



Ownership Structure, Capital Structure, and Dividend Policy The Moderating Role of Free Cash Flow in Indonesia

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Abstract. Dividend policy is an important topic that is always interesting to research. The dividend policy determines the profit distributed to shareholders and the profit reinvested in the company. However, managers have different interests and seek to achieve personal gain and harm shareholders. This study examines the effect of ownership structure, capital structure, and free cash flow on dividend policy. The sample of this study is the companies listed on the Indonesia Stock Exchange from 2017 to 2021 using purposive sampling. The variables of this study consist of dividend payout ratio as the dependent variable and managerial ownership and debt to total asset ratio as the independent variables. Then, the interest variable in this study is the free cash flow ratio which acts as a moderating variable. The study uses panel data analysis from the common effects model of multiple linear regression. The empirical results found that managerial ownership positively and significantly affects the dividend payout ratio. The debt-to-total asset ratio negatively and significantly affects the dividend payout ratio. Surprisingly, the findings of the free cash flow ratio cannot be proven on the influence of both managerial ownership and debt to asset ratio. This study has implication for investors' interest to invest in getting the dividends they expect from companies in Indonesia. The main value of this paper is the analysis of the effect of ownership structure, capital structure, and free cash flow on dividend policy, and free cash flow is a moderating variable from the Indonesian perspective.

Keywords: Ownership Structure · Capital Structure · Dividend Policy · Free Cash Flow

1 Introduction

The company manages its economic resources to produce products or services that have value to make a profit. The profits generated by the company are managed and distributed by managers as dividends and retained earnings. One of the policies that the company's management must be taken is to decide whether the profit earned during one period is

divided in all or as dividends and part of it is kept as retained earnings. Baker and Powell [1] explain that managers in the perspective of Southeast Asian managers, particularly managers in Indonesia- view the most important determinants of dividends as income stability and current and expected future income levels.

The dividend policy determines the profit distributed to shareholders and the profit reinvested in the company [2]. Investors will consider a relatively large dividend to be a good/positive signal to future company developments [3]. Furthermore, high-quality companies use more debt because it shows optimism about the future. Optimism means the company is confident in its ability to pay its obligations and interest debts. However, the amount of leverage or debt indicates that paying these obligations will reduce the company's profit, impacting the dividends distributed to shareholders.

Managers have different interests and seek to achieve personal gain and harm shareholders [4]. The differences in interests also occur in the management of the company's free cash flow, which can cause free cash flow problems. Cash dividends paid to shareholders are affected by the free cash flow available in the company. Free cash flow problems occur when the free cash flow is too much and likely to be used by managers inefficiently, even causing overinvestment problems [5]. One way to reduce the free cash flow problem is to increase the dividend payments.

On the other hand, when most of the free cash flow is distributed as dividends, the internal funds available in the company will be smaller. If the company has a negative free cash flow, it needs external sources of funds, such as debt or the issuance of new shares, to meet the needs of the company and its future expansion activities. Meanwhile, if the company has a positive and relatively large free cash flow, the company has the opportunity to survive in a bad situation.

The literature on corporate governance through ownership structure and capital structure becomes important in solving various issues related to agency issues [4], and free cash flow may affect dividend payments. As Sawicki [6] explained, dividend payments are of particular concern in uncovering the effects of external and internal corporate governance. Meanwhile, the capital structure (leverage) literature begins with the phenomenal work created by Modigliani and Miller [7] about the irrelevance of capital structures continues to be an interesting topic in financial economics and has resulted in a great deal of research. However, previous studies have shown inconsistent results (see Pembayun and Subarjo [8], Ali et al. [9], Hadistira et al. [10], Al-Fasfus [11]).

Previously described studies have appeared less convincing about the nature of the relationship or its effect on dividends. Meanwhile, this study provides a solution by testing the influence of ownership structure and capital structure on dividend policy and the role of free cash flow in influencing the ownership structure of companies listed in Indonesia- the largest national economy in Southeast Asia.

2 Literature Review and Hypotheses Development

The agency conflict was first put forward by Jensen and Meckling [4] explained that the manager (agent) and the shareholders (principal) cooperate only for the sake of achieving their respective economic interests. Agency theory suggests that shareholders have a preference for dividends over retained earnings because managers may be wasting cash

held within the company (see Easterbrook [12], Jensen [13], Myers [14]). This agency issue between managers and shareholders has an impact on dividend payment policy. High dividend payments to shareholders are an effort to minimize agency costs arising from agency problems borne by agents and principals [15]. When this dividend reduces agency costs from free cash flow, it can protect investors from management takeovers. This encourages a positive relationship between the quality of corporate governance and dividend policy.

Various corporate governance definitions have been put forward, emphasizing accountability and shareholders' wishes. Governance is a mechanism that financial suppliers use to ensure decent returns from a company [16]. Ownership structure, especially managerial ownership, is one of the major governance mechanisms that help control agency problems [4]. Since the characteristics of managers maximize their wealth, managerial ownership serves as an essential means of controlling agency issues [17]. Managerial ownership consists of directors, commissioners, managers, and other parties directly involved in decision-making [4].

Another conduct with dividend policy is the Life Cycle Theory proposed by DeAngelo et al. [18]. This theory suggests that firms at the maturity stage generate significantly more internal funds than available investment opportunities and tend to pay dividends to reduce the FCF available to managers, thereby reducing agency problems. It means that distributing dividends reduces agency problems by reducing the free cash flow (FCF) available to managers. The growth stage of the company determines the amount of FCF. At maturity, firms have limited investment opportunities [18, 19] and therefore generate high FCF and can pay higher dividends. However, at the growth stage, the company has abundant investment opportunities and therefore has a lower FCF and provides lower dividends.

The previous researches that linked to the influence of ownership structure and free cash flow on dividend policy are as follows: Vo and Nguyen [20] found that managerial ownership has a negative relationship with leverage. This finding is supported by agency theory. In addition, the results provided strong support for the pecking order theory, which suggests that there is a negative relationship between leverage and dividends. However, contrary to expectations, managerial ownership positively impacted dividends. Ali et al. [9] found that ownership is positively and significantly related to the decision to pay dividends. These findings were consistent with the view that dividend repayment policies are a solution to reduce agency conflicts between managers and shareholders. Therefore, this current study builds Hypothesis 1 (H_1): there is a significant positive effect between managerial ownership and dividend payout ratio.

The pecking order theory is based on the work of Myers [21], Myers and Majluf [22]. They argue that in the presence of asymmetric information, firms follow the pecking order in their financing, where firms will prefer internal sources of financing (retained earnings) to external financing alternatives, and that firms adjust dividend payout targets for their investment opportunities. However, if retained earnings are insufficient, the company will borrow rather than issue new shares, causing the debt ratio to increase. Myers [21] argues that companies prefer debt financing to issue equity because debt financing has a lower information cost. Therefore, the last option for the company is to

issue shares. This theory explains the capital structure and dividend policy, given that information is asymmetric, leading to a hierarchy of financing costs.

The high dividend payments also encourage companies to seek external funding and enter the capital market [12]. The increase in cash dividends cause not enough free cash flow to be available, and management was forced to seek outside funding to finance its investments. This puts managers under scrutiny from creditors. Basri [23] stated that leverage as external funding is one factor affecting dividend payments. The use of external funding sources to finance its investments is expected to provide additional benefits to maximize shareholders' welfare. Farinha [24], Renneboog and Trojanowski [25] argued that leverage could affect dividend payments because debt can also be used to mitigate potential free cash flow issues. The study by Vo and Nguyen [20] supported the pecking order theory, which suggests a negative relationship between leverage and dividends.

Further, this current study builds Hypothesis 2, 3, 4, and 5 as follows:

H₂ : there is a significant negative effect between debt to asset ratio and dividend payout ratio

H₃ : free cash flow ratio significantly moderates the effect of managerial ownership on dividend payout ratio

H₄ : free cash flow ratio significantly moderates the effect of debt to assets ratio on dividend payout ratio

H₅ : there is a significant effect among managerial ownership, free cash flow ratio, debt to assets ratio, and dividend payout ratio.

3 Method

This study examines the effect of ownership structure, capital structure, and free cash flow on dividend policy on LQ-45 stock index companies listed on the Indonesia Stock Exchange for 2017–2021. This study uses purposive sampling as a sampling technique. Removes companies in the category of banking, insurance, and investment fund from the sample since their financial statements and financial characteristics differ from those of non-financial companies suspected of making the results biased. After dealing with the outliers, the final sample of this study is 28 of 32 companies.

The dependent variable in this study is dividend payout ratio, which is measured by dividend per share divided by earnings per share. The main independent variables are managerial ownership and debt-to-total-asset ratio. Managerial ownership consists of directors, non-independent commissioners, managers, and other parties that are directly involved in decision-making [4]. Thus, the proportion of managerial ownership is formulated with the number of managerial shares divided by the number of outstanding shares. The debt-to-total-asset ratio is measured with liability divided by total assets.

In this study, the free cash flow ratio is a moderation variable. Jensen [13] shows that companies with high free cash flow levels experience higher agency costs. In this context, companies can use dividend policies to reduce these costs. We measure free cash flow as the operating cash flow ratio minus net capital expenditure plus the change in working capital divided by the asset's book value that we follow Ross et al. [26]. We

control several variables related to dividend policy in the multivariate analysis, namely: firm size (natural logarithm of total assets), return on assets ratio (net profit after tax divided by total assets), and asset growth (the change in assets divided by total assets) following Fama and French [19].

This study has several steps in the analysis. Firstly, this study carries out a descriptive analysis to find the maximum, minimum, and standard deviation of all the variables. Secondly, regression model estimation is taken as a multivariate analysis. To determine the best model of multiple linear regression, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM), we use the test of Chow, Hausman, and Multiple Lagrange. After this study completed the stages of regression model selection, the Common Effect Model (CEM) became the selected model. Finally, all the necessary tests (Normality, Multicollinearity, Durbin-Watson, Heteroskedasticity) ensure the Ordinary Least Square (OLS) procedure yields to get the best linear unbiased (BLUE) estimators. Lastly, the hypotheses are tested to avoid all possible misleading results.

To answer Hypotheses 1 and 2, the panel data regression equation in this study can be expressed as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + e_{it} \quad (1)$$

where: Y_{it} (dependent variable), α (intercept), X_{it} (independent variables), $\beta_1 \beta_2 \beta_3$ (coefficient of independent variables), e_{it} (standard error), and it (firm i in a year t).

The use of moderation variables in testing Hypothesis 3, 4, and 5 of this study produces a regression model called Moderated Regression Analysis. Moderated Regression Analysis is a special application of multiple linear regression in which there is an element of interaction between two or more independent variables. Moderated Regression Analysis (MRA) in this study can be formulated as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + e_{it} \quad (2)$$

where: $X_{1it} * X_{2it}$ = Interaction of independent variables and moderation variables.

4 Empirical Results

This study examines the effect of ownership structure, capital structure, and free cash on dividend policy.

Table 1 summarizes the key characteristics of the sample firms. The descriptive statistics of the whole sample indicate that firms distribute an average of 36% of their net profits as dividends by having a minimum value of 0.00, a maximum value of 0.996, and a standard deviation of 0.26. The free cash flow ratio (FCF) has a minimum value of -0.26 and a maximum value of 1.18. The free cash flow ratio for the total sample is 6% of total assets, indicating that the funds available to managers of firms are relatively low. Nevertheless, the existence of these funds may lead management to undertake quite optimal investment projects. Finally, the standard deviation value is smaller than the average value indicating that debt to total asset ratio (DAR) has a wide distribution and varied data.

Table 1. Descriptive statistics.

	DPR	MOWN	FCF	DAR	SIZE	ROA	GROWTH
Mean	0.36	0.01	0.06	0.55	30.64	0.07	0.12
Min.	0.00	1.8	-0.26	0.16	21.82	-0.10	-0.23
Max.	0.10	0.152	0.18	0.97	33.54	0.25	0.70
Std. Dev.	0.26	0.03	0.16	0.20	2.51	0.06	0.15
N	140	140	140	140	140	140	140

To conduct the classical assumption- as the regression analysis requirements, this study has met the test of Normality (Jarque-Bera value of 0.62 > p-value of 0.05), Multicollinearity (the correlation coefficient value for all variables < 0.8), Durbin-Watson, and Heteroskedasticity.

To answer the hypotheses, Table 2, shows the results of the effect of managerial ownership and debt-to-asset ratio on the dividend payout ratio. Meanwhile, Table 3 shows the results of the Moderated Regression Analysis, which uses the free cash flow ratio as a moderation variable.

The result shows that managerial ownership has a positive and significant effect on the dividend payout ratio, with a probability value of $0.00 < 0.05$ and a coefficient of 5.39 (see Table 2). This supports our Hypothesis 1. This result is also in line with the research of Vo and Nguyen [20], Ali et al. [9]. The large composition of managerial ownership can affect the degree of unity between the interests of owners and management. The greater the percentage of shares owned by top managers, the more likely they are to make decisions that are consistent with maximizing shareholder wealth. Dividend payout increases by increasing managerial ownership due to the influencing managerial power through shareholding [4].

The debt to total asset ratio has a negative and significant effect on the dividend payout ratio with a probability value of $0.03 < 0.05$. This result supports our Hypothesis 2. This result is also in line with research from Vo and Nguyen [20]. This significant

Table 2. Multiple regression analysis.

Variable	Coef.	Std. Error	t-Statistic	Prob.
C	-1.41	0.60	-2.36	0.02
MOWN	5.39	1.40	3.84	0.00
FCF	0.06	0.12	0.47	0.64
DAR	-0.33	0.15	-2.24	0.03
SIZE	0.06	0.02	2.98	0.00
ROA	1.68	0.50	3.38	0.00
GROWTH	-0.02	0.13	-0.18	0.86

influence signals that the amount of debt will affect the company's dividends. One of the reasons for the company's low retained earnings is the high dividend payout. Vice versa, if the debt owned by the company is high, the dividends paid to shareholders will be low. When the company has insufficient retained earnings, the company will borrow rather than issue new shares, causing the debt ratio to increase, as explained in the pecking order theory [21, 22]. Myers [21] argues that companies prefer debt financing to issuing equity because debt financing has a lower information cost.

Our independent variable of interest in Table 3 is that managerial ownership interacts with the free cash flow ratio to influence the dividend payout ratio. Our result shows that the free cash flow ratio cannot moderate the effect of managerial ownership on the dividend payout ratio, as indicated by the probability value of $0.53 > 0.05$ with a negative regression coefficient of -5.20. This does not support our Hypothesis 3. As noted, distributing dividends reduces agency problems by reducing the free cash flow (FCF) available to managers. Life Cycle Theory suggests that firms at maturity generate significantly more internal funds than available investment opportunities and tend to pay dividends to reduce the FCF available to managers, thereby reducing agency problems. Distributing dividends reduces agency problems by reducing the free cash flow (FCF) available to managers. Our other independent variable of interest is the debt-to-asset ratio interacts with the free cash flow ratio to influence the dividend payout ratio. Our result shows that the free cash flow ratio cannot moderate the effect of debt to total asset ratio on the dividend payout ratio, which is indicated by the probability value of $0.06 > 0.05$ with a positive regression coefficient of 2.22. This does not support our Hypothesis 4. However, free cash flow depends on the company's capital requirements to finance its growth. The larger and more profitable firms with higher free cash flows and retained earnings (low debt) to equity tend to pay higher dividends.

Table 4 shows the results of simultaneous influence tests to answer our final hypothesis. Based on Table 4, the F-statistical probability value is 0.00. The probability of F-Statistics is less than 0.05, meaning that managerial ownership, free cash flow, and debt to total asset ratio simultaneously affect the dividend payout ratio of LQ-45 stock

Table 3. Moderated regression analysis.

Variable	Coef.	Std. Error	t-Statistic	Prob.
C	-1.21	0.60	-2.01	0.05
MOWN	5.36	1.58	3.40	0.00
FCF	-1.15	0.65	-1.78	0.08
DAR	-0.35	0.15	-2.35	0.02
SIZE	0.05	0.02	2.65	0.01
ROA	2.01	0.52	3.88	0.00
GROWTH	-0.01	0.13	-0.06	0.95
MOWN*FCF	-5.20	8.27	-0.63	0.53
DAR*FCF	2.22	1.16	1.93	0.06

Table 4. F statistic.

	Value
F-Statistic	12.78
Prob (F-Statistic)	0.00

index companies listed on the Indonesia Stock Exchange period 2017–2021. These results support our Hypothesis 5. The results of this research are also in line with the findings of Vo and Nguyen [20], Ali et al. [9].

5 Conclusion

This study examines the effect of ownership structure, capital structure, and free cash flow on dividend policy on LQ-45 stock index companies listed on the Indonesia Stock Exchange for 2017–2021. There are 28 companies for the sample of this study, having 140 observations.

The result of this study supports the first hypothesis, which states that managerial ownership has a positive and significant effect on the dividend payout ratio. The large composition of managerial ownership can affect the degree of unity between the interests of owners and management. This study also supports the second hypothesis which states that the debt-to-total asset ratio has a negative and significant effect on the dividend payout ratio. The significant influence signals that the amount of debt will affect the company's dividends. However, this study does not support the third hypothesis, where the free cash flow ratio cannot moderate the effect of managerial ownership on the dividend payout ratio. As noted, distributing dividends reduces agency problems by reducing the free cash flow available to managers.

This study also does not support the fourth hypothesis, where the free cash flow ratio cannot moderate the effect of debt to total asset ratio on dividend payout ratio. However, free cash flow depends on the company's capital requirements to finance its growth. The larger and more profitable firms with higher free cash flows and retained earnings (low debt) to equity tend to pay higher dividends. The final finding is this study supports the fifth hypothesis. The managerial ownership, free cash flow, and debt to total assets ratio with control variables of firm size, asset return, and asset growth are simultaneously significant to the dividend payout ratio.

For further research, we suggest that: (1) researchers can consider adding variables to each concept, including control variables; (2) researchers can consider expanding the sample on dividend variables to pay a higher and lower dividend; and (3) researchers can consider increasing the study period to see the broader trend of paying dividend.

This research contributes to the literature on ownership structure, capital structure, and dividend policy in several important respects. First, the existing literature focuses only on the effects of some dimensions of corporate governance mechanisms of ownership structures on dividend policies. This gives us greater insight into the role of ownership structures in a company's dividend payment policy. Second, this study adds

to the capital structure and dividend policy literature. Third, this study adds to the literature related to the role of free cash flow in the effect of ownership structure on dividend policy and capital structure on dividend policy.

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