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The Effect of Dividend Payout Ratio, Leverage and Assets Growth on Stock Price Volatility (Empirical Study on LQ45 Company on the Indonesia Stock Exchange 2016-2019)

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ABSTRACT : The stock price on the LQ45 index is influenced by a variety of factors that will fluctuate and can change at any time. The statistical measure of the fluctuation in stock prices during a certain period is called the volatility of the stock price. With the volatility, investors have the potential to gain in stock transactions. However, high volatility can also increase the risk for investors. Stock price volatility is caused by new information that can change investors' opinions and decisions. Information that can affect stock price volatility can be in the form of dividend payout ratio, leverage and asset growth. The purpose of this study is to obtain empirical evidence regarding the effect of the dividend payout ratio, leverage, and asset growth on share price volatility. This research was conducted on companies that are included in the LQ45 index on the Indonesia Stock Exchange during the 2016-2019 period. The sample was determined by using purposive sampling technique. The samples obtained were 19 companies. The data collection method uses the documentation method. This study uses data analysis techniques with multiple linear regression analysis. The results of data analysis in this study indicate that the dividend payout ratio and asset growth have a negative effect on stock price volatility, while leverage has a positive effect on stock price volatility.

Keywords: dividend payout ratio, leverage, asset growth, share price volatility, and LQ45

I. INTRODUCTION

The capital market is a meeting medium for people who have excess funds and people who need funds. Apart from being a source of funding for companies that need funds, the capital market also plays a role in strengthening the economic resilience of a country. There are various types of instruments traded on the capital market, namely, stocks, bonds, mutual funds and derivatives. However, what is most widely offered and dominates the stock market is stocks.

Volatility is a statistical measurement of stock price fluctuations during a certain period (Firmansyah, 2006). This measure shows the decline and increase in price in a short period and does not measure the level of price, but the degree of variation from one period to the next. In general, volatility is a measure in determining the risk of a stock. The higher the stock price volatility, the more likely the stock price will rise or fall quickly, so that the uncertainty of return that will be received will also be higher and vice versa. High volatility is usually in demand by short-term traders who want returns in the form of high capital gains. Conversely, low volatility is usually in demand by long-term traders who want returns in the form of dividends with a stable return value (Priana and Muliartha, 2017).

According to Schwert (1989), the high and low volatility of stock prices on a stock exchange, both joint stock prices and individual stock prices, such as the IHSG and LQ45, can be influenced by macro and micro factors. Macro factors (external environment) are factors that affect the economy as a whole, including interest rates, rupiah exchange rates, inflation, national productivity levels, politics, and other factors that have an important impact on companies. Micro factors (internal environment) are factors that have a direct impact on the company itself, such as changes in management, prices and availability of raw materials, labor productivity, financial reports and other factors that can affect the financial performance of individual companies including funding. Based on various existing internal factors, there are several components in the company's financial statements that can affect the volatility of stock prices, some of which are dividend payout ratio, leverage and asset growth which are used as independent variables in this study.

Dividend payout ratio is a certain percentage of the company's profit that is paid as cash dividends to shareholders (Tjiptono and Fakhruddin, 2001). Dividend is one of the returns expected by investors. Therefore, an increase or decrease in dividends paid to investors is considered a signal for investors that causes a reaction

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to the stock price. Research on the effect of the dividend payout ratio on the volatility of stock prices found inconsistent results. Previous research on the effect of the dividend payout ratio on stock price volatility includes research by Ali and Waheed (2017), Shah and Noreen (2016), Ahmad et. al (2018), Hussainey et al (2011) and Hashemijoo et al (2012) show that the dividend payout ratio has a negative effect on stock price volatility. Whereas in the research of Priana and Muliartha (2017) and Mehmood et. al (2019) shows that the dividend payout ratio has a positive effect on stock price volatility. However, it is different in the research of Nasir, et al. (2018), Pertiwi and Wiagustini (2020) and Rowena and Hendra (2017) which show that there is no relationship between the dividend payout ratio and the volatility of stock prices.

Leverage ratio is a measure of how much a company is financed by debt (Sartono (2000) in Fahmi (2014)). Liability or debt is one of the main components contained in the company's financial statements, especially the statement of financial position. Information about liabilities can be seen from the leverage ratio. In this study, leverage is proxied by DER (Debt to Equity Ratio). DER reflects how much the company's ability to pay off its debt with its own capital. The high and low of the DER can provide a signal to investors. Research on the effect of leverage on stock price volatility has also found inconsistent results. Research by Priana and Muliartha (2017), Mehmood et al (2019), Nazir et al (2010) and Mustika (2018) show that leverage has a negative effect on stock price volatility. Meanwhile, in Jannah and Haridhi's (2016) research, Artikanaya and Gayatri (2019) found that leverage has a positive effect on stock price volatility. The same thing is also shown by Sova's research (2013) where leverage is proxied by the debt to equity ratio which shows a positive effect on stock price volatility. However, it is different from the research of Dominika and Yanti (2019), Ardiansyah and Isbanah (2017), Pertiwi and Wiagustini (2020) and Utami and Purwohandoko (2020) who found that leverage has no effect on stock price volatility.

According to Kieso et al (2017: 193) assets are economic benefits that may be obtained in the future, or controlled by certain entities as a result of past transactions or events. In this case, asset growth is an indicator of how much the company uses the funds (Anastasia and Firnanti, 2014). Asset growth will provide a signal to investors about the company's performance so that it will have an impact on stock price reactions. Research on the effect of asset growth on stock price volatility also found inconsistent results. Asghar et al. (2011), Anastasia and Firnanti (2014) and Artikanaya and Gayatri (2019) in their research found that asset growth has a negative effect on stock price volatility. Meanwhile, research by Mehmood et. al (2019) and Shah and Noreen (2016) found that asset growth has a positive effect on stock price volatility. However, it is different from the research of Fajrihan (2010), Rowena and Hendra (2017), and Ardiansyah and Isbanah (2017) who found that growth in assets has no effect on stock price volatility.



Source: investing.com, 2020

The stock price on the LQ45 index is influenced by a variety of factors that will fluctuate and can change at any time. In the picture it can be seen that the LQ45 index fluctuates every month, even the LQ45 stock price always changes every hour. The data in the figure represents the increases and decreases in varying stock prices.

The theory that can explain the relationship between variables in this study is signaling theory. Signal theory basically discusses the ups and downs of prices in the market, so that it will have an influence on investors' decisions (Fahmi, 338: 2014). Signal theory emphasizes that company information can be responded to differently by investors, where the level of investor confidence in the company can lead to stock price volatility. Information or signals sent by the company to investors can be in the form of dividend payout ratio, leverage, and asset growth, which are the variables that will be examined in this study.

In this study, the authors chose the LQ45 index company listed in the Indonesia Stock Exchange as the object of research. The reason is because the shares are active and superior stocks (high frequency, volume, and capitalization) so that they can continuously experience changes. Every six months LQ45 shares will be monitored by the advisory committee at the IDX and only stocks that meet the criteria can survive in the LQ45

index. The criteria that underlie the selection of shares that are included in LQ45 are during the last 12 months, their average stock transaction and average market capitalization value are in the order of 60 largest on the regular market, and have been listed on the IDX for at least 3 months.

II. CONCEPTUAL MODEL AND HYPOTHESIS

The main theory that explains the relationship between the dividend payout ratio and the volatility of stock prices is signal theory. An increase in dividends paid is considered a favorable signal, giving rise to a positive share price reaction. Conversely, a decrease in dividends paid is considered a signal that the company's prospects are less favorable, causing a negative stock price reaction. Dividend payments can be the basis for predicting company growth and investment opportunities for investors, so that companies with high cash dividends will have lower volatility in stock prices.

Previous research that supports the main theory statement, namely Ali and Waheed's research (2017), which in their research states that the dividend payout ratio has a very negative effect on stock price volatility. Then research by Dewi (2019), Jannah and Haridhi (2016), Khurniiaji and Raharja (2013), Shah and Noreen (2016), Ahmad et al (2018), Hussainey et al (2011) and Hashemijoo et al (2012) also stated that the dividend payout ratio has a negative effect on stock price volatility. Thus, the higher the dividend payout ratio, the lower the stock price volatility will be.

H₁: The dividend payout ratio has a negative effect on stock price volatility

Analyzing financial statements with financial ratios is information that can be used as a signal to assess the prospects of a company. This can be reflected in the company's assets or liabilities. information about liabilities can be seen from the company's leverage. Leverage is a signal that can affect the volatility of stock prices. In this study, leverage is calculated using the debt to equity ratio (DER) which is calculated based on the information contained in the financial statements. DER reflects how much the company's ability to pay off its debt with its own capital. The main theory explaining the relationship between leverage and stock price volatility is signal theory. A high DER is considered an unfavorable signal because it shows that the company is very dependent on capital from outside the company to develop and finance its activities, so it has a high risk and the company's stock price tends to fluctuate.

Previous research that supports the main theory statement, namely research conducted by Jannah and Haridhi (2016) found that there is a positive relationship between leverage and stock price volatility. Similar research results were also found by Ali and Waheed (2017), Sova (2013, and Artikanaya and Gayatri (2019). The more leverage a company increases, the higher the volatility of the company's stock price.

H₂: Leverage has a positive effect on stock price volatility

The main theory that explains the relationship between asset growth and stock price volatility is signal theory. Where the large asset growth will give a signal to investors that the company's performance is in good condition, causing a positive stock price reaction. Meanwhile, a small asset growth will give a signal to investors that the company is still in the growth stage so that it has high risk and has the potential to have a volatile share price. Companies that are still in the growth stage tend to hold their profits for the company's operational activities in an effort to increase the company so that the company distributes dividends in little or no amount.

Previous research that supports the main theory statement is the research of Asghar et al. (2011) found that asset growth has a negative effect on stock price volatility. Furthermore, research by Anastassia and Firnanti (2014) also found that asset growth has a negative effect on stock price volatility. Research by Artikanaya and Gayatri (2019) also found the same results where the higher the growth of assets, the lower the volatility of stock prices.

H₃: Asset growth has a negative effect on stock price volatility

Figure 2 Conceptual Framework



III. RESEARCH METHODS

This research is classified as associative research, that is, a research problem formulation that asks about the relationship between two or more variables (Sugiyono, 2017). This research was conducted on companies that are included in the LQ45 Index on the Indonesia Stock Exchange for the period 2016-2019. The data is accessed via www.idx.co.id. In this study, the population used is all companies that are included in the LQ45 on the Indonesia Stock Exchange (IDX) 2016-2019. The sample of this study took companies listed in the LQ45 index on the Indonesia Stock Exchange for the period 2016-2019. The sampling technique in this study was to use purposive sampling technique. The data collection method used in this research is the documentation method. The data analysis technique used in this study is multiple linear regression.

The method used to measure the volatility of stock prices is the Baskin method (1989) with the formula:

$$PV = \sqrt[2]{\frac{\sum_{i=1}^{n} \{(H_i - L_i)/(\frac{H_i + L_i}{2})\}^2}{n}}....(1)$$

Information:

PV = Stock Price VolatilityHi = Highest Stock Price for year i Li = Lowest Stock Price for year i n = Number of data sample years

The formula used to calculate the dividend payout ratio is:

DPR =	Dividend per Share	(2)
	Earning per Share	(2)
Lever	age is calculated by the following formula:	
DER	= <u>Total Debt</u>	(3)
_	Total Equity	(-)
Asset	growth in this study can be measured using the following formula:	
AC -	$Total aset_t - Total aset_{(t-1)}$	(A)
л и –	Total $aset_{(t-1)}$	(4)

IV. RESULTS AND DISCUSSION

This research obtaining a sample of 19 companies for four years with a total of 76 observational data. The sample collection method used in this study was carried out by purposive sampling technique, namely the technique of determining the sample which is determined based on certain criteria that have been found. The sample selection criteria are presented in Table 1 below.

	Information	Number of Companies	Total
1.	Companies that are included in the LQ45 index.	45	180
2.	Companies that are not consistently included in the LQ45 index for the 2016-2019 period.	-14	-56
3.	Companies that do not publish financial reports and complete variable data required during the study period.	0	0
4.	Companies that during the research period carried out a stock split.	-6	-24
5.	Companies that during the study period did not regularly pay dividends.	-3	-12
6.	Companies that do not publish financial statements in rupiah currency.	-3	-12
The 1 durin	number of observations that meet the criteria g the 2016 - 2019 period	19	76

Table 1 Process and Results of Sample Selection Based on Criteria

Source: Secondary data processed, 2020

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Variable	Unstandardized	t	Sig.				
	Coefficients (Beta)						
Constant	0,187	5,840	0,000				
Dividend Payout Ratio (DPR)	-0,001	-2,215	0,030				
Leverage (DER)	0,006	2,410	0,019				
Asset Growth (AG)	-0,090	-2,709	0,008				

Table 2 Multiple Linear Regression Test Results

Source: Secondary data processed, 2020

Based on Table 2, the regression equation used in this study can be written as follows. **PV= 0,187- 0,001***DPR*+ **0,006***DER* + **0,090AG**

Information:

PV: Stock Price VolatilityDPR: Dividend Payout RatioDER: LeverageAG: Asset Growth

The Effect of Dividend Payout Ratio on the Stock Price Volatility

The dividend payout ratio variable has a significance value of 0.030 which is smaller than the significance level of 0.05 (0.030 < 0.05). The dividend payout ratio coefficientis negative at -0.001 which indicates that the dividend payout ratio has a negative effect on the volatility of stock prices. The test results indicate that the dividend payout ratio has a negative effect on stock price volatility, so H₁ is accepted.

This study can prove the signal theory which states that an increase in paid dividends is considered a favorable signal, causing a positive stock price reaction. Conversely, a decrease in dividends paid is considered a signal that the company's prospects are less favorable, causing a negative stock price reaction. Dividend payments can be the basis for predicting company growth and investment opportunities for investors, so that companies with high cash dividends will have lower volatility in stock prices. The results of this study are consistent with the results of research conducted by Ali and Waheed (2017), Dewi (2019), Jannah and Haridhi (2016), Khurniiaji and Raharja (2013), Shah and Noreen (2016), Ahmad et al (2018), Hussainey et al (2011) and Hashemijoo et al (2012). However, the results of this study contradict the results of research by Priana and Muliartha (2017), Nasir et al (2018), and Rowena and Hendra (2017).

The Effect of Leverage on Stock Price Volatility

The leverage variable has a significance value of 0.019 which is smaller than the significance level of 0.05 (0.019 < 0.05). The value of the leverage coefficient is positive at 0.006 which shows that leverage has a positive effect on the volatility of stock prices. The test results indicate that leverage has a positive effect on stock price volatility, so it can be concluded that H_2 is accepted.

Leverage, which is proxied by DER, reflects how much the company's ability to pay off its debt with its own capital. This research can prove the signal theory which states that a high DER is considered an unfavorable signal because it shows that the company is very dependent on capital from outside the company to develop and finance its activities, so it has a high risk and the company's stock price tends to fluctuate. The results of this study are in line with the results of research conducted by Jannah and Haridhi (2016), Ali and Waheed (2017), Sova (2013), and Artikanaya and Gayatri (2019). However, this results contradict the research by Priana and Muliartha (2017), Mustika (2018), Dominika and Yanti (2019), Ardiansyah and Isbanah (2017) and Utami and Purwohandoko (2020).

The Effect of Asset Growth on Stock Price Volatility

The asset growth variable has a significance value of 0.008 which is smaller than the significance level of 0.05 (0.008 < 0.05). The coefficient value of asset growth is negative at -0.090, which indicates that asset growth has a negative effect on stock price volatility. The test results indicate that asset growth has a negative effect on stock price volatility, so it can be concluded that H₃ is accepted.

This research can prove the signal theory which states that large asset growth will give a signal to investors that the company's performance is in good condition, causing a positive stock price reaction. Meanwhile, a small asset growth will give a signal to investors that the company is still in the growth stage so that it has high risk and has the potential to have a volatile stock price. Companies that are still in the growth stage tend to hold their profits for the company's operational activities in an effort to increase the company so that the company distributes dividends in little or no amount. The results of this study are consistent with the results of research conducted by Asghar et al (2011), Anastassia and Firnanti (2014) and Artikanaya and Gayatri

(2019). However, this result contradicts the research by Fajrihan (2010), Rowena and Hendra (2017), and Ardiansyah and Isbanah (2017).

V. CONCLUSION

The results of the analysis carried out on the effect of the dividend payout ratio, leverage, and asset growth on the volatility of stock prices provide several conclusions, the dividend payout ratio has a negative effect on the volatility of LQ45 company stock prices on the Indonesian stock exchange in 2016-2019. Leverage has a positive effect on the volatility of LQ45 company stock prices on the Indonesian stock exchange in 2016-2019. Asset growth has a negative effect on the volatility of LQ45 company stock prices on the Indonesian stock exchange in 2016-2019. Asset growth has a negative effect on the volatility of LQ45 company stock prices on the Indonesian stock exchange in 2016-2019.

Investors in investing in the capital market are expected to pay attention to the level of the dividend payout ratio, leverage, and asset growth of the company that will be invested to minimize errors in investing in the capital market. Meanwhile, the company should pay attention to the optimal achievement of stock investment for the company through the dividend payout ratio, leverage, and company asset growth that are able to increase share prices. Because this study uses the LQ45 index as the research sample, further researchers can use IDX 30, Kompas 100, Bisnis-27, Pefindo-25, Sri-Kehati, Jakarta Islamic Index (JII) and other indexes.

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