FACTORS DETERMINING DIVIDEND PAYOUT:
EMPIRICAL EVIDENCE OF INDONESIAN LISTED FIRMS

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Abstract. *The purpose of this study is to determine the influences of the company variables to dividend policy of firms. There are four hypotheses draw for this study to increase our understanding of the effect and relationship of dividend payout of firms, such as: sales, profit, companies' debt, and assets growth. The data used were the financial reports of each sample company which obtained through DataStream and IDX from 2010 - 2012. Four hypotheses, which relate to dividend payout such as sales, assets growth, profitability and debt financing, are tested in this research. Regression analysis indicated that profitability, sales and assets growth have positive significant influence to dividend payout but debt has negative significant.*

Keywords: *dividend payout, sales, assets growth, profitability and debt financing.*

A. Introduction

In corporate finance, the finance manager is generally thought to face two operational decisions: the investment (or capital budgeting) and the financing decisions. The capital budgeting decision is concerned with what real assets the firm should acquire while the financing decision is concerned with how these assets should be financed. A third decision may arise, however, when the firm begins to generate profits. Should the firm distribute all or proportion of earned profits in the form of dividends to the shareholders, or should it be ploughed back into the business? Presumably, in taking any course of action, managers should concentrate on how to maximize the wealth of shareholders for whom the firm is being managed. Managers must not only consider the question of how much of the company's earnings are needed for investment, but also take into consideration the possible effect of their decisions on share prices (Baker & Powel, 1999).

Moreover, listed corporations in the stock exchange use different advertising instruments for internal and external investment. One of these financial instruments is the dividend. On the one hand, dividends will provide a stable income for shareholders who are able to regulate their life expenses with it, and on the other hand investors and stock buyers will pay attention

and reports. They will give due attention to the fact that dividend represents corporations' power, while profit payment will cause shareholders to have confidence in their yield of capital receipt. Therefore, it is important to understand the factors that affect dividend policies and the managers making decisions about dividend policies in terms of these factors (Al-Kuwari, 2009).

B. Research Objectives

For nearly four decades, researchers have

trying to understand the determinants of dividend policy. Dividend policy is considered at the very core of corporate finance. In this study, the investors will like to determine the factors that affecting dividend payout decision and how dividend decision affect the value of the firms. The expected dividend payout is influenced by many factors such as after tax earnings, availability of cash, shareholders expectation, expected future earnings, liquidity, leverage, coalition of shareholders, number of shareholders, past dividend practiced, return on investment, industry

norms as well as future earnings. In this study, factors that influence dividend payout such as stability in debts ratio, assets growth companies, profitability and sales of the firm will be identified. Therefore the purpose of this study was to determine the influences of the variables to dividend policy of firms. There are four hypotheses draw for this study to increase our understanding of the effect and relationship of dividend payout, they are sales, profit, companies' debt, and assets growth of the firm. The specific objectives of this study are as follows:

1. To examine the importance of financial determinants in dividend policy adopted by high, medium and low capital firms in Indonesia Stock Exchange (IDX) for the year 2010-2012.
2. To examine the effect of companies' specific characteristic attributes (the debt, assets growth, profitability and sales) to the dividend policy practices by Indonesian listed companies.

C. Literature Review
• The Empirical Evidence
In the early stages of corporate history, managers realized the importance of high and stable dividend payments. In some ways, this was due to the analogy investors made with the other form of financial security then traded, namely government bonds. Bonds paid a regular and stable interest payment, and corporate managers found that investors preferred shares that perform like bonds (i.e. paid a regular and stable dividend). For the early history of dividend payment an example of Bank North America in 1781 paid dividends after only six months of operation, and the bank charter entitled the board of directors to distribute dividends regularly out of profits. "Paying consistent dividends remained of paramount importance to managers during the first half of the 19th century" (Frankfurter et al., 1997), in addition to the importance placed by investors on dividend stability, another issue of modern corporate dividend policy to emerge early in the nineteenth century was

that dividends came to be seen as an important form of information.

• Decision on Dividend Payment

of whether to pay shareholders a cash dividend, how large the cash dividend should be, and how frequently it should be distributed. In a broader sense, dividend policy also encompasses decisions such as whether to distribute cash to investors via share repurchases or specially designated dividends rather than regular dividends, and whether to rely on stock rather than cash distributions. The firm's dividend policy includes two basic components. First, the dividend payout ratio indicates the amount of dividends pay relative to the company's earnings. The second component is the stability of the dividends over time. In formulating a dividend policy, a manager of a firm faces trade-offs. Assuming that management has already decided how much to invest and has chosen its debt-equity mix for financing these investments, the decision to pay a large dividend means simultaneously deciding to retain little, if any, profits; this is turn result greater reliance on external equity financing which may costly for a firm (Frankfurter & Bob, 2002).

One of the most critical arguments of financial literature has been dividend policy. Dividend has two important aspects. First, it is an effective element of corporations' investment. On the one hand, the higher the dividend paid out, the lower will be corporations' internal resources for performing investment projects, while outsourcing requirement will increase which is an effective element of the stock price. On the other hand, many corporate shareholders demand cash dividends (Salehi and Biglar, 2009). Thus, managers should always equilibrate between different interests of shareholders so that they could utilize investment profitable opportunities and would pay required cash dividends for some shareholders (Siddiqi, 1995). Therefore, a dividend decision

is very sensitive and important as well. There is no doubt that when deciding about income, managers should consider their outcomes.

This is why many corporations have a certain purpose in mind while making decisions about dividends. However, it is without question that when managers make dividend decisions they inevitably face constraints such as liquidity problems, tax considerations and so on. Listed corporations in the stock exchange use different advertising instruments for internal and external investment (Healey et al., 1988). One of these financial instruments is the dividend. On the one hand, dividends will provide a stable income for shareholders who are able to regulate their life expenses with it, and on the other hand investors and stock annual stock dividend news and reports. They will give due attention to the fact that dividend represents corporations' power, while profit payment will cause shareholders to have confidence in their yield of capital receipt. Therefore, it is important to understand the factors that affect dividend policies and the managers making decisions about dividend policies in terms of these factors (Partington, 1985).

Furthermore, an essential assumption of MM's dividend irrelevance theory is that investors and managers have identical information with regard to the company's future earnings and dividend. In reality, however, managers have better information about future prospects than investors. Empirical studies have observed that an increase in dividend leads to an increase in share price, while a decrease in dividend leads to a decrease in the price. MM also observed that companies are hesitant towards a decrease in dividends and do not increase dividends unless they expect better future earnings. Therefore, they argue that an increase in dividends is a signal to investors better earnings in the future and that a decrease in dividend is a signal of poor earnings in the future. Therefore, investors might be attracted by the signal conveyed about future profits rather than the high rates of dividend payout (Blume, 1980).

Conversely, given the firm's investment and financing decisions, a small dividend payment corresponds to high profit retention with less need for externally generated equity funds will give a lower cost for a firm. Normally if the cost of paying dividend is higher than retention earning, it is more beneficial for firm to retain its earnings. Dividend payment may vary between firms depending on the opportunity of investments, cash flows that has generated by a firm and capital structure design of a firm. In addition, external and internal factors may influence the decisions if dividend policy for a firm.

D. Hypothesis Development

A dividend policy is a company's approach to distributing profits back to its owners or stockholders. If a company is in a growth mode, it may decide that it will not pay dividends, but rather re-invest its profits (retained earnings) in the business. If a company does decide to pay dividends, it must then decide how often to do so, and at what rate. Large, well-established companies often pay dividends on a fixed schedule, but sometimes they also declare "special dividends." The payment of dividends impacts the perception of a company in financial markets, and it may also have a direct impact on its stock price.

Hypothesis one
- There is positive association between debt and the dividend payout.

Of course high leverage companies need a lot of funds to service their debt, and as we know servicing debt is very expensive. Therefore, they have to allocate the high portion of their earning for that purpose and directly will reduce the amount of earnings to be paid as dividend. In addition, high leverage firms have the possibilities of

constraints by possible rules and regulation imposed by the debtors called debt covenants.

Hypothesis two

- There is positive association between firms' asset growth with the dividend payout.

The higher the growth rates of the companies, the greater the need for funds to finance the expansion. Therefore, there a possibilities that companies will reserve the higher portion of earnings to finance the growth, hence it will result in low dividend's payment.

Hypothesis three

There is a positive relationship between the profitability by the companies with the dividend payout to shareholders.

Profitability is considered as the most important factors associated with the dividend policy choices. It is understood that the firms, which experience stable earnings, can predict its future earning with higher accuracy and hence can predict stable dividend policy. Thus, firm can commit to pay higher dividend payment if they can predict higher earnings.

Hypothesis four

- There is positive association between the companies' sales growth and the dividend payout.

The higher the sales growth of the companies, the grate will be the dividend payout. Firms experiencing or anticipating higher sales growth will have lower dividend payout ratios because of investment opportunities and expected NPV projects.

E. Research Methodology

This study aims to examine the factors determining dividend payout ratio among the listed firms in the Indonesian Stock Exchange. This chapter discusses four important parts to achieve the aims of this study. The first part consists of the determinants of dividend payout ratios,
second is sampling, third: selection data, and the last sections is empirical model and explanations of variable.

Sampling and Selection

A sample of 100 manufacturing firms continuously traded firms from the Indonesia Stock exchange (IDX) from 250 firms was selected. A sample firm must have a typical dividend payout ratio ranging from 0 to 1. Data for calculating all the variables must be available for that firm.

The selection of the sample was based on the following criteria:

1. The 100 firms were randomly selected and were not based on any specific criteria.
2. Each sample companies must be listed on the IDX during the year of sampling from year 2010-2012.

The study is based on the secondary data. Sources of those data had been collected from:

1. DataStream
2. Individual Firm Annual Reports (company database), which is available in the IDX Online.

This research has used historical information and special statistical methods (Anova) to examine the relationship between variables and to test the hypotheses. Required information was collected through different journals and reports. Regression analysis methods were used to analyze the statistical tests. In addition, SPSS software was used to process information.

Empirical Model

This study adopted standard multivariate regression model to determine the possible

dividend policy decision. A few variables have been identified including the companies earning, growth, size, and debt were used to determine the factors that influence the dividend policy decision.

The model used in the study:

$$Y = \alpha + \sum \beta X$$

$\alpha, \beta' =$ parameter of regression
$\acute{\varepsilon} =$ Residual error

Where Y = Dividend Pay Out (DPO) of companies. This variable had been from:

Or

$$\frac{\text{Dividend per share}}{\text{Earning per}}$$

Dividend Payout = Dividend/earnings = Dividend per share/EPS

Dividend policy means the rationale under which a firm determines what it will pay in dividends. The dividend payout ratio is the ratio of the dividends paid to earnings. For example, if a company paid out $1 per share in annual dividends and had $3 in EPS, the DPR would be 33% ($1/ $3 = 33%). The real question is whether 33% is good or bad and that is subject to interpretation. Growing companies will typically retain more profits to fund growth and pay lower or no dividends. Companies that pay higher dividends may be in mature industries where there is little room for growth and paying higher dividends is the best use of profits.

- **Explanation of Variables**

There are two different tests that will be used to analyze the data, (1) descriptive test to analyze the central tendency and dispersion of the data and (2) regression analysis to ascertain the relationship between dependent variable and independent variables.

The equation is:

Y predicted = b0 + b$_1$*Sales + b$_2$*Tot Debt + b$_3$*Profit+ b$_4$*Asset Growth

- **Definition of the Variables**

DEBT = DEBT is debt to equity ratio which is companies leveraged measured by (long term debt/total equity). It explained the ratio of debt to the availability of equity used in the companies operations. It is expected that the higher leverage of companies will give negative relationship to companies' dividend payout. This is due expensive cost of debt. Companies with higher leverage need a lot of funds to service their debt.

Debt = Long term debt/

AGR = Assets Growth Rate as proxy for growth. It is an average of expansion or contraction, which is measured by change in total assets divide total assets $_{(t-1)}$. This is another operational variable proxy for growth. Morgan (1982) had used this variable proxy for growth in their studies on dividend policy. The positive sign shows the investment expansion and the negative sign indicate investment activities. It is expected that growth proxy will have a negative relationship with the dividend policy. This is to understanding that firms will allocate more funds to finance investment and less for dividend payments.

Assets Growth = Change in Total Assets $_{(t-1)}$/ Total

PRFT = Net Income available for year t to the sales of year t. This variable represents proxy for profitability for the companies. Van Horn et al. (1971) had used this variable

as a proxy for profitability in their studies on dividend policy. It is expected that this variable will show positive relationship to dividend payout. This assumption is due to the studies done by scholars where most of the studies showed that profits are very important determinant of dividend policy.

LOGSALES = Natural log of sales as proxy for growth. Petit (1976) used sales gate growth as an investment opportunity proxy. Lipson et al. (1998) conclude that firms experiencing or anticipating higher sales growth will have lower dividend payout ratios.

> Net profit margin = Net profit/ Sales

Summarize of the explanatory variables is presented in the Table 1 below.

Table 1
The Explanatory Variables and Measurement

Variable	Represented by	Predicted	Measured as
Sales	LnSales	(+)	Total Sales (after taking ln)
Debt Financing	DEBT	(+)	The ratio of debts to total assets
Assets Growth Rate	AGR	(+)	The ratio of changing in total assets from previous year
Profitability	PRT	(+)	The ratio of net profit to total sales

F. Research Finding and Discussion

The research methodology and data collection was explained on section above. All the findings researcher figures gathered during the data collection processed. The analysis was done using simple random sampling of 100 manufacturing firms (out of the 210 listed manufacturing firms on 2012) to examine the overall results of the financial determinant of dividend policy in Indonesian listed firms.

Table 2
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,856 (a)	0,747	0,712	0,70589768621

a. Predictors: (Constant), Assets Growth, Profit, Total Debt, Sales.

SPSS output allows researcher to specify multiple models in a single regression command. This tells researcher the number of the model being reported. R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable. R-Square is the proportion of variance in the dependent variable (dividend per share) which can be explained by the independent variables (assets growth, profit, total debt, sales). The first measure in the table is called R. This is a measure of how researcher our predictors predict the outcome, but researcher need to take the square of R to get a more accurate measure. This is R-squared, which SPSS shows us in the next column. As researcher saw earlier on, this gives us the amount of variance in dividend per share scores explained by the independent variable or predictor: assets growth, profit, debts, sales. R-squared varies between 0 and 1. In this case it is 0,712, so 71% of the variance in dividend per share test scores can be explained by the independent variables (assets growth, profit, total debt, sales) test scores. (Note: This does not imply causality.) Std. Error of the

Estimate, this is also referred to as the root mean squared error. It is the standard deviation of the error term and the square root of the Mean Square for the Residuals in the ANOVA (Table 4.3).

Table 3
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	48,338	5	9,668	22,263	0,000[a]
Residual	40,820	94	0,434		
Total	89,157	99			

    a. Predictors: (constant), Assets Growth, Profit, Tot Debt, Sales
    b. Dependent Variable: Div/Share

Table 4.3 Anova looking at the breakdown of variance in the outcome variable, these are the categories researcher will examine: Regression, Residual, and Total. The Total variance is partitioned into the variance which can be explained by the independent variables (Model) and the variance which is not explained by the independent variables (Error). Sum of Squares - These are the Sum of Squares associated with the three sources of variance, Total, Model and Residual. The Total variance is partitioned into the variance which can be explained by the independent variables (Regression) and the variance which is not explained by the independent variables (Residual). For df. these are the degrees of freedom associated with the sources of variance. The total variance has N-1 degrees of freedom. The Regression degrees of freedom correspond to the number of coefficients estimated minus 1. Including the intercept, there are 5 coefficients, so the model has 6-1=5 degrees of freedom. The Error degrees of freedom were the DF total minus the DF model, 99 -5 = 94. Mean Square - These are the Mean Squares, the Sum of Squares divided by their respective DF. F and Sig. - This is the F-statistic the p-value associated with it. The F-statistic is the Mean Square (Regression) divided by the Mean Square (Residual): 9,668/0,434 = 22,263. The p-value is compared to some alpha level in testing the null hypothesis that all of the model coefficients are 0.

Table 4
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	B	Std. Error
1 (Constant)	-5,590	1,655		-3,377	0,001
Sales	0,192	0,068	0,250	2,839	0,006
Tot Debt	0.044	0,058	0,057	0,752	0,454
Profit	0,157	0,065	0,218	2,984	0,004
Asset Grw	0,307	0,072	0,396	2,352	0,007

[a] Dependent Variable: Dividend payout

SPSS ouput allows researcher to specify multiple models in a single regression command. This tells researcher the number of the model being reported. This column shows the predictor variables (constant, assets growth, profit, debt, sales). The first variable (constant) represents the constant, also referred to in textbooks as the Y intercept, the height of the regression line when it crosses the Y axis. In other words, this is the predicted value of science when all other variables are 0. B - These are the values for the regression equation for predicting the dependent variable from the independent variable. The regression equation is presented in many different ways, for example:

$$Y \text{ predicted} = b0 + b_1 * Sales + b_2 * Tot\ Debt + b_3 * Profit + b_4 * Asset\ Growth$$

The column of estimates provides the values for b0, b1, b2, b3 and b4 for this equation. For sales for every unit increase in sales, researcher expect 0,192 unit increases in the sales score, holding all other variables constant. For total debt the coefficient for total debt is 0,044. So for every unit increase in total debt, researcher expects an approximately 0,044 point increase in the science score, holding all other variables constant. For the profit, the coefficient for profit is 0,157. So for every unit increase in profit, researcher expects a 0,157 point increase in the profit score. The same for asset growth the coefficient for profit is 0,307. Therefore for asset growth for every unit increase in profit, researcher expects a 0,307 point increase in the asset growth. Std. Error, these are the standard errors associated with the coefficients. For Beta, these are the standardized coefficients. These are the coefficients that researcher would obtain if researcher standardized all of the variables in the regression, including the dependent and all of the independent variables, and ran the regression. By standardizing the variables before running the regression, researcher have put all of the variables on the same scale, and researcher can compare the magnitude of the coefficients to see which one has more of an effect. Researcher will also notice that the larger betas are associated with the larger t-values and lower p-values. For t and Sig. these are the t-statistics and their associated 2-tailed p-values used in testing whether a given coefficient is significantly different from zero.

G. Conclusion, Limitation and Suggestions

This study examined the relationship between dividend payout and several variables such as: leverage, profitability, asset growth, sales for 3 periods from 2010 up to 2012. Past studies have rarely investigated the effect of dividend policy on manufacturing listed firms especially with four independent variables together on manufacturing firm. The result in general shows that there are significant descriptions between sales, debt financing, profitability to dividend payout. Assets growth rate negatively influenced DPO. Profitability proxy, represented by PRFT, which is positively related with dividend payout, is a significant determinant of dividend payout.

This study is limited to a few constraints. Due to time constraint and availability of the data, the study only covers a period of 3 years (2010 to 2012) with 100 firms. The number of firms chosen is only 100 out of the IDX 210 manufacturing firms listed in Indonesia Stock Exchange. This might not give accurate representation of the overall Indonesian company dividend policy. The study only focused on those companies who paid dividends. There is no comparison between firms, which pay dividend, and firms, which do not pay dividends. So, omitting firms has choose not to pay dividend may have bias result.

Suggestion for the future research should overcome the limitations and cover other important areas that are not examined. It is recommended that more-in-depth study can be done using few models in order to increase the accuracy of the result. It is also important to use a bigger number of samples from various firms. This will help to generalize the study.

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