# THE EFFECT OF LEVERAGE AND DIVIDEND POLICY ON STOCK PRICE MODERATED BY COMPANY SIZE

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#### **ABSTRAK**

This study aims to analyze the effect of leverage and dividend policy on stock prices, which is moderated by company size. Empirical studies on mining companies listed on the IDX for the 2019-2021 period. The method of determining the sample in this study used a purposive sampling technique and obtained 30 samples of observational data. This research is a causal research and data analysis was carried out by F test and T test using SPSS version 23. The results of the analysis show that leverage has a positive effect on stock prices, dividend policy has no significant effect on stock prices, while company size can moderate the influence of leverage and dividend policy on stock prices.

**KEYWORDS:** Leverage, Dividen Policy, Stock Price, Company Size

#### **PRELIMINARY**

#### Research Background

According to the official website of the Indonesia Stock Exchange (IDX), the Capital Market is a market for various long-term financial instruments that can be traded, both debt securities (bonds), equities (stocks), mutual funds, derivative instruments and other instruments. Law No. 8 of 1995 concerning the Capital Market defines the capital market as "activities concerned with Public Offerings and Securities trading, Public Companies related to the Securities they issue, as well as institutions and professions related to Securities". The capital market has an important role for the economy of a country because the capital market performs two functions. First, as a means for business funding or as a means for companies to obtain funds from investors. Funds obtained from the capital market can be used for business development, expansion, additional working capital and others. Second, the capital market is a means for the public to invest in financial instruments such as stocks, bonds, mutual funds, and others. Financial instruments traded on the capital market are long-term instruments (with a term of more than 1 year) such as stocks, bonds, warrants, rights, mutual funds, and various derivative instruments such as options, futures, and others. Financial instruments (products) traded on the Indonesian Capital Market consist of stocks, bonds, mutual funds, Exchange Traded Funds (ETFs), and derivatives.

Leverage or solvency ratio is a tool to measure the extent to which a company's assets are financed with debt. This ratio is used to measure how much debt the company must bear in order to fulfill its assets. In a broad sense, the solvency ratio is used to measure a company's ability to fulfill all obligations, both long-term and short-term obligations if the company is about to be liquidated (liquidation). This means how much debt burden is borne by the company compared to its assets. (Kasmere, 2017)

Debt to Total Assets Ratio is used to measure how much the company's assets are financed by debt or how much the company's debt affects the company's assets.

Company size is also a factor that can affect changes in stock prices in a company. Company size reflects the size of the company as seen from the company's total assets (Astuti, W., & Erawati, 2018) firm size or the size of the company that is getting bigger reflects good growth in the company which can be seen from the size of the company's assets. Company size is measured by the total assets, sales or capital of the company. The size of the company can show the experience and ability of the company's growth to reflect the ability and level of risk in managing the investment provided to stakeholders in order to prosper them.

Dividend policy is important for investors, managers, lenders and other stakeholders. This is important for



investors because investors regard dividends not only as a source of income but also a way to value a company from an investment point of view. It is a way to assess whether a company can generate cash or not (Singh, N. P.; & Tandon, 2019). Dividend policy can also be interpreted in general as the payment of company profits to its shareholders. Dividend policy is a financial decision, namely by considering whether paying dividends will increase the prosperity of shareholders (Istanti, 2018). Research conducted by rista bintara tahun 2020 entitled Analysis of Fundamental Factors on Stock Price with the results of this study is that Return On Assets has a positive effect on stock prices, Current Ratio has a positive effect on stock prices, Debt to Equity Ratio has a negative effect on stock prices, Price Earning Ratio has a positive but not significant effect on stock prices, and Price to Book Value has no effect on stock prices.

### Formulation of the problem

Based on the background that has been described, the problem formulations in this study are:

- 1. Does leverage affect stock prices?
- 2. Does dividend policy affect stock prices?
- 3. Can company size moderate leverage effect on stock prices?
- 4. Can company size moderate the dividend policy's effect on stock prices?

#### LITERATURE REVIEW, FRAMEWORK AND HYPOTHESIS

Agency Theory, Leverage, Dividend Policy, Stock Price, Company Size **Agency Theory** 

Agency theory (agency theory) discusses the relationship or agency contract that occurs between shareholders (principal) and management (agent). The conflict of interest between the agent and the principal in achieving the desired prosperity is referred to as an agency problem.

An explanation of tax avoidance can be started from the agency theory approach. In the perspective of agency theory, the practice of tax avoidance is influenced by conflicts of interest between agents (management) and principals that arise when each tries to achieve or maintain the desired level of prosperity. Agency theory explains the phenomenon that occurs when superiors delegate authority to subordinates to perform a task or authority to make decisions (Anthony and Govindarajan 1998).

## Leverage

According to (Kosim, B., & Safira, 2020) Leverage or solvency is a ratio used to measure the extent to which a company's assets are financed with debt. This means how much debt is borne by the company compared to its assets. In a broad sense it is said that the leverage ratio is used to measure a company's ability to pay all of its obligations, both short term and long term if the company is liquidated. The leverage ratio used in this study is the Debt to Asset Ratio (DAR).

## **Dividend Policy**

According to (Husein, M. Y., & Kharisma, 2020) Dividends are part of the company's profits which are distributed to shareholders in accordance with the number of shares they have. The amount of company profits that become dividends is determined through the General Meeting of Shareholders (GMS).

According to (Atmaja, 2008: 281) dividend policy is very important because it affects the company's investment opportunities, stock prices, financial structure, funding flows and liquidity position. In other words, the dividend policy provides information about the company's performance. Therefore, each company sets a different dividend policy, because dividend policy affects the development of the company, including the share price in the capital market. If the company sets a policy to pay dividends, the interest of investors to invest in the company is higher so that the stock price increases

## **Stock Price**

The definition of stock prices according to (Darmaji, T. & Fakhruddin, 2012) prices that occur on the stock exchange at a certain time. Stock prices can go up or down in a very fast matter of time. It can change in minutes or even in seconds. This is possible because it depends on the demand and supply between stock buyers and stock sellers.

## **Company Size**

Company size is a scale or size that shows the size of a company. Company size according to (Putranto, D. A. and Darmawan, 2018) is the size of the company which is determined by several things, including total sales

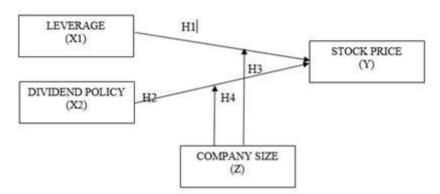


and total assets. Company size can be measured by total assets, sales and market capitalization (Ayumi, 2022). Company size can be measured by various proxies, including total assets, sales, net worth, and market capitalization. In this study, company size is measured using the Natural Logarithm of Total Assets.

## THOUGHT FRAMEWORK RESEARCH METHODS

## Types of research

This study uses a causal research method that aims to examine the influence of the behavior of the Fintech use system on online-based payment users. This research requires hypothesis testing with statistical tests.



**Population and Research Sample** 

No.	Kriteria
1.	Mining Companies Listed on the Indonesia Stock Exchange for the 2019-2021 period
2.	Companies that distribute dividends for the 2019-2021 period

## **Method of Analysis**

#### Classic assumption test

## Normality test

The normality test aims to test whether in the regression model confounding or residual variables have a normal distribution. As it is known that the t and F tests assume that the residual value follows a normal distribution, if this assumption is violated then the statistical test will be invalid for a small sample size (Ghozali: 2013). In this study, the statistical test used to test the residual normality was the Kolmogorov-Smirnov non-parametric statistical test. K-S test is done by making a hypothesis

H0: residual data are normally distributed Ha : residual data are not normally distributed

## **Multicollinearity Test**

Multicollinearity test aims to determine whether the regression model found a correlation between independent variables (independent). A good regression model should not have a correlation between independent variables (Ghozali: 2013).

## **Heteroscedasticity Test**

The Heteroscedasticity test was performed using the Glejser test. Using the Glejser test, the absolute value of the residuals was regressed on each independent variable. Heteroscedasticity problems occur if there are variables that are statistically significant. The hypothesis for testing is as follows:

H0: there is no heteroscedasticity

H1: there is heteroscedasticity Decision:

If significant <0.05, then H0 is rejected (there is heteroscedasticity)

If significant> 0.05, then H0 fails to be rejected (no heteroscedasticity)

## **Autocorrelation Test**

The results of data processing are often biased or inefficient due to misleading between adjacent data due to the influence of the data itself or what is called autocorrelation. This will cause the error in the previous period to affect the current error so that the error terms will be lower, resulting in higher R2 and Adjusted R2. The

autocorrelation test can be done by calculating the Durbin-Watson d statistic, serial correlation in the residuals does not occur if the d value is between the du and 4-du boundary values. The hypothesis used is as follows:

H0: There is no autocorrelation

H1: There is autocorrelation

#### **Hypothesis testing**

Multiple linear regression analysis is used to determine the effect of two or more independent variables with one dependent variable, whether each independent variable is positively or negatively related to the dependent variable.

## RESEARCH RESULTS AND DISCUSSION

**Results of Data Analysis Data Normality Test** 

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters <sup>a,b</sup>	Mean	147.5094713
	Std. Deviation	659.26219801
Most Extreme Differences	Absolute	.158
	Positive	.158
	Negative	110
Test Statistic		.158
Asymp. Sig. (2-tailed)		.054°

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

From the results above, we can see in Asymp. Sig. (2-tailed) and it can be seen that the residual unstandardized value is 0.054. Because this value is greater than 5% or 0.05, it can be concluded that the data is normally distributed

## **Multicollinearity Test**

## Coefficients<sup>a</sup>

		Collinearity Statistics		
Model		Tolerance	VIF	
1	(Constant)			
	Leverage	.901	1.110	
	Dividend Policy	.968	1.033	
	Size	.919	1.089	

a. Dependent Variable: Stock Price

From the above results it can be seen that the value of the variance inflation factor (VIF) of the three variables namely Leverage, Dividend Policy, and Company Size is less than 5, so it can be assumed that between the independent variables there is no multicollinearity problem

## **Autocorrelation Test**

## Model Summary<sup>b</sup>

			Adjusted R	Std. Error of the	
Model	R	R Square	Square	Estimate	<b>Durbin-Watson</b>
1	.559ª	.313	.203	609.03701	.981

a. Predictors: (Constant), Dividend Policy\*Size, Leverage\*Size, Dividend Policy, Leverage

b. Dependent Variable: Stock Price

From the output above, it is obtained that the DW value resulting from the regression model is 0.981. Meanwhile, from the DW table with a significance of 0.05 and the amount of data (n) = 30, and k = 3, the dL value is 1.2138 and the dU is 1.6498. Because (4-Dw) 3.019 > (dU) 1.6498 < (dW) 0.981 means that there is no autocorrelation

#### **Heteroscedasticity Test**

#### Coefficients<sup>a</sup>

Coefficients								
		Unstandardize	ed Coefficients	Standardized Coefficients				
Mode	el	В	Std. Error	Beta	t	Sig.		
1	(Constant)	1292.849	928.640		1.392	.176		
	Leverage	-9.606	24.774	077	388	.701		
	Dividend Policy	-2.644E-8	.000	069	359	.722		
	Size	-44.076	37.890	229	-1.163	.255		

a. Dependent Variable: Abs\_Res

From the output results above, all variables have a significant value greater than 0.05, so it can be concluded that there is no heteroscedasticity problem in the data because all variables have a value greater than 0.05

## **Multiple Regression Analysis Determination Coefficient Test**

#### **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.559 <sup>a</sup>	.313	.203	609.03701

a. Predictors: (Constant), Dividend Policy\*Size, Leverage\*Size, Dividend Policy, Leverage

Based on the table above, the R2 (R Square) number is 0.313 or (31.3%). This shows that the percentage of the influence of the independent variables (Leverage, dividend policy, size) on the dependent variable (Stock Price) is 31.3%. Or the variation of the independent variables used in the model (Leverage, dividend policy, size) is able to explain 31.3% of the variation in the dependent variable (Stock Price). While the remaining 68.7% is influenced or explained by other variables not included in this research model.

## **Hypothesis testing**

#### Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients		
Mode	el	В	Std. Error	Beta	t	Sig.
1	(Constant)	493.445	187.920		2.626	.015
	Leverage	1403.167	514.295	10.889	2.728	.011
	Dividend Policy	0000006	.000	-1.479	-1.866	.074
	Leverage*Size	-50.770	18.397	-10.996	-2.760	.011
	Dividend Policy*Size	.000000024	.000	1.593	2.008	.056

a. Dependent Variable: Stock Price

From the table above it can be seen that the leverage variable has a significance value of 0.011, which means it is less than 0.05, then H0 is accepted and Ha is rejected. The dividend policy variable has a significant value of 0.074 which means it is greater than 0.05, so it can be concluded that H0 is rejected and Ha is accepted. The variable firm size moderating leverage has a significance value of 0.011 which means it is smaller than 0.05, so H0 is accepted and Ha is rejected. In the last variable, firm size moderates the dividend policy variable, which has a significant value of 0.056, which means the value is less than 0.05, so it can be concluded that H0 is accepted and Ha is rejected. Systematically this regression model is formulated as follows:

 $Y = 493.445 + 1403.167 \, x_1 - 0.0000006 \, x_2 - 50.770 \, x_1 * z + 0.000000024 \, x_2 * z + e$ 

#### Where:

- a.  $\beta 0 = 493.445$ ; meaning that if Leverage, Dividend Policy and Company Size are 0, then the Company's Value is 493,445.
- b.  $\beta 1 = 1.403,167$ ; meaning that if Leverage increases by 1, the Company Size will increase by 1.403,167.
- c.  $\beta 2 = -0.0000006$ ; meaning that if the Dividend Policy increases by 1, the Company Size will decrease by
- d.  $\beta$ 3 = -50.770; meaning that if the company size moderate leverage increases by 1, the Company Size will decrease by 50,770.
- e. B4 = 0.000000024; meaning that if the company size moderate dividend policy increases by 1, the Company Value will increase by 0,000000024

## **DISCUSSION**

## **Effect of Leverage on Stock Price**

The results above show that leverage has a significant effect of 1,403.167 on stock prices. During the pandemic, many companies experienced losses, so they took on debt to maintain their companies.

## **Effect of Dividend Policy on Stock Price**

In the results above, it is obtained that the dividend policy has a non-significant effect of 0.0000006 on stock prices. During the pandemic, many companies experienced losses, so investors did not see a dividend policy for one of the fluctuations in stock prices.

## Company Size moderate the effect of Leverage on Stock Price

company size can moderate the effect of leverage on stock prices. The year of research was a pandemic year for the whole world which had a big impact on companies so that assets were not a factor in the rise and fall of stock prices.

## Company Size moderate the effect of Dividend Policy on Stock Price

Firm size can moderate the effect of dividend policy on stock prices. Firm size can strengthen the effect of dividend policy on stock prices.

## **CONCLUSION**

From the results of this study, the following conclusions can be drawn:

- 1) Leverage has a significant effect on stock prices with a positive regression coefficient direction, in other words it can increase stock prices. Thus simultaneously, leverage can increase stock prices.
- Dividend Policy has no significant effect on stock prices with a negative regression coefficient, in other words it cannot increase stock prices.
- 3) Firm size can moderate leverage and dividend policy on stock prices with the regression coefficient direction of negative leverage and positive dividend policy

## **SUGGESTION**

Some suggestions that can be put forward in the results of this study are due to the imperfect research conducted by the author, so the authors provide suggestions that are expected to increase knowledge from this research, namely as follows:

- 1) Further research is needed to find out more things that affect stock prices besides leverage, discretionary policy, and company size.
- 2) The research time should be made long, in order to provide a better picture. Because most likely the results will be different if you use a different period.

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