DETERMINANTS OF DIVIDEND PAYOUT RATIO: A STUDY OF LISTED COMPANIES IN INDONESIA STOCK EXCHANGE

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ABSTRACT

This study examines the performance of the determinants of dividend payout ratio of listed companies in Indonesia Stock Exchang period 2011-2016. This study use independent variable such as firm size, institutional shareholding, free cash flow, growth and return on asset.

The analysis is performed using the data derived from the financial statements of listed companies in Indonesia Stock Exchange during a six-year period. The Panel Data Analysis is used to estimate the regression equation.

The result shows that there is relationship between firm size, institutional shareholding, free cash flow, growth and return on asset with dividend payout ratio which simultaneously have significant relationship with dividend payout ratio and the value is 54.93%.

The result of this research also shows that institutional shareholding has a positive and significant relationship with dividend payout ratio. Firm size and return on asset have a negative and significant relationship with dividend payout ratio. While the free cash flow has a negative and insignificant relationship with dividend payout ratio and growth has a positive and insignificant relationship with dividend payout ratio.

Key Words: *Dividend Payout Ratio, Firm Size, Institutional Shareholding, Free Cash Flow, Growth, Return on Asset*

1. INTRODUCTION

To be an investor in the capital market has at least two expectations, the first is capital gains, while the second, investors expect to get dividends from companies where the shares are located.

Dividend-sharing season is not important for the investors with capital gains orientation, they only matter with the line of analysis or technical analysis as the basis of investment decisions. It is different case for the investor with dividend orientation or the investor who wants to get a dividend and capital gains. So, this dividend season is the most eagerly awaited moment.

J.B. Maverick, a stock market analyst and commodity futures brokerage has released an article in Investopedia on five reasons why dividends are important to investors (https://www.investopedia.com/articles/investing/091015/5-reasons-why-dividends-matter-investors.asp). In this article by Maverick, the importance of dividends that have been substantially proven in the dynamics of the stock market in the United States and can be adapted in the stock market in Indonesia.

The importance of dividends for investors among them is 1). Growth and expansion of profits, 2). Dividends are helpful in equity evaluation, 3). Reducing risk and volatility, 4). Dividends offer tax advantages, 5). Dividends preserve purchasing power of capital.

For investors who have orientation to get dividends, it is necessary to know how the determination of dividends in a company, so that investors can choose which companies are eligible to save the investment.

The issue of dividends for corporations is also very important for a number of reasons: First, firms use dividends as a way of showing to outsiders or potential investors, it has something to do with the stability and prospects of future growth. Second, dividends play an important role in the company's capital structure (Saxena, 1999).

The amount of dividend to be paid by the company depends on the dividend policy of each company. Thus it is necessary for the management to consider what factors will influence the dividend policy set by the company (Hatta, 2002).

2. LITERATURE REVIEW

Dividend policy is often regarded as a signal for investors in assessing the good of the company, this is because dividend policy can bring influence to stock price company. Thus, the portion of the profit to be distributed in the form of dividends and the amount of profit to be retained for reinvestment is a serious problem for the management. From previous studies on the dividend payout ratio, several theories have been produced that are currently used as references and literature for research. Such opinions and theories are used as guidelines and references in accordance with the policies or conditions of each company and country. Here are some theories about dividend payout ratio.

According to Gordon and Lintner (1956) in Bringham and Houston (2011), the required rate of return will increase if the dividend payout is reduced as investors are more confident of dividend receipts than the capital gains that will result from retained earnings. Gordon and Lintner's (1956) opinion by MM was given the name **bird-in-the-hand f**allacy. Gordon and Lintner think investors see that a bird in hand is worth more than a thousand birds in the air. However, MM argues that not all investors are interested in reinvesting their dividends in the same company with the same risk, therefore the risk level of their

future earnings is not determined by the dividend payout ratio but it is determined by the level of risk of new investment.

The **irrelevant dividend theory** (Modigliani and Miller, 1961) is a theory which states that dividend policy has no influence, either on company value or capital cost. Modigliani and Miller (MM) (1961) stated that the dividend payout ratio is irrelevant, the value of a firm is not determined by the size of the dividend payout ratio but it is determined by the net profit before tax (EBIT) and business risk. Thus the dividend policy is actually not relevant to be question.

In Bringham and Houston (2011), **Tax Preference Theory** is a theory proposed by Litzenberger and Rasmaswamy (1979) in Bringham and Houston (2011) which states that because of the tax on dividends and capital gains, investors prefer capital gains because they can delay tax payments. If capital gains are taxed at rates lower than the tax on dividends, then high-growth stocks will be responded positively by investors. On the contrary, if capital gain is taxed equal to dividend income, then capital gain's profit will decrease. Nevertheless, the tax on capital gains is still better than the tax on dividends because the tax on newly acquired capital gain is paid after the shares are sold, while taxes on dividends are payable annually after dividend payout. In addition, the investment period also affects the income of investors. If the investor only buys the stock for a period of one year, then there is no difference between the tax on capital gains and the tax on dividends. So investors will ask for higher after-tax profits on stocks with high dividend yields than stocks with low dividend yields. Therefore, this theory suggests that companies should determine a low dividend payout ratio or even not dividend.

Another theory, **Signaling Theory,** it describe that **s**ignals are an action taken by the management of a company that provides guidance to investors about how management sees the prospect of the company. The signal or information charge hypothesis is the theory that investors value dividend changes as a signal of earnings forecasts by management. This theory states that the increase in dividends is often followed by a rise in stock prices. Conversely, a decrease in dividends in general causes the stock price to fall. This observation is used to prove MM irrelevant theory error, that stock price action after the change of dividend payout indicates that investors prefer dividend rather than capital gain. However MM has a different opinion. They noted that companies are reluctant to reduce dividends, so the company will raise dividends if there is greater anticipated earnings in the future to support higher dividends. So MM argues that dividends above the expected amount is a signal to investors that the company's management forecast a good profit in the future. Conversely, a decrease in dividends, or a small increase in expected amount, is a signal that management foresees a poor future profit. If the position of MM is true, then a change in stock price after a dividend increase or decrease does not indicate a preference for dividends compared to retained earnings. The price change only indicates the dividend announcement has a signal charge or information about future earnings. Managers often have better information about future dividend prospects compared to public shareholders, so there is obviously an information content in the dividend announcement. However, it is difficult to ascertain whether changes in stock prices that follow a dividend increase or decrease reflect only the impact of a signal (such as MM opinion) or dividend preferences as well as signals. However, the impact of signals should take into account when a company considers changes in its dividend policy.

The Clientele Effect Theory suggests that different groups of shareholders will have different preferences on corporate dividend policies. In essence, investors will be sorting themselves by buying stocks that match their choice either for dividends or capital gains. Group of shareholders who need income at this time prefers a high dividend payout ratio. Conversely, the less-pressed shareholder group today is more likely if the company holds most of its net income. In other words there will be a client effect. The Company attracts certain clients with their dividend policy. Investor clients are likely

to lead us to believe that corporate dividend policies are important. However, if there is no greater aggregate demand for a given policy than the market can satisfy, dividend policy is not important, one policy is as good as the other. Impact Clients remind companies to avoid making unexpected changes in dividend policy. With the company's investment decisions that have been made, the dividend rate still remains unimportant. Changes in the policy are only important when it suits other migrating clients.

Jensen and Meckling explain the agency relationship in **Agency Theory** that agency relations are "a contract under which one or more persons (the principal (s)) engage another person (the agent) to perform some service on their behalf which involve delegating some decision making authority to the agent" (Jensen and Meckling, 1976:5). The statement can be interpreted that agency relationship is a contract between the owner of the resource (principal) and the manager (agent) who take care of the use and control of these resources.

Agents are managers of the company who know more about the company's internal information and prospects in the future than the company's principal. Managers have an obligation to provide information about the company with financial statements, the report is important to the owners of the company because they are outside of the company that does not know for sure the condition of the company and have great uncertainty.

Agency theory has the potential to create a conflict of interest created when managers who make decisions have personal goals (Brigham, 2006). According to Meisser, Glover, and Prawitt (2006) this agency relationship resulted in two problems: 1). The occurrence of asymmetric information (information asymmetry), where there is an imbalance of information acquisition between the management as a provider of information with the investors as users of information. Asymmetric theory says that the parties associated with the company do not have the same information about the prospects and risks of the company. Certain parties have better information than others. Managers usually have better information than the investors because it can be said to occur asymmetry information between managers with investors. 2). The occurrence of conflict of interest due to inequality of purpose, where management does not always act in accordance with the interests of the owner. According to Jensen and Meckling (1976), differences in interests between managers and shareholders are particularly vulnerable. The reason is that the decision makers do not have to bear the risk of mistakes in business decisions, as well as if they can not increase the value of the company. The risk is fully borne by the owners. Because it does not bear the risk and does not get pressure from other parties in securing the investment of shareholders, then the management tends to make decisions that are not optimal. In an effort to overcome or reduce the agency problem will lead to agency costs that will be borne by both principals and agents. Jensen and Meckling (1976) divide the agency costs into three parts: 1). Monitoring cost; 2). Bonding cost; and 3). Residual loss.

Some researchers have conducted research on the factors that influence the company's dividend policy, the results of several researchers will be used as reference materials and comparison in this study, among others are as follows:

1). D'Souza & Saxena (1999) investigated the effect of agency cost, market risk and investment opportunity on dividend policy on international companies. The results of the study suggest that there is a negative effect of agency cost and market risk on dividend policy, while the relationship between dividend policy and investment opportunity show an insignificant relationship.

2). Short, Zhang, and Keasey (2001) investigated the relationship between dividend policy and institutional ownership. The result of the research is that there is a positive relationship between dividend payout policy and institutional ownership. Furthermore the results for the revenue trend model provide a positive revenue trend component to the relationship between institutional ownership

and dividend payout ratio. In addition, there is evidence to support the hypothesis that there is a negative relationship between dividend policy and managerial ownership.

3). Hatta (2002) conducted an investigation of the relationship between dividend policy and corporate investment decisions. The result of the research is there is relationship between dividend payout ratio with company focus, total asset, insider ownership, number of common shareholder, free cash flow and growth. Two variables that significantly influence the dividend payout ratio, the Company Focus and Total Assets.

4). Amidu and Abor (2006) conducted a research entitled Determinants of Dividend Payout Ratios in Ghana. The results showed a positive relationship between dividend payout ratio with profitability, cash flow, and tax. The results also show a negative relationship between dividend payout ratio and risk, institutional holding, growth and market-to-book value.

5). Kumar (2007) conducted a research titled Analysis of the influence of Ownership Structure, Investment Opportunity Set (IOS), and Financial Ratios on Dividend Payout Ratio (dividend payout ratio) (Comparative study on PMA and PMDN companies in Jakarta Stock Exchange Period 2003- 2005). The results showed that in the PMDN companies, ROA has a significant positive effect on dividend payout ratio while the ownership of management shares, institutional ownership, IOS and DER no significant effect on the dividend payout ratio In the PMA company, the ownership of management shares, ISO, ROA and DER have a significant positive effect on the dividend payout ratio while the institutional share ownership does not significantly affect the dividend payout ratio.

6). Chasanah (2008) conducted a research with the title Factors Affecting Dividend Payout Ratio (DPR) On Companies Listed in Indonesia Stock Exchange. The results of his research showed that the return on assets and institutional ownership have a significant and positive influence on the dividend payout ratio in companies whose shares are owned by management. While return on asset and firm size have a significant and positive influence on dividend payout ratio in companies whose shares are not owned by management.

7). Puspita (2009) in a study entitled Analysis of Factors Influencing Dividend Payout Ratio Policy, found that cash ratio, firm size and return on assets have a positive and significant impact on dividend payout ratio. Debt to total assets show a positive and insignificant influence on dividend payout ratio. While the debt to equity ratio has a negative and insignificant effect on the dividend payout ratio. The growth has a negative and significant effect on dividend payout ratio.

8). Hikmah (2010) with the title of research Analysis of Factors Affecting Dividend Policy: Stakeholder Theory Approach, found that the size of firms, agency cost and growth had negative effects significant to dividend payout ratio. The concentration of ownership has a significant positive effect on the dividend payout ratio. While free cash flow does not have a significant effect on dividend payout ratio. And ownership concentration is the dominant variable affecting dividend payout ratio.

9). Setiawan and Phua (2013) under the title Corporate Governance and Dividend Policy in Indonesia found that corporate governance practices in Indonesia are still low, even weakest in Asia. The results of his research also shows that firm size does not affect dividend policy, profitability has a positive relationship with dividend policy, grow influence dividend policy positively.

3. METHODOLOGY

3.1 Research Questions

Based on the different research results on factors affecting the dividend payout ratio, as well as the ups and downs of the dividend payout ratio during the period of 2011 to 2016, further research is needed on the factors affecting the dividend payout ratio. So that we can be able to formulated research questions as follows:

1. Are the size of the company, institutional shareholding, free cash flow, growth, and return on assets simultaneously affect the dividend payout ratio of companies listed in the Indonesia Stock Exchange period 2011-2016?

2. Does the size of the company affect the dividend payout ratio of companies listed on the Indonesia Stock Exchange period 2011-2016?

3. Does the institutional shareholding affect the dividend payout ratio of companies listed on the Indonesia Stock Exchange period 2011-2016?

4. Does free cash flow affect the dividend payout ratio of companies listed in the Indonesia Stock Exchange period 2011-2016?

5. Does the growth affect the dividend payout ratio of companies listed on the Indonesia Stock Exchange period 2011-2016?

6. Does return on assets affect the dividend payout ratio of companies listed on the Indonesia Stock Exchange period 2011-2016?

7. Which factors are the most dominant and significant in affecting the dividend payout ratio of companies listed on the Indonesia Stock Exchange period 2011-2016?

3.2 Modeling Volatility

Analysis technique that will be used in this research is panel data regression analysis technique. Panel data regression analysis is used because the data structures performed in this research is panel data, which has time series data and cross section. By using panel data regression models, it is possible to capture individual and inter-individual characteristics that may be different.

According to Baltagi (2005), the advantages of using panel data regression analysis include more informative, more varied, more efficient data, avoiding multicolinearity problems, superior in studying dynamic changes, more able to measure unobservable effects on cross data pure sections and pure time series, and by making the data available in larger quantities, panel data can minimize biases that can occur when aggregating individuals into large aggregates. The regression equation that is estimated as follows:

$$Y_{it} = \alpha_i + \beta^t X_{it} + \varepsilon_{it}$$

Where, Y = dependent variable,
X = independent variable,
α = intercept,
B = slope,

Ɛ = regression error,
i = 1,2,…,N, where N = sum of the firm,
t = 1,2,…,T, where T = sum of period

Dependent Variable

Dividend Payout Ratio

Ang (1997) states that the dividend payout ratio is the ratio between dividend per share and earnings per share, so perspectively, it compares the growth of dividend per share to growth of earning share.

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

Independent Variables

Firm Size

A large established company will have easy access to the capital market, while the new and small companies will experience many difficulties to have access to the capital market. Due to the ease of access to capital markets is significant for flexibility and ability to obtain larger funds, so the company is able to have a higher dividend payout ratio than a small company (Chang and Rhee, 1990). Here to calculate the size of the firm:

Size = Log of total assets.

Hypothesis : Firm size has a significant positive effect on dividend payout ratio

Institutional Shareholding

According to Jensen and Meckling (1976) institutional ownership is one of the major corporate governance mechanisms that help control agency problems. Clientele Effect Theory of Modigliani-Miller states that different shareholders will have different preferences on the company's dividend policy. This indicates that the proportion of stock ownership influences the dividend policy. The existence of ownership by institutional investors such as insurance companies, banks, investment companies and ownership by other institutions in the form of companies will encourage more optimal supervision of insider performance (Moh'd, Perry and Rimbey, 1998) so that it will have an impact on the increase of corporate profits. This increase in profits affects dividend increase, so increasing institutional ownership will increase dividend payout ratio. Here to calculate the institutional shareholding:

$$\text{Institutional shareholding} = \frac{\text{Share owned by Institutional}}{\text{Total share}}$$

Hypothesis : Institutional shareholding has a significant positive effect on dividend payout ratio

Free Cah Flow

Jensen (1986) states that free cash flow is a cash flow where excess funding is required for all projects that have a positive net present value after the entire project is discounted on its cost of capital. Simply can be translated as cash residue after being used for various purposes of the company's planned projects such as paying salaries, production costs, bills, debt installments and interest, taxes, as well as capital expenditure for business development. Thus a relatively low rate of free cash flow will reduce agency costs so that the need for dividends to pay for agency costs is reduced. The higher the free cash flow, the higher the dividend payout ratio.

$$\text{Free cash flow} = \frac{\text{Net operating profit-tax-depreciation-changes in capital expenditures-changes in net operating working capital}}{\text{Total share}}$$

Hypothesis : Free cash flow has a significant positive effect on dividend payout ratio

Growth

According Riyanto (1995) the faster the growth rate of a company, the greater the need for funds to finance the growth of the company. The greater the future funding requirement to finance its growth, the company usually prefers to withhold its earnings than to be paid out as dividends to shareholders by keeping in mind the cost limits. The higher the rate of growth of the company, the greater the level of funding needs to finance expansion. The greater the need for funds in the future, the more will enable the company to hold profits and not pay it as dividends. Therefore, the growth potential of the company becomes an important factor determining the dividend policy (Chang and Reee, 1990). Growth shows asset growth where assets are assets used for the company's operational activities. According to Halim (2005) Growth is a change (annual growth rate) of Total Assets. This variable is measured by the percent unit formulated as follows:

$$\text{Growth} = \frac{\text{Total Asset (t) - Total Asset (t-1)}}{\text{Total Asset (t-1)}}$$

Hypothesis : Growth has a significant negative effect on dividend payout ratio.

Return on Asset

Return on asset is profitability ratios used to measure the effectiveness of the company in generating profits by utilizing its assets. Firms that gain cederung profits will pay a larger share of the profits as dividends. The greater the profits, the greater the company's ability to pay dividends. This attribute of profitability is represented by the level of profit after tax divided by total assets (Chang and Rhee, 1990). According Ang (1997) return on assets is the ratio between net income after taxes to total assets. Mathematically return on assets can be formulated as follows (Ang, 1997):

$$\text{Return on asset} = \frac{\text{Net Income After Tax}}{\text{Total Asset}}$$

Hypothesis : Return on asset has a significant negative effect on dividend payout ratio.

Table 3.1. Variable description

No	Variabel	Symbol	Description
1	Dividend Payout Ratio	DPR	Dividend per share / Earning per share (Ang,1997)
2	Firm Size	SIZE	Log natural asset (Ghozali, 2006)
3	Institutional Shareholding	INST	Institutional shareholding / Total share (Moh'd, Perry, and Rimbey, 1998)
4	Free Cash Flow	FCF	(Net operating profit-tax-depreciation-changes in capital expenditures-changes in net operating working capital) / Total asset (Titman, Keown, and Martin, 2014)
5	Growth	GROWTH	(Total asset this year - Total asset last year) / Total asset last year (Halim, 2005)
6	Return on Asset	ROA	Net income after tax / Total asset (Ang, 1997)

3.3 Data

The object of research is listed companies on the Indonesia Stock Exchange during the period 2011-2016. This study is used purposive sampling method with certain criteria. The number of samples examined is 40 companies for 6 years, then the number of samples is 240 observation data.

4. RESULTS AND DISCUSSION

Descriptive statistics

Table 4.1. Descriptive statistic of dependent variables and independent variable

	Dividend payout ratio	Firm Size	Institutional Shareholding	Free Cash Flow	Growth	Return on Asset
Mean	0.401779	29.545116	0.682164	0.080902	0.168237	0.135239
Median	0.381056	29.800205	0.650174	0.062305	0.140784	0.101482
Maximum	2.251729	33.198812	0.981786	0.611164	0.848539	0.657201
Minimum	0.029206	26.193822	0.279741	-0.492156	-0.216538	0.000541
Std. Dev.	0.298405	1.591318	0.156550	0.146224	0.175253	0.105044

Source : data processed

The average value of the dividend payout ratio come near to the minimum value means that the average dividend payout ratio is low. The average value of a dividend payout ratio greater than the standard deviation means that the dividend payout ratio does not vary.

The average value of a firm's size close to its minimum value means that its average firm size is low. The average value of a firm's size greater than its deviation standard means that its size does not vary.

The average value of institutional ownership close to the maximum value means that the average institutional ownership is high. The average value of institutional ownership greater than the standard deviation means that the value of institutional ownership does not vary.

The average value of free cash flow close to the maximum value means that the average free cash flow is high. The average value of free cash flow is less than the standard deviation means that the value of free cash flow varies.

The average value of growth close to the minimum value means that the average growth is low. The average value of growth less than the standard deviation means that the value of its growth varies.

The average return on asset value close to the minimum value means that the average return on asset is low. The average return on asset value of the standard deviation means that the return on asset does not vary.

Panel Data Analysis

The regression is run in a panel manner. Various options of panel data regression were run, common effect, fixed effects and random effects. The most robust of all was the fixed effect, thus we report results of the fixed effect regression in Table II. The dividend payout ratio is regressed against the five explanatory variables. These variables include firm size (SIZE), institutional shareholding (INST), free cash flow (FCF), growth (GROWTH) and return on asset (ROA).

Table 4.2. Redundant Fixed Effect - Likelihood Ratio

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.583565	(39,195)	0.0000
Cross-section Chi-square	156.146821	39	0.0000

Source : data processed

Table 4.3. Correlated Random Effects – Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	64.493076	5	0.0000

Source : data processed

From Table 4.2. the value of P is 0.0000 which shows the significant effect. The significant value of cross section chi-square suggests opting fixed effect model rather than a common effects model. Table 4.3. shows the results of Hausman Test. The P value of Hausman test is 0.0000 which is significant. P-value suggests choosing a fixed effect model rather than the random effect model. Soa, for this study, the best fit model is fixed effect model.

R-squared actually represents the correlation between the observed value and the predicted value of the dependent variable. It is also said to be a determination of coefficient. It is explained variation for an individual variable.

Durbin-Watson is used to test the serial correlation of the model. According to the rule, if the value of DurbinWatson ranges from 1.50 to 2.5 then no problem of auto correlation exist, less or more creates the problem of auto correlation.

Table 4.4. Regression Model Result (Fixed Effect Model)

Dependent Variable: DPR
Method: Panel Least Squares
Date: 01/11/18 Time: 00:09
Sample: 2011 2016
Periods included: 6
Cross-sections included: 40
Total panel (balanced) observations: 240

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SIZE	-0.140468	0.058995	-2.381034	0.0182
INST	0.844432	0.315595	2.675684	0.0081
FCF	-0.113246	0.149859	-0.755681	0.4508
GROWTH	0.171270	0.099622	1.719205	0.0872
ROA	-1.328650	0.385467	-3.446861	0.0007
C	4.135915	1.819439	2.273182	0.0241

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.549344	Mean dependent var	0.401779
Adjusted R-squared	0.447657	S.D. dependent var	0.298405
S.E. of regression	0.221774	Akaike info criterion	-0.006954
Sum squared resid	9.590831	Schwarz criterion	0.645665
Log likelihood	45.83452	Hannan-Quinn criter.	0.256004
F-statistic	5.402328	Durbin-Watson stat	2.042579
Prob(F-statistic)	0.000000		

Source : data processed

Tabe 4.5. Coefficient Cross-Section Each Firm

No	Firm	Coefficient Cross-section	No	Firm	Coefficient Cross-section	No	Firm	Coefficient Cross-section	No	Firm	Coefficient Cross-section
1	ADHI	-0.116898	11	CTRA	-0.002479	21	KLBF	0.281228	31	SMGR	0.397497
2	ADRO	0.332643	12	EKAD	-0.747421	22	LSIP	0.095575	32	SMSM	0.099713
3	AKRA	0.395262	13	FISH	-0.500271	23	MERK	0.027500	33	TCID	-0.237509
4	ASGR	-0.157753	14	GEMA	-0.662403	24	MKPI	-0.151291	34	TKIM	-0.088203
5	ASII	0.582321	15	GGRM	0.313210	25	MLBI	0.469472	35	TOTL	0.077693
6	AUTO	-0.169956	16	GMTD	-0.672445	26	MTLA	-0.603040	36	TOTO	-0.363368
7	BATA	-0.379901	17	HMSP	0.895390	27	PTBA	0.159625	37	TURI	-0.505711
8	BSDE	-0.181392	18	INDF	0.336418	28	PWON	-0.198825	38	UNTR	0.414250
9	CASS	-0.578648	19	INTP	0.398078	29	RUIS	-0.178735	39	UNVR	0.462191
10	CPIN	0.206776	20	ITMG	0.300590	30	SCMA	0.477028	40	WIKA	-0.226212

Source : data processed

Based on the output of fixed effect model in table 4.4. and coefficient cross-section in table 4.5., the regression equation is estimated as follows :

Y = (Coefficient each firm) + 4.135915 - 0.140468SIZE + 0.844432INST

- 0.113246FCF + 0.171270GROWTH - 1.328650ROA

This regression confirm the statistically positive and significant relationship between dividend payout ratio with institutional shareholding. It also shows the negative and significant relationship between dividend payout ratio with firm size and return on asset, and shows negative relationship and insignificant relationship between dividend payout ratio with free cash flow and it also shows positive and insignificant relationship between dividend payout ratio with growth .

R-squared shows the adequacy of the model. In econometric model it explains the percentage of dependent variables explained by the independent variables. It is also called the goodness of fit. Here the value of R2 is 0.549344. This shows that this model predicts 54.93% change in dependent variable due to change in independent variables. Adjusted

Adjusted R-squared shows the coefficient for whole independent variables. Here the value of adjusted R-squared is 0.447657. This shows that there is 44.77% effect on dependent variables from the independent variables.

F-statistics show a fitness of the model. If it is more than probability of F-statistics this shows the fitness of the model. Here the value of F-statistics is 5.402328 and its probability is 0.0000. So, it is concluded that this model is fits. So it can be concluded that the hypothesis that the firm size, institutional shareholding, free cash flow, growth and return on assets simultaneously have a significant positive effect on the dividend payout ratio is acceptable.

Coefficient Cross-section Analysis

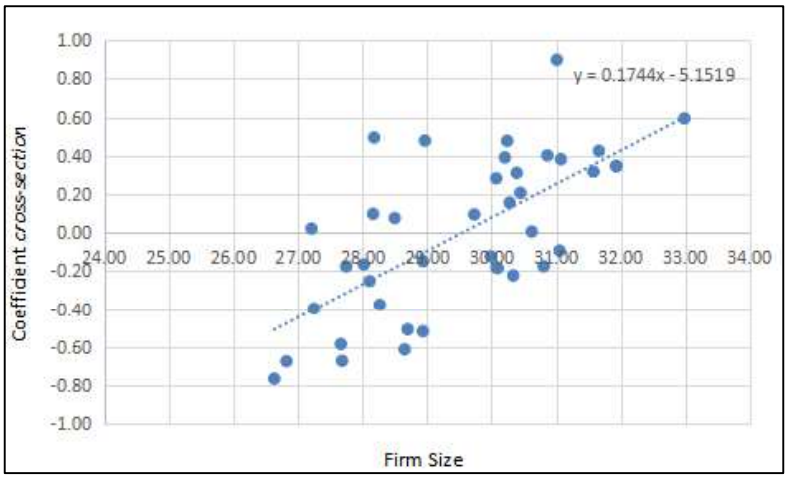

Figure 4.1. Coefficient cross-section vs firm size
Source : data processed

From Figure 4.1 it can be seen that the higher the size of the company, it tends to be higher payout dividend payout ratio.

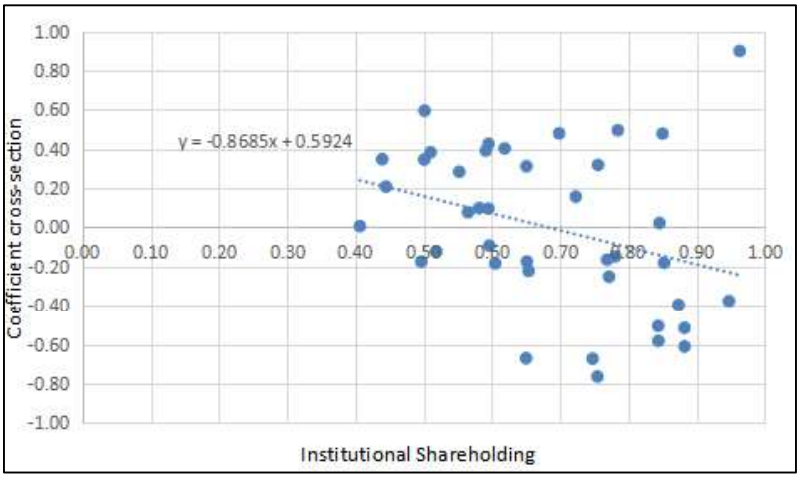

Figure 4.2. Coefficient cross-section vs institutional shareholding
Source : data processed

From Figure 4.2 it can be seen that the higher the share ownership by the institution, it tends to be lower payment of dividend payout ratio.

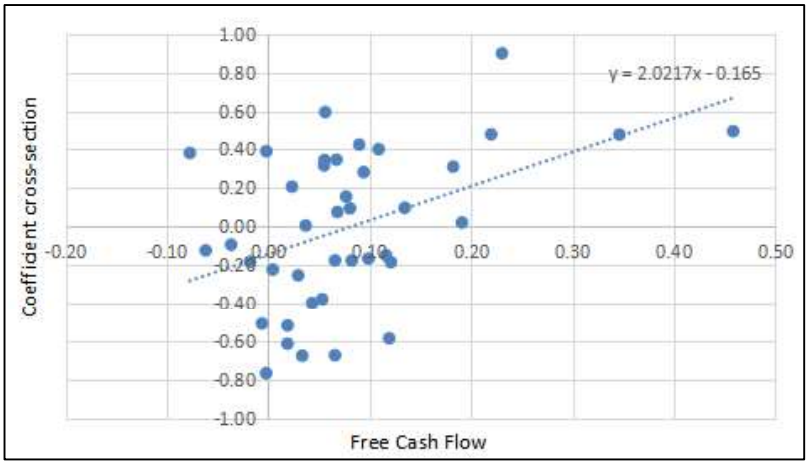

Figure 4.3. Coefficient cross-section vs free cash flow
Source : data processed

From Figure 4.3 it can be seen that the higher the free cash flow, it tends to be higher payout dividend payout ratio.

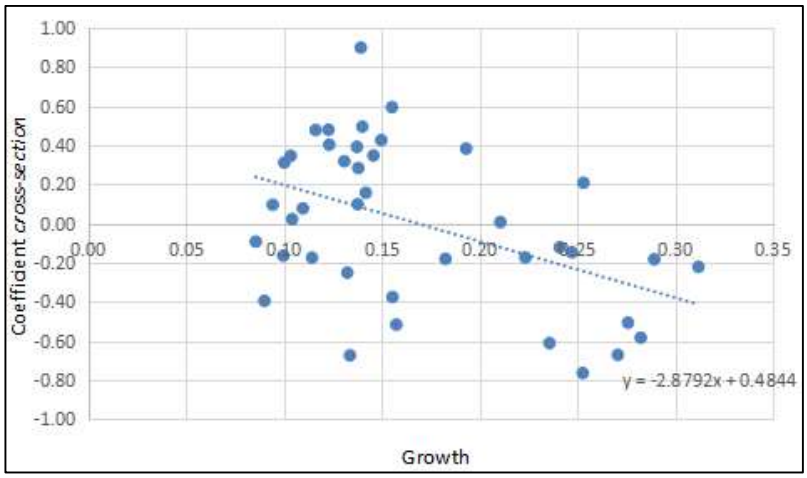

Figure 4.4. Coefficient cross-section vs growth
Source : data processed

From Figure 4.4 it can be seen that the higher the growth is owned, it tends to be lower payout dividend payout ratio it.

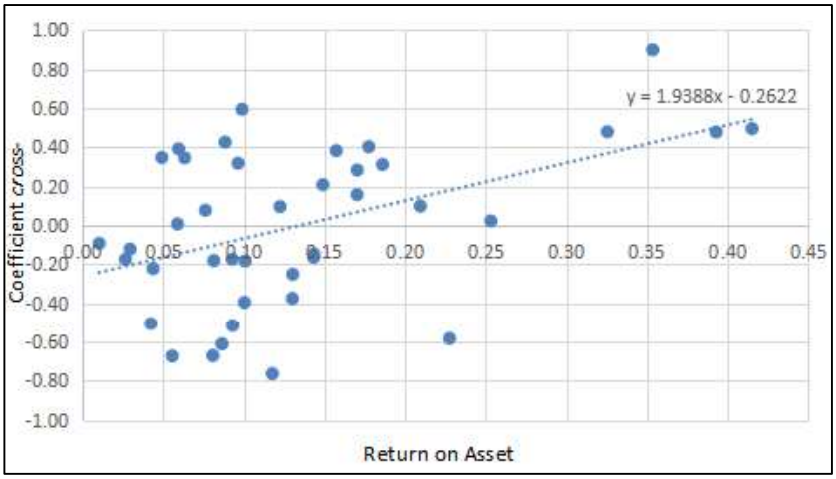

Figure 4.5. Coefficient cross-section vs return on asset
Source : data processed

From Figure 4.5 can be seen that the higher return on assets owned, it tends to be higher payout dividend payout ratio it.

Discussion

From the results showed that firm size, institutional ownership, free cash flow, growth and return on assets simultaneously affect the dividend payout ratio of 54.93%, while the rest of 45.07% influenced by other variables not examined in this study.

The first hypothesis proposed in this study is firm size has a significant positive effect on Dividend Payout Ratio. The result of panel data regression analysis shows that partially firm size has negative and significant effect to dividend payout ratio. This is indicated by the result of t test that is the result of partial test between firm size with dividend payout ratio showing t -2.381034 with probability value 0.0182 smaller than 0.05. This value gives meaning Ho accepted, it can be concluded that the hypothesis that the size of the company have a significant positive effect on dividend payout ratio rejected.

So from this study can be concluded that firm size has a negative and significant effect on dividend payout ratio. Negative influence means that the larger the size of the company the smaller the dividend payout ratio is paid. The results of this study only in accordance with research conducted by Hikmah (2010) which states that the size of the company has a negative and significant influence on the dividend payout ratio.

This phenomenon is quite interesting, because the results of this study is not in accordance with some other research results Hatta (2002) which states that the size of the company affect the dividend payout ratio. Similarly, the research of Chasanah (2008) and Puspita (2009) which states that firm size has a positive and significant effect on dividend payout ratio.

Another thing that can explain the conclusion of this study that the larger the size of the company the smaller the dividend payout ratio is paid, is that the greater the company then the other costs required for the growth of the company will increase and ultimately affect the decreasing dividend payout .

Based on the cross-sectional coefficient of the firm size variable on the dividend payout, the higher the firm's size the higher the payout ratio dividend. This is in line with the hypothesis proposed by the researcher.

The second hypothesis proposed in this research is institutional ownership has a significant positive effect on dividend payout ratio. The result of panel data regression analysis shows that partially institutional ownership has positive and significant effect on dividend payout ratio. This is indicated by the result of t test ie partial test result between institutional ownership with dividend payout ratio shows t value 2.675684 with probability value of 0.0081 less than 0.05. This value gives the meaning Ho is rejected, it can be concluded that the hypothesis that the ownership of the institution has a significant positive effect on the dividend payout ratio is acceptable.

So from this study can be concluded that the ownership of the institution has a positive and significant influence on dividend payout ratio. It can be explained that with the ownership of shares by the institution causes the supervision of the company management becomes higher. With the supervision by other institutions as shareholders, then management will show good performance that terntunya will have implications to the increase in corporate profits. This increase in profits will have an impact on increasing dividends.

The results of this study are in accordance with the research conducted by Short et al (2001), Chasanah (2008) and Hikmah (2010) stating that institutional ownership has a positive and significant effect on dividend payout ratio. However, the results of this study are not in accordance with the research done by D'Souza and Saxena (1999) which states that institutional ownership has a negative and significant effect on dividend payout ratio and research of Amidu and Abor (2006) and Setiawan and Phua (2013) the ownership of the institution has a negative and insignificant effect on the dividend payout ratio, and Hatta (2002) study that the institutional ownership does not affect the dividend payout ratio.

Based on the cross-section coefficient of the institutional ownership variable on the trend of dividend payout. Based on the cross-section coefficient data obtained results that the higher the ownership of the institution the tendency will be lower payout dividend payout ratio it.

The third hypothesis proposed in this research is free cash flow have a significant positive effect on dividend payout ratio. The result of panel data regression analysis shows that partially free cash flow has positive and insignificant effect on dividend payout ratio. This is shown by the result of t test that is the result of partial test between free cash flow with dividend payout ratio shows the value of t -0.755681 with probability value equal to 0.4508 bigger than 0.05. This value gives meaning Ho accepted, it can be concluded that the hypothesis that states free cash flow have a significant positive effect on dividend payout ratio rejected.

So from this research can be concluded that free cash flow has a negative effect and not significant to dividend payout ratio. The higher the free cash flow, the lower the dividend payout ratio. However, the effect of free cash flow on dividend payout ratio is not significant.

This means that free cash flow has no effect on the dividend payout ratio and its direction is the opposite. What may explain the results of this study is that the possibility of idle cash is used for reinvestment rather than for dividend payments.

Judging from the company's data in the sample research, for companies that have a negative cash free cash, it turns out the growth data of its assets continue to increase and annually still share dividends. The possibility of the company using funds from third parties for the purpose of adding assets or to

share dividends. This is a possibility that causes free cash flow is not a factor determining the company's dividend policy.

The results of this study in accordance with research Hatta (2002) and Hikmah (2010) which states that free cash flow has a negative and not significant effect on dividend payout ratio.

Based on the cross-section coefficient of the variable free cash flow on the tendency of dividend payment, it is obtained that the higher the free cash flow, the tendency will be higher payout dividend payout ratio. This is in line with the hypothesis proposed by the researcher.

The fourth hypothesis proposed in this study is the growth significantly negatively affect the dividend payout ratio. The result of panel data regression analysis shows that partially growth has positive and not significant effect on dividend payout ratio. This is indicated by the result of t test ie partial test result between growth with dividend payout ratio shows t value 1.719205 with probability value equal to 0.0872 bigger than 0.05. This value gives the meaning Ho accepted, it can be concluded that the hypothesis that states significant negative growth influence on dividend payout ratio is not acceptable.

This means that growth has no effect on the dividend payout ratio and the direction is opposite. Growth does not affect the amount of dividend payout ratio either a company that grows rapidly or does not grow.

This phenomenon is very interesting because the results of this study contrast with the results of research conducted by D'Souza and Saxena (1999) which states that the growth has a positive and significant effect on dividend payout ratio and not in accordance with the research Amidu and Abor (2006) and Puspita (2009) which states that growth has a negative and significant effect on dividend payout ratio and Chasanah (2008) which states that growth has negative and insignificant effect on dividend payout ratio.

Usually, if the company is and has been growing rapidly in the past, it will most likely have a lower dividend payout rate. A fast-growing company needs more funds to grow, therefore the company wants to keep most of its revenue rather than paying higher dividends. Therefore, the company will have a lower payment ratio.

However, in this study, it appears that the dividends are paid without consideration of the growth of the company. In other words, this dividend policy does not depend on investment decisions.

The results of this study are in accordance with Setiawan and Phua (2013) which mentions the growth has a positive but not significant effect on dividend payout ratio.

Based on the cross-section coefficient of variable growth on the dividend payout then it is obtained that the higher the growth then the tendency will be lower payment of dividend payout ratio. This is in line with the hypothesis proposed by the researcher

The fifth hypothesis proposed in this study is the return on assets have a significant positive effect on the dividend payout ratio. The result of panel data regression analysis shows that partially return on asset has negative and significant effect to dividend payout ratio. This is indicated by the result of t test ie partial test result between return on asset with dividend payout ratio shows t -3.638004 value with probability value 0.0004 is smaller than 0.05. This value gives the meaning of Ho is rejected, it can be concluded that the hypothesis that states return on assets have a significant positive effect on dividend payout ratio is not acceptable.

So from this study can be concluded that the return on assets have a negative and significant effect on the dividend payout ratio. Companies that have high return on assets will provide lower dividends to investors.

The results of this study are not in accordance with the research of Chasanah (2008), Kumar (2007), Puspita (2009) and Setiawan and Phua (2013) stating that the return on assets has a positive and significant effect on the dividend payout ratio.

This phenomenon is quite interesting as well because of all the research studied gives results that companies that have a high return on assets will provide high dividends to investors. What may explain the results of this study is the possibility that the company returns most of its profits into the company for use as an investment.

This is also supported by research data that provides images of the average development of the total assets of companies studied from 2011 to 2016 is increased.

Based on the cross-section coefficient of the return on asset variable on the dividend payout then it is found that the higher return on asset, the higher the payment of dividend payout ratio. This is in line with the hypothesis proposed by the researcher.

Based on result of t test show that **dominant independent variable** is return on asset variable. With a coefficient of -1.328650 and has a significant relationship to the dependent variable. It is said to be dominant due to the decrease of dividend payout ratio of 1.328650% as a result of the increase of return on assets by 1%, the magnitude of this decline is much higher than the increase or decrease caused by other independent variables. This shows that the higher return on assets, the company's ability to pay dividends is lower. In this research found that company with high return on asset ability will decrease dividend payout ratio.

5. CONCLUSIONS AND RECOMMENDATIONS

This study tries to examine whether firm size, ownership of institution, free cash flow, growth and return on asset influence on dividend payout ratio at companies listed in Indonesia Stock Exchange period 2011-2016. The results of hypothesis testing by using panel data regression analysis with five independent variables (firm size, ownership of institution, free cash flow, growth and return on asset) and one dependent variable (dividend payout ratio)

1. The result of research is obtained R value Squared equal to 54.93% which means that 54.93% dividend payout ratio variation can be explained by five independent variable of company size, ownership of institution, free cash flow, growth and return on asset while the rest of 45.07% influenced by other variable which was not meticulously in this study.
2. The result of research indicates that firm size has significant negative effect to dividend payout ratio. From the results of this study can be concluded that the hypothesis that the firm size has a significant positive effect on dividend payout ratio rejected.
3. The result of the research shows that institutional ownership has a significant positive effect on the dividend payout ratio. From the results of this study can be concluded that the hypothesis that the ownership of the institution has a significant positive effect on the dividend payout ratio is accepted.
4. The results showed that free cash flow had no significant negative effect on dividend payout ratio. From the results of this study can be concluded that the hypothesis that free cash flow has a significant positive effect on dividend payout ratio rejected.

5. The result of the research shows that the positive growth is not significant to the dividend payout ratio. From the results of this study can be concluded that the hypothesis which states that the growth has a significant negative effect on dividend payout ratio rejected.
6. The results showed that return on asset had a significant negative effect on the dividend payout ratio. From the results of this study can be concluded that the hypothesis that the return on asset has a significant positive effect on the dividend payout ratio is rejected.
7. The result of research also shows that the most dominant and significant factor in influencing dividend payout ratio is return on asset variable with coefficient value of -1.328650, institutional ownership variable with coefficient value 0.844432, variable growth with coefficient of 0.171270, variable of firm size with value coefficient-0.140468 and the last variable free cash flow with coefficient value -0.113246.

Implications

As a study that has been conducted on companies listed on the Indonesia Stock Exchange, the conclusions drawn certainly have implications for all involved actors as well as subsequent research, in connection with the above implications are as follows:

1). For company management, given the group of investors who expect dividends and based on the results of research that the profitability proxied by return on assets gives the result that high return on assets will provide lower dividends to investors, to keep investors who expect this dividend is still want to invest in the company then it can be considered if the company get a high profit should the dividends paid to shareholders also increased, because with increased profitability should the company's ability to pay higher dividends. Similarly, the variable size of the firm that has a significant negative effect on the dividend payout ratio, with the greater the company, the tendency will require even higher capital, to get investors who one of the groups are investors who expect dividends, then it is recommended that companies with large corporate size to consider giving high dividends.

2). For investors, the results of this study are expected to provide additional information about companies that provide dividend payout ratio policy decisions, so that investors can be more careful in assessing the companies selected to invest. Based on the result of the research that the variable of institutional ownership is the variable which have positive and significant influence to the dividend payout ratio, so based on the research result, for the investor who wants big dividend, it is recommended to have company having high institutional ownership structure. Based on descriptive statistics, the average value of institutional share ownership is 0.682164. To determine which companies have a high value of institutional ownership, then we can take the limitation that those who have high institutional ownership are those who have an institutional ownership value above the average each year. Based on these criteria, then according to the industry sector, companies included in the category are:

1.Sector Basic Industry and Chemicals: EKAD

2. Consumer Goods Industry sector: GGRM, BRAND, MLBI, TCID, UNVR

3. Property Sector, Real Estate And Building Construction: MKPI

4.Sector Trade, Services & Investment: ASGR, GEMA

Recommendation

In this study, the authors use variable size of the company, institutional ownership, free cash flow, growth and return on assets. Based on the analysis of determination of firm size variable, institutional ownership, free cash flow, growth and return on asset have contribution explain dividend payout ratio equal to 54.93%, hence 45.07% unknown other variable that can influence dividend payout ratio. Researchers are aware that there are other variables that are also likely to play a role in influencing the dividend payout ratio in companies listed in Indonesia Stock Exchange period 2011-2016. Therefore research on dividend payout ratio can further add independent variables such as management ownership, market-to-book value, agency cost, cash ratio, tax, risk, financial ratios or other variables ..

The selection of the population is taking all companies in the Indonesia Stock Exchange without sorting out its industrial sector, it may need to be reconsidered, given the results of this study more hypotheses are rejected than accepted. Researchers indicate the likelihood of this happening due to too diverse corporations studied both from the size of the company, the size of the achievement of financial ratios, share ownership and type of company. When viewed, the sample companies in this study consist of 8 industry sectors including agriculture, basic industry and chemical, consumer goods industry, infrastructure utilities and transportation, mining, miscellaneous industry, property, real estate and building construction and trade, service & investment. Yet each sector has its own peculiarities which will certainly provide a different picture of financial statements. This is certainly very influential on the results of research where the data used in the study.

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