

Impact of dividend policy on stock prices

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Abstract: This study aims to test and analyze the research model by using dividend policy as an intervening variable on the effect of firm value and capital structure on firm value. Other variables influencing the stock price are investment opportunity set, trading volume activity, and profitability. The objects of this research are companies included in the LQ45 index on the Indonesia Stock Exchange during the period 2012 - 2021. The analytical tool we use is path analysis to test the effect of exogenous variables on endogenous variables, including testing direct and indirect effects. The results of testing 177 samples over a period of 10 years resulted in the finding that the dividend policy with the DPR (Dividend Payout Ratio) indicator was unable to mediate funding policy and firm value in increasing stock prices. Another study found that factors that increase SP (stock prices) in a positive and significant direction of influence are ROE (Return On Equity), and DPR (Dividend Payout Ratio), while other variables such as PER (Price Earning Ratio) and DER (Debt to Equity Ratio) do not significantly increase SP (Stock Prices) despite the positive direction of influence. While the factors that can reduce SP (Stock Prices) in our study are DAR (Debt to Assets Ratio) and TVA (Trading Volume Activity), and other factors that do not significantly reduce SP (Stock Prices) even though the direction of influence is negative are PBV (Price to Book Value) and ROA (Return on Assets).

1 Introduction

Spence [1] introduced signal theory by suggesting that a signal or signal provides a signal, and the sender (information owner) tries to provide relevant pieces of information that the receiver can utilize. The signal received will be interpreted according to the understanding of the recipient and result in a change in behaviour. Signalling theory explains how companies give signals to users of financial statements about what management must do to make efforts according to the wishes of the company owner. So it is hoped that the information provided is positive information about the company's performance which is better than other companies. In other words, companies can provide positive signals to be captured by potential investors in the form of investment in the company concerned.

According to Brigham and Houston [2], a signal is an action taken by a company to provide clues to investors about how management views the company's prospects. Information is an important issue issued by the company, and can affect investments made by external parties. Information, notes or descriptions, regarding past, present and future conditions for the continuity of the company's life and how the impacts that might arise.

The stock market has an important role in developing companies and plays a role in creating real economic growth. The performance of a stock can be influenced by different variables, both in terms of time and aspects, so that stock price movements sometimes cannot be predicted precisely because there are changes in surrounding variables including financial market variables, financial behaviour variables and others.

The stock market price is the price determined by the demand and supply of market participants for a share. Naturally, the stock price is a reflection of the company's performance, so if the stock price rises, this indicates good company performance. Increasing company performance from time to time can increase stock prices, and this is liked by investors [5-8]. This shows that there is a positive relationship between financial performance and stock price. The higher the financial performance the higher the share price, and vice versa.

The dynamics of a company's stock price can be seen from the closing price of its shares (closing price), which states the ups and downs of the stock price. Managers can maximize company value by setting good and correct policies to increase their company's share price. A company with a high share price reflects that the performance of the

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company is good to be able to create a high share price, the company must first find out about the factors that can affect the share price. One of the factors that can affect stock prices is dividend policy. Dividend policy has the main aspect, namely determining the right distribution of company profits between being distributed as dividends or retained for company reinvestment.

Ruhani et al. [7] explained that there are many factors that affect stock prices such as earnings, dividends, bookkeeping value as internal factors, while external factors such as interest rates, government regulations, foreign exchange rates. Pearce et al. [8] The study explores the influence of economic variables such as money stock, real economic activity uses inflation indicators, namely changes in the consumer price index (CPI), producer price index (PPI), industrial production (IP), and the unemployment rate (RU), including the discount rate from the federal reserve. The results of the study suggest that monetary policy greatly affects stock prices, money stock has a negative effect on stock prices, the federal reserve's significant effect on stock prices, PPI has a significant impact when announced. The conclusion of the research conducted by Pearce et al. [8] is that the impact of these variables on stock prices can last long even though the news/announcement has passed. Our research has novelty compared to existing research, namely the placement of dividend policy proxied by dividend payout ratio as an intervening variable and dividend policy by dividing dividends with dividend payout ratio is still a tool for companies to attract investors, as evidenced during the 10-year period companies in incorporated in LQ45 reached 96% paying dividends.

Black and Scholes [9] argue that the company pays dividends because it expects its share price to increase or there is a change. Changes in stock prices can be interpreted because the market reacts and expects the level of profit that can be obtained from the company. Dividends can help provide good information about the company's management to the capital market, so it can be said that dividends can help provide good information about the company's management [10]. So it can be said that dividends can be viewed as a signal to the company's prospects [11]. In the context of high information asymmetry, company management tends to pay dividends with a low ratio. Even though the company continues to distribute dividends, the dividend policy implemented by the company's management is not used as an instrument to reduce information asymmetry but is used to create a good corporate image [12].

1.1 Investment opportunity set and stock price

Earning Per Share (EPS) referring to signalling theory can provide investors with the right news signals [13]. Information about changes in stock prices and volumes contains information in providing useful evidence and can be used in decision making. The results of previous studies found that the PER has a positive and significant effect on

stock price [13-16]. While Anwar and Rahmalia [18] found that although EPS has an effect on stock prices in a positive direction, it is not significant. Based on this, the first hypothesis is formulated as follows:

H1. Price earning ratio has a positive impact on the stock price.

1.2 Firm value and stock price

PBV represents the company's value will determine the information provided by the company to external parties how the company manages the company transparently. In signalling theory, the PBV value gives good news/positive signal to investors. The higher the PBV, the higher the investor's assessment of the company concerned relative to the funds invested. The higher the PBV, the higher the stock return so that it will increase the company's income and increase the company's ability to distribute dividends. The results of the study found that the PBV has a positive effect on stock prices and has a significant effect [14,15,18-20]. Based on this, the second hypothesis is formulated as follows:

H2. Price book value has a positive impact on the stock price.

1.3 Capital structure and stock price

One of the factors that affect stock prices is the company's capital structure, which is part of the financial structure. The concern is how the capital structure can be optimized to increase firm value. How then fluctuations in the capital structure can affect the company's policy on finance because there is always a trade-off between the benefits and costs of each funding policy taken by the company. Trade-off theory according to Myers [22] explain that company will go into debt up to a certain level of debt, where the tax savings (tax shields) from additional debt are equal to the cost of financial distress. The results found that the capital structure with an indicator of debt ratio or debt to asset ratio has a significant positive effect on stock prices [22-24]. While the capital structure using the DER indicator found the fact that DER is significantly positive to the stock price [26]. While the capital structure using the DER indicator found the fact that DER is significantly positive on stock prices, another study found that DER although positive but its effect is not significant [13,26]. While Novison et al. [28] found that DER has a significant negative effect on stock returns. Based on this, the third and fourth hypotheses are formulated as follows :

H3. Debt to asset ratio has a positive impact on stock price
H4. Debt to equity ratio has a positive impact on stock price

1.4 Profitability and stock price

Research that has been conducted finds that the level of profitability greatly affects the company's stock price (Net Profit Margin), this shows that profitability shows a positive signal for investors to make company stock purchase transactions [25,28-30]. More specifically, the

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results of the study of profitability influence on stock prices using the ROE indicator found that ROE has a significant positive effect on stock prices [24,26], although there are also studies that find that although the effect of ROA is positive, it does not significantly affect stock prices [32]. The more extreme thing in another study found that ROA has a negative but insignificant effect on stock prices [30,32].

The ROE indicator is often used as a profitability variable, and previous studies show strong evidence that ROE is one of the determinants of stock prices. This is supported by the results of studies which state that ROE has a positive effect on stock prices [17,25,27,32,33]. While other studies found that ROE is positively insignificant [26,28]. The opposite is stated by Choiriya et al. [32] who found that ROE is significantly negative to stock prices. Based on this, the fifth and sixth hypotheses are formulated as follows:

- H5. Return on assets ratio has a positive impact on stock price.
H6. Return equity ratio has a positive impact on stock price.

1.5 Trading volume activity and stock price

Trading volume activity (TVA) is a function of supply and demand and can be used as a sign of changes in market strength and weakness. TVA is an important indicator for investors, because an increase in TVA is an increase in buying and selling activity by investors in the capital market [35]. Empirically shows that TVA has a positive effect on stock prices [34,35]. Based on this, the seventh hypothesis is formulated as follows :

- H7. Trading volume activity has a positive impact on stock price

1.6 Dividend policy and stock price

Suganda and Sabbat [37] explains the distribution based on signalling theory, that dividend payments explain the company's prospects for future profits. DPR is the ratio that shareholders receive from the company based on a certain percentage of the profit level, this explains that the company is able to share the results, so that it can increase investor demand in the stock market. So that the higher the share price, the desire of investors to own/buy shares will increase [38]. Research finds that dividend policy represented by the DPR has a significant positive effect on stock price [20,22,28]. While Qureshi [19] explains that the payout ratio has a negative and insignificant influence on share price. Based on this, the eighth hypothesis is formulated as follows:

- H8. Dividend payout ratio has a positive impact on stock price.

1.7 Firm value and dividend policy

PBV illustrates the market's financial value to the management and organization of a going concern company. PBV informs investors that the company is well

managed, the higher the PBV of a company indicates the higher the physical assets and the higher the value of the company by investors. Meanwhile, the DPR is the percentage of income that must be paid to shareholders as cash dividends, and the higher the DPR will benefit investors. The combination of PBV and DPR is expected to increase investor confidence to make transactions on company shares. The study found that PBV has a positive effect on DPR [39]. Based on this, the ninth hypothesis is formulated as follows:

- H9. Price to book value has a positive impact on dividend payout ratio.

1.8 Capital structure and dividend policy

Capital structure is the balance between the amount of debt owned by the company and the amount of assets or the amount of equity capital. An increase in debt will affect the level of net income received by shareholders, this is because the company will finance the debt first then the remaining profits will be distributed as dividends. It can be said that the capital structure has a negative influence on the DPR [40]. However, capital structure has a positive and significant effect on dividend policy. This shows that the higher capital structure will increase the dividend policy value, conversely the lower capital structure value will decrease the dividend policy value [40,41], although funding policy can also have a positive but not significant effect on DPR [43]. Based on this, the tenth and eleventh hypotheses are formulated as follows:

- H10. Debt to assets ratio has a positive impact on dividend payout ratio.
H11. Debt to equity ratio has a positive impact on dividend payout ratio.

2 Methodology**2.1 Data Collection and Sources**

The type of data used in this study is in the form of secondary data. The source of data used comes from the financial statements of LQ45 the period 2012 to 2021. The data in this study is panel data that is the type of data that is a combination of cross-sectional data and time series data, and therefore according to Gujarati [44], the method of analysis is a combination of time series data analysis and cross-sectional data analysis. Path analysis is used to answer research questions, and the dividend policy is exogenous variable one (1), and stock price is exogenous variable two (2).

2.2 Empirical Model and Variable Measurement

The research was focused on the empirical test of variables integration related to the stock price involving investment opportunity cost, firm value, capital structure, profitability, and trading volume activity, mediated by dividend policy. The model of empirical study is presented in Figure 1.

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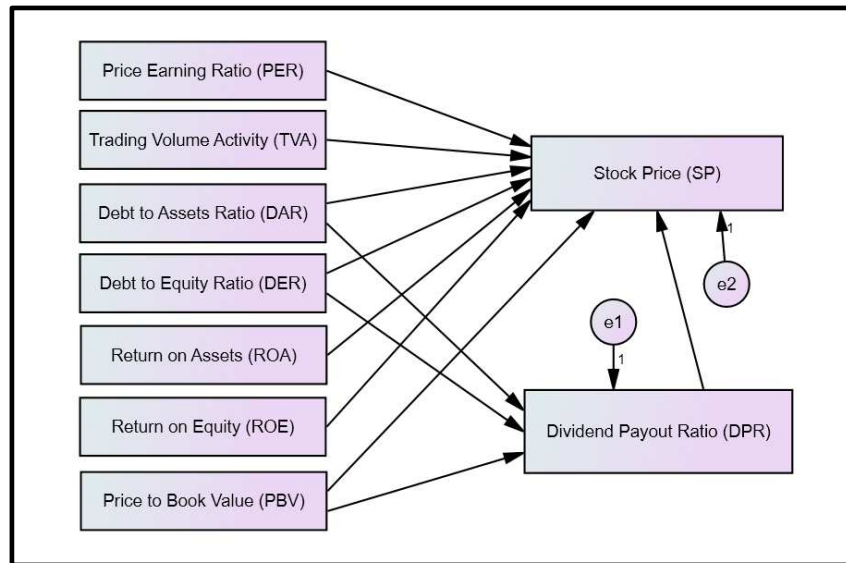


Figure 1 Empirical model research

Both sub-structures formed in figure 1 are the first, the sub-structure states the causal relationship of variables DPR, PER, PBV, DAR, DER, ROA, ROE, and TVA with SP variable; Second, the sub-structure shows the causal relationship between variables PBV, DAR, DER, with variable DPR. In other words, based on both sub-structures, there are 2 structural equations formed (1), (2):

$$SP = \beta_{1SP}DPR + \beta_{2SP}PER + \beta_{3SP}PBV + \beta_{4SP}DAR + \beta_{5SP}DER + \beta_{6SP}ROA + \beta_{7SP}ROE + \beta_{8SP}TVA + \varepsilon_1 \quad (1)$$

$$DPR = \beta_{1DPR}PBV + \beta_{2DPR}DAR + \beta_{3DPR}DER + \varepsilon_2 \quad (2)$$

Where :

SP = stock price, DPR = dividend payout ratio, PER = price earning ratio, PBV = price to book value, DAR = debt to assets ratio, DER = debt to equity ratio, ROA = return on assets, ROE = return on equity, TVA = trading volume activity.

Stock price used the measurement from closing price stock [1,2,22,29], price earning ratio often used as a proxy of investment opportunity set [1,14], firm value used proxy is price to book value [14,18], capital structure used proxy as debt to equity ratio and debt to assets ratio or debt ratio [37,44-46], profitability use proxy as return on assets and return on equity [17,25,27,31-33,44,48]. Trading volume activity use proxy from activity trading in capital market [1,34], and dividend policy use proxy as dividend payout ratio [1,22,45].

3 Result and discussion

3.1 Descriptive statistics

Descriptive statistics for variables are shown in Table 1. On average, the DPR data in Indonesia reaches 33.59% with the highest DPR value is 88.36% and the lowest is 2.91%. While for SP, the average is 5,836.89 with the highest SP is 25,000.00 and the lowest is 189.00.

Table 1 Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Dividend payout ratio	177	2.91	88.36	33.5868	16.98932
Return on assets	177	0.64	18.54	6.6569	3.92184
Return on equity	177	1.07	27.12	13.5815	4.89760
Debt to assets ratio	177	0.13	0.88	0.5047	0.18996
Debt to equity ratio	177	0.15	7.31	1.6238	1.79391
Price earning ratio	177	5.12	40.01	16.7123	7.11637
Price to book value	177	0.36	6.01	2.2155	1.32704
Trading volume activity	177	4.43	30447.00	7147.6013	6489.43837
Stock price	177	189.00	25100.00	5836.8870	5457.80810

Source: SPSS Data Processing Results

Table 2 shows the Pearson correlation matrix and Vector Inflation Factor (VIF) among the variables. The results indicate that all variables are far from being correlated. The maximum correlation coefficient is

100.00% between ROE and DPR which indicates positive and significant correlation. While the lowest correlation is 1.50% between TVA and DER which indicates positive and no significant correlation.

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Table 2 Pearson correlation matrix

Variable	Dividend payout ratio	Return on assets	Return on equity	Debt to assets ratio	Debt to equity ratio	Price earning ratio	Price to book value	Trading volume activity	Stock price
Dividend payout ratio	1								
Return on assets	0.268	1							
Return on equity	0.100	0.610	1						
Debt to assets ratio	-0.285	-0.751	0.020	1					
Debt to equity ratio	-0.158	-0.575	0.216	0.855	1				
Price earning ratio	0.248	0.231	0.030	-0.234	-0.200	1			
Price to book value	0.298	0.569	0.602	-0.208	-0.049	0.733	1		
Trading volume activity	-0.164	-0.191	-0.227	0.018	0.015	-0.074	-0.197	1	
Stock price	0.227	0.192	0.347	0.008	0.125	0.066	0.237	-0.477	1

Source: SPSS Data Processing Results

3.2 Empirical model assumption test results

Table 3 shows the multivariate CR value of 2.426 < 2.58, so it can be concluded that the data in this

study is normally distributed. Thus the normality assumption has been met and the data used in this study is suitable for further estimation.

Table 3 Data Normality

Variable	Min	Max	Skew	C.R.	kurtosis	C.R.
Dividend payout ratio	2.910	88.360	0.065	0.351	-0.425	-1.153
Return on assets	0.640	18.540	0.703	3.816	-0.381	-1.033
Return on equity	1.070	27.120	0.237	1.290	-0.140	-0.381
Debt to assets ratio	0.130	0.880	0.259	1.406	-0.563	-1.530
Debt to equity ratio	0.150	7.310	1.913	10.389	2.440	6.626
Price earning ratio	5.120	40.010	0.766	4.163	0.102	0.276
Price to book value	0.360	6.010	1.040	5.647	0.358	0.972
Trading volume activity	4.430	30447.000	1.410	7.657	1.864	5.061
Stock price	189.000	25,100.000	1.349	7.328	1.559	4.233
Multivariate					5.131	2.426

Source: AMOS Data Processing Results

The Mahalanobis distance is based on the chi-square value in the distribution table of the X^2 distribution table at a degree of freedom of 9 variables at a level of $p < 0.001$, namely $X^2 (9;0,001) = 27.87716$. SEM results show observations farthest from the centroid (Mahalanobis distance), namely the most distant data is 19.348 and the closest is 7.383, so that this research data is not detected multivariate outliers. Meanwhile, the results of the

determinant of sample covariance matrix test show that the determinant of sample value is greater than 1, so there is no multicollinearity and singularity.

3.3 Empirical model feasibility test results

The empirical model feasibility results presented in table 4 show that all criteria in the feasibility test are met, so the data can be said to be free from outliers.

Table 4 Summary of Evaluation Results Goodness of Fit Empirical Research Model

Goodness Of Fit Index	Cut-Off Value	Model Result	Description
<i>Absolute Measures</i>			
X^2 - Chi-Square	$< x^2, df, \alpha$	6.717	value X^2 with df 3 probability 0.05 as 7.81473. Chi-Square value 6.717 is smaller
<i>Probability</i>			
Minimum Sample Discrepancy Function Divided with Degree of Freedom (CMIN/DF)	≥ 0.05	0.152	Very good
Root Mean Square Error of Approximation (RMSEA)	≤ 2.00	1.679	Very good
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.062	Very good
Goodness of fit Index (GFI)	≥ 0.90	0.995	Very good
<i>Incremental Fit Measures</i>			
Adjusted Goodness of Fit Index (AGFI)	≥ 0.90	0.907	Very good
Tucker Lewis Index (TLI)	≥ 0.95	0.982	Very good
Comparative Fit Index (CFI)	≥ 0.95	0.999	Very good
Normed Fit Index Fit Index (NFI)	≥ 0.90	0.995	Very good

Source: Data processed from the results of SEM

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3.4 Path analysis test result

Initially, we estimate the path analysis using AMOS. The results are reported in Table 5.

Table 5 Output path analysis

Variable		Estimate	S.E.	C.R.	P	Label
Dividend payout ratio	<--- Debt to assets ratio	-0.419	12.625	-2.970	0.003	par_16
Dividend payout ratio	<--- Debt to equity ratio	0.211	1.309	1.528	0.127	par_22
Dividend payout ratio	<--- Price to book value	0.221	0.939	3.020	0.003	par_29
Stock price	<--- Trading volume activity	-0.430	0.055	-6.589	0.000	par_1
Stock price	<--- Debt to assets ratio	-0.472	6,860.548	-1.969	0.049	par_2
Stock price	<--- Debt to equity ratio	0.135	486.860	0.841	0.400	par_3
Stock price	<--- Price earning ratio	0.135	107.189	0.959	0.338	par_14
Stock price	<--- Return on assets	-0.530	514.506	-1.427	0.154	par_15
Stock price	<--- Dividend payout ratio	0.136	21.840	1.994	0.046	par_30
Stock price	<--- Price to book value	-0.156	749.562	-0.852	0.394	par_31
Stock price	<--- Debt to equity ratio	0.631	283.991	2.463	0.014	par_32

Source: Data processed from the results of SEM

The equation obtained from table 5 with endogenous variables stock price (SP) and Dividend Payout Ratio (DPR) is:

$$\begin{aligned}
 SP &= 0.136DPR + 0.135PER - 0.156PBV - 0.472DAR + 0.135DER - 0.530ROA + 0.631ROE - 0.430TVA \\
 P &= 0.046(DPR) + 0.338(PER) + 0.394PBV + 0.049(DAR) + 0.400(DER) + 0.154(ROA) + 0.014(ROE) + 0.000(TVA) \\
 CR &= 1.994(DPR) + 0.959(PER) - 0.852PBV - 1.969(DAR) + 0.841(DER) - 1.427(ROA) + 2.463(ROE) - 6589(TVA) \\
 DPR &= 0.221PBV - 0.419DAR + 0.211DER \\
 P &= 0.003PBV + 0.003DAR + 0.127DER \\
 CR &= 3.020PBV - 2.970DAR + 1.528DER
 \end{aligned}$$

Where:

SP = stock price, DPR = dividend payout ratio, PER = price earnings ratio, PBV = price to book value, DAR = debt to assets ratio, DER = debt to equity ratio, ROA = return on assets, ROE = return on equity, TVA = trading volume activity

3.4.1 Test results of investment opportunity set and stock price

The influence of PER to SP is positive but no significant influence. The PER in this study was not able to significantly increase stock prices. The signal given by the increase in PER is not responded meaningfully by investors to make stock purchase transactions, so that although the direction of the effect is positive, it is not significant. This result supports the one done by Anwar and Rahmalia [18] explains that the relationship between PER and SP is a positive relationship. However, it does not support the finding that the PER ratio has a positive and significant effect on SP [13-15,47].

3.4.2 Firm value and sock price test results

The test results found that the direction of the influence of PBV is known to be negative on stock price but not significant. This can be due to the existence of asymmetric information so that the adequacy of information greatly affects buying interest in traded stocks, allegedly the shares in the sample in this study do not provide enough information about the company, thus providing a negative influence. This study is not in line with research conducted by Andamari et al. [16], Sari [15] Qureshi [19], Digidowiseiso and Fadillah [20], and Bustani et al. [21].

3.4.3 Test results of capital structure and stock price

There are different findings on the capital structure indicators in this study, the capital structure with the DAR indicator found that the direction of the effect of DAR on SP is negative and significant. Increased financing using debt is considered by investors as the right policy according to the trade-off theory [22]. The results of this study do not support the research finding that the debt ratio or debt to asset ratio has a significant positive effect on stock prices [22-24].

Another finding of the capital structure with the DER indicator is that the direction of the DER effect on stock prices is positive but not significant. A high DER exceeds the capital provided, considered by investors that the company is able to manage debt sources, and is able to generate profits exceeding the cost of capital so that the direction of influence is positive. However, it does not have a larger portion so that although it is positive, it is not significant. This result is in accordance with Safitri et al. [14], and Indrajaya [27], However, it does not support the study Tarsono [26].

3.4.4 Profitability and stock price test results

The profitability variable using the ROA indicator is known to have a negative direction of influence on stock

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prices but is not significant. The signals provided by ROA are insufficient to lift stock prices, and even tend to be captured by investors negatively. The comparison of profit earned with the amount of company assets in this study is not a matter of consideration for investors in buying shares, there are factors that are more important to investors, which are the amount of profit compared to the capital owned. This supports the findings of Hadi & Nurhayati [33], and Hidayat et al. [31], but not in accordance with the findings of Choiriya et al. [32]. Profitability with ROE measurement tool found a positive direction of influence on stock prices and significant. So, profitability is considered to provide a positive signal to stock purchase transactions [25,28-30]. The positive signal is captured by making transactions that increase the share price significantly. This result supports the findings of Mudzakar et al. [25] and Indrajaya [27], but does not support the study of Choiriya et al. [32].

3.4.5 Test results of trading volume activity and stock price

The findings of this study indicate that the direction of TVA on stock prices is negative and significant. An increase in stock trading transactions that shows strength and supply is not responded positively by investors, it actually reduces the stock price. So, it can be said that the stock price factor is determined by other factors outside of trading transactions, namely macro economic fundamental factors such as interest rates, inflation rates, exchange rate fluctuations, government policies, panic factors, market manipulation factors, and also other internal company factors such as corporate actions and projections of future company performance. This finding does not support the study of Fajri et al. [35], and Mutakif and Nurwulandari [36].

3.4.6 Dividend policy and stock price test results

The results found that DPR has a significant positive effect on stock prices. DPR provides information about the company's prospects in the future so that it is captured positively by investors in the form of increased demand for the company's shares, which in turn can increase the price. This result supports the findings of Bustani et al. [21], Hussainey et al. [23], and Hunjra et al. [29], but is not in accordance with the study of Qureshi [19].

3.4.7 Firm value and dividend policy test results

The test results found that firm value with the PBV indicator has a positive effect on dividend policy and is significant. The value of the company shows high investor confidence in the company while increasing investors' expectations of obtaining a share of the profits (dividends) from the profits earned by the company. This study supports research conducted by Rahayu et al. [39].

3.4.8 Test results of capital structure and dividend policy

The test results on capital structure with the DAR indicator are known to have a negative and significant effect on DPR. Financing assets using debt is considered by investors to have a high risk based on trade off theory, thus affecting investors in carrying out trading transactions and reducing stock prices. This result is in accordance with research Suarjana and Warmana [40] which found that capital structure has a positive effect on dividend policy. While the capital structure with DER indicator affects the DPR although positive but not significant. The view that DER has a positive effect focuses more on the existence of debt will motivate the company to increase profits above the tolerable risk. Even so, it still does not significantly affect stock trading transactions to increase stock prices. These results support research conducted by Simanjutak and Kiswanto [43], but not in accordance with the findings of Dewi et al. [41], and Ifada et al. [42].

4 Discussion**4.1 Firm value test results on stock prices with dividend policy as a mediating variable**

The coefficient value of the direct effect of PBV on the stock price variable is -0.155. Meanwhile, the indirect effect of PBV variable, through the mediation of DPR variable, on stock price variable is 0.0263. Thus, the effect of PBV on Stock price is mediated by DPR, however, the Sobel test results show that it is not significant (Sobel test $0.001427 < t$ table 1.65397). These results indicate that the company value in this study is not able to increase the stock price even though the company has issued a dividend policy to its investors.

4.2 The test results of capital structure on stock prices with dividend policy ratio as a mediating variable

The coefficient value of the direct effect of DAR on the stock price variable is -0.469. Meanwhile, the indirect effect of DAR variable, through the mediation of DPR variable, on stock price variable is -0.0585. Thus, the effect of DAR on Stock price is mediated by DPR, however, the Sobel test results show that it is not significant (Sobel test $0.000207 < t$ table 1.65397). These results prove that although dividend policy can be a tool to increase stock prices even though companies take debt, the effect is not significant, in the sense that the level of prudence of management taking funding policies must still be prioritized by considering the risk aspects of the funding policy itself.

The coefficient value of the direct effect of DER on the stock price variable is 0.134. Meanwhile, the indirect effect of the DER variable, through the mediation of the DPR variable, on the stock price variable is 0.0302. Thus, the effect of DER on Stock price is not mediated by DPR. With these findings, it can be explained that a larger portion of

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funding from debt will not be able to increase stock prices even though the company pays dividends. The financial difficulties that overshadow funding policies remain an indicator that investors care about for companies that owe more than the amount of capital they have.

5 Conclusion and implications

The results of our study conclude that dividend policy with the DPR indicator is not able to mediate funding policy and firm value in increasing stock prices. Dividend policy in this study has not attracted investors to buy shares and increase transactions, although as an independent variable itself DPR has a significant effect on stock prices. It is also known that the factors that can increase stock prices in a positive and significant direction of influence are ROE, and DPR, while other variables such as PER and DER do not significantly increase stock prices even though the direction of influence is positive. Factors that can reduce stock prices in our study are DAR and TVA, and other factors that do not significantly reduce stock prices even though the direction of influence is negative are PBV and ROA.

The dividend policy in our study does not support the signalling theory proposed by Spence [1]. The company's expectation by paying dividends is not able to increase stock prices, if the company takes a funding policy by increasing debt. Our findings support the study conducted by Miller and Modigliani [50] dividend Irrelevance Theory, so even though the company pays dividends in fact it is not able to have a positive impact on investors. Investors still see the level of risk if the company takes debt, then still pays dividends. Dividends are considered not to increase investor welfare, if there are investment opportunities. Our study also reinforces the Trade-off theory expressed by the authors Myers [22] which explains that the company will go into debt up to a certain level of debt, where the tax shields from additional debt are equal to the cost of financial distress. Trade-off theory in determining the optimal capital structure includes several factors including taxes, agency costs (agency theory) and financial distress but still maintains the assumptions of market efficiency and symmetric information as the balance and benefits of using debt. The optimal interest rate is reached when the tax shield reaches the maximum amount against the costs of financial distress.

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