Analysis of Dividend Policy, Corporate Governance, Macroeconomic and Firm Value: Evidence From Indonesian Public Company

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Abstract. This study aims to analyze the relationship between dividend policy, corporate governance, macroeconomic and firm value. This study was conducted on 23 firm that its stocks publicly traded in Indonesian Stock Exchange an included on LQ45 Index from 2018 – 2022. This study uses multiple regression analysis and data panel with three model tests. Dividend policy is still become a puzzle, however this study strengthen the signalling theory of dividend. The results showed that dividend payment, representing dividend policy, has positive effect on firm value. To represent corporate governance, this study found that ownership concentration has no effect on firm value. This findings shows that conflict between majority shareholders and minority shareholders is unidentified. Inflation rate, as the indicator of macroeconomic, has negative effect on firm value. In higher inflation condition, firms stocks tend to become riskier.

Keywords: *Dividend Policy, Corporate Governance, Macroeconomic, Firm Value, Investment.*

1 INTRODUCTION

Managers should have complete understanding about dividend policy and its impact to the firm value because managers should have accurate dividend policy to maximize its firm value. However, dividend policy is still become a puzzle in corporate finance. According to [1] and strengthen by recent studies from [2], in perfect world, dividend policy isn't able to add value to the company over investment policy, because dividends can hurt a company since the money would be better reinvested in the company. [3], however, show that dividends and company have a positive relationship since it gives strong signals about the bright future of the company. This findings contribute to Signalling Theory. But, according to Catering Theory, the relationship between dividends and firm's value is unstable, depending on the dividend premium, managers have a tendency to start paying dividends when stock prices of dividend payers are relatively high, and to stop paying dividends when stock prices of nonpayers are higher [4]. Another recent study from [5] identify that relationship between dividend and firm value is J-shaped that is cannot be explained by existing dividend theories. Recent study in Indonesia, [6] demonstrates dividend policy and firm value have a positive impact. This study reinforces bird in hand dividend theory because it

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shows that dividends can attract investors to make investments. Different with [7], this study demonstrates the negative association between dividend policy and firm value since excessive dividend payments may be seen by investor as indicator of the company's incapacity to control free-cash-flow, that might result in a decline in firm value. However, [8] found that dividend payment has no relationship with firm value. It suggests that dividend distribution is not the primary consideration investors purchase shares.

Conflict between majority shareholders and minority shareholders become important issue of corporate governance to the firm. [9] and [10] studies identify the impact of owner concentration to the firm value. Recent study in Indonesia, [11] shows when the ownership concentration of the main shareholders is less than 70%, it has a positive effect on firm value; when it is more than 70%, the effect is the opposite direction. This indicates that a larger concentration of ownership among the largest shareholders might lead to a greater moral hazard for majority shareholders, encouraging management to expropriate smaller shareholders, which lowers the value of the firm. The study conducted by [12] shows that a high ownership concentration will raise the firm value by lessening the agency issue that arises between capital owners and management.

Macroeconomic can turn the direction to the firm differently. Inflation is still one important factor in macroeconomic that firms concern about. Managers should have better understanding about inflation, because it can impact the firm value. Recent studies in Indonesia shows different findings from recent studies aboard from [13] and [14] that inflation has negative effect to firm value because inflation causing less growth and firm’s tax payment increasing. [15] shows that in Indonesia, inflation has positive impact on firm value because inflation can cause prices increase as the company’s revenue increase. [16] has also found that because product prices are rising, inflation has a positive relationship with firm value. [17], however, discovered that inflation in Indonesia had no significant effect on company value.

2 LITERATURE REVIEW

2.1 Agency Theory

Jensen and Meckling proposed the agency theory of dividend in 1976. It argues that conflicts of interest between management and shareholders cause agency costs, and that dividend payments can lessen these costs [18].

The conflict of interest between bondholders and shareholders may also result in agency costs. Bondholders aim to preserve as much free cash as possible in the company by enacting debt covenants, which would allow for the availability of capital to pay bondholders in the event of a financial crisis, despite shareholders' desire to keep the cash for themselves [2].

2.2 Signalling Theory

According to [19] research, the dividend can be a very reliable indicator for revealing to investors the true value of the company in an environment of asymmetric knowledge. Signaling Theory demonstrates that by utilizing dividend distribution as a mechanism to communicate internal information to investors, management may close the knowledge gap that exists between them and outsiders regarding the firm.

2.3 Catering Theory

According to Catering Theory, there is unstable relationship between dividends and firm value. Manager often starts paying dividends when stock prices of dividend payers are relatively high, and they typically stop paying dividends when stock prices of nonpayers are higher [4]. The catering theory's primary goal is to ensure that managers fulfill investor's present desires. The dividend premium—the gap between dividend payers and dividend nonpayer current stock prices—is the main emphasis of catering theory.

2.4 Firm Value

Firm's value is representation of the performance attained in running the business since its founding [20]. Investors that believe a company has a bright future typically purchase the company's shares. The company's strong value among investors creates a high demand for its stocks, which raises the price of the stock [21].

Tobin's Q is one ratio that might be utilized to determine a firm's value. The ratio between the market value and replacement value of the company's assets is known as Tobin's Q [22]. Equilibrium is reached when replacement cost and market value are equal. The Q Ratio indicates the connection between intrinsic value and market valuation. Put otherwise, it's a technique for figuring out if a given business or industry is overvalued or undervalued. According to [23], when a firm's Tobin's Q value falls between 0 and 1, it indicates that the market undervalues the company since the cost of replacing its assets is higher than its market worth. When the Tobin's Q is more than 1, tt indicates that the company's market value is higher than its stated asset value.

2.5 Dividend Payout Ratio on Firm Value

Typically, a company would use its dividend strategy to pursue its objective of increasing the return on its investors in order to raise the venture's valuation. Capital additions as well as earnings make to an investor's return. Clearly, dividend strategy affects these two components of return [24].

According to [1], dividend policy is irrelevant and has no effect on producing firm value in a perfect world without obstacles like taxes or bankruptcy costs. Dividends can hurt a company since the money would be better reinvested in the company. But, it is demonstrated by [3] that dividends and firm value have a positive relation because it gives strong signals about the bright future of the company. This findings contribute to Signalling Theory. According to Catering Theory, the relationship between dividends and firm value is unstable, it depends on the dividend premium where managers have a tendency to start paying dividends when stock prices of dividend payers are relatively high, and to stop paying dividends when stock prices of nonpayers are higher [4].

Recent study from [5] identify that relationship between dividend and firm value is J-shaped that is cannot be explained by existing dividend theories. Recent study in Indonesia, [6] demonstrates dividend policy and firm value have a positive impact. This study reinforces bird in hand dividend theory because it shows that dividends can attract investors to make investments. Different with [7], this study shows that Dividend Policy has negative relationship with firm value because inability to manage free cash by the firm may be interpreted by investors as a result of large dividend payments, which might reduce the firm's value. However, [8] found that dividend payment does not have relationship with firm's value. It suggests that dividend distribution is not the primary consideration investors purchase shares.

This discussion leads to the first hypothesis **(H1) Dividend Payment has positive impact on Firm Value.**

2.6 Ownership Concentration on Firm Value

Ownership concentration is proportion of largest shareholder of a company. According to [9], when the firm is effectively under the control of its major owner, the relationship between ownership concentration and firm value is U-shaped. Due to this outcome, the primary owner's incentive in obtaining personal gain vanishes as soon as their share grows sufficiently. The primary owner is, however, more motivated to extract private gains at lower ownership levels since the expenses are lower and there isn't a second substantial shareholder there to supervise behavior.

Recent study in Indonesia, [11] found that when the ownership concentration is less than 70%, the main shareholder's ownership has positive impact on the firm value. Above these thresholds, however, firm value is negatively impacted by the largest shareholders' ownership concentration. It implies that the greater the concentration of ownership among the main shareholders, the greater the potential for management to engage in expropriation against minority shareholders, hence increasing the moral hazard of majority ownership and depressing firm value. This finding suggests that in a structure with high concentrated ownership as opposed to one with not so high concentration, there will be more agency conflict between stockholders in the majority and minority. The study conducted by [12] shows the difference, that a high ownership concentration will raise the firm's value by lowering the agency issue between capital owners and management.

The existing findings documented above give rise to the second hypothesis **(H2) Ownership Concentration has positive impact on Firm Value.**

2.7 Inflation on Firm Value

Inflation, as defined by Bank Indonesia, is the general and constant increase in prices over a given period of time. Mild, moderate, severe, and hyperinflation are the different types of inflation. [13] and [14] shows that inflation has negative effect to firm value because inflation causing less growth and firm's tax payment increasing. [15] shows that in Indonesia, inflation has positive impact on firm value because inflation can cause prices increase as the company's revenue increase. [16] also has same finding that inflation is positively related to firm value because the growth of product price. However, [17] found that inflation has no relationship on firm value in Indonesia.

The preceeding evidence leads to the third hypothesis **(H3) Inflation has positive impact on Firm Value.**

3 RESEARCH METHODS

3.1 Data

Secondary data were employed in this investigation. 74 firms meeting the specified criteria were included in the study's population, which also contained up to 23 company samples, and is made up of firms that have been publicly listed on the

Indonesian Stock Exchange (IDX) and included in the LQ45 index. The Indonesia Stock Exchange (idx.co.id), finance.yahoo.com, and the company websites are the sources of the data. Information used as research data are annual financial statements, annual reports and annual stock price on public companies of Indonesia Stock Exchange in period 2018 – 2022.

3.2 Data Analysis Method

Multiple linear regression analysis can be used to determine the impact of partial or simultaneous relationships between two or more independent variables on a single dependent variable.

Furthermore to ascertain the extent of its impact and predict the value of independent variables. When multiple linear regression is used, the model has two or more independent variables. The equation for multiple linear regression has the following five independent variables:

$$Q_{it} = a+bDIV_{it}+bOC_{it}+bINF_{it}+bSIZE_{it}+bDER_{it}+bROE_{it}+e$$

$$i = \text{firm};\ t = \text{time period}$$

Q is Tobin's Q value, DIV is Dividend Payout Ratio (DPR), OC is Ownership Concentration, INF is Inflation, SIZE is Firm Size, DER is Debts to Equity Ratio and ROE is Returns on Equity. The dependent variable of this study is Firm Value (Tobin's Q). Tobin's Q is ratio that shows firm value which market value of a company divided by its assets' replacement cost. The independent variables that were employed in this study are as follow: (1) *Dividend Payout Ratio*, ratio of the common stock dividend divided by net income at the end of the financial period; (2) *Ownership Concentration*, percentages of shares held by the main shareholder of the firm; (3) *Inflation*, a rate that represents increase in prices in general and continuously within a certain period; (4) *Firm Size*, the company's current assets and non-current assets; (5) *Debt to Equity Ratio*, a ratio that measures Total Debt to Total Equity and (6) *Return on Equity*, the capacity of the business to make net income after taxes in relation to the total amount of equity it owns.

4 RESULTS AND DISCUSSIONS

4.1 Results

Table 1 can be seen as descriptive results. Firm value measured by Tobin's Q value has average value of 2,1398. As the average of firm value of the company used in samples > 1, it means firm are overvalued. The average dividend payout ratio of the firm used in samples is 51,39%. The minimum value is -31,32%, it means the firm still paid dividend although it experienced losses. The minimum value of ownership concentration is 10,19% It means the largest shareholders owned only 10,19% of all shares of the firm. The maximum value is 92,5%. The average inflation rate in the research period is 2,89%. The minimum value is 0,0168% which is inflation rate of Indonesia in 2020 during covid pandemic. The maximum value is 5,51% in 2022 which is covid pandemic is no longer exists. The minimum value of DER in this research is 0,1262, it means that this company has the lowest liquidity risk among the samples. The maximum value is 17,0714, it means that this company has the highest risk liquidity risk among the samples. The minimum value of ROE in this research is -0,1797, it means that the firm experienced losses in the period and has the lowest profitability among the samples. The maximum value is 1,4509, it means that the firm has the highest profitability among the samples.

Table 1. Statistics Descriptive

	Q	DIV	OC	INF	SIZE	DER	ROE
Min.	0,6088	-0,3132	0,1019	0,0168	30,3224	0,1262	-0,1797
Max	17,6783	2,6836	0,9250	0,0551	35,2281	17,0714	1,4059
Mean	2,1398	0,5139	0,5809	0,0298	32,3258	2,3463	0,1864
Obs.	115	115	115	115	115	115	115

Table 2 is the partial test / hypothesis test results. A panel data test is the data analysis method used in this study. The Chow, Hausman, and Lagrange Multiplier tests are utilized in the model selection test. The outcomes is Random Effect Model is the most suitable to use.

Table 2. Partial Test/Hypothesis Test

Variables	Coefficient	Sig.	Decision
Constant	13,4004		
Dividend Payout Ratio	0,3995*	0,0749	H1 supported
Ownership Concentration	0,0321	0,9784	H2 not supported
Inflation Rate	-12,0666*	0,0737	H3 not supported
Firm Size	-0,3947**	0,0134	H4 not supported
Debt to Equity Ratio	0,0239	0,7054	H5 not supported
Return on Equity	8,4771***	0,0000	H6 supported
F-test = 0,0000 R-squared = 0,6580			

* significant at 10% level
** significant at 5% level
*** significant at 1% level

4.2 Discussions

Dividend Payout Ratio has Positive Impact on Firm Value. Dividend Payout Ratio has a coefficient of 0,3995. The significant value of dividend payout ratio is 0,0749 and this value is lower than 0,1, which is significant. This value explains that dividend payout ratio has positive impact on firm value, so hypothesis 1 is accepted. Investors consider dividend in their investment decision, more dividend can attract investors to invest so the value of the firm is higher [6]. The results of this study support the signalling theory, which holds that high dividends distributed is a good signal for business prospects. The more dividend distributed, the higher investor's perception about the firm's expected cash flow. Investors believe they will get more dividends in the future that makes its stock demand increase. This may lead to the price of the stock higher and the firm's value become higher.

Ownership Concentration has No Significant Impact on Firm Value. Ownership Concentration has a coefficient of 0,0321 and the value is not significant. This value explains that ownership concentration has no impact on firm value, so hypothesis 2 is rejected. The proportion of largest shareholder does not impact the firm value. This finding does not confirm the previous research by [12] and [11]. This shows that conflict between majority shareholders and minority shareholders does not exist. Investors do not care about the ownership concentration of the firm (family business, state owned enterprise, etc) in their investment decision.

Inflation Rate has Negative Impact on Firm Value. Inflation Rate has a coefficient of -12,0666. The significant value of inflation rate is 0,0737 and this value is lower than 0,1, which is significant. This value means that inflation rate has negative effect on firm value, so hypothesis 3 is rejected. It supports the finding from [13] and [14]. When the inflation is higher, the price of goods generally becomes higher. It makes the raw material price and operation cost tends to higher so it can decrease the firm's profit. This may lead investors to sell the stocks and makes the stock price lower. This can lead to decreasing in firm value. In higher inflation condition, government tends to increase the interest rate. This may lead the investors to move their investment from stock to bank deposits, so the stock price become lower, if the stock expected return is lower than bank deposits. This can leads to decrease in firm value.

Firm Size has Negative Impact on Firm Value. Firm size has a coefficient of -0,3947. The significant value of firm size is 0,0134 and the significant value is lower than 0,05, which is significant. This value explains that firm size has a negative impact on firm value, so hypothesis 4 is rejected. This result supports previous research conducted by [25]. The company with larger assets tends to use firm's profit as retained earnings to acquire assets rather to distribute it to the shareholders as dividend. This investor's perception makes the expected return of the stock lower and hurts the firm value.

Leverage has No Significant Impact on Firm Value. Debts to Equity Ratio has a coefficient of 0,0239. The significant value of debts to equity ratio is 0,7054, which is not significant. This value explains that debts to equity ratio does not have a positive impact on firm value, so hypothesis 5 is rejected. It confirms the previous study from [26]. Investors are more interested in how a firm uses its capital to make profits than in how much debt it owns. As a result, they do not take the company's debt level into account.

Profitability has Positive Impact on Firm Value. Return on Equity has a coefficient of 8,4771. The significant value of return on equity is 0,0000, which is significant at 1% level. This value explains that returns on equity has positive impact on firm value, so hypothesis 6 is accepted. This finding is inline with research from [27]. When a company's profitability is a good indicator of its success, the market reacts favorably and investors are ready to pay more for the company's shares. Buyers of the company's shares are drawn to it because they anticipate receiving large returns on their investments. Profitability is still the factor considered by investors in their investment decision.

5 CONCLUSION

The results of this study shows that dividend payout ratio has positive impact on firm value. This means investors consider higher dividend in their investment. The firm that pay higher dividend is more attractive for the investors, so investors invest in that firm that can lead to higher firm value. As the opposite, the lower dividend payer firms is less attractive to investors, so they prefer to invest in higher dividend payer firms that can lead to lower firm value. This result confirms the signalling theory, according to which dividend have value signalling about the future business prospects.

Another findings from this study shows that ownership concentration has no significant impact on firm value. This can be interpreted that the conflict between majority and minority shareholders is unidentified. Investors does not consider the ownership concentration of the firm in their investment decision.

This study demonstrates that inflation rate has negative impact on firm value. As the inflation rate is higher, company should pay more price for the raw material and higher operational cost that can lead to firm profit decreasing. Inflation also causing government to increase the interest rate. This can make the investors move their investment from stocks to bank deposits which has lower risk. This can lead to lower stock price and decreasing the firm value.

In this study, firm specific variables also included. Firm size, leverage and profitability are included in this study and examined its relationship between firm value. The results shows that firm size, represented by total assets, has negative impact on firm value. However, leverage, represented by debts to equity ratio, has no significant impact on firm value. Another results shows that profitability, represented by return on equity, has positive effect on firm value.

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