AND DEBT POLICY

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Abstract

The term stock price volatility is used to characterize changes in stock price. Stock price changes are erratic because they depend on the frequency and volume of trading transaction. This study intends to investigate the relationship between stock price volatility and profitability and debt management in LQ45 index companies listed on the Indonesia Stock Exchange for the 2020-2022 time frame. Basic research employing quantitative data is what this type of research entails. For the years 2020-2022, there are 135 LQ45 Index Companies listed on the Indonesia Stock Exchange. The research used 90 companies as its sample. Purposive sampling was utilized as the sample technique in this investigation. Multiple linear regression analysis is the method employed. The research findings indicate the while debt policy has no impact on stock price volatility, profitability has an impact on it.

Keywords: Profitability, Debt Policy, Stock Price Volatility

INTRODUCTION

Stock investments often have a high level of risk in line with the investment principle of high-risk high return (Fiorenza et al., 2023). Investors who want to invest should first look at the company's financial performance, because with this, investors who want to invest will get information related to the company's share price. Stock buyers buying and selling in the capital market hope that the share price will increase after the shares are traded, but stock sellers hope that the share price will decrease after the shares are sold. So that it has an impact on stock price fluctuations (Artikanaya & Gayatri, 2020).

The share price can be stated as an indicator of the success of a company, where the share price is influenced by demand and supply by investors (Santioso, L., 2019). Volatility is also known as stock price fluctuations. Stock price volatility is a term to describe the increase or decrease in stock prices over time. When stock prices vary (up/down) from the average index, this is referred to as stock price volatility (Santioso, L., 2019).

The Composite Stock Price Index (CSPI) on a year to date (YTD) basis has decreased by 20.56% since the beginning of 2020. However, the LQ45 Index shows high liquidity and good business prospects even corrected by 24.67% (CNBC Indonesia, 2020).

According to (Daelami Muawwan, 2022) the Indonesian stock market experienced pressure in 2022 due to inflation, the Fed's proposed interest rate hike, and the war between Russia

and Ukraine which resulted in the JCI or Composite Stock Price Index falling to 8.73% from 7,228.9 to 6,57.9.

The movement of the LQ45 Index share price shows high fluctuations so that it changes every time due to certain factors that influence it. In March 2020 there was a drastic decline in the LQ45 Index. The existence of the co-19 pandemic caused the company's performance results to decline. So that the stock market price also decreases because the demand for shares is less than the supply of shares.

In addition to the above phenomenon, researchers also found inconsistencies in previous research. The inconsistencies in the results of previous studies are related to the independent variables and the dependent variables examined, namely stock price volatility, earnings per share, and debt to equity ratio.

(Wanda et al., 2022) suggest that EPS has an effect on stock price volatility while based on (Rahmawantari, 2021) states that earning per share has no effect on stock price volatility. Meanwhile, according to research conducted by (Artikanaya & Gayatri, 2020), suggest that the debt to equity ratio affects stock price volatility. While based on (Septyadi & Bwarleling, 2020), suggest that the debt to equity ratio has no effect on stock price volatility.

Researchers chose the LQ45 Index as the object of research because in the Indonesian capital market, stocks included in the LQ45 Index are widely preferred by investors, besides that LQ45 has a large market capitalization, high liquidity, and is the most actively traded in the stock market and is used as a reference for stock price fluctuations (JCI) on the IDX (Septyadi & Bwarleling, 2020). However, in 2020 there was a co-19 pandemic, inflation, and an increase in interest rates which affected the decline in stock prices which resulted in the volatility of stock prices in the LQ45 Index decreasing.

Based on the phenomenon and previous research that shows different results, this study intends to re-examine the effect of stock price volatility on profitability and debt policy. The purpose of this study is to provide empirical evidence that profitability and debt policy are important factors in determining stock price volatility. Therefore, this research can contribute to the needs of investors in determining their funds to invest in a company.

METHODS

This research utilizes basic research. The data analysis technique uses quantitative data with a population of LQ45 Index companies listed on the IDX for the 2020-2022 period. The data used is secondary data obtained from annual reports. The sample was determined by purposive sampling. Based on the research, a sample of 90 observations was obtained.

The data analysis method in this study uses multiple linear regression methods. The following is the multiple linear regression equation used in this study:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + e$$

Description:

Y = Stock Price Volatility

a = Constant

β_1 - β_2 = Regression coefficient of each independent variable

X1 = Profitability

X2 = Debt policy

e = Standard error

RESULTS AND DISCUSSION

The results of the descriptive statistics explain the characteristics of each variable with a sample (n) of 90 companies in the 2020-2022 research period. In the dependent variable, namely stock price volatility. The lowest value (minimum) of -2.17094 was obtained by PT Gudang Garam Tbk in 2021 and the highest value (maximum) of 1.91247 was obtained by PT Erajaya Swasembada Tbk 2020, as well as the average value (mean) of -0.0694325 with a standard deviation (std. deviation) of 0.91728826. The average value is smaller than the standard deviation value, which can be stated that stock price volatility has different or varied data.

For the independent variable, the profitability value proxied using EPS, the lowest (minimum) value of -1.18116 was obtained by PT Wijaya Karya (Persero) Tbk in 2022 and the highest (maximum) value of 2.92837 was obtained by PT Gudang Garam Tbk in 2021, as well as an average (mean) of 0.0726790 with a standard deviation (std. deviation) of 0.80815044. The average value is smaller than the standard deviation value, which can be stated that the profitability data proxied by EPS is different or varied.

For the next independent variable, debt policy proxied using DER, the lowest (minimum) value of -1.36309 was obtained by PT Bukalapak.com Tbk in 2022 and the highest (maximum) value of 1.71245 was obtained by PT Bank Tabungan Negara (Persero) Tbk. 2021, as well as an average (mean) of - 0.0591961 with a standard deviation (std. deviation) of 0.81930052. The average value is smaller than the standard deviation value so that it can be stated that the profitability data proxied by EPS is different or varied.

The classic assumption test is to determine whether the data is normally distributed or not. Normality testing can be seen as normal or not using the criteria, if the significant value is > 0.05 then it is normally distributed, but if the value is < 0.05 then it is not normally distributed. The classic assumption test consists of normality test, multicollinearity test, heteroscedasticity test and autocorrelation test.

The normality test determines whether the residual or confounding variables in the regression model are normally distributed (Ghozali, 2018: 161). According to (Mahadianto & Setiawan, 2013: 16) in order to determine the normality of the data, the Kolmogorov Smirnov (K-S) non-parametric statistical test is needed. Researchers use non-parametric statistical tests to determine the normality of the data and determine whether the data is normally distributed or not. The normality test results show that the Test Statistic value is the Kolmogorov-Smirnov Z (K-S) value which is 0.067 with an Asymp. Sig. (2-tailed) or a significance value of 0.200. These results indicate that the research data is normally distributed because the significance value is > 0.05 .

Multicollinearity test is the ability of the regression model to identify correlations between independent variables. The multicollinearity test aims to determine whether the relationship between the independent variables is too strong or not. In this study, the tolerance value of variable X1 (EPS) is 0.999 and X2 (DER) is 0.999. This explains that there are no independent variables that have a tolerance value > 0.10 , which means that there is no strong correlation between the independent variables or there is no multicollinearity. Likewise, the VIF value of variable X1 (EPS) is 1.001 and X2 (DER) is 1.001 which means that there are no variables with a VIF value < 10 or there is no multicollinearity.

The purpose of the heteroscedasticity test is to examine whether there is an inequality of variance in the regression model from one observation to another residual observation (Ghozali, 2021: 178). The results of the heteroscedasticity test were carried out with the Glejser test. It was found that the significant value of variable X1 (EPS) was 0.202 and the significant value of variable X2 (DER) was 0.303. So it can be concluded that the regression model used in the study does not occur symptoms of heteroscedasticity.

The autocorrelation test aims to determine whether the linear regression model shows a relationship between confounding errors in period t and confounding errors in period t-1. In this study, the autocorrelation test was carried out using the Durbin Watson test. Obtained a Durbin-Watson value of 2.103. In order to determine whether or not there is autocorrelation, it can be done by comparing the Durbin-Watson table value with the sig level. 0,05. It is known that the total sample in this study amounted to 90 with a total of 2 independent variables. According to the durbin Watson table, the dL value is 1.6119 and the dU value is 1.7026 because the DW value is 2.103 > the upper limit value (dU) is 1.7026 and < 4 - dU, which is 2.2974, so it can be described as follows:

$$1.7026 < 2.103 < 2.2974$$

This shows that there is no positive or negative autocorrelation in the regression model used in this study.

Table 1. Multiple Regression Analysis Results

Variabel	Coefficients	Uji t	p- value
(Constant)	-0.118	-1.333	0.186
Zscore(SQRT_EPS)	-0.473	-4.317	0.000*
Zscore(SQRT_DER)	-0.175	-1.627	0.107
Model Summary			
Adjusted R-Square		0.182	
Standard error of the estimate		0.83418957	

Notes: *Significant at 5 percent level

Source: SPSS Output Results (2023)

Based on the results in table 1, the multiple linear regression equation is:

$$\text{Volatilitas Harga Saham} = -0,118 - 0,473 \text{ EPS} - 0,175 \text{ DER} + e$$

Profitability proxied by Earning Per Share shows coefficients worth -0.473 with a significance value of 0.000 or <0.050. These results explain that EPS affects stock price volatility. Meanwhile, debt policy proxied by Debt to Equity Ratio shows a coefficient of -0.175 with a significance value of 0.107 or > 0.050. These results explain that DER has no effect on stock price volatility.

Table 4 shows that the Adjusted R Square number is 0.182, which explains the influence of profitability variables and debt policy on stock price volatility is 18.2%. While the remaining 81.8% is influenced by other variables not examined in this study.

Effect of Profitability on Stock Price Volatility

The concept of signaling theory explains that information presented by management can reduce information asymmetry. The information signal will later influence investors when

making investment decisions. Information obtained by investors is in the form of positive or negative signals. Profitability is proxied by using Earning Per Share (EPS).

The findings of the hypothesis test in table 4, explain that profitability has a significance value of $0.000 < 0.05$, meaning that the profitability variable has an effect on stock price volatility in LQ45 index companies listed on the IDX for the 2020-2022 period.

Based on the data studied, the EPS value of the majority of LQ45 Index companies has increased from 2020-2022. The higher the EPS value, the greater the benefits given to investors at the time of dividend distribution so that it will increase investor confidence, therefore investors tend to be interested in holding these shares. With an increasing EPS value, the company's share price will be more stable and the increase in share price will not fluctuate. Therefore, a high EPS value will affect the decline in stock price volatility.

From the data of this study, companies in the 2020-2022 LQ45 index found 20 companies (50%) that have the same conditions as the hypothesis. One of them, BBRI, has an EPS ratio that continues to increase in 2020-2022, causing its stock price volatility to decrease.

The findings of this study are in line with research conducted by (Shahid et al., 2020), (Provaty & Siddique, 2021), and (Wanda et al., 2022) which suggest that earning per share affects stock price volatility. However, this research is inconsistent with research conducted by (Rahmawantari, 2021) which suggests that earnings per share has no effect on stock price volatility.

The Effect of Debt Policy on Stock Price Volatility

The results of hypothesis testing in table 4 explain that profitability has a significance value of $0.107 > 0.05$, which means that the debt policy variable has no effect on stock price volatility in LQ45 index companies listed on the IDX for the 2020-2022 period, as a result, the high and low DER of a company cannot guarantee the increase or decrease in stock price volatility.

Based on the data studied, the DER value of the majority of LQ45 Index companies has increased from 2020-2022. The higher the DER value, the higher the level of risk faced. The high risk faced by investors will have an impact on the negative assessment of investors, so investors will choose to leave companies with a high level of risk. The more investors stay away from the stock, the lower the stock price will be, which leads to a decrease in stock price volatility.

From the data of this study, companies in the 2020-2022 LQ45 Index found a mismatch between the data and the sample with the hypotheses proposed. There are 18 companies (45%) that have different conditions from the hypothesis. One of them, BBNI, has a debt ratio with a 3-year average of 6.53, meaning that the company has high debt. While stock price volatility is only 0.02 (lower than the average of all stock price volatility over 3 years).

This is the same as research conducted by (Septyadi & Bwarleling, 2020) suggesting that the debt to equity ratio has no effect on stock price volatility. However, this study has inconsistencies in the results of previous research, because research conducted by Artikanaya & Gayatri (2020) suggests that the debt to equity ratio affects stock price volatility.

CONCLUSION

The study found that profitability proxied using Earning Per Share has an effect on stock price volatility. This finding shows that the higher the Earning Per Share, the lower the level of stock price volatility. This means that the company can provide high profits from each share owned by investors, causing investors to hold share ownership or increase share ownership in the company. On the other hand, researchers found that debt policy proxied by Debt to Equity Ratio has no effect on stock price volatility. This is found because the high Debt to Equity Ratio value causes the level of stock price volatility to increase. This is because the company is unable to cover its debts using its equity so that investors prefer to sell share ownership in the company.

This research is intended to contribute to future researchers, with the same or other research objects. Future research is also intended to extend the observation period and analyze other variables that can affect stock price volatility.

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