

Dividend Policy: Examining The Effect of Probability, Leverage, Firm Size, and Growth & Investment Opportunity

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ABSTRACT

This study aims to determine the effect of profitability, leverage, company size, and growth & investment opportunities on dividend policies from all non-financial companies listed on Indonesian Stock Exchange for the 2018-2020 period. This study generated 288 data from the 96 companies observed which met the purposive sampling criteria. Panel data regression, processed by EViews 10 is used as an analytical method for testing the hypotheses. To determine the best data estimation model, we utilized Chow Test and Hausman Test, which results pointed out that Fixed Effect Model is the most suitable for this study. Correlations and Glejser Test are also conducted beforehand, to ensure that both Multicollinearity and Heteroscedasticity are not present in this model. Research results found that profitability has a positive significant effect on dividend policy, leverage has a positive but insignificant effect on dividend policy, company size has a positive but insignificant effect on dividend policy, and lastly growth & investment opportunities has a negative but insignificant effect on dividend policy.

Keywords: *Profitability, Leverage, Firm Size, and Growth & Investment Opportunities, Dividend Policy*

1. INTRODUCTION

Investment is an activity that is increasingly seen as important for the progress of the modern world. One of the easiest and most widely used way to invest is to buy shares to earn dividends. Dividend can be defined as distribution of profits to shareholders proportional to their share ownership [1]. In March 2021, the Ministry of Finance of the Republic of Indonesia issued Regulation of the Minister of Finance Number 18/PMK.03/2021 as an implementation of Law No.11 of 2020 concerning Job Creation [2], which exempts dividends from Income Tax (PPh) on condition that the dividend income must be reinvested in Indonesia within the last 3 months for a minimum of 3 years [3]. This regulation is of course very beneficial for investors within Indonesia.

Kevin Mahn, president of Hennion & Walsh Asset Management who was interviewed by CNBC on December 13, 2021 also stated that dividends are the best hedging mechanism against rising inflation, especially after the end of the COVID-19 era [4]. Investing in dividends provides protection against nominal currency depreciation. As of December 2021, the number of Indonesian capital market investors has reached 7.4 million [5]. This number is still very small, which accounts for only 2.68% of Indonesia's total population of 272 million. Through this ratio, it can be seen that the growth potential of the Indonesian capital market is still very big.

Based on these things, the option to invest in dividends is increasingly tempting, especially for citizens of Indonesia. This in turn brings one very important question that must be answered, namely, how do companies in Indonesia determine their dividend policy? Previous research projects discussing dividend policy have found that financial characteristics (profitability, risk, firm size, etc.), ownership structure (concentrated or dispersed), country, and even time factors can influence a firm's

dividend policy. Of these factors, the most prominent factor are companies' internal financial characteristics such as profitability, leverage, company size, and growth & investment opportunities.

Several theories have been used by researchers in attempt to explain these factors' influence on dividend policy. Bird in The Hand Theory provides argument on why dividend policy is worth examining. As investors prefer profits through definite dividend payments more than profits generated by riskier capital gains [6], dividend paying stocks are oftentimes valued at premium rather than those that do not. Dividend signalling theory claim the distribution of dividends is a signal from the company's management to investors regarding the state of the company [7]. Agency Problem Theory states when an agency problem, clashing of interest between managements (agent) and its share shareholders (principal) occurs, an agency cost is required to solve the problem, where dividend serve to substitute as [8]. The Pecking Order Theory states that companies have a hierarchy in the use of their funds. First the company prioritizes funding using retained earnings, then debts if needed, and finally equity (shares) are issued as a last resort [9]. Clientele Effect theory states that each group of investors have their own preferences in responding to the company's dividend policy [10]. Group of investors who avoid taxes will choose stocks with high capital gain because they are tax-deferring, while risk averse investors choose stocks that pay dividends on a regular basis.

It is all the more imperative when there are contradicting evidences about what seem to really influence dividend policy decisions. Especially when dividend policy making decisions differ between emerging markets and developed markets, with the former only comprises of two third paid by the latter [11]. To answer this problem, this study attempts to examine the effect of these factors on dividend policy of non-financial companies listed on Indonesia Stock Exchange from 2018 to 2020. This study is expected to help complement research on the determinants of dividend policy in emerging economies, as well as present findings using the latest data.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Dividend Policy

When talking about dividend policy, we refer to managerial decisions faced by firms on whether or not to distribute its earnings as dividend payments to shareholders [12]. Dividends are distributed in respect according to each shareholder's portion of ownership. The policymaking is usually made in annual general meeting of shareholders to discuss about payment date, mechanism, as well as the ratio on how much earnings will be retained or paid out. Consequentially, the determining process of dividend play a large part in corporate finance, overlapping with another major factors.

2.2. Profitability

Profitability can be defined as company's ability to make profits [13]. Profitability ratio shows the combined effect of liquidity, asset management, and debt management of the whole business operations. High profitability company perform better than industry average and generate higher profit overall. Conversely, a low profitability means the company is performing worse than its competitors. Dividend payment is distribution of profits, hence companies with high profitability have stable income over time so they can easily distribute large amounts of Free Cash Flow as dividends. This argument is also supported by the Dividend Signalling Theory [7] which states dividend distribution is a sign from management to investors regarding the company's condition. Profitable companies signal their performances by distributing dividends. On the other hand, the company will not distribute dividends when its financial performance is poor.

Yusof & Ismail [14] and Kılınçarslan [15] identify profitability as a determinant with a positive and significant impact on the company's dividend policy. On the contrary, Baharianti [16] instead found a negative and significant effect of profitability on dividend policy on manufacturing companies in Indonesia from 2012-2016. Appannan and Sim [17] could not find a significant effect of earnings on dividend policy.

Based on the explanations above, the following hypothesis can be made:

H1: There is a positive and significant effect of profitability on dividend policy.

2.3. Leverage

Leverage can be defined as magnification of company return (alongside risk) through financing with fixed costs [18], with the fixed cost referred being debt. The decision to use debt is largely decided from the net return achieved. Favorable financial leverage occurs when debt borrowed can generate returns greater than the interest expense associated with the debt. Likewise, it is unwise to borrow when interest expense paid exceeds company return. When a company acquires debt, a repayment commitment is made to the creditors, which in turn reduce funds available for the company. In consequence, dividend payments will decrease.

Kuswanta [19] and Jayanti et al. [20] found out there was a significant negative effect of debt financing on dividend policy. However, a significant negative relationship was reported by Chang & Rhee [21], while Gill et al. [22] and Tanujaya & Dewi [23] could not find a significant effect of leverage on dividend policy.

Based on the explanations above, the following hypothesis can be made:

H2: There is a negative and significant effect of leverage on dividend policy.

2.4. Firm Size

Firm size can be defined as scale a business operate [24]. A firm's size can be measured by revenue, income level, total assets, or its equity [25]. The ease of obtaining funds for a company is commonly determined by their size. Large companies generally have easier access to the capital market. These companies are better diversified with non-volatile cash flows, which makes them being offered better requirements and terms. Meanwhile, small companies face difficulty obtaining funds because their reputation aren't well known, not to mention the cost of issuing shares (IPO) are relatively expensive. This shows that as company size increases, their dependence on internal funding (retained earnings) decreases while the use of external fund (bonds and shares) increases [15], which in effect increases funding associated with external profits, namely dividends and interest expense. Agency cost theory may provide another explanation for firm size – dividend relationship. As firm size increase, the potential for agency conflict also increases. To overcome this problem, company will distribute dividends as a control mechanism [26] serves to reduce Free Cash Flow, which forces managers to raise additional funds through the capital market, thereby subjects them to scrutiny of capital markets. This in turn forces managers to act in the interests of shareholders.

Kowalewski et al. [27] and Hashemi & Zadeh [28] discovered that more dividends are distributed as firm size increases. Contrary to those findings, Bushra & Mirza [29] reported negative significant effect of firm size on dividend policy, while Appannan & Sim [17] rejected any influence of firm size to dividend policy.

Based on the explanations above, the following hypothesis can be made:

H3: There is a positive and significant effect of firm size on dividend policy.

2.5. Growth & Investment Opportunity

Growth & investment opportunity can be defined as a combination of tangible assets in place and intangible future investment options [30]. Investment choices aren't always easy to make, due to the many considerations. Companies need to estimate net present value, capital expenditure need, the investment period, and the opportunity cost. Companies with high growth & investment opportunities needed higher capital expenditures. Thus, less Free Cash Flows are available to be paid as dividends, lowering dividend payments. Alternatively Pecking Order Theory argue that company prioritize using retained earnings than debt or equity. Intuitively, increase in company investment leads to low dividends, because reducing the amount of dividends is the easiest way to save internal funds (retained earnings) that will be used to finance investment projects so the issuance of debt and equity can be minimized [15].

Al-Kuwari [31] and Dewasiri et al. [32] found evidences supporting this claim. Larasati [33] found that growth & investment opportunity has a positive significant effect on dividend policy. Foroghi et al. [34] dan Putri & Susetyo [35] claim otherwise, growth & investment opportunity has no effect on the making of dividend policy.

Based on the explanations above, the following hypothesis can be made:

H4: There is a negative and significant effect of growth & investment opportunity on dividend policy.

3. METHODOLOGY

This research design is causal study with quantitative approach. Dividend policy is used as a dependent variable with four independent variables: Probability, Leverage, Firm Size, and Growth & Investment Opportunity. The data collected are panel data downloaded from <http://idx.co.id>.

The population used in this study are all non-financial companies listed on the Indonesia Stock Exchange for the 2018-2020 period. The reasons for the exclusion of companies in the financial industry are: (1) high leverage, (2) different nature and regulations of the financial sector compared to other industries, and (3) different accounting practices. From a population of 518 firms, this study generated 288 data across 3 years observation of the 96 companies which met the purposive sampling criteria, with the criteria being: (1) Companies engage in non-financial industry (2) Companies are consistently listed on the Indonesia Stock Exchange during the 2018-2020 period, (3) Companies consistently record complete annual report during the 2018-2020 period, (4) Companies present their financial statements in Indonesian Rupiah, (5) Companies consistently distributes cash dividends to its shareholders during the 2018-2020 period. (6) The company has a positive net income during the 2018-2020 period.

Panel data are processed by EViews 10 using panel regression. Chow Test and Hausman Test are used to determine the appropriate data estimation model. Tools for analysis include: Multicollinearity Test, Heteroskedasticity Test, Descriptive Statistics, F Test, t Test, and Coefficient of Determination (R^2). The significance level used is 5%.

Operationalization of variables are as follows:

Dividend Payout Ratio (DPR), which express percentage of dividends paid out relative to company's total earnings [36] is used as a proxy for dividend policy

$$DPR_t = \frac{Cash\ Dividend_t}{Net\ Income_{t-1}}$$

Return on Asset (ROA), which states company's net profit in a given year as a percentage relative to all its assets [37] is used as proxy for profitability.

$$ROA_t = \frac{Net\ Income_t}{Total\ Asset_t}$$

Debt to Asset Ratio (DAR) or commonly known as Debt Ratio, which compare company's total debt with the amount of assets owned [38] is used as proxy for leverage.

$$DAR_t = \frac{Total\ Debt_t}{Total\ Assets_t}$$

Firm Size will be calculated using assets-approach. Natural logarithm of total assets is [39] used as proxy for firm size.

$$SIZE_t = \ln Total\ Assets_t$$

Market to Book Value (MBV) ratio, which compare the market value of an equity with its book value [18] is used as proxy for growth & investment opportunity.

$$MBV_t = \frac{Market\ Value\ of\ Equity_t}{Book\ Value\ of\ Equity_t}$$

4. FINDINGS AND DISCUSSIONS

Fixed Effect Model is chosen as the most appropriate model used from the Chow and Hausman test conducted. Multicollinearity is tested using Correlations testing, with collinearity occurring above the upper bound of correlation coefficient of 0.8 ($\rho > 0.8$). Heteroscedasticity is tested using Glejser

Test, with heteroscedasticity occurring at p-value below 0.05 (p-value < 0.5). Both tests revealed that Multicollinearity and Heteroscedasticity are not present in this model.

F-tests produced p-value of 0.0000. Thus, it can be concluded that probability, leverage, firm size, and growth & investment opportunity simultaneously play significant roles in affecting dividend policy.

Table 1 Panel Regression Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6,9061	6,7193	-1,0278	0,3054
ROA	5,5398	0,8323	6,6557	0,0000
DAR	0,7900	0,5352	1,4762	0,1416
SIZE	0,2258	0,2339	0,9654	0,3356
MBV	-0,0001	0,0077	-0,0184	0,9853
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0,6580			
Adjusted R-squared	0,4778			
F-statistic	3,6529			
Prob(F-statistic)	0,0000			

Source: EViews 10 data processing result

R Squared test revealed the coefficient of determination this model is 0.4778. This means that the variation of dividend policy which can be explained by profitability, leverage, firm size, and growth & investment opportunities equates to 47.78%. The remaining 52.22% variation are explained by other variables or causes.

Using t test, ROA is shown to have positive coefficients with the p-value of 0.0000, which is statistically significant at 5% level. Therefore, H1 can't be rejected and as hypothesised, profitability has a significant positive effect on dividend policy. This relationship emphasizes that an increase in company profits will boost the amount of dividends distributed. When companies successfully raise sales or employ cost-cutting measures, the profit generated increases, which in turn allows the company to pay out excess Free Cash Flow to be distributed in the form of dividends. This result is also in line with Signalling theory. Where with increased profitability, the company will offer greater rewards to shareholders through increased dividend payments to reflect good financial performance.

DAR is shown to have positive coefficients with the p-value of 0.1416, which statistically insignificant at 5% level. Therefore, H2 is rejected and contrary to the hypothesis, leverage does not seem to affect dividend policy. One such reasoning might be: the dividend policy is based on how much profit will be retained (retention ratio) and the rest distributed (payout ratio). Accordingly, no matter how much company is in debt, as long as some portion of net profits is still sufficient to be held as retained earnings, the rest will still be distributed in the form of dividends. It is also possible for companies with low leverage to distribute small dividends in order to save funds for development of operating activities.

SIZE is shown to have positive coefficients with the p-value of 0.3356, which statistically insignificant at 5% level. Therefore, H3 is rejected and contrary to the hypothesis, firm size does not seem to affect dividend policy. This indicates that increasing firm size calculated through total assets does not guarantee that the use of external funds (bonds, and particularly shares in this case) will also increase, which in turn raise dividend payments. The reason is, each company has its own unique capital structure and it is unwise to generalize them. Likewise, companies are able to use other strategies, not just dividends, as a controlling mechanism resolve potential agency conflicts.

MBV is shown to have positive coefficients with the p-value of 0.9853, which statistically insignificant at 5% level. Therefore, H4 is rejected and contrary to the hypothesis, growth & investment opportunity does not seem to affect dividend policy. Many companies have set a stable dividend amount or a consistent nominal payment every period in order to maintain investors who expect dividends (in line with Clientele theory). Consequentially, the shift in company's growth & investment opportunities will not change the amount of dividends distributed. In addition, large

growth & investment opportunities do not guarantee stable excess profit, which can be distributed as dividends.

5. CONCLUSIONS AND IMPLICATIONS

Using sample from non-financials companies listed on Indonesian Stock Exchange over the period 2018-2020, this study attempts to examine the effect of probability, leverage, firm size, and growth & investment opportunity on dividend policy. Based on the results, it can be concluded that profitability, leverage, firm size, and growth & investment opportunity simultaneously affect dividend policy. Profitability has a positive and significant influence on dividend policy. While leverage, firm size, and growth & investment opportunity in 96 companies observed do not seem to affect dividend policy.

This study isn't without limitations. First, this research only focuses on profitability, leverage, firm size, and growth & investment opportunities as determinants of dividend policy. Second, the research periods are quite short, which is only three years starting from 2018 to 2020. Longer observation period may produce more accurate and robust data. Lastly, this research only employs quantitative approach in data analysis.

This study also provides useful insights for management to formulate or revise dividend policy by considering factors that have been shown to have a significant effect on dividend payments. In particular, if the aim is to increase dividend payments, then the profitability and size of the company need to be considered carefully. This is crucial, considering that dividend policy is one of the most important factors in retaining investors as well as attracting new investors. Alternatively, future research can also examine other factors, changing the study period, or using combination of quantitative and qualitative data and to provide a more comprehensive answer.

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