

CIRCUMSTANCES ON HIGHER, LOWER, AND NON DIVIDEND PAYMENTS

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ABSTRACT

Dividend policy is still a controversy in corporate finance area, since public firms are distributing the earnings differently. By conducting multinomial logistic regression analysis with 241 firms as samples which is listed in Indonesia Stock Exchange for period of 2010 to 2015, this study is testing the firm behavior to pay dividends under catering theory, free cash flow theory, and life cycle theory. This study reports, the firm behavior to pay dividends in general are depend on size and age with some fundamental factors, such as debts, current net profit, and retained earnings. The market reactions are significant and directly affecting the firm behaviors for distributing their dividends in relationship with firm characteristics and considering the performance of fundamental factors. Moreover, the maturity level and tendency of internal conflict are randomly spread into larger and older firms, larger and younger firms, smaller and older firms, and smaller and younger firms.

Keywords : *firm behaviors, dividends, free cash flow, firm life cycle, catering*

JEL classification : *G11, G14, G19, G32, G35*

1. INTRODUCTION

Dividend puzzle by Black (1996) is still a controversy in corporate finance area along with its advanced models in term to provides some evidences about how the firms determine and decide their dividend policy. Black (1996) proposes that, interest between shareholders and managers is the essence for dividend policy, which makes managers have difficulties to determine the earnings distributable since they are not very clear whether the investors are demanding dividends or not. Baker and Wurgler (2004a) confirm that, dividend policy is not about decision to determine the amount of cash dividends but more emphasize on decision to pay or not to pay dividends.

Budiarso and Pontoh (2016) and Saerang and Pontoh (2016) prove that, dividend policy in Indonesia have own complexity since public firms are distributing their earnings differently as these firms have their own characteristics. Pontoh (2016) confirms that, dividend policy in Indonesia has been affected by some conditions under cash flow theory as proposed by Jensen (1988), and Kuan, Li, and Liu (2012), life cycle theory as proposed by

Grullon, Michaely, and Swaminathan (2002), DeAngelo, DeAngelo, and Stulz (2006), and catering theory as proposed by Baker and Wurgler (2004a, 2004b).

The objective for this study is to develop the model for dividend policy under cash flow theory, life cycle theory, and catering theory based on capital market in Indonesia by distinguishing some firm characteristics in term to reveal the firm behaviors in distributing their dividends since they have been paid their dividends in higher, lower, and non dividend payments. The proceeds for this study is design as follows, section 2 reviews the relevant literatures and develops the hypothesis, section 3 explains the method for this study includes detail of sample and variable definitions, section 4 discuss the findings, and section 5 concludes the findings.

2. LITERATURES REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Catering theory

Baker and Wurgler (2004a, 2004b) propose the catering theory in term to explain the issue about dividend policy in relationship with the firm behaviors to pay dividends. Baker and Wurgler (2004a) confirm that catering effect will exist under assumptions of psychological or institutional reasons, uninformed investor, and rational distribution of dividends by firms. Baker and Wurgler (2004a, 2004b) emphasize that firms shall pay their dividends in condition while the investors or shareholder by their own compliance put firm shares on higher prices in capital market.

Baker and Wurgler (2004a, 2004b), Dreman and Lufkin (2000), Li and Zhao (2008), Pontoh (2015), and Budiarmo and Pontoh (2016) confirm that, the catering theory will effective when dividend in successful conveys the information and affecting investor's psychological or sentiment over asymmetry information, which gives impact for increasing share prices. Reversely, Li and Lie (2006) confirm that, the firm share prices in capital market shall decrease when firms are not cater the shareholders or investors with dividends. Under catering theory, this study suspects that if the investors or shareholders are overvaluing the firm shares on higher prices then the firms shall distribute their earnings in form of dividends which giving the share prices have positive and significant effect on dividend payments, as hypothesized as follow :

Ha₁ : Share price has positive significant effect on dividend payments.

2.2. Free cash flow theory

Free cash flow theory or sometimes refers to agency theory is the other theory which can explain the firm behavior in distributing dividends under circumstances of internal conflict between managers with shareholders and also when the firms are at mature level (Jensen, 1986; Jensen, 1988; Myers, 2001; Kuan, Li, and Liu, 2012). The conflict between managers and shareholders begin while firms have an abundant of free cash and managers are tend to spend it on unprofitable investments which benefit on them while shareholders are tend to spend the free cash for dividends (Jensen, 1988; Aivazian, Ge, and Qiu, 2005; Fairchild, Guney, and Thanatawee, 2014; Easterbrook, 1984; Jensen, 1986).

Jensen (1986) and Myers (2001) suggest that, in existence of internal conflict then shareholders should obtain and use debts in objective to control the spending behaviors by managers as confirmed by Thakor and Wilson (1995), Neale, Milsom, Hills, and Sharples (1998), Aivazian, Ge, and Qiu (2005), Brav, Graham, Harvey, and Michaely (2005),

Fairchild, Guney, and Thanatawee (2014), and Saerang and Pontoh (2016). In addition, Fairchild, Guney, and Thanatawee (2014) also propose that, the consequence of higher debt generally decreasing the dividend payments. Under free cash flow theory, this study suspects, if shareholders are increasing the debts as a tool to control the spending behaviors by managers and simultaneously demand for dividends then debts have positive and significant effect on dividend payments, as hypothesized as follow :

Ha₂ : Long term debt to total assets ratio has positive significant effect on dividend payments.

2.3. *Life cycle theory*

Garengo, Nudurupati, and Bititci (2007) describe that, firms at mature level are generally have good governance and good performance. Grullon, Michaely, and Swaminathan (2002), and DeAngelo, DeAngelo, and Stulz (2006) show that, mature firms normally have a tendency to distribute their earnings in forms of dividends for shareholders because they have large of free cash and less investments. DeAngelo, DeAngelo, and Stulz (2006) prove that, the portion of retained earnings for mature firms are abundant which make them have an ability to increase their dividend payments to shareholders.

Grullon, Michaely, and Swaminathan (2002), DeAngelo, DeAngelo, and Stulz (2006), Fairchild, Guney, and Thanatawee (2014), Jordan, Liu, and Wu (2014), Budiarmo and Pontoh (2016), Saerang and Pontoh (2016) confirm that, dividend payments for mature firms are tend to increase since they are much larger, more profitable, have higher cash flows and have higher retained earnings ratios. Under life cycle theory, this study suspects, if mature firms are more profitable, large free cash and large retained earnings ratios then these firms are tend to increase their dividend payments which giving retained earnings ratio and return on assets ratio have positive and significant effect on dividend payments, as hypothesized as follow :

Ha₃ : Retained earnings to total assets ratio has positive significant effect to dividend policy.

Ha₄ : Return on assets has positive significant effect to dividend policy.

3. RESEARCH METHOD

3.1. *Sample*

This study takes 241 firms which are listed in Indonesia Stock Exchange (www.idx.co.id) for period of 2010 to 2015 which giving total 1.446 of observed data. This study also excluding finance sector and the property, real estate, and building construction sector because of different financial report structure.

3.2. *Variable definitions*

Dependent variable for this study is firm behaviors in distributing dividends which represents as dividend payments and measured by dummy and categorized as follow : (1) higher dividend payments; (2) lower dividend payments; (3) non or zero dividend payments. This study determines categories for higher and lower payments by cut off the median value of the average dividend payments. The median value for average dividend payments is 4.67.

The independent variables for this study are share prices (symbolized by Price) which measured by closing price at the end of year after corporate action, debt ratio (symbolized by LTDAR) which measured by ratio of total long term debts over total assets, retained earnings ratio (symbolized by RETA) which measured by ratio of retained earnings over total assets, profitability (symbolized by ROA) which measured by ratio of net profit for current period

over total assets. In term to run the analysis for hypothesis testing, this study normalizes dependent variable and independent variables with natural logarithm.

3.3. Regression model

This study conducts multinomial logistic regression analysis for hypotheses testing and uses chi square value to determine whether the model is fit or not fit. Significant rate for multinomial logistic regression analysis are 0.05 and 0.10, while chi square value at 0.05. Moreover, in term to distinguish the results then the study controls firm size and firm age of the sample to get larger and smaller firms and also older and younger firms. Firm size is measured by average natural logarithm of total assets and cut off by median value to get larger firms and smaller firms, whereas firm age is difference between current year of observation (year of 2015) with established year of each firm and also cut off by median value which giving older firms and younger firms. On calculation, median value for firm size is 14.38 and firm age is 33 years. The regression model for this study noted as follows :

$$DB_{dum} = \alpha + \beta_1 Price + \beta_2 LTDAR + \beta_3 RETA + \beta_4 ROA + \varepsilon$$

4. RESULTS AND DISCUSSION

The study provides the results of multinomial logistic regression analysis in Table 1 and discuss the results in perspectives of catering theory, free cash flow theory, and life cycle theory for larger and older firms, larger and younger firms, smaller and older firms, and smaller and younger firms, while Table 2 presents the summary for implication theories based on results and discussions.

Table 1. Multinomial logistic regression of firm behaviors in distributing dividends

Dividend payments	Firm characteristics			
	(1)	(2)	(3)	(4)
<i>Higher relative non dividends</i>				
Intercept	-3.684	-6.498	-4.637	1.958
Price	0.880*	1.044*	0.980*	0.113
LTDAR	-0.154	-0.643*	-0.556*	0.210**
RETA	0.123	-0.228	0.442*	0.801*
ROA	0.237	0.467*	0.664*	0.554*
<i>Lower relative non dividends</i>				
Intercept	-1.491	-1.243	-1.339	0.699
Price	-0.017	-0.337*	-0.331**	-0.191
LTDAR	-0.433**	-0.514*	-0.545*	-0.026
RETA	-0.209	-0.672*	-0.495*	-0.079
ROA	0.051	-0.102	0.099	0.228*
<i>Lower relative higher dividends</i>				
Intercept	2.193	5.255	3.299	-1.259
Price	-0.896*	-1.380*	-1.311*	-0.304**
LTDAR	-0.279	0.129	0.011	-0.236**
RETA	-0.332**	-0.444*	-0.936*	-0.879*
ROA	-0.185	-0.569*	-0.564*	-0.326**
R-square for models	0.315	0.524	0.574	0.195

(*) significant at 0.05, (**) significant at 0.10. Firm characteristics are : (1) larger and older firms, (2) larger and younger firms, (3) smaller and older firms, and (4) smaller and younger firms. Dependent variable is dummy of firm behaviors in distributing dividends (DB_{dum}), where : (1) higher dividend payments, (2) lower dividend payments, and (3) non dividend payments. Independent variables are closing price at the end of year after corporate action (Price), long term debt to total asset ratio (LTDAR), retained earnings ratio (RETA), and return on assets (ROA). The chi-square values on model fitting information and goodness of fit show all regression models are fit.

4.1. *Larger and older firms*

Table 1 shows that share prices have positive and significant effect to dividend payments, which means hypothesis Ha_1 is accepted in supporting the findings of Baker and Wurgler (2004a, 2004b), Dreman and Lufkin (2000), Li and Zhao (2008), Pontoh (2015), and Budiarmo and Pontoh (2016). Under catering theory, the result confirms that larger and older firms are tend to pay higher dividend while the share prices are overvalue rather than to pay lower dividends or not paying dividends for their shareholders.

Furthermore, Table 1 shows that long term debt to total assets ratio has negative and significant effect to dividend payments, which means hypothesis Ha_2 is rejected and inconsistent with the findings of Thakor and Wilson (1995), Neale, Milsom, Hills, and Sharples (1998), Aivazian, Ge, and Qiu (2005), Brav, Graham, Harvey, and Michaely (2005), Fairchild, Guney, and Thanatawee (2014), and Saerang and Pontoh (2016). But, the result also shows that there is a tendency for internal conflict while these firms are paying lower dividends which makes the hypothesis Ha_2 is accepted and consistent with free cash flow theory. Consistent with Fairchild, Guney, and Thanatawee (2014), the result confirms that firms are tend not paying their dividends while their debts are increasing which means the larger and older firms are tend not under internal conflict in context of free cash flow theory.

The result of analysis shows that, retained earnings to total assets ratio has negative and significant effect to dividend payments which means hypothesis Ha_3 is rejected on lower dividends but it is accepted on higher dividends. The result confirms that larger and older firms are at mature level and tend to pay higher dividends rather than lower dividends, which is consistent with Grullon, Michaely, and Swaminathan (2002), DeAngelo, DeAngelo, and Stulz (2006), Fairchild, Guney, and Thanatawee (2014), Jordan, Liu, and Wu (2014), Budiarmo and Pontoh (2016), Saerang and Pontoh (2016) in context of life cycle theory.

4.2. *Larger and younger firms*

Table 1 shows that larger and younger firms are tend to pay higher dividends rather than lower or non dividend payments, which means the hypothesis Ha_1 is accepted and supporting the catering theory as confirmed by Baker and Wurgler (2004a, 2004b), Dreman and Lufkin (2000), Li and Zhao (2008), Pontoh (2015), and Budiarmo and Pontoh (2016). Reversely, these firms are tend to behave for not paying dividends rather than paying lower dividends while their share prices are overvalue.

Similar with larger and older firms, the long term debt to total assets ratio for both of higher and lower dividends relative to non dividend payments show negative and significant effect to dividend payments, which means the hypothesis Ha_2 is rejected because these firms are tend not paying dividends while their debt is increase. But, the results also show there is small possibilities for these firms whether to pay higher or lower dividends which makes hypothesis Ha_2 is accepted under free cash flow theory and consistent with Thakor and Wilson (1995), Neale, Milsom, Hills, and Sharples (1998), Aivazian, Ge, and Qiu (2005), Brav, Graham, Harvey, and Michaely (2005), Fairchild, Guney, and Thanatawee (2014), and Saerang and Pontoh (2016).

The results of analysis for larger and younger firms are complex because hypothesis Ha_3 and hypothesis Ha_4 can be accepted under certain conditions to support the findings by Grullon, Michaely, and Swaminathan (2002), DeAngelo, DeAngelo, and Stulz (2006), Fairchild, Guney, and Thanatawee (2014), Jordan, Liu, and Wu (2014), Budiarmo and Pontoh (2016), Saerang and Pontoh (2016) in context of life cycle theory. At a condition when the

current net profit as reflected in return on assets is higher, larger and younger firms are tend to distribute higher dividend payments rather than non dividend payments. The other condition, larger and younger firms are tend to defer dividends rather than paying lower dividends to their shareholders when they have more retained earnings. But, in condition when these firms higher current net profit and higher retained earnings, then they are tend to pay higher dividends rather lower dividends. Notice the work of Grullon, Michaely, and Swaminathan (2002), it seems some of these firms are close at mature level or growth level.

4.3. *Smaller and older firms*

Similar with larger and younger firms, Table 1 shows that smaller and older firms are tend to pay higher dividends rather than lower or non dividend payments, which means the hypothesis Ha_1 is accepted under catering theory and consistent with Baker and Wurgler (2004a, 2004b), Dreman and Lufkin (2000), Li and Zhao (2008), Pontoh (2015), and Budiarmo and Pontoh (2016). These firms are also tend to behave for not paying dividends rather than paying lower dividends while their share prices are overvalue.

Consistent with Fairchild, Guney, and Thanatawee (2014) and rejected the hypothesis Ha_2 , the long term debt to total assets ratio for both of higher and lower dividends relative to non dividend payments show negative and significant effect to dividend payments, which means these firms are tend not paying dividends while their debt is increase. Under free cash flow theory, smaller and older firms still have small possibilities to pay higher or lower dividends while debts are increase. On these results, the hypothesis Ha_2 is accepted and consistent with Thakor and Wilson (1995), Neale, Milsom, Hills, and Sharples (1998), Aivazian, Ge, and Qiu (2005), Brav, Graham, Harvey, and Michaely (2005), Fairchild, Guney, and Thanatawee (2014), and Saerang and Pontoh (2016).

Table 1 shows that smaller and older firms are mature firms which makes hypothesis Ha_3 and hypothesis Ha_4 are accepted under life cycle theory and consistent with Grullon, Michaely, and Swaminathan (2002), DeAngelo, DeAngelo, and Stulz (2006), Fairchild, Guney, and Thanatawee (2014), Jordan, Liu, and Wu (2014), Budiarmo and Pontoh (2016), Saerang and Pontoh (2016). The results show these firms are tend to pay higher dividends rather than lower dividend payments or non dividend payments. Contrary, these firms are tend prefer for not paying dividends rather than paying lower dividends while increasing in retained earnings ratio.

4.4. *Smaller and younger firms*

Table 1 shows that smaller and younger firms are tend to pay higher dividends rather than lower dividend payments, which means the hypothesis Ha_1 is accepted under catering theory and consistent with Baker and Wurgler (2004a, 2004b), Dreman and Lufkin (2000), Li and Zhao (2008), Pontoh (2015), and Budiarmo and Pontoh (2016). In addition, although has insignificant effect but the positive sign also confirm these firms are tend to pay higher dividends rather than non dividend payments while increasing in share prices.

Under free cash flow theory, the hypothesis Ha_2 is accepted and consistent with Thakor and Wilson (1995), Neale, Milsom, Hills, and Sharples (1998), Aivazian, Ge, and Qiu (2005), Brav, Graham, Harvey, and Michaely (2005), Fairchild, Guney, and Thanatawee (2014), and Saerang and Pontoh (2016). On results, smaller and younger firms seems have tendencies under internal conflict between managers with their shareholders since they prefer to pay higher dividends rather than lower or non dividends while increasing in debts.

The results for smaller and younger firms show hypothesis Ha₃ and hypothesis Ha₄ are accepted which means these firms are at mature level as proposed by Grullon, Michaely, and Swaminathan (2002), DeAngelo, DeAngelo, and Stulz (2006), Fairchild, Guney, and Thanatawee (2014), Jordan, Liu, and Wu (2014), Budiarmo and Pontoh (2016), Saerang and Pontoh (2016). The results show these firms are tend to pay higher dividends rather than lower or non dividend payments while their retained earnings ratio and return on assets ratio are increase simultaneously. But in assumption of less retained earnings, then these firms shall prefer to pay lower dividends rather than non dividend payments if the current net profits are available.

Table 2. Summary of implication theories on firm behaviors in distributing dividends

Dividend payments by each characteristics	Theories		
	Catering	Free cash flow	Life cycle
<i>Larger and older firms</i>			
Higher dividends relative non dividends	√	-	-
Non dividends relative higher dividends	-	-	-
Lower dividends relative non dividends	-	√	-
Non dividends relative lower dividends	-	-	-
Lower dividends relative higher dividends	-	-	-
Higher dividends relative lower dividends	√	-	√
<i>Larger and younger firms</i>			
Higher dividends relative non dividends	√	√	-
Non dividends relative higher dividends	-	-	-
Lower dividends relative non dividends	-	√	-
Non dividends relative lower dividends	-	-	-
Lower dividends relative higher dividends	-	-	-
Higher dividends relative lower dividends	√	-	√
<i>Smaller and older firms</i>			
Higher dividends relative non dividends	√	√	√
Non dividends relative higher dividends	-	-	-
Lower dividends relative non dividends	-	√	-
Non dividends relative lower dividends	-	-	-
Lower dividends relative higher dividends	-	-	-
Higher dividends relative lower dividends	√	-	√
<i>Smaller and younger firms</i>			
Higher dividends relative non dividends	-	√	√
Non dividends relative higher dividends	-	-	-
Lower dividends relative non dividends	-	-	-
Non dividends relative lower dividends	-	-	-
Lower dividends relative higher dividends	-	-	-
Higher dividends relative lower dividends	√	√	√

5. CONCLUSIONS AND LIMITATIONS

Catering theory, free cash flow and life cycle theory are interconnected theories to explain the firm behaviors in dividend policy under certain circumstances. However, the firm behaviors to distribute their earnings in form dividends are depend on market, fundamental factors, and firm characteristics, such as sizes and ages in relationship with these theories. In objective to develop the model for dividend policy, this study extents the firm characteristics in testing these theories to reveal the tendencies of firm behaviors in dividend payments by conducting multinomial logistic regression analysis for 241 firms which listed in Indonesia Stock Exchange for period of 2010 to 2015.

This study reports, the firm behavior to pay dividends in general are depend on their sizes and ages with some fundamental factors, such as debts, current net profit, and retained earnings. The market reactions are significant and directly affecting the firm behaviors for distributing their dividends in relationship with firm characteristics and considering the performance of fundamental factors. Moreover, the maturity level and tendency of internal conflict are randomly spread into larger and older firms, larger and younger firms, smaller and older firms, and smaller and younger firms.

Since the findings are limited to the samples in certain periods, then this study suggests for the next studies to extent the fundamental variables, firm characteristics, and also for tools for analysis to distinguish the model for dividend policy under catering theory, free cash flow and life cycle theory. Although the findings are not absolute but hope it can be reference for the next studies in the same area.

REFERENCES

- Aivazian, V. A., Ge, Y., & Qiu, J. (2005). The impact of leverage on firm investment : Canadian evidence. *Journal of Corporate Finance*, 11, 277-291.
- Baker, M., & Wurgler, J. (2004a). A catering theory of dividends. *The Journal of Finance*, 59(30), 1125-1165.
- Baker, M., & Wurgler, J. (2004b). Appearing and disappearing dividends : the link to catering incentives. *Journal of Financial Economics*, 73(2), 271-288.
- Black, F. (1996). The dividend puzzle. *The Journal of Portfolio Management*, Special Issue, 8-12.
- Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics* 77, 483-527.
- Budiarso, N. S., & Pontoh, W. (2016). Firm's dividend decision in Indonesia : cater or mature? *Journal of Life Economics*, 3(3), 53-66.
- DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix : A test of the life-cycle theory. *Journal of Financial Economics*, 81(2), 227-254.
- Dreman, D. N., & Lufkin, E. A. (2000). Investor overreaction: evidence that its basis is psychological. *The Journal of Psychology and Financial Markets*, 1(1), 61-75.
- Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, 74(4), 650-659.
- Fairchild, R., Guney, Y., & Thanatawee, Y. (2014). Corporate dividend policy in Thailand : theory and evidence. *International Review of Financial Analysis*, 31, 129-151.
- Garengo, P., Nudurupati, S., & Bititci, U. (2007). Understanding the relationship between PMS and MIS in SMEs : an organizational life cycle perspective. *Computers in Industry*, 58, 677-686.
- Grullon, G., Michaely, R., & Swaminathan, B. (2002). Are dividend changes a sign of firm maturity? *The Journal of Business*, 75(3), 387-424.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeover. *American Economic Review*, 76(2), 323-329.
- Jensen, M. C. (1988). Takeovers : their causes and consequences. *The Journal of Economic Perspectives*, 2(1), 21-48.
- Jordan, B. D., Liu, M. H., & Wu, Q. (2014). Corporate payout policy in dual-class firms. *Journal of Corporate Finance*, 26, 1-19.
- Kuan, T. H., Li, C. S., & Liu, C. C. (2012). Corporate governance and cash holdings : a quantile regression approach. *International Review of Economics and Finance*, 24, 303-314.
- Li, K., & Zhao, X. (2008). Asymmetric information and dividend policy. *Financial Management*, 37(4), 673-694.
- Li, W., & Lie, E. (2006). Dividend changes and catering incentives. *Journal of Financial Economics*, 80(2), 293-308.

Myers, S. C. (2001). Capital structure. *The Journal of Economic Perspectives*, 15(2), 81-102.

Neale, B., Milsom, T., Hills, C., & Sharples, J. (1998). The hostile takeover process : a case study of Granada versus Forte. *European Management Journal*, 16(2), 230-241.

Pontoh, W. (2015). Signaling, bird in the hand, and catering effect in Indonesia. *Journal of Life Economics*, 2(3), 1-24.

Pontoh, W. (2016). The motives behind dividend policy. *International Journal in Economics and Business Administration*, 4(2), 29-40.

Saerang, D. P. E., & Pontoh, W. (2016). The role of ownership on behavior of dividend payers. *Journal of Life Economics*, 3(4), 59-68.

Thakor, A. V., & Wilson, P. F. (1995). Capital requirements, loan renegotiation and the borrower's choice of financing source. *Journal of Banking and Finance*, 19, 693-711.