CAN INDICATORS FROM ASSET GROWTH , *DIVIDEND PAYOUT RATIO* AND *EARNINGS* VOLATILITY RESOLVE STOCK PRICE VOLATILITY PROBLEMS

Deni Sunaryo

Faculty of Economics and Business, Serang Raya University

e-mail : denisunaryomm@gmail.com

ABSTRACT

This study aims to determine the effect of asset *growth , earnings volatility and dividend payout ratio* on stock price volatility in non-financial publicly listed companies on the Indonesia Stock Exchange for the 2018-2020 period. The data used are the financial statements of each sample company published on the website www.idx.co.id. The sampling method used is *purposive sampling* with a total sample of 58 companies. The analytical method used in this study is the causality method, with classical assumption testing, as well as multiple linear regression statistical analysis using SPSS version 25. Based on the results of the study, it can be concluded that partially only asset growth has an effect on stock price volatility. Meanwhile , *earnings volatility* and *dividend payout ratio* have no effect on stock price volatility. However, simultaneously asset growth, *earnings volatility* and *dividend payout ratio* have an effect on stock price volatility.

Keywords: asset growth, *earnings volatility* (EVOL) *, dividend payout ratio* (DPR), stock price volatility

1. INTRODUCTION

Investment is the investment of funds in one or more investment objects that are owned to get profits in the future. One form of investment in financial assets made in the capital market is shares. Stocks play an important role in financial instruments. Shares can be used to make money, either by the issuer of the shares, investors or third parties.

Investors in carrying out their investment activities always look at two main factors, namely the stock *return* and risk factors. Investment decisions made by investors not only consider two main factors such as *return* and risk, but investors need to collect information about the company, both information about stock prices and company performance. Stock prices are influenced by information contained in the capital market at that time, this information can affect the behavior of investors to sell or buy shares, thus affecting the stock price. This is the background for the occurrence of stock price fluctuations and investors who invest must also really pay attention to all the risks that exist in investing so that it is safer and not stuck only the resulting *return (Jannah and Haridhi, 2016).*

This will also attract investors to invest in non-financial go public companies, because the stock price movements are tempting. However, in 2018-2020 non-financial publicly listed companies showed unstable performance, so that the development of share prices in these non-financial publicly listed companies fluctuated from 2018-2020.

If the stock price of non-financial go public companies decreases, it will have an impact on decreasing investor interest in investing in non-financial go public companies because investors think this is less profitable, so the company will have difficulty running the company.

The cause of volatility or price fluctuations is due to factors that affect the economy and factors that have a direct impact on the company itself, such as differences of opinion about where the company's profitability is going. When many people think that the profitability of a company is decreasing, more people will sell their shares so the price will also decrease . And vice versa can also happen. The higher the level of stock price volatility, the higher the possibility of uncertainty about the return on investment. Even so, some investors tend to like stocks with a high level of volatility because of the opportunity to get *capital gains* on the other hand, the greater the risks that will be obtained.

Asset growth is an indicator of how much the company uses its funds. (Anastassia and Firnanti, 2014), so the higher the growth rate of a company's assets, the lower the risk that investors will face, because the funds provided by investors can be guaranteed by the size of the assets owned by the company. So investors tend to choose to keep the shares they own. Based on the research results of Anastassia and Firnanti (2014), stated that asset growth has a negative effect on stock price volatility. While the research of Chaudry, Iqbal, and Butt (2015), states that asset growth has a positive and significant effect on stock price volatility. And the research of Surahmat, Swandari, and Dewi (2017), shows different results that asset growth has no effect on stock price volatility.

Earnings volatility is the level of volatility or rapid changes in the profits earned and shows the rise and fall of profits and the level of risk of a company is also influential. Companies whose income levels are unstable and varied will experience high price volatility. The results of research by Chaudry, Iqbal, and Butt (2015), Jannah and Haridhi (2016), state that earnings volatility has a positive and significant effect on stock price volatility. While the results of this study are different from the results of research by Surahmat, Swandari, and Dewi (2017), Mobarak and Mahfud (2017), which state that earnings volatility has a negative and significant effect on stock price volatility.

Dividend policy is an integral part of corporate funding. Information on dividends is determined by the greater the retained earnings, the less profit the company allocates in the form of dividends to investors. Company policy plays a major role in the dividend payout ratio, because it relates to earnings and dividends distributed. Information on dividend levels. Based on the results of research by Chaudry, Iqbal, and Butt (2015), Mobarak and Mahfud (2017), the results show that dividend policy, namely the dividend payout ratio , has a positive and significant effect on stock price volatility. Meanwhile, the results of research by Anastassia and Firnanti (2014), and Surahmat, Swandari, and Dewi (2017), state that dividend policy, namely dividend payout ratio and dividend yield , has a negative effect on stock price volatility.

Many variables affect stock price volatility. This study will examine several variables, including: asset growth, earnings volatility and dividend policy . Although a number of studies on the factors that influence stock price volatility have been widely carried out, research in this area is still considered an interesting problem to study because of the inconsistency of the results of previous studies (research gap). Based on the background and research gap , the authors take the title of the study **"The effect of asset growth, earnings volatility and dividend payout ratio on Stock Price Volatility".**

2. LITERATURE REVIEW
Signaling Theory
Signaling theory (signal theory) suggests how a company should give signals to users of financial statements. According to Brigham and Houston (2014: 184) a signal is an action taken by the company to provide instructions for investors about how management views the company's prospects. This signal is in the form of information about what management has done to realize the owner's wishes. The information issued by the company is important, because of its influence on the investment decisions of parties outside the company. This information is important for investors and business people because the information essentially presents information, notes or descriptions, both for past, present and future conditions for the survival of the company and how it will affect the company.

Stock Price Volatility
Stock price volatility is the up and down movement of stock prices on the stock exchange (Anastassia and Firnanti, 2014). Stock price volatility is the distance between fluctuations or fluctuations in stock prices. Volatility is also often viewed negatively because it expresses uncertainty and risk. However, as a trader, it is necessary to understand that if the results are large, there is usually a high risk. Volatility can occur due to the entry of new information into the market or exchange. As a result, market participants reassess the traded assets. In an efficient market, the price level will adjust quickly so that the price formed reflects the new information.

Asset Growth
Asset growth is defined as the annual change in total assets. An increase in assets followed by an increase in operating results will further increase the confidence of outsiders in the company. With increasing trust from outsiders (creditors) in the company, the proportion of the use of debt sources is getting bigger than the own capital. This is based on the creditor's belief that the funds invested in the company are guaranteed by the amount of assets owned by the company (Tandi, Tommy, Untu, 2018).

Earnings Volatility
Earnings Volatility is a measure that describes the extent to which the level of stability of earnings or income generated by the company from year to year. However, profits or earnings are also difficult to predict and even more difficult to predict when volatility is high. The higher the level of profit or income volatility, the capital gains that will be obtained by investors will be greater when profits reach the maximum level. So investors tend to keep their shares for the future. Therefore, there are not many sales that occur, so the level of stock price volatility tends to be low.
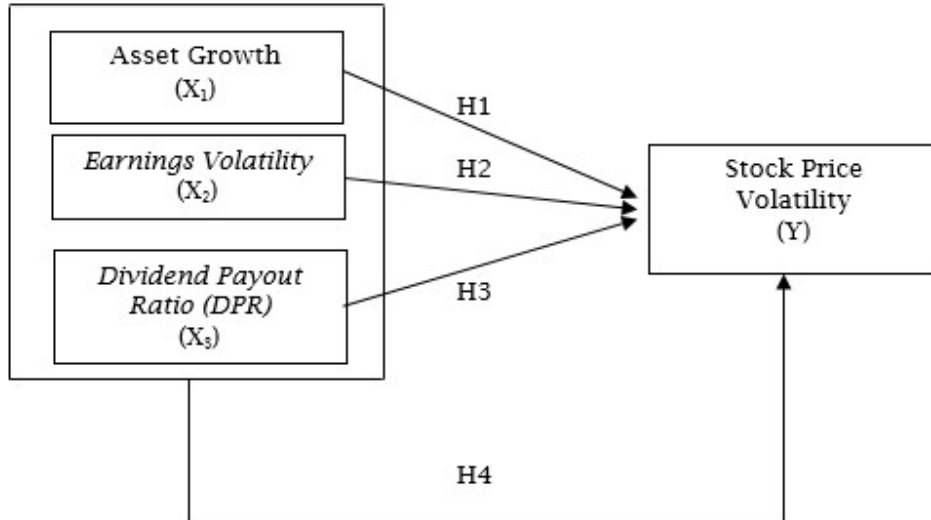
Dividend Payout Ratio
Dividend Payout Ratio (DPR) is the percentage of profit paid to shareholders as dividends per year. Companies that have a low dividend payout ratio are considered more valuable because they have the potential to grow. However, at the same time, companies that are experiencing growth certainly have a greater level of uncertainty (risk) regarding the future cash flows of new investment projects in comparison to the rate of return that has been

placed on assets. This makes the company more risky to invest. Therefore, companies with low dividend rates will make their stock price movements unstable (Mobarak and Mahmud, 2017).

Framework

Based on the theory and previous research, the following research model was developed:

Research Hypothesis

1. Asset Growth Affects Stock Price Volatility
2. *Earnings Volatility* affects Stock Price Volatility
3. *Dividend Payout Ratio* has an effect on Stock Price Volatility
4. Asset Growth, *Earnings Volatility* and *Dividend Payout Ratio* have an effect on Stock Price Volatility

3. RESEARCH METHODOLOGY

The research method used in this research is associative research. Associative research is research that aims to determine the relationship between two or more variables, this method is to explain, predict, and control all events. In this associative research using a quantitative approach. Quantitative research is a research method based on the philosophy of positivism because it has met scientific/empirical principles that are concrete/empirical, object, measurable, rational and systematic (Sugiyono, 2014:7).

Population and Sample

Population means the object that is used as research. The population used in this study are non-financial companies listed on the Indonesia Stock Exchange for the 2018-2020 period as many as 58 companies, the sampling technique in this study uses *proposive sampling, the sampling* technique is *proposive sampling* , namely the sample is taken based on certain criteria in accordance with the research objectives. considered to represent research as follows:

Sampling Criteria

No	Sample Criteria	Amount
1	Non-Financial Go Public Companies listed on the Indonesia Stock Exchange for the period 2018-2020	521
2	Companies that do not use rupiah currency in the 2018-2020 period	(85)
3	Companies that do not issue financial statements as of December 31	(3)
4	Companies that suffer losses in the 2018-2020 period	(167)
5	Companies that do not distribute dividends during the 2018-2020 period	(138)

6	The company does not have complete information	(70)
	Amount	**58**
	Number of research samples for 3 years	**174**

Definition of Operational Variables and Their Measurement

1. **Dependent Variable**

   The dependent variable is the variable that is influenced or that becomes the result, because of the independent variable. In this study, the dependent variable is Stock Price Volatility (Y). Stock price volatility is the up and down movement of stock prices in the stock exchange. To measure it, take the annual range from the highest and lowest monthly stock prices then divided by the average highest and lowest stock prices.

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

2. **Independent Variable**

   The independent variable is the variable that affects or is the cause of the change or the emergence of the dependent variable. In this study there are three independent variables, namely *asset growth, earnings volatility and **Dividend Payout Ratio***.

   Asset growth is an indicator to see how much funds the company uses in its growth. Total assets in year t with the previous total assets.

$$Growth = \frac{(t) - (t - 1)}{(t)}$$

   Earnings volatility is the level of volatility or rapid changes in the profits obtained by the company. The measurement uses the standard deviation of earnings before interest and tax with total assets. So the formula is as follows:

$$EVOL = STD \frac{EBIT}{Total\ Asset}$$

   Dividend Payout Ratio is the percentage of company profits that are distributed to shareholders or investors to the company's total profit. With the following formula:

$$DPR = \frac{Dividend}{Net\ Income}$$

Data analysis technique

   The process of data analysis in this study is to process data using the SPSS (*Statistical Product and Service Solution*) version 25 application, and the data analysis technique uses multiple linear regression. Multiple linear regression analysis in multiple linear regression model as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Information:
Y = Stock Price Volatility
a = Constant
b1, b2, b3 = Regression Coefficient
X_1 = Asset Growth
X_2 = *Earning Volatility*
X_3 = *Dividend Payout Ratio*
e = epsilon (error term)

The hypothesis was tested with a significance level of 5%. The criteria for acceptance or rejection will be based on the sig value (*p-value*) with an alpha of 5% where *a p-value* of <5% indicates that the hypothesis is accepted or there is a significant effect of the independent variable on the dependent variable.

DATA ANALYSIS AND DISCUSSION

Descriptive statistics

Descriptive statistical tests in this study were used to see the minimum, maximum, mean, and standard deviation values, while the results of the descriptive statistical tests were as follows:

Descriptive Statistics

	N	Minimum	Maximum	mean	Std. Deviation
PVOL	174	.00	.29	.0330	.04358
GROWTH	174	.01	.27	.0936	.05490
EVOL	174	.02	.71	.1158	.12205
DPR	174	.73	350.84	39.1481	40.99048
Valid N (listwise)	174				

1. Stock Price Volatility
   Based on the data processing of the dependent variable Stock Price Volatility the average value of 0.0330 with the highest value of 0.29 and the lowest value of 0.00 and the standard deviation of 0.04358.
2. Asset Growth
   Based on data processing the independent variable Asset Growth has an average value of 0.0936 with the highest value of 0.27 and the lowest value of 0.01 and a standard deviation of 0.05490.
3. *Earnings Volatility*
   Based on data processing, the independent variable *Earnings Volatility* has an average value of 0.1158 with the highest value of 0.71 and the lowest value of 0.02 and a standard deviation of 0.12205.
4. *Dividend Payout Ratio*
   Based on data processing, the independent variable *Dividend Payout Ratio* has an average value of 39.1481 with the highest value of 350.84 and the lowest value of 0.73 and a standard deviation of 40.99048.

Classic assumption test

Kolmogorov-Smirnov Test . One-Sample Normality Test

		Unstandardized Residual
N		174
Normal Parameters [a,b]	mean	.0000000
	Std. Deviation	.43287803
Most Extreme Differences	Absolute	.041
	Positive	.041
	negative	-.037
Test Statistics		.041
asymp. Sig. (2-tailed)		.200 [c,d]

Based on the results in the table above, it can be seen that the significance value of Asymp. Sig. (2-tailed) is 0.200. It can be seen that the significance value is greater than 0.05 and it can be concluded that the data is normally distributed.

Multicollinearity Test

Coefficients [a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	GROWTH	.922	1.085
	EVOL	.910	1,099
	DPR	.848	1.180

From the data in the table above, it can be concluded that there is no symptom of multicollinearity between the independent variables as indicated by the tolerance value of each independent variable greater than or equal to 0.1 and the VIF value less than or equal to 10. So it can be concluded that further analysis can be done using multiple regression models.

Heteroscedasticity Test

Scatterplot
Dependent Variable: PVOL

Regression Standardized Predicted Value
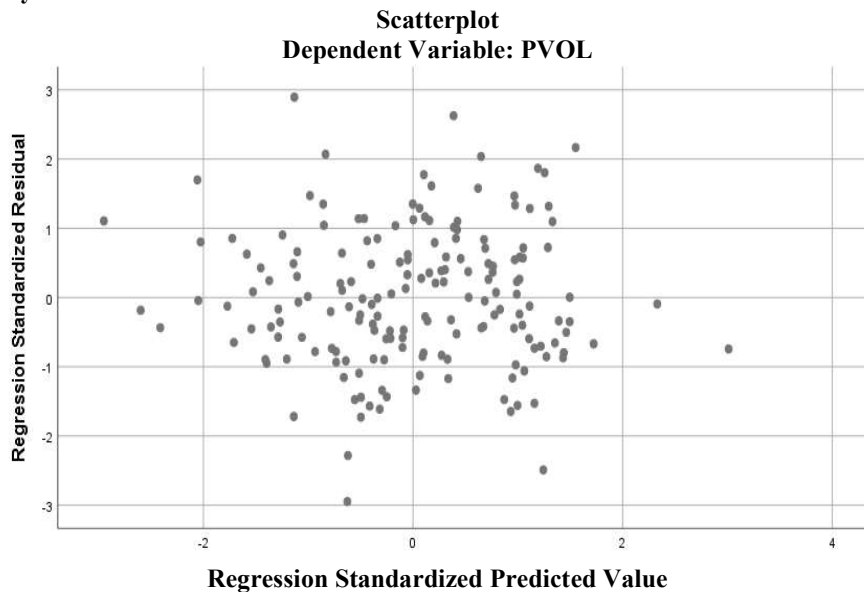
The scatterplot graph above shows that there is no certain pattern on the graph. The points on the graph are relatively evenly distributed, which means that there is no heteroscedasticity disorder in the model in this study.

Autocorrelation Test

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.220 [a]	.048	.031	.03321	2,037

Based on the table above at 5% significance, with a total sample of 174 and the number of independent variables 3 (k=3), the Durbin-Watson table (DW test) will give the values dl = 1.7171 and du = 1.7872. The value of dw 2.037 is greater than 4-du (4-1 .7872 = 2.2128) and less than 4-dl (4-1.7171 = 2.2829) or formulated with (1.7872<2.037<2.2128) it can be concluded that there is no positive or negative autocorrelation.

Hypothesis testing
Multiple linear regression

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	.015	.006	
GROWTH	.115	.048	.187
EVOL	.022	.022	.078
DPR	-4.849E-5	.000	-.059

The regression equation obtained based on the table above is as follows:

$$PVOL = 0.015 + 0.022\ EVOL - 4.849\ DPR + 0.115\ GROWTH$$

1. The constant value is 0.015. This shows that if the variables of earnings volatility, dividend payout ratio, and asset growth are assumed to be constant, then the stock price volatility variable will increase by 0.015.
2. The value of asset growth is 0.115. This shows that if the asset growth variable increases by 1 with the assumption that the earnings volatility and dividend payout ratio variables do not exist, then the stock price volatility variable will increase by 0.115.
3. The value of earnings volatility is 0.022. This shows that if the variable earnings volatility increases by 1 with the assumption that the dividend payout ratio and asset growth variables do not exist, then the stock price volatility variable will increase by 0.022.
4. The value of the dividend payout ratio is 4.849. This shows that if the dividend payout ratio variable increases by 1 with the assumption that there is no earnings volatility and asset growth variable, then the stock price volatility variable will decrease by 4.849.

Partial Test (T Test)

Coefficients [a]

Model		t	Sig.
1			
	(Constant)	2,397	.018
	GROWTH	2.403	.017
	EVOL	.995	.321
	DPR	-.725	.470

The results of the t-statistical test in table 4.7 can be explained as follows:
1. The Effect of Asset Growth on Stock Price Volatility
   The t-count value of the asset growth variable is 2.403 > 1.65387 and the significance value is 0.017 (smaller than 0.05) meaning Ha is accepted and H0 is rejected, that asset growth partially affects stock price volatility at the 95% confidence level.
2. Effect of Earnings Volatility on Stock Price Volatility
   The t-count value of the earnings volatility variable is 0.995 < 1.65387 and the significance value is 0.321 (greater than 0.05) meaning Ha is rejected and H0 is accepted, that earnings volatility partially has no effect on stock price volatility at the 95% confidence level.
3. The Effect of Dividend Payout Ratio on Stock Price Volatility
   The t-count value of the dividend payout ratio variable is -0.725 < 1.65387 and the significance value is 0.470 (greater than 0.05) meaning Ha is rejected and H0 is accepted, that the dividend payout ratio partially has no effect on stock price volatility at the 95% confidence level.

Simultaneous Test (F Test)

ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.010	3	.003	2.875	.038 [b]
	Residual	.188	170	.001		
	Total	.197	173			

Based on the table above, the $_{calculated\ F\ value}$ is 2.875 and sig is 0.038. Because $F_{arithmetic} > F_{table}$ and sig 0.038 < sig 0.05, then Ha is accepted, which means that $_{earnings}$ *volatility* , *dividend payout ratio* , and asset growth have an effect on stock price volatility.

Test (R^2)

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.220 [a]	.048	.031	.03321	2,037

table above shows the Adjusted R Square of 0.31, this means that 31% of the variation in stock price volatility can be explained by variations of three independent *earnings volatility* , *dividend payout ratio* , and asset growth and 69% is explained by other reasons. outside the regression model.

DISCUSSION
The Effect of Asset Growth on Stock Price Volatility

Based on the results of tests that have been carried out using a partial hypothesis test that the asset growth variable is has no effect on stock price volatility.

The results of this study are in line with the researchers' expectations and are in line with the *Signaling Theory* that, the greater the assets, the greater the operational results generated by the company. Asset growth is defined as the annual change in total assets. An increase in assets followed by an increase in operating results will further increase the confidence of outsiders in the company. With increasing trust from outsiders (*creditors*) in the company, the proportion of the use of debt sources is getting bigger than the own capital. This is based on the creditor's belief that the funds invested in the company are guaranteed by the amount of assets owned by the company. It also supports research conducted by Anastassia and Firnanti (2014) as well as Chaudry, Iqbal, and Butt (2015) which have the same research results as the results of this study, where asset growth affects stock price volatility.

Effect of *Earnings Volatility* on Stock Price Volatility

Based on the results of tests that have been carried out using a partial hypothesis test that the variable *earnings volatility* has no effect on stock price volatility . The reason that can cause *earnings volatility* to have no effect on stock price volatility is that stock price volatility is defined as risk but *earnings volatility* is not always interpreted as risk. Sometimes companies experience fluctuations following cyclical or seasonal patterns. So that volatility is not a significant part of the risk. This will not be a concern for investors, so the company's stock price will have no effect.

This result contradicts the *Signaling Theory* which indicates that the company will intentionally send information in the form of a signal to investors in order to attract investors to invest their capital. This is because companies that have unstable income levels indicate a signal to investors that the company has a very high level of risk which will affect changes in stock price movements very quickly. The results of this study are in line with research conducted by Anastassia and Firnanti (2014) as well as Santioso and Angesti (2019) whose results show that *earnings volatility* has no effect on stock price volatility .

Effect of *Dividend Payout Ratio* on Stock Price Volatility

Based on the results of tests that have been carried out using a partial hypothesis test that the *dividend payout ratio variable* has no effect on stock price volatility . The reason that causes the *dividend payout ratio* to have no effect on stock price volatility is the possibility that investors do not consider how much income they receive from the current year's profit in the form of dividends. This can happen due to several factors, for example, a decrease in dividends announced by the company so that this is indicated as a negative signal by investors, the existence of funds needed by the company to invest in the future where the company must set aside retained earnings first so that it has an impact the smaller the portion of dividend distribution to shareholders.

result contradicts the *Signaling Theory* which indicates that companies that have a low level of *dividend payout ratio* are considered more valuable because they have the potential to experience growth. However, at the same time, companies that are experiencing growth certainly have a greater level of uncertainty (risk) regarding the future cash flows of new investment projects in comparison to the rate of return that has been placed on assets. This makes the company more risky to invest. The results of this study are in line with research conducted by Nasir and Mawardi (2018) as well as Mobarak and Mahfud (2017) that the *dividend payout ratio* has no effect on stock price volatility .

The Effect of Asset Growth, *Earnings Volatility* and *Dividend Payout Ratio* on Stock Price Volatility

The F test table shows that the independent variables consisting of *earnings volatility, dividend payout ratio,* and asset growth have the opportunity to simultaneously affect stock price volatility (dependent variable).

Companies that have unstable and varied income levels will experience high price volatility, this can indicate a signal to investors that the company has a high risk to invest. In addition, companies that are experiencing growth have a greater level of risk or uncertainty regarding future cash flows from new investment projects in comparison to the rate of return that has been placed on assets. This makes the company risky to invest. Therefore, companies with low dividend rates will make their stock price movements unstable. But if the bigger the dividend, the stronger the company's profitability, this will also reduce the risk in investment and affect the ups and downs of stock prices. Asset growth can be something that affects stock price volatility because the larger the company's assets tend to invest in

debt so that it affects the value of the company's own shares, this can be an assessment for investors, because company capital is important for investment policies by investors.

4. CONCLUSIONS AND SUGGESTIONS

1. Asset growth has an effect on stock price volatility. This indicates that companies with small asset growth rates have the potential to have fluctuating stock prices because the company is still in the growth stage. Companies that are still in the growth stage tend to withhold their profits to be reinvested in new projects, so companies usually distribute dividends in small amounts or not at all.
2. Earnings Volatility has no effect on stock price volatility. Because sometimes companies experience fluctuations following cyclical or seasonal patterns. So that volatility is not a significant part of the risk. This will not be a concern for investors, so the company's stock price will have no effect.
3. Dividend payout ratio has no effect on stock price volatility. Because there is a possibility that investors do not consider how much income they receive from the current year's profit in the form of dividends. This can happen due to several factors.
4. It shows that the independent variables which consist of asset growth, earnings volatility and dividend payout ratio have the opportunity to influence the occurrence of stock price volatility (dependent variable) simultaneously.

SUGGESTION

1. In further research to increase the number of samples of more companies. With a larger number of samples, it may give better results in researching the volatility of the company's stock price.
2. Using a period of time between 4 years or 5 years only, so that it can increase the number of samples of companies, especially those that pay dividends consecutively, and use a time period that is close to the time of the study so that there are complete and detailed annual financial reports.
3. Replace or add other variables as factors that can affect stock price volatility such as leverage, dividend yield, size, and other factors.

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