

INCREASING STOCK PRICES : THE ROLE OF LEVERAGE AND DIVIDEND POLICY

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Abstract : This study aims to determine the role of leverage and dividend policy in increasing stock prices. The stock price is important because it can be used to assess the condition of a company and become a reference for investors to invest in the company. The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2021 period. The sampling technique used purposive sampling method in order to obtain 230 manufacturing companies. All data is processed using Structural Equation Modeling analysis based on Partial Least Square. The results of this study indicate that leverage has a positive effect on dividend policy. In addition, leverage and dividend policy have a positive effect on stock prices. Or stated, the dividend policy succeeded in mediating the effect of leverage on stock prices.

Keywords: *Leverage, Dividend Policy, Stock Prices*

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1. Introduction

Stock price is a very important factor and must be considered by investors in investing. This is because the stock price shows the performance of the issuer, the value of a company and the right index for company effectiveness. A company's stock price reflects investors' perceptions of its ability to obtain and grow profits in the future (Proffitt and Bacon, 2013). If the shareholders are happy, and the company is doing well, which is reflected in its share price, then the company's management will get an increase in compensation.

The increase in share prices was influenced by several factors. Company leverage is one of the factors that causes stock prices to become erratic. Therefore, the capital structure is needed by the company, because good funding planning will affect the level of profit that the company gets. Planning regarding the capital structure is an important and strategic policy. Companies that have a large profit level will affect the profit sharing in the form of dividends. This is in line with previous research conducted by Muthusamy and John (2010) and Titman et al., (2012) who argued that capital structure has a positive and significant effect on dividend policy. Conversely, Aggarwal and Kyaw (2010) argue that capital structure has a negative effect on dividend policy.

The determination of capital structure will affect the company activities. A wellmanaged company's activities and huge profits make investors' assessment of the company will be good as well. This will have an impact on increasing the company's stock price. In line with previous research conducted by Raheman et al., (2007); AbuTawahina (2015); Idode et al.,

(2014); Muhahid and Akthar (2014); Mwaura (2013); Pouraghan et al. (2012), capital structure has a positive and significant effect on stock price. In the contrary, AttaDoku (2009); Chinaemerem and Anthony (2012); Salim and Yadav (2012) suggested that capital structure has a negative and significant effect on stock price.

Dividend policy is a distribution in form of dividend to shareholders and retained earnings for internal company purposes which is determined by the company's profit (Nazir et al., 2013). Shareholders are more interested in dividends that are distributed in huge and stable amounts even during crisis. It is because, the greater the dividends distributed, the greater the level of investor confidence in the company. According to Kumar and Gafar (2017); Hamid et al., (2017); Nazir et al., (2013), dividend policy has a positive and significant effect on stock price. On the other hand, Hussainey (2011); Profilet and Bacon (2013) stated that dividend policy has a negative and insignificant effect on stock price.

Based on the explanation above, the purpose of this research is to analyze and test empirically the effect of capital structure, dividend policy and stock price. The company's stock price can be influenced by the investors' assessment of the company's condition and performance achievement. The better the conditions of the company, the higher the stock price of the company. In several previous studies, there were differences of opinion regarding the relationship between capital structure and stock price, so that further research is needed. In addition, this research also examined dividend policy as an intervening variable that affects the independent variables, namely capital structure and financial performance on the dependent variable, namely stock price.

The need for funds cannot be separated from the company's management in running its business. Funding from within the company (internal financing) and from outside the company (external financing) can be obtained by the company in fulfilling its funding needs. The company will try to balance the equity with the debt. Signal theory illustrates that the high level of debt in the capital structure used by the company can be information to distinguish the good or bad of company conditions (Al-Najjar, 2014) Companies that have a low level of debt will have a low burden that is borne. Therefore, the profits obtained by the company can be allocated for paying dividend to shareholders. In line with this, research conducted by Muthusamy and John (2010), Muspa (2020), and Titman et al., (2012) suggest that capital structure has a positive effect on dividend policy

Hypothesis 1: Capital structure has positive effect on dividend policy.

Capital structure regarding the way to determine the company's debt and capital is about how to allocate capital in the company's real investment activities (Idode et al., 2014). The burden borne by the company will be even harder if the planning of the company's capital structure goes wrong. Signal theory illustrates that the high level of debt in the capital structure used by companies can be information to distinguish the good or bad of company conditions (Mwaura, 2013). A bad capital structure can affect the investors' assessment of the company.

The estimation and assessments of investors will indirectly affect the company's stock price. If investors think that the company is good, investors will be interested in investing in the company and this will have an impact on the increase of company's stock price. In line with this, Raheman et al., (2007); AbuTawahina (2015); Idode et al., (2014); Muhahid and Akthar (2014); Mwaura (2013); Pouraghan et al., (2012) stated that capital structure has a positive effect on stock price.

Hypothesis 2: Capital structure has positive effect on stock price.

The profit distribution by the company to shareholders from the company's profits is also called dividend. According to Kumar and Gafar (2017) the decisions made by companies in determining the profits proportion to be distributed in form of dividends or retained earnings are called company's dividend policy. The announcement of dividend distribution will affect investors' consideration in investing, so that it will have an impact on increasing the company's stock price. This is supported by Hamid et al., (2017), Muspa (2020), and Nazir et al., (2013), who suggested that dividend policy has a positive effect on stock price. From the description above, the hypothesis that can be formulated is:

Hypothesis 3: Dividend policy has positive effect on stock price.

2. Research Methods

The study uses a causality design to prove the relationship between the dependent and independent variables. This study was designed to determine the effect of leverage and dividend policy on the stock price. The object of research is the stock price in manufacturing industrial companies listed on the Indonesia Stock Exchange (IDX) in 2017-2021. Dividend policy and stock price are the dependent variables in this study. Leverage is independent variable in this study.

This research was carried out in Indonesia, namely on manufacturing industrial companies listed on the Indonesia Stock Exchange (IDX) for the period 2017 to 2021. This location was chosen because the Indonesia Stock Exchange is the only stock exchange in Indonesia and all companies listed in Indonesia through Indonesia stock exchange.

All data in this study are quantitative data. Quantitative data is data in the form of numbers. Secondary data is data that has been collected by certain parties for other purposes (Saunders et al., 2016). This study uses secondary data, where all data such as leverage and dividend policy can be obtained from the annual financial statements of each company published on the Indonesia Stock Exchange website and for stock price data can be obtained by collecting stock price data company through the yahoo finance website.

The population in this study are manufacturing companies on the Indonesia Stock Exchange listed from 2017 until 2021, in total there are 136 companies. The sampling technique in this study is the purposive sampling method. Purposive sampling method is a sampling technique based on criteria determined by the researcher. The sampling criteria used in this study are manufacturing companies that are always listed on the IDX for the period 2017 to 2021. There are 46 manufacturing companies that meet the sample criteria.

The following is the definition of all variables used in this study: The leverage variable is measured by using Debt to Equity Ratio (DER). DER is the ratio of total debt to total equity in form of percentage. Dividend policy as measured by using the Dividend Payout Ratio (DPR). DPR is the ratio between the amount of dividends to be distributed to shareholders and the amount of earnings per share that the company receives in form of percentage. Stock price as measured by using the natural logarithm (Ln) of the closing price.

The data analysis technique used in this research is Structural Equation Model based on Partial Least Square (SEM-PLS) with SmartPLS 3.0 software. The SEM-PLS equation models in this research are outer model equation (measurement model) and inner model equation (structural model) (Ghozali and Latan, 2015).

3. Results and Discussion

3.1. Results

This study used exogenous variable (capital structure) and endogenous variables (dividend policy and stock prices). The variables test was carried out using descriptive statistics. The test results are shown in table 1 below:

Table 1. Descriptive Statistics of Research Variables

	N	Minimum	Maksimum	Mean	Median	Std Deviation
Leverage	230	0,074	6,341	0,878	0,591	0,877
Dividend Policy	230	0,049	1,767	0,394	0,331	0,285
Stock Price	230	4,779	11,451	7,522	7,313	1,540

Source: Indonesia Capital Market Directory 2017-2021, processed.

The number of observations used in this study were 230 observations, from 46 sample companies and annual data from 2017 to 2021. The data used are *balanced panel data*. In determining the panel data regression model, the tests carried out include the Chow test, Hausmann test, and the *Lagrange Multiplier* test to determine whether the appropriate regression model in this study is one of *fixed effect*, *random effect*, or *common effect*.

Based on the table above, it can be analyzed that the capital structure variable has a minimum value of 0.074 which is found in Sido Muncul Herbal Medicine and Pharmacy Industry company. The maximum value of 6.341 is found in Indal Aluminum Industry Tbk company. The average value (mean) is 0.878, the middle value (median) is 0.591, whereas the standard deviation value which indicates the level of data deviation from the research variable is 0.877.

Convergent validity has a function to determine the correlation between the indicator and its construct. Convergent validity is related to the principles of variable measurement from the correlation between item / indicator score and the construct score. Convergent validity test can be seen from the outer loading factor value for each construct indicator. A research is reliable and valid if the correlation value is > 0.70 and the average variance extracted value is ≥ 0.50 . The results of the correlation output between the indicator and its construct and the Average Variance Extracted (AVE) can be seen in table 2 and 3 below

Tabel 2. Convergent Validity

	Leverage	Dividend Policy	Stock Price
DER	1,000		
DPR		1,000	
SP			1,000

Source: Indonesia Capital Market Directory 2017-2021, processed.

Based on the results of convergent validity measurement through the outer loadings value, it shows that the outer loading value has a value of > 0.70 . Therefore, each variable is proven to have a good convergent validity value and the requirements of convergent validity have been fulfilled.

Tabel 3. Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Leverage	1,000
Dividend Policy	1,000

Stock Price	1,000
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Source: Indonesia Capital Market Directory 2017-2021, processed.

Based on the results of the average variance extracted (AVE) measurement, it shows that the AVE value has a value of > 0.50 . This proves that all constructs are good, so that they fulfill the validity requirements.

Discriminant validity is a test that aims to measure construct with its indicators and with other constructs. The high value of discriminant validity on a construct with its indicators illustrates that this construct is unique to other constructs. The value of discriminant validity can be seen from the cross loading. Composite reliability is a test to assess the indicators reliability of a latent construct. In order to strengthen the reliability test, it can be seen from the value of Cronbachs alpha. The construct is declared reliable if the composite reliability and Cronbach alpha values are above 0.70. Following are the results of the cross loading output, composite reliability and Cronbach's alpha :

Tabel 4. Discriminant Validity

	Leverage	Dividend Policy	Stock Price
DER	1,000	-0,606	0,881
DPR	-0,606	1,000	-0,830
SP	0,881	-0,830	1,000

Source: Indonesia Capital Market Directory 2017-2021, processed.

Based on the results of discriminant validity measurement through cross loading value, it shows that each construct with its indicator has a higher cross loading value than the other constructs. Therefore, the constructs in this research are able to predict their indicators better than other indicators.

Tabel 5. Compositet Reliability

	Composite Reliability	Cronbach's Alpha
DER	1,000	1,000
DPR	1,000	1,000
SP	1,000	1,000

Source: Indonesia Capital Market Directory 2017-2021, processed.

Based on the results of composite reliability measurement through the composite reliability value and Cronbach's alpha, it shows that the value of each construct is > 0.70 . This proves that all constructs are good, so that they can fulfill the reliability requirements *Inner Model Test Result (Structural Model)* The structural model test is found out by RSquare (R^2). The R^2 test is used to explain the effect of certain exogenous latent variables on endogenous latent variables, whether they have a substantive effect or not. The R^2 test is said to be good if it is able to explain endogenous variables or if the value is close to 1. The following are the results of the R-Square (R^2) output:

Tabel 6. R-Square Determination Coefficient Test (R^2)

	R Square	R Square Adjusted
Stock Price	0,370	0,370

Leverage	0,275	0,275
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Source: Indonesia Capital Market Directory 2017-2021, processed.

Based on the measurement results of Rsquare (R^2) determination coefficient above, it shows that the stock price variable can be explained by the capital structure variable and dividend policy for 37%, while 63% is explained by other variables outside the variables studied. Meanwhile, the dividend policy variable can be explained by the capital structure variable for 27.5%, while 72.5% is explained by other variables outside the variables studied.

This test is carried out through the bootstrapping method. The results can be seen in the P values through path coefficient table and the specific indirect effect.

Tabel 7. T Statistic Test

No.		Original Sample (O)	Deviation Standard (STDEV)	T Statistic (O/STDEV)	P Values	Decision
1	Leverge Dividend Policy	0,132	0,018	7,457	0,000	H1 Accepted
2	Leverage Stock Price	0,326	0,043	7,556	0,000	H2 Accepted
3	Dividend Policy Stock Price	0,548	0,189	2,898	0,004	H3 Accepted
4	Leverage Dividend Policy Stock Price	0,072	0,028	2,573	0,011	Succeeded as intervening variable

Source: Indonesia Capital Market Directory 2017-2021, processed.

3.2 Discussion

The leverage variable on dividend policy has a parameter coefficient of 0.132 as seen in the original sample column. This illustrates that the capital structure variable has a positive direction towards dividend policy. It means that, when the leverage increases by one unit, it can increase the dividend policy by 13.2%, assuming that other latent constructs are constant. In the results, the p value shows a value of 0,000 which means it is smaller than 0.050. This can be said to be significant and also meet the requirements. Meanwhile, the t-statistic value is 7,457 and said as valid, because it has met the requirements > 1.96 . According to the results, it can be concluded that the first hypothesis (**H1**) is **accepted** because the capital structure has a positive and significant relationship with dividend policy.

The capital structure variable on stock price has a parameter coefficient of 0.326 which is seen in the original sample column. These results indicate that the leverage variable has a positive direction towards the stock price variable. In other words, the leverage can increase the stock price by 32.6%, assuming that other latent constructs are constant. The p value column shows a value of 0.000 and t-statistics value of 7,556. The results have met the requirements because the p values is < 0.050 and t-statistics is > 1.96 . In conclusion, the second hypothesis (**H2**) is **accepted** because the leverage has a positive and significant direction to stock price.

The dividend policy variable on stock price has a parameter coefficient of 0.548 as seen in the original sample column. These results indicate that the dividend policy variable has a positive direction towards the stock price variable. It means that the dividend policy can increase the stock price by 54.8% assuming that other latent constructs are constant. The p value column shows a value of 0.004 and t-statistics value of 2.898. Thus, it can be said that these results have met the requirements because the p values < 0.050 and the t-statistics value > 1.96 . Therefore, the third hypothesis **(H3) is accepted** because the dividend policy has a positive and significant direction to the share price.

The dividend policy variable moderates the leverage variable with the stock price. It has a parameter coefficient of 0.072 as seen in the original sample column. These results indicate that the dividend policy variable has a positive direction towards the leverage variable and stock price. It means that the dividend policy can increase the leverage and stock price by 7.2%, assuming other latent constructs are constant. The p value column shows a value of 0.011 and t-statistics value of 2.573. It can be said that these results have met the requirements because the p value < 0.050 and the value of t-statistics > 1.96 . So that, the dividend policy variable successfully moderates the effect of capital structure with stock price.

The test results show that the leverage variable has a positive and significant effect on dividend policy. This means that manufacturing companies that have a good leverage so it can increase dividends that will be distributed to investors. On average, manufacturing companies use more funding from their equity, so that the obligation for the company to pay debts is relatively small.

The low burden of the company makes the allocation of profits to be distributed in form of dividend is also getting bigger. The low level of debt owed by the company is due to the Financial Services Authority has loosened the processes and costs that must be incurred by companies to issue new shares. Therefore, manufacturing companies have more funding from equity or share capital. The results of this research are in line with the research conducted by Muthusamy and John (2010); Titman et al., (2012). They argued that leverage has a positive and significant effect on dividend policy. The results of this research, however, are not in line with research conducted by Aggarwal and Kyaw (2010) which suggests that leverage has a negative effect on dividend policy.

The results of leverage variable test are positive and significant effect on stock price. When a company is able to optimize its leverage, it can increase the stock price of a company. The optimal leverage is reflected in the ratio of debt to equity. The relatively small debt of the company reflects the relatively small risk borne by the company. As the result, the investors will be interested in investing their shares in the company. The results of this research are in line with Raheman et al., (2007); AbuTawahina (2015); Idode et al., (2014); Muhahid and Akthar (2014); Mwaura (2013); Pouraghan et al., (2012). They stated that leverage has a positive and significant effect on stock price. The results of this research however are not in line with Atta-Doku (2009); Chinaemerem and Anthony (2012); Salim and Yadav (2012). They suggested that leverage has a negative and significant effect on stock price.

The test results show that dividend policy variable has a positive and significant effect on stock price. This means that the higher the level of dividend policy, the higher the company's stock price. The policy of company dividends distribution is one of the information that is needed by investors in the company's financial statements. The policy for distributing dividends has been regulated in Law Number 40 of 2007 concerning Limited Liability

Companies. The law states that companies can distribute dividend if the company has a positive profit balance. Investors tend to pay more attention to the aspect of company dividend distribution, because dividend distribution reflects the condition of the company which is experiencing a profit or loss.

The results of this research are in line with Kumar and Gafar (2017); Hamid et al., (2017); Nazir et al., (2013), who stated that dividend policy has a positive and significant effect on stock price. The results of this study, however, are not in line with Hussainey (2011); Proffitt and Bacon (2013), who stated that dividend policy has a negative and insignificant effect on stock price.

The test results in this study indicate that the effect of leverage on stock price mediated by dividend policy has a positive and significant effect. Manufacturing companies, on average, had a relatively small amount of debt compared to their equity, so the burden to be paid was also relatively small. Therefore, the profits earned can be allocated as dividends to shareholders. The dividend distribution can be a positive signal for investors, so that many investors are interested in investing their shares in the company.

4. Conclusion

Based on the analysis

Based on the analysis of 230 manufacturing companies in Indonesia, it is explained that the leverage variable had a positive effect on dividend policy and stock price. This means that if the leverage proxied by the debt to equity ratio increases, the dividend policy proxied by the dividend pay out ratio will also increase. Meanwhile, dividend policy variable had a positive effect on stock price. This means that if the dividend policy proxied by the dividend payout ratio increases, the stock price will increase. Dividend policy is able to mediate the effect of leverage on stock price.

Limitations

The limitations of this research are: (1) the low ability of the independent variable (leverage) in explaining the dependent variables (stock price and dividend policy), which is still below 50%; and (2) regarding the incomplete explanation of dividend distribution in the annual report of manufacturing companies.

Suggestion

The future research of this study is suggested: (1) add several independent variables such as In summary, the key fundamental factors are as follows: the level of the earnings base (represented by measures such as EPS, cash flow per share, dividends per share), the expected growth in the earnings base, and the discount rate; (2) to look for data on dividend distribution per share in other sources, for example on the idx.co.id website or on other websites concerning dividend distribution.

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