Vol. 9 No. 2, Desember 2024 (231-242) e-ISSN 2527-8215

PROFITABILITAS, VOLUME PERDAGANGAN, DAN LEVERAGE TERHADAP VOLATILITAS HARGA SAHAM DENGAN KEBIJAKAN DIVIDEN SEBAGAI VARIABEL MODERASI PADA PERUSAHAAN TERINDEKS LQ45

Nicholas Renaldo[1*], Jessylane Panggabean[2], Suhardjo Suhardjo[3], Achmad Tavip Juanedi[4], Eric Horsiando[5], Listya Sugiyarti[6], Sutandijo Sutandijo[7]
[1,2,3,4,5]Institut Bisnis dan Teknologi Pelita Indonesia
[6,7]Universitas Pamulang
E-mail: nicholasrenaldo@lecturer.pelitaindonesia.ac.id

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh profitabilitas, volume perdagangan, dan leverage terhadap volatilitas harga saham dengan kebijakan dividen sebagai variabel moderasi. Populasi dalam penelitian ini adalah seluruh perusahaan yang terindeks dalam indeks LQ45 periode 2017-2021 sebanyak 45 perusahaan. Teknik pengambilan sampel digunakan dengan metode Purposive sampling. Jumlah sampel penelitian ini adalah 40 perusahaan yang memenuhi kriteria sampel. Teknik pengumpulan data menggunakan laporan keuangan tahunan perusahaan terindeks LQ45 periode 2017-2021, Sedangkan uji asumsi klasik (uji normalitas, uji heteroskedastisitas, uji multikolnieritas, uji autokorelasi), uji model (uji F, uji t, koefisien determinasi). Hasil penelitian ini menunjukkan bahwa profitabilitas berpengaruh negatif terhadap volatilitas harga saham, leverage berpengaruh negatif terhadap volatilitas harga saham, Kebijakan dividen berpengaruh negatif terhadap volatilitas harga saham, Profitabilitas berpengaruh positif dapat diperkuat oleh kebijakan dividen yang berpengaruh positif terhadap volatilitas harga saham, leverage berpengaruh positif dapat diperkuat oleh kebijakan dividen yang berpengaruh positif terhadap volatilitas harga saham.

Kata kunci: *Profitabilitas; Volume Perdagangan;* Leverage*; Kebijakan Dividen; Volatilitas Harga Saham.*

PROFITABILITY, TRADE VOLUME, AND LEVERAGE ON STOCK PRICE VOLATILITY WITH DIVIDEND POLICY AS A MODERATION VARIABLE IN LQ45 INDEXED COMPANIES

ABSTRACT

The purpose of this study was to determine the effect of profitability, trading volume, and leverage on stock price volatility with dividend policy as a moderating variable. The population in this study are all companies indexed in the LQ45 index for the 2017-2021 period, totaling 45 companies. The sampling technique used was purposive sampling method. The number of samples in this study were 40 companies that met the sample criteria. The data collection technique uses the annual financial reports of companies indexed LQ45 for the 2017-2021 period, while the classical assumption test (normality test, heteroscedasticity test, multicollinearity test, autocorrelation test), model test (F test, t test, coefficient of determination). The results of this study indicate that profitability has a negative effect on stock price volatility, leverage has a negative effect on stock price volatility, dividend policy has a negative effect on stock price volatility, profitability has a positive effect can be strengthened by dividend policy which has a positive effect on stock price volatility, leverage can have a positive effect reinforced by dividend policy which has a positive effect on stock price volatility.

Keywords: Profitability; Trade Volume; Leverage; Dividend Policy; Stock Price Volatility

e-ISSN 2527-8215

INTRODUCTION

Research Background

Economic growth is a continuous process of changes in the economic conditions of a country towards a better state over a certain period. An economy is said to experience growth when the level of economic activity is higher than that achieved in the previous period. Economic growth means the development of activities within the economy, which leads to an increase in goods and services produced in society and an improvement in societal prosperity.

The economic development in Indonesia continues to grow, influenced by various factors. A key indicator to assess the economic condition of a country over a certain period is the Gross Domestic Product (GDP) data. The value of GDP provides an overview of how well a country manages and utilizes its available resources.

Indonesia's economy has shown good growth. Based on data from the Central Bureau of Statistics (BPS), Indonesia's GDP in 2017 was 137.09 and increased to 142.33 in 2018, ending at 152.63 in 2021. One of the factors contributing to this economic growth is the capital market. The capital market serves as an alternative funding source, allowing companies to finance their operations, as evidenced by the number of companies listed on the Indonesia Stock Exchange (IDX) trading their shares to investors. The ever-changing capital market has a significant impact on investor decisions regarding investment. Investors become more selective when deciding whether to buy or sell shares, which leads to stock price volatility. Stock prices act as indicators for investors to assess the future performance of a company. If a company’s stock price increases, investors perceive that the company has successfully managed its governance. Stock price fluctuations are influenced by the supply and demand dynamics between sellers and buyers. When demand is high, stock prices rise, and vice versa. This fluctuation is known as stock price volatility.

LQ45 consists of 45 companies that meet IDX criteria as companies with the highest stock liquidity. The movement of the LQ45 index affects the movement of the Composite Stock Price Index (IHSG). This is because of the large market capitalization owned by LQ45 companies, meaning that any increase or decrease in the LQ45 index will impact the IHSG. There is a known relationship between the changes in the LQ45 index and the IHSG from 2017 to 2022. For instance, when the LQ45 index rose to 1,045.44 on April 28, 2022, the IHSG also strengthened, reaching 7,228.91. Conversely, when the LQ45 index dropped to 995.98 on May 13, 2022, the IHSG also fell to 6,597.99. In comparison, the performance of the LQ45 index is lower than the IHSG, even though LQ45 consists of companies with high liquidity, large market capitalization, and strong fundamentals. This is because the IHSG measures the performance of all stocks listed on the Main and Development Boards of the Indonesia Stock Exchange, with a total of 809 listed stocks, whereas LQ45 only measures the performance of 45 stocks.

The LQ45 index fluctuated from August 2017 to August 2022. A sharp decline in the index occurred in March 2020, while the highest increase was in January 2018. The decline in 2020 was due to the high volume of stock trading between March 16-20, 2020, reaching 36.51 billion shares, with a value of IDR 39.93 trillion. The market capitalization also dropped by about 14.5 percent to IDR 4,854.05 trillion from IDR 5,678.28 trillion in the previous week. This decline occurred after the first COVID-19 case was revealed in Indonesia in early March 2020, leading the government to implement large-scale social restrictions (PSBB) in several regions of Indonesia.

Profitability is a company’s ability to generate profit over a certain period at a specific level of sales, assets, and equity. Profitability reflects a company’s performance and is measured by Return on Assets (ROA), which represents a company's ability to generate profit from its assets.

Research by Puji Estuti & Hendrayanti (2020) found that profitability, measured by ROA, negatively affects stock price volatility. However, Andriana et al. (2021) found that profitability has no impact on stock price volatility, as companies often have more total assets than net profits, and many assets remain idle, making them unattractive to investors.

Stock trading volume can be an indicator of a stock exchange's condition. The greater the trading volume, the more investors are interested in a stock, meaning more shares are being traded (Khajar, 2016). Trading volume reflects the condition of a stock (issuer) and can affect its price. Puji Estuti & Hendrayanti (2020) found that trading volume positively impacts stock price volatility, while Wahyuni (2021) found no significant effect on stock price volatility.

Leverage ratio is one of the factors that investors consider when investing. Leverage measures how much a company relies on creditors to finance its assets. Companies with high leverage depend heavily on external loans, while those with lower leverage finance their assets more with internal capital (Renaldo et al., 2021). Leverage is calculated using the debt-to-equity ratio (DER). A higher DER indicates greater dependency on external loans (Sudana, 2011). Research by Priana & Ketut (2017) found that leverage negatively affects stock price volatility, while research by Dewi & Paramita (2019) found no impact.

Dividend policy (Renaldo, Rozalia, et al., 2023; Saitri et al., 2023) is a decision whether the company's profits will be distributed to shareholders as dividends or will be retained in the form of retained earnings to finance future investments (Sartono, 2014). According to (Jannah & Haridhi, 2016) information regarding dividend policy is related to signal theory, because this information provides a signal to investors regarding the

e-ISSN 2527-8215

company's long-term performance (Renaldo et al., 2023) and attracts investors to invest their funds in the shares, so that demand for shares increases and ultimately causes the value of the shares to also increase. This indicates that the greater the dividend payment, the stronger the signal of the company's profitability, thereby reducing investor risk in investing and lowering stock price volatility. Stock prices are an indicator for investors to assess a company's performance in the future (Renaldo, Suhardjo, et al., 2021), if the stock price of a company increases, investors consider that the company has been successful in its governance. The results of research (Selpiana & Badjra, 2018) and (Utami & Purwohandoko, 2021) show that the Dividend Policy variable has a positive effect on stock price volatility. Meanwhile, different results were found in the study (Pramuji, 2021) which found that Dividend yield had no significant effect on stock price volatility. This shows that the absence of dividend yield's effect on stock price volatility can be caused by investors' decisions in considering higher dividend taxes compared to capital gains taxes. This is a negative signal received by investors so that they will not get a market reaction and will not be able to increase or decrease the value of stock price volatility.

The objectives of this research are: (1) To analyze the effect of profitability on stock price volatility of LQ45 companies from 2017-2021. (2) To analyze the effect of trading volume on stock price volatility of LQ45 companies from 2017-2021. (3) To analyze the effect of leverage on stock price volatility of LQ45 companies from 2017-2021. (4) To analyze the effect of dividend policy on stock price volatility of LQ45 companies from 2017-2021. (5) To analyze whether dividend policy moderates the effect of profitability on stock price volatility of LQ45 companies from 2017-2021. (6) To analyze whether dividend policy moderates the effect of trading volume on stock price volatility of LQ45 companies from 2017-2021. (7) To analyze whether dividend policy moderates the effect of leverage on stock price volatility of LQ45 companies from 2017-2021.

LITERATURE REVIEW

Stock Price Volatility

Stock price volatility refers to the magnitude of the fluctuations in stock prices, influenced by information in the capital market. The increase in stock price volatility occurs because the larger the rise or fall in stock prices, the greater the volatility. This volatility happens due to the entry of new information into the exchange. In an efficient market, price levels adjust quickly so that the formed prices reflect new information (Siti Hamidah, 2022).

The formula used to calculate stock price volatility, as cited from (Dewi & Paramita, 2019), is

$$PVOL = \sqrt{\sum \frac{\left(\frac{(Hi-Li)}{\left(\frac{Hi+Li}{2}\right)}\right)^2}{12}}$$

(1) Pvol: Price Stock Volatility. (2) Hi: Highest stock price in year I. (3)Li: Lowest stock price in year i

Profitability

Profitability ratios are used to measure a company's ability to generate profits from its business activities. The operational objective of most companies is to maximize profits, both short-term and long-term, and investors consider both stock prices and company performance in making investment decisions. Profitability, or a company's ability to generate profit from its operations, is a factor that reflects a company's performance.

In this research, profitability is measured by Return on Assets (ROA), which indicates the company's return on its assets. ROA is the ratio used to assess an entity's ability to generate profit from the effective use of its assets (Malawat & Saputra, 2019). ROA is calculated using the following formula:

$$ROA = \frac{Net\ Profit}{Total\ Aset} \times 100\%$$

(1) Net Profit: Net profit. (2) Total Assets: Total assets owned by the company

Trading Volume

High trading volume does not guarantee stock price volatility, as other factors, such as financial report information, also affect volatility (Puji Estuti & Hendrayanti, 2020). A stock's performance can be measured by its trading volume, with a high volume indicating active trading. Generally, trading volume represents the number of shares of a company traded daily on the stock exchange at agreed prices. Trading volume can be used as a reference for studying information on the capital market and stock valuation.

$$\text{VP} = \frac{TRADABLE\ SHARES}{LISTED\ SHARES}$$

(1) Tradable Shares : total shares traded. (2) Listed Shares: Total outstanding shares

e-ISSN 2527-8215

Leverage
Leverage measures a company's solvency or its ability to repay debt (Dominika & Yanti, 2019). Leverage ratios are important information for investors to consider when investing (Prima & RM, 2017). This ratio measures how reliant a company is on creditors to finance its assets. Companies with higher leverage rely more on external debt, while companies with lower leverage can finance their assets with internal capital.

Leverage is measured by the Debt to Equity Ratio (DER), which compares external debt to internal equity. This ratio shows the company's ability to meet its obligations, with a portion of its equity used to pay off debt. The formula for leverage is as follows:

$$DER = \frac{Total\ Debt}{Total\ Equity}$$

(1) Total Debt : Total Liabilities. (2) Total Equity : Total Equity

Dividend Policy
According to (Priana & Ketut, 2017), dividend policy is part of a company's funding decision. According to (Fauziah, 2017), dividend policy refers to whether the company's profit will be distributed to investors as dividends or retained to finance future investments. In general, dividend policy is the decision of whether to distribute profits to investors or retain them for future investment.

Companies in the growth stage tend to pay lower dividends, attracting investors who are more interested in stock appreciation (Rustan, Daromes, & Lukman, 2022). Dividend policy is measured by the following formula:

$$DPR = \frac{Dividend\ Per\ Share}{Earning\ Per\ Share}\ 100\%$$

(1) Dividend Per Share: Dividend per share. (2) Earnings Per Share: Earnings per share

Hypothesis
A hypothesis is a temporary assumption that requires verification. The hypotheses developed in this research are based on the literature review and previous studies outlined as follows:

The effect of Profitability on Stock Price Volatility
High profitability reflects a company's ability to generate high returns for shareholders. The larger the profit, the greater the company's ability to pay dividends, which impacts stock prices (Rosalina, 2018). As profitability increases, the company's ability to generate returns from its assets improves, and its market position strengthens. (Barnas, 2019) describes Return on Assets as the comparison of profit to the average asset base during a specific period. According to (Puji Estuti & Hendrayanti, 2020), profitability negatively affects stock price volatility, although (Andriana et al., 2021) argue that profitability does not have this negative effect.

H1 : Profitability negatively affects stock price volatility

The Effect of Trading Volume on Stock Price Volatility
The performance of a stock can be measured by its trading volume. The more frequently a stock is traded, the more attractive it is to investors. Trading volume is often used as a benchmark for assessing stock performance. If investors are unaware of any new information regarding a stock, they tend to hold their shares, leading to lower trading volume and reduced volatility. Conversely, when investors receive new information, they trade more, leading to higher trading volume and increased volatility (Rohmawati, 2017). According to (Puji Estuti & Hendrayanti, 2020), trading volume positively affects stock price volatility, while (Hidayati, 2021) suggests it does not have a significant effect.

H2: Trading volume positively affects stock price volatility.

The Effect of Leverage on Stock Price Volatility
According to signaling theory, companies should provide signals to investors through financial reports. A higher leverage ratio implies higher financial risk, as the company relies more on external debt to finance its assets. Companies with higher leverage are more likely to experience financial distress, which increases volatility. Previous research by (Priana & Ketut, 2017) found that leverage negatively affects stock price volatility, but (Cahyawati, 2022) found a positive effect.

H3: Leverage negatively affects stock price volatility.

The Effect of Dividend Policy on Stock Price Volatility
Dividend policy involves decisions about whether to distribute profits to shareholders or retain them for future investment (Sartono, 2014). According to (Jannah & Haridhi, 2016), dividend policy signals the company's

e-ISSN 2527-8215

long-term performance to investors, affecting stock demand and prices. According to (Selpiana & Badjra, 2018), dividend policy positively affects stock price volatility. However, (Pramuji, 2021) found that dividend yield does not significantly affect stock price volatility.

H4: Dividend policy positively affects stock price volatility.

Dividend Policy Moderates the Effect of Profitability on Stock Price Volatility

If the dividends distributed by the company decrease, the market price of the company's stock will also drop, and vice versa. Companies that generate lower profits generally distribute fewer dividends to shareholders. Low profitability and suboptimal dividend policies fail to reflect a promising outlook for the company, which can signal shareholders to raise stock prices. The study conducted by Puji Estuti & Hendrayanti (2020) shows that profitability negatively affects stock price volatility. Meanwhile, the research by Dewi & Paramita (2019) indicates that dividend policy positively affects stock price volatility.

H5: Profitability negatively influences stock price volatility, which can be weakened by the positive influence of dividend policy on stock price volatility.

Dividend Policy Moderates the Effect of Trading Volume on Stock Price Volatility

Theoretically, the trading volume of a stock is related to its price volatility. If dividend distribution to investors is high, it increases investor interest in trading stocks, which will further amplify the positive effect on stock price volatility. Research by Rohmawati (2017) shows that trading volume positively affects stock price volatility. Similarly, Dewi & Paramita (2019) found that dividend policy positively impacts stock price volatility.

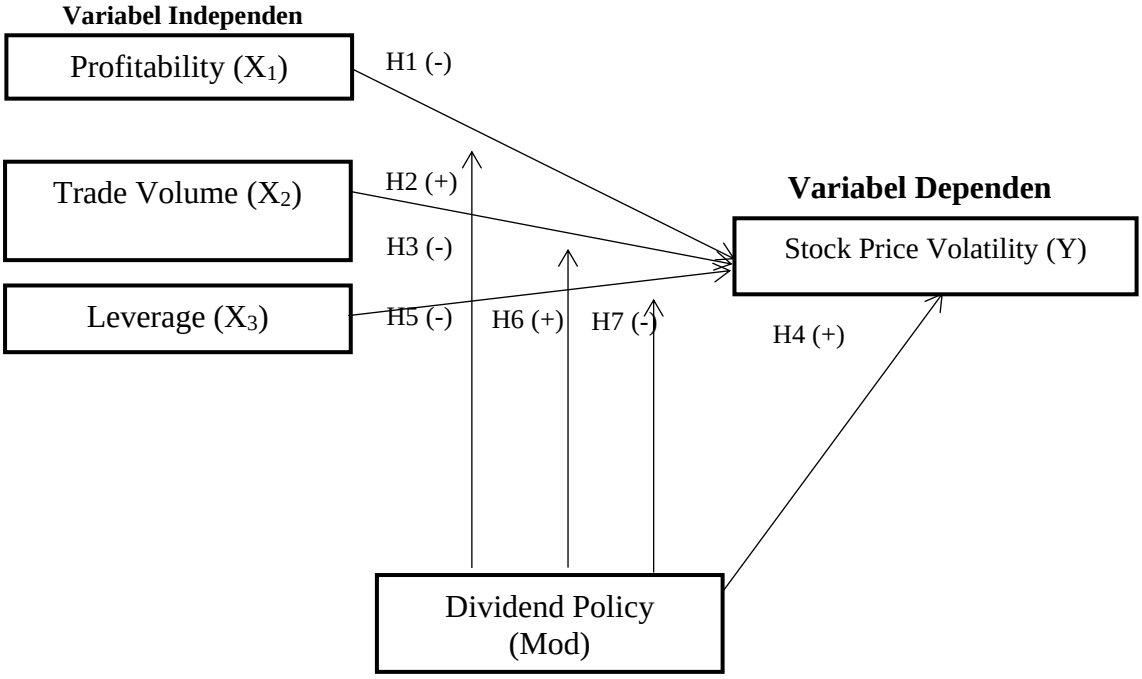
H6: Trading volume and dividend policy reinforce each other's positive influence on stock price volatility.

Dividend Policy Moderates the Effect of Leverage on Stock Price Volatility

If leverage ratios increase, stock prices tend to decline. The drop in stock prices affects investor interest in investing, thereby reducing stock price volatility. However, if the company maintains its ability to distribute dividends, this will not affect stock price volatility, as investors remain interested in buying shares. Research conducted by Priana & Ketut (2017) shows that leverage negatively affects stock price volatility, while research by Selpiana & Badjra (2018) indicates that dividend policy positively influences stock price volatility.

H7: Leverage negatively influences stock price volatility, which can be weakened by the positive effect of dividend policy on stock price volatility.

Framework



Source: Processed Data 2022

Figure 1. Framework of Thought

e-ISSN 2527-8215

RESEARCH METHODOLOGY

Population and Sampling

The number of samples in this study was obtained from the elimination of criteria.The sample obtained was 40 companies from 45companies indexed in LQ45. In this study, the sampling technique used is the Purposive sampling technique. namely, researchers select companies with data source sampling techniques with certain considerations. The reason for using the Purposive Sampling technique is because not all samples have criteria that match the phenomenon being studied. In this study, the samples were companies that met certain criteria, namely: (1) Companies indexed in the LQ45 index for 5 consecutive years between 2017 and 2021. (2) Companies indexed in the LQ45 index that IPO before 2016. (3) Companies indexed in the LQ45 index that have complete financial reports.

Operational Definition of Research Variables

Table 1. Operational Definition of Variables

No	*Variables*	*Indicator*	*Scale*
1	*Stock Price Volatility (Y)*	$PVOL = \sqrt{\sum \frac{\left(\frac{(Hi-Li)}{\left(\frac{Hi+Li}{2}\right)}\right)^2}{12}}$ *Pvol: Price Stock Volatility* *Hi: Highest share price in year i* *Li : Lowest share price in year i* *Source :*(Dewi & Paramita, 2019)	*Ratio*
2	*Profitability (X1)*	$ROA = \frac{Net\ Profit}{Total\ Aset} \times 100\%$ *Net Profit : Net profit* *Total Assets : Totalof all assets owned by the company* *Source :(Alamsyah et al., 2022)*	*Ratio*
3	*Trading Volume (X2)*	$VP = \frac{TRADABLE\ SHARES}{LISTED\ SHARES}$ *Tradable Shares : Totaltraded shares* *Listed Shares : Totalshares outstanding*	*Ratio*
4	*Leverage (X3)*	$DER = \frac{Total\ Debt}{Total\ Equity}$ *Total Debt : TotalLiabilities* *Total Equity : Total assets – Total liabilities* *Source :(Utami & Purwohandoko, 2021)*	*Ratio*
5	*Dividend Policy (X4)*	$DPR = \frac{Dividen\ Per\ Share}{Earning\ Per\ Share}\ 100\%$ *DPR : Dividend Payout Ratio* *EPS : Earnings per Share* *DPS : Dividend per Share* *Source :(Utami & Purwohandoko, 2021)*	*Ratio*

Source: Processed data, 2023.

e-ISSN 2527-8215

Data Analysis Methods

Classical Assumption Test

The classical assumption test can be performed before the multiple linear regression test. However, first, normality, heteroscedasticity, multicollinearity, and autocorrelation tests are performed.

Normality Test

Normality test is a test conducted to determine whether the regression mode, dependent variable, independent variable or both have a normal distribution or not. Normality test can be tested using the Kolmogorov Smirnov method or a graphical approach. This study uses the Kolmogorov Smirnov approach. The basis for decision making is as follows:

1. $p < 0.05$ then this means that the data is not normally distributed.
2. $p \geq 0.05$ then this means that the data is normally distributed.

Heteroscedasticity Test

The heteroscedasticity test is conducted to determine whether in a regression model there is an inequality of variance from the residual of one observation to another observation. If the variance of the residual of one observation to another observation remains constant, it is called homoscedasticity, while for different variances it is called heteroscedasticity. A good regression model is one that is homoscedastic or does not experience heteroscedasticity (Ghozali, 2013). The test used is the Glejser test, which is by regressing the independent variable with the absolute residual against the dependent variable. The criteria that can be used to include whether or not heteroscedasticity occurs among observation data can be explained using the significance coefficient. The significance coefficient must be compared with the previously set significance level ($\alpha = 5\%$). If the significance coefficient is greater than the set significance level, then it can be concluded that there is no heteroscedasticity so that it can be concluded that homoscedasticity occurs. If the significance coefficient is smaller than the set significance level, then it can be concluded that heteroscedasticity occurs.

Multicollinearity Test

Multicollinearity test is used to see if there is a high correlation between independent variables in a study. If there is a high correlation between the independent variable and the dependent variable, then the relationship between the variables will be disrupted. The statistical tool that is often used in testing multicollinearity disturbances is by using variance inflation factors (VIF), also looking at the tolerance value of each variable. In this study, multicollinearity was tested by looking at the variance inflation factor (VIF) value, with the following analysis:

If the tolerance value > 0.1 and VIF < 1, it shows that there is no multicollinearity in the study.

If the tolerance value is <0.1 and VIF >1, it indicates that there is high multicollinearity in the study.

Autocorrelation Test

The autocorrelation test aims to test whether in a linear regression model there is a correlation between the disturbing error in period t and the error in period t-1 (previously). If there is a correlation, then it is called an autocorrelation problem. A good regression model should be free from autocorrelation (Ghozali, 2013). Run test as part of nonparametric statistics is used to test whether there is a high correlation between residuals. If there is no correlation between residuals, it is said that the residuals are random. Run Test is used to see whether the residual data occurs randomly or not (systematic).

Model Feasibility Test

Linearity Test

The linearity test aims to determine whether two variables have a significant linear relationship or not. The linearity test is often used as a prerequisite in correlation analysis or linear regression. Testing can be done using SPSS (Statistics Products and Services Solutions) software, using a linear test with a significance level of 0.05. The criterion for the linearity test is that two variables are said to have a linear relationship if the significance level (linear) is less than 0.05 (Heri Susanto et al., 2022).

Coefficient of Determination Test (R2)

The determination coefficient (R2) test is a way to measure how far the model's ability to explain the variation of the dependent variable. The result of this test is the adjusted multiple determination coefficient (adjusted R2), which is a determination coefficient that shows the magnitude of the variation of the independent variable and is able to explain the dependent variable together (Ghozali, 2013). If there are more than two independent variables in a model, it is better to use the adjusted R2 value. The determination coefficient value ranges between ≥ 0 and ≤ 1. A small (R2) value means that the ability of the independent variables to explain the variation of the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

e-ISSN 2527-8215

Regression Equation Analysis

Multiple linear regression is an equation model that explains the relationship between one dependent variable (Y) and two or more independent variables (X). The purpose of the multiple linear regression test is to predict the value of the independent variable if the values of the dependent variables are known. One method for analyzing moderating variables is moderated regression. Moderated regression analysis is a regression analysis that involves moderating variables in building a relationship model. Moderating variables act as variables that can strengthen or weaken the relationship between predictor variables (independent) and dependent variables. If the moderating variable is not in the relationship model formed, it is called regression analysis only, so that without the moderating variable, the analysis of the relationship between the predictor variables and the dependent variables can still be carried out. In moderated regression analysis, all regression analysis assumptions apply, meaning that the assumptions in moderated regression analysis are the same as the assumptions in regression analysis. This study uses this moderated regression.

Hypothesis Testing

Hypothesis testing is a test of a statement using statistical methods so that the test results can be stated as statistically significant. A hypothesis is a statement whose truth is still weak. So that the statement is not in doubt, statistically we can collect data and conduct testing. By conducting statistical testing of the hypothesis we can decide whether the hypothesis can be accepted (the data does not provide evidence to reject) or rejected (the data provides evidence to reject the hypothesis). Partial tests are used to test how far the influence of the independent variables used in this study individually in explaining the dependent variable. The basis for decision making used in the t-test is as follows:

If Sig < alpha (1%, 5%, 10%), then Ho is rejected and Ha is accepted.
If Sig > alpha (1%, 5%, 10%), then Ho is accepted and Ha is rejected.

RESULT AND DISCUSSION

Analysis Results

Table 2. Outer Loading Test without Moderation

	DER	DPR	ROA	VOL
DER	1,000			
DPR		1,000		
ROA			1,000	
VOL				1,000

Source: SmartPLS Processed Data, 2023

Testing with Outer Loading on the variables Return on Asset, Dividend Payout Ratio, Debt to Equity Ratio, and Stock Price Volatility has a value of 1,000>0.7, meaning that all research data have significant results.

Table 3: Multicollinearity Test without Moderation

	VIF
DER	1,004
DPR	1.146
ROA	1.144

Source: SmartPLS Processed Data, 2023

Based on the results of the multicollinearity test that has been carried out, Return on Asset, Dividend Payout Ratio, Debt to Equity Ratio, have values <10, so it can be concluded that these variables do not show symptoms of multicollinearity.

e-ISSN 2527-8215

Table 4. Multicollinearity Test with Moderation

	VIF
DER	1,952
DPR	1,691
ROA	2.188
DPRxROA	1.995
DPRxDER	2,578

Source: SmartPLS Processed Data, 2023

Based on the results of the multicollinearity test that has been conducted, Return on Asset, Dividend Payout Ratio, Debt to Equity Ratio, Return on Asset with Dividend Payout Ratio moderation, Debt to Equity Ratio with Dividend Payout Ratio moderation have VIF values <10, so it can be concluded that these variables do not show symptoms of multicollinearity.

Table 5. Results of Multiple Linear Regression Analysis

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values (2-tailed)	P values (1-tailed)
DER -> VOL	-0.067	-0.087	0.148	0.451	0.652	0.326
DPR -> VOL	-0.197	-0.209	0.159	1,241	0.215	0.108
ROA -> VOL	-0.196	-0.201	0.149	1,318	0.188	0.094

Source: SmartPLS Processed Data, 2023

The equation for the results of linear regression analysis is formulated as follows:
Y = -0.196 X1 - 0.067 X2 + 0.197 Mod

Table 6. Results of Moderation Regression Analysis

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values (2-tailed)	P values (1-tailed)
DER -> VOL	-0.318	-0.346	0.241	1,320	0.187	0.094
DPR -> VOL	-0.000	-0.018	0.248	0.000	1,000	0.500
ROA -> VOL	-0.470	-0.502	0.210	2.239	0.025	0.013
DPR x ROA -> VOL	0.349	0.383	0.215	1,620	0.105	0.053
DPR x DER -> VOL	0.474	0.480	0.295	1,607	0.108	0.054

Source: SmartPLS Processed Data, 2023

The equation for the results of linear regression analysis is formulated as follows:
Y = -0.470X1 + 0.318X2 -0.000Mod + 0.349X1 Mod + 0.474X2 Mod

Table 7. Results of the Determination Coefficient Test without Moderation

	R-square	R-square adjusted
VOL	0.112	0.038

Source: SmartPLS Processed Data, 2023

The Adjusted R2 value on the variables Return on Asset, Debt to Equity Ratio, Return on Asset with Dividend Payout Ratio moderation, Debt to Equity Ratio moderated by the Dividend Payout Ratio variable against Stock Price Volatility is 0.038 or equal to 3.8%. While the remaining value of 96.2% is explained by other variables not disclosed in this study.

Table 8. Results of the Determination Coefficient Test with Moderation

	R-square	R-square adjusted
VOL	0.196	0.077

Source: SmartPLS Processed Data, 2023

e-ISSN 2527-8215

The Adjusted R2 value on the variables Return on Asset, Dividend Payout Ratio, Debt to Equity Ratio, Return on Asset with moderation of Dividend Payout Ratio, Debt to Equity Ratio moderated by the variable Dividend Payout Ratio against Stock Price Volatility is 0.16604 or equal to 16.6%. While the remaining value of 83.4% is explained by other variables not disclosed in this study.

Table 9.Hypothesis Test Results without Moderation

	Original sample (O)	T statistics (|O/STDEV|)	P values (2-tailed)	P values (1-tailed)	Hypothesis	Results
DER -> VOL	-0.067	0.451	0.652	0.326	+	Rejected
DPR -> VOL	-0.197	1,241	0.215	0.108	+	Rejected
ROA -> VOL	-0.196	1,318	0.188	0.094	-	Accepted

Source: SmartPLS Processed Data, 2023

Variables*Return on Asset*has a P Value of 0.094 while alpha is 0.1 (P Value > 0.1) and the regression coefficient value is -0.196. This shows that*Return on Asset* has a negative and significant effect onStock price volatility.

Variables*Debt to Equity Ratio*has a P Value of 0.326 while alpha is 0.1 (P Value > 0.1) and the regression coefficient value is -0.067. This shows that*Debt to Equity Ratio*has a negative and significant effect onStock price volatility.

The Dividend Payout Ratio variable has a P Value of 0.108 while the alpha is 0.1 (P Value > 0.1) and the regression coefficient value is -0.197. This shows that the Dividend Payout Ratio has a significant negative effect on stock price volatility.

Table 10.Hypothesis Test Results with Moderation

	Original sample (O)	T statistics (|O/STDEV|)	P values (2-tailed)	P values (1-tailed)	Hypothesis	Results
DER -> VOL	-0.318	1,320	0.187	0.094	+	rejected
DPR -> VOL	-0.000	0.000	1,000	0.500	+	rejected
ROA -> VOL	-0.470	2.239	0.025	0.013	-	accepted
DPR x ROA -> VOL	0.349	1,620	0.105	0.053	-	rejected
DPR x DER -> VOL	0.474	1,607	0.108	0.054	+	accepted

Source: SmartPLS Processed Data, 2023

Variables*Return On Asset*which is moderated by the Dividend Payout Ratiohas a P Value of 0.053 while alpha is 0.5 (P Value < 0.5) and the regression coefficient value is 0.349. This shows that*Return On Asset* has a positive and significant effect onstock price volatility with Dividend Payout Ratio moderation.

Variables*Debt to Equity*which is moderated by the Dividend Payout Ratiohas a P Value of 0.054 while alpha is 0.1 (P Value < 0.1) and the regression coefficient value is 0.474. This shows that*Debt to Equity* has a positive and significant effect onstock price volatility with Dividend Payout Ratio moderation.

The Effect of Profitability on Stock Price Volatility

Based on the tests that have been conducted, it can be concluded that Return On Asset has a negative effect on stock price volatility. Negatively affecting Return on Assets means that the higher the Net Interest Margin (NIM), the higher the company's Return on Assets (ROA). High profitability reflects the company's ability to generate high profits for shareholders. The greater the profit obtained, the greater the company's ability to pay its dividends, this has an impact on stock prices.(Rosalina, 2018). This ratio is used to measure the management's ability to gain overall profit. The greater the profitability, the greater the level of profit achieved by the company and the better the position of the company in terms of asset utilization. According to(National Conference, 2019)Return on Assets is a comparison of profit with the average number of assets during a certain period which shows the entity's ability to generate profit from the use of all assets available in the company by combining its human resources.

The results of this study are supported by research conducted by(Praise Estuti & Hendrayanti, 2020)which explains that the profitability variable on stock price volatility is measured by ROA, where the results of the study show that profitability has a negative effect on stock price volatility. However, the results of this study differ from the study (Andriana et al., 2021) where Profitability does not have a negative effect on stock price volatility.

The Effect of Leverage on Stock Price Volatility

Based on the tests that have been conducted, it can be concluded that Debt to Equity has a negative effect on stock price volatility. Companies that have a high level of leverage are highly dependent on external loans to finance their assets, while companies that have a lower level of leverage finance their assets more with their own capital.

e-ISSN 2527-8215

So it can be said that the level of company leverage describes the company's financial risk. If the leverage is higher, it will cause increased volatility, which will put a company at higher risk. And companies with too much leverage will face the risk of financial distress costs.

The results of this study are in line with(Priana & Ketut, 2017), where Leverage has a negative effect on stock price volatility. This is not in line with research conducted by (Cahyawati, 2022) which shows that Leverage has a positive effect on stock price volatility.

The Effect of Dividend Policy on Stock Price Volatility

Based on the results of the research that has been conducted, it can be concluded that the Dividend Payout Ratio has a negative effect on stock price volatility. According to(Jannah & Haridhi, 2016)information on dividend policy is related to signal theory, because this information provides a signal to investors regarding the company's long-term performance and attracts investors to invest their funds in the shares, so that demand for shares increases and ultimately causes the value of the shares to increase. This indicates that the greater the dividend payment, the stronger the signal of the company's profitability, thereby reducing investor risk in investing and low stock price volatility. This is not in line with research by(Selpiana & Badjra, 2018),(Utami & Purwohandoko, 2021)shows that the Dividend Policy variable has a positive effect on stock price volatility.

Dividend Policy Moderates Profitability Against Stock Price Volatility

Based on the results of the research that has been conducted, it can be concluded that profitability is strengthened by dividend policy. If the dividends distributed by the company are getting smaller, the market price of the company's shares will be lower and vice versa. Companies that generate high profits will generally distribute higher dividends to shareholders. High profitability and optimal dividend policy are able to reflect the company's good prospects so that this is considered a good signal for shareholders who can increase stock prices. This is in line with research conducted by (S. Dewi & Paramita, 2019) showing that dividend policy has a positive effect on stock price volatility. However, it is not in line with research conducted by(Praise Estuti & Hendrayanti, 2020)shows that profitability has a negative effect on stock price volatility.

Dividend Policy Moderates Leverage Against Stock Price Volatility

Based on the results of the research that has been conducted, it can be concluded that leverage is strengthened by dividend policy. If the leverage ratio is lower, it tends to cause an increase in stock prices. The increase in price will affect investor interest in making investments, thereby increasing stock price volatility. However, if the company does not reduce its ability to distribute dividends, it will not have an impact on stock price volatility, because investors are still interested in buying shares. This is in line with(Selpiana & Badjra, 2018)shows that dividend policy has a positive effect on stock price volatility, but this is not in line with research conducted by(Priana & Ketut, 2017), shows that Leverage has a negative effect on stock price volatility.

CONCLUSION

Based on the research results, the conclusions in this study are (1) Return On Asset (ROA) has a significant negative effect on stock price volatility. (2) Debt to equity ratio has a significant negative effect on stock price volatility. (3) Dividend Payout Ratio has a significant negative effect on stock price volatility. (4) Dividend Policy strengthens profitability against stock price volatility. (5) Dividend Policy strengthens Leverage against stock price volatility.

The limitations that the author found during this research include (1) The existence of variable X, namely the trading volume, which cannot be processed. (2) Of the many financial ratios that exist, the researcher only uses financial ratios that are considered to represent each variable and (3) Another limitation is that the companies that are the research samples are not in the same sector, so that their reports have differences.

In accordance with the research results, the suggestions that the author can provide include: (1) This research is expected to increase insight and knowledge regarding the influence of Profitability, Dividend Policy, Trading Volume and leverage on the volatility of stock prices of LQ45 indexed companies in 2017-2022, and is also expected as a means of developing knowledge that is theoretically studied in lectures. (2) For companies, this research is expected to be a useful tool in measuring company performance, where company performance is very important for management to evaluate company performance and goal planning. For investors, this research is expected to contribute as a consideration for prospective investors who will invest in the Indonesia Stock Exchange. (3) This research can empirically help to understand the influence of Profitability, Dividend Policy, Trading Volume and leverage on the volatility of stock prices of LQ45 indexed companies. Based on the benefits of this policy, this research is expected to contribute as a basis for determining policies related to stock price volatility, to financial institutions such as the Financial Services Authority (OJK), the Indonesia Stock Exchange (BEI), and similar institutions.

e-ISSN 2527-8215

REFERENCES

Andriana, S., Wana, D., Soraya, & Widodo, A. (2021). *Determinan Volatilitas Harga Saham (Studi Pada Perusahaan Yang Terdaftar Pada Lq45)* (pp. 76–93).

Barnas, B. (2019). PENGARUH KINERJA KEUANGAN TERHADAP PERUBAHAN HARGA SAHAM BANK UMUM SYARIAH NASIONAL DI BURSA EFEK INDONESIA (Studi Kasus: PT Bank Panin Dubai Syariah, Tbk.). *Ekspansi: Jurnal Ekonomi, Keuangan, Perbankan Dan Akuntansi*, *11*(1), 23. https://doi.org/10.35313/ekspansi.v11i1.1327

Dewi, S., & Paramita, R. A. S. (2019). Pengaruh Kebijakan Dividen, Volume Perdagangan, Earning Volatility, Leverage, Dan Firm Size Terhadap Volatilitas Harga Saham Perusahaan Lq45. In *Jurnal Ilmu Manajemen* (Vol. 7).

Jannah, R., & Haridhi, M. (2016). Pengaruh Kebijakan Dividen, Earning Volatility, Dan Leverage Terhadap Volatilitas Harga Saham Pada Perusahaan Non-Financing Yang Terdaftar Di Bursa Efek Indonesia Tahun 2010-2014. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, *1*(1), 133–148.

Pramuji, S. (2021). *Pengaruh Kebijakan Dividen Terhadap Volatilitas Harga Saham Pada Sub Sektor Makanan dan Minuman di Bursa Efek Indonesia Periode 2017–2020*. https://repository.unja.ac.id/23300/

Priana, I. W. K., & Ketut, M. (2017). Pengaruh Volume Perdagangan Saham, Leverage, Dan Dividend Payout Ratio Pada Volatilitas Harga Saham. In *E-Jurnal Akuntansi* (Vol. 2017, Issue 1, pp. 1–29).

Priscilla Leony Rustan, Fransiskus Eduardus Daromes, Lukman, & K. K. (2022). KEBIJAKAN DIVIDEN DALAM PERSPEKTIF CATERING THEORY. *19*, *הארץ*(8.5.2017), 2005–2003.

Puji Estuti, E., & Hendrayanti, S. (2020). Dampak Volume Perdagangan Saham, Profitabilitas Dan Dividen Terhadap Volatilitas Harga Saham. In *Proceeding Seminar Nasional & Call For Papers* (pp. 128–136).

Renaldo, N., Rozalia, D. K., Musa, S., Wahid, N., & Cecilia. (2023). Current Ratio, Firm Size, and Return on Equity on Price Earnings Ratio with Dividend Payout Ratio as a Moderation and Firm Characteristic as Control Variable on the MNC 36 Index Period 2017-2021. *Journal of Applied Business and Technology*, *4*(3), 214–226. https://doi.org/10.35145/jabt.v4i3.136

Renaldo, N., Sudarno, S., Hutahuruk, M. B., Suyono, & Suhardjo. (2021). Internal Control System Analysis on Accounts Receivable in E-RN Trading Business. *The Accounting Journal of Binaniaga*, *6*(2), 81–92. https://doi.org/10.33062/ajb.v5i2.382

Renaldo, N., Suhardjo, Putri, I. Y., Juventia, J., & Nur, N. M. (2021). Penilaian Harga Saham Hijau Perusahaan Sektor Industri Barang Konsumsi Tahun 2015-2019. *Procuratio: Jurnal Ilmiah Manajemen*, *9*(3), 283–298.

Renaldo, N., Suyono, Andi, Putri, N. Y., & Cecilia. (2023). How Business Intelligence, Intellectual Capital, and Company Performance Increase Company Value? Leverage as Moderation. *Journal of Applied Business and Technology*, *4*(1), 93–99. https://doi.org/https://doi.org/10.35145/jabt.v4i1.123

Rohmawati, I. (2017). Pengaruh Volume Perdagangan, Dividend Payout Ratio Dan Inflasi Terhadap Volatilitas Harga Saham Pada Perusahaan Yang Terdaftar Dalam Indeks LQ45 Tahun 2011-2015. In *Applied Microbiology and Biotechnology* (Vol. 6, Issue 1, pp. 38–45).

Rosalina, F. (2018). *PENGARUH PROFITABILITAS DAN STRUKTUR AKTIVA TERHADAP STRUKTUR MODAL (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di BEI periode 2012-2015)*.

Saitri, P. W., Mendra, N. P. Y., Pramesti, I. G. A. A., & Renaldo, N. (2023). How Firm Characteristics Affect the Dividend Policy of Listed Banking Companies on The Indonesian Stock Exchange in 2019-2021. *Interconnection: An Economic Perspective Horizon*, *1*(1), 37–50. https://firstcierapublisher.com/index.php/reflection/article/view/28

Selpiana, K. R., & Badjra, I. B. (2018). Pengaruh Kebijakan Dividen, Nilai Tukar, Leverage, dan Firm Size terhadap Volatilitas Harga Saham. *E-Jurnal Manajemen Universitas Udayana*, *7*(3), 1682. https://doi.org/10.24843/ejmunud.2018.v7.i03.p20

Sustari, A., Eni, S., & Sintya, S. (2022). *Volatilitas Harga Saham Perusahaan Properti di BEI (1), 211–222*. *5*(1), 211–222.

Utami, A. R., & Purwohandoko, P. (2021). Pengaruh Kebijakan Dividen, Leverage, Earning Volatility, dan Volume Perdagangan terhadap Volatilitas Harga Saham pada Perusahaan Sektor Finance yang Terdaftar di BEI Tahun 2014-2018. In *Jurnal Ilmu Manajemen* (Vol. 9, Issue 1, p. 68). https://doi.org/10.26740/jim.v9n1.p68-81

www.ojk.go.id