

**LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW  
KARYA ILMIAH : JURNAL ILMIAH\***

Judul Karya Ilmiah (artikel) : Signaling, bird in the hand and catering effect in Indonesia

Jumlah Penulis : 1 orang

Status Pengusul : penulis pertama/penulis ke-2/penulis korespondensi\*\*

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20 Nopember 2017

Reviewer I



Prof. Dr. David P. E. Saerang, SE., MCom(Hons)

NIP. 195911281986031005

Unit Kerja : Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi

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Prof. Dr. Rusman Soleman, SE., M.Si., Ak. CA  
 NIP. 195905221987031001  
 Unit Kerja : Fakultas Ekonomi dan Bisnis Universitas Khairun

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 Prof. Dr. Bambang Subroto, SE., MM., Ak.  
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Reviewer 4,

Prof. Dr. Paulus Kindangen, SE., SU., MA.

NIP. 195503041981031001

Unit Kerja : Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi

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# SIGNALING, BIRD IN THE HAND, AND CATERING EFFECT IN INDONESIA

*by* Pontoh Winston 4

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# SIGNALING, BIRD IN THE HAND, AND CATERING EFFECT IN INDONESIA

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Winston PONTOH\*

## ABSTRACT

*It had been known that the presence of dividend will affect the value of shares in the stock market, but since the dividend payers also believe that, their stock price will increase by paying dividend to investors, then it seems these phenomenon are becoming very complex to explain. The objective of this study is want to give an empirical evidence whether dividend plays the main role for fluctuation of stock price or vice versa in the stock market. The results show that, dividend has significant effect to stock price, and conversely, stock price also has significant effect to dividend. The implications of this study are fit for signaling effect, bird in the hand effect, and catering effect which is dominated by dividend payers who paying dividend continuously. In further analysis, this study find, the most specific characteristics for dividend payers who paying dividend continuously compared to other dividend payers are larger number of shares, larger fixed assets, largest total assets, largest total debt, largest retained earnings, largest revenue, and largest net income.*

**Keywords :** Dividend, Stock Price, Signal, Bird In The Hand, Catering Effect

**JEL Classifications :** D82, D84, G02, G35

## 1. INTRODUCTION

Hitherto, how the stock prices fluctuated in the market is still a polemics between academicians, practitioner of capital markets, and specially by investors. For investors, the availability of internal information by companies is very important and the most needed to perform a good investments portfolio to reach an optimum return of their investments. This is because, as an investment, stock has variety rate of return with variety rate of risk. Many studies show, there are some factors that can effect stock price in capital market, such as dividend (Abrutyn and Turner, 1990; Yoon and Starks, 1995; Zaman, 2011; Srinivasan, 2012; Zakaria, Muhammad and Zulkifli, 2012), earnings per share (Aboody, Barth and Kasznik, 1999; Srinivasan, 2012), price earnings ratio (Srinivasan, 2012), size (Srinivasan, 2012; Zakaria, Muhammad and Zulkifli, 2012), book value per share (Aboody, Barth and Kasznik, 1999; Srinivasan, 2012), asset revaluations (Aboody, Barth and Kasznik, 1999), and leverage (Zakaria, Muhammad and Zulkifli, 2012).

There is one factor that most possibly determine or effect the change of stock price in capital market, which is dividend (Gordon, 1959; Shiller, 1981), or usually called as bird in the hand (Bhattacharya, 1979). Generally, dividends known as a part of total return of

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\* Research Assistant, Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi Jl. Kampus Bahu, Manado 95115 Sulawesi Utara – Indonesia, E-mail: [winston\\_pontoh@yahoo.com](mailto:winston_pontoh@yahoo.com)



investments (in stocks) beside of capital gains, which is hope by investors to be received. In other part, practically, dividend is most assumed as a signal that represent better information about the conditions or circumstances of companies (Abrutyn and Turner, 1990; Bhattacharya, 1979), since the insiders or dividend payers have the best information (Wachter, 2003). By dividend, the investors can reacting for selling or buying the stocks in capital market that make fluctuations to market stock prices (Black, 1996). But, since the insiders (dividend payers) also belief that they shall have higher stock price through earnings distribution in form of dividends to investors (Easterbrook, 1984), then these phenomenon is becoming very complex to explain.

This study observes the movement of stock prices in the capital market of Indonesia for period of 2010 till 2012, and find that the stock prices for companies who paid dividend continuously in this period have higher stock prices and also have higher dividends. Generally, dividend can stimulate the stock price in capital market, but this study is suspecting, the stock prices in capital market also can stimulate companies to pay dividends because when the investors are appreciate the stocks by overvaluing them in capital market, in turn, the companies are willingly to increase the wealth of investors by distributing their retained earnings in form of dividends. The motivation of this study is want to investigate these phenomenon and to give an answer as empirical evidence whether dividends plays the main role for fluctuation of stock prices or vice versa in the stock market of Indonesia by classifying the dividend payers into three types, which are, companies who not paid dividend for 3 years, companies who paid dividend for 1 year, companies who paid dividend for 2 years, and companies who paid dividend for 3 years. Also, this study want to reveal the characteristics of each dividend payers.

## 2. LITERATURES REVIEW

### 2.1. Basic assumptions

Miller and Modigliani (1961) were gave some basic assumptions to understand about dividend policy by companies, which were :

- i. In "perfect capital markets", there are no buyer or seller (or issuer) of securities is large enough for his transactions to have an appreciable impact on the then ruling price. All traders have equal and costless access to information about the ruling price and about all other relevant characteristics of shares. No brokerage fees, transfer taxes, or other transaction costs are incurred when securities are bought, sold, or issued, and there are no tax differentials either between distributed and undistributed profits or between dividends and capital gains.
- ii. "Rational behavior" means that investors always prefer more wealth to less and are indifferent as to whether a given increment to their wealth takes the form of cash payments or an increase in the market value of their holdings of shares.
- iii. "Perfect certainty" implies complete assurance on the part of every investor as to the future investment program and the future profits of every corporation. Because of this assurance, there is, among other things, no need to distinguish between stocks and bonds as sources of funds at this stage of the analysis. This is means, companies are use only a single type of financial instrument which is stock.

### 2.2. Signaling Theory

Easterbrook (1984) explained, the insiders always believe, if they pay more dividend then their stock price in the market will be higher. On the other part, sometimes investors

connecting the dividend payment with the change of investment policies made or planned by companies and it means there is a good prospect in the future. If this is true, then dividend rolling itself as a signal or self-verifying for investors, because investors will believe the signal only if the insiders, rationally, sending it in <sup>42</sup> form of message that could be trusted and accurate. More opinion by Acharya (1988) that, since a signal is an outcome of a rational decision rule of the signaler, the market can infer the true type of the signal<sup>1</sup> by their signal. Furthermore, Easterbrook (1984) stated, sometimes dividend is not a good way to<sup>1</sup> tell investors, whether this signals is good times or bad times, because dividend can be poor predictor<sup>17</sup> of future net earnings and stock prices are poor predictors of future dividends too, although an increase in dividends could be caused either by an increase in the firm's profits which implying higher stock prices or by the commencement of disinvestment as the firm has fewer profitable opportunities which imply<sup>59</sup> lower stock prices. About the stock price, Brennan and Thakor (1990) assumed, stock price is not a perfect aggregator of the private information of investors about the prospects of the <sup>52</sup> firm. Easterbrook (1984) more explained, a prospering firm always pay dividend year to year, but a firm with a long record of prosperity also would not need the verification available from the dividend signal. But prosperous companies may withhold dividends beca<sup>17</sup> they need it as internal financing, while on the other part, the insiders of the firm which sho<sup>1</sup>ld disinvest or liquidate, may choose dividends as a method for accomplishing this. Thus, dividends do not distinguish well managed or prospering firms from others, but rational<sup>99</sup> to reflect for poorly managed or failing firms.

According to Black (1996), it is possibly for co<sup>23</sup>panies to pay dividends to their established investors, to encourage other or new investors to buy their new issues of common stock at high price. And this is means, through dividends, the investors can sell their common stock investment in the future with the high price, because when the companies declare their dividends to increase, then it is often leads the share price to increase. In the other condition, if the companies reduce their dividends because to save taxes for their dividends, then the stock price will decrease at first, but it will eventually go back to its first level or might be higher if dividend have not been cut. Aharony and Swary (1980), found that, capital market would reacted by dividend announcement, because, although dividend policy mostly based on management's disc<sup>98</sup>on, but in an efficient capital market, dividends always convey an useful information (La Porta, De Silanes, Shleifer, and Vishny, 2000) which made stock price changed immediately after its public announcement.

Miller and Rock (1985) gave a presumption that, since stock prices reflect the firm's earnings and earnings opportunities, then the announcements of dividend seems convey the information about the firm's futur<sup>9</sup>earnings prospects, though the information contents is not so clear, and still the question why firms choose to communicate informatio<sup>2</sup> via their dividend declarations. But Miller and Rock (1985) then explained that, if the anno<sup>2</sup>nced dividends really indeed convey information about the firm's likely future earnings, then firm's managers, indirectly, try to communicate their views about future prospects, because dividend announcement serves merely to provide the missing piece of the sources or uses constraint which the market needs to establish the firm's current earnings that become the basis for estimating future earnings, rather than dividend. Furthermore, Miller and Rock (1985), <sup>2</sup>plained that, although dividend contains an important "informational content", but dividends appear to have little predictive power for future earnings over and above that contain<sup>2</sup> in current and past earnings. The market uses that dividend ann<sup>58</sup>ouncement, in the light of its understanding of the firm's dividend policies by its knowledge of the firm's past policies, to form a new estimate of <sup>2</sup>xpected current earnings. Miller and Rock (1985) then concluded that, as signals, dividend brings both go<sup>103</sup>ews and bad news. The good news is that dividend (and financing) announcement effects become implications of the basic decision



model in the original Miller-Modigliani, because in a world of rational expectations, the firm's dividend (or financing) announcements provide just enough pieces of the firm's sources and uses statement for the market to deduce the unobserved piece, which is, the firm's current earnings, whereas the bad news is that the price of allowing for information asymmetry and dividend announcement effects may be the loss of optimal investment by the firm. In a world where the market takes announced dividends (or financing) as a clue to unobserved earnings, temptations arise to run up the price by paying more dividends (or engaging in less outside financing) than the market was expecting, even if that means cutting back on investment.

Miller and Modigliani (1961) explained that, changes in firm's investment policy following by changes in firm's dividend payout policy will affect neither the current price of its shares nor the total return to its shareholders, which means, there is a change in the distribution of the total return in any period as between dividends and capital gains, but if investors behave rationally, such a change cannot affect market valuations. Furthermore, Miller and Modigliani (1961), stated that, under uncertainty circumstances, change in dividend rate often followed by change stock market price, and this is caused by perception of investors about "informational content" of dividends. But, the change of stock price in market is not fully cause by the change of dividend rate, because the change stock price could be the reflection of future earnings and growth opportunities. Moreover, Miller and Modigliani (1961) explained that, when a firm has adopted a policy of dividend stabilization with a long established and generally appreciated target payout ratio, investors are likely to interpret a change in the dividend rate as a change in management's views of future profit prospects for the firm. But, in any particular instance, the investors might well be mistaken in placing this interpretation on the dividend change, since the management might really only be changing its payout target or possibly even attempting to "manipulate" the price.

### 2.3. Bird In The Hand Theory and Clientele Effect

Easterbrook (1984) explained that, the bird in hand will have effect if the investors use their dividends for consumption or to purchase treasury bills, but if they reinvest the received dividends in the same or a different firm, they commit their cash (less taxes paid) to the same risks as if there had been no dividends, then the bird in the hand will have no effect unless the firm changes its investment policy. But, if the investors are willing for not receiving their dividends at first when it does not mean the investors are not desire for dividends, because some investors (legally protected stockholders) are willing to wait for their future dividends, in condition of good opportunities investments, and this is happen in fast growth firms, because fast growth firms will pay lower dividends than slow growth firms (La Porta, De Silanes, Shleifer, and Vishny, 2000). Furthermore, La Porta, De Silanes, Shleifer, and Vishny (2000) explained, on the contrary, regardless of investment opportunities, some investors (poorly protected stockholders) are want to take dividends as much as they can get, most possibly because the investors think, dividends (bird in the hand) are better than retained earnings (bird in the bush) that might be never to realize as future dividends (bird can fly away), if investment misallocation happened. This is similar with finding by Brennan and Thakor (1990) that, if the effective personal income tax rate on dividends is not too high, then the stockholders with low ownership, will prefer to take dividends.

According to Easterbrook (1984) by view of clientele effects, if some investors are in different tax positions from others (for example, some hold tax-sheltered funds while others are taxed at ordinary rates), then different groups will have different preferences for dividends, or it could be said that, the taxed group would prefer to take profits as capital gains; the untaxed group would be indifferent. By Baker and Haslem (1974), in their study had found that, dividends is the most desired factor by investors, because dividends are assumed less

risky than the capital gains expected from reinvested earnings. Also, there is an informational content behind dividends or dividend changes, because it can provide an indication of management's judgments concerning the firm's future earnings expectations. But Baker and Haslem (1974) also found that, investors cannot be classified in a single homogeneous class, because certain types of stocks prove attractive to particular types of investors, which was created clientele effect (Miller and Modigliani, 1961). Furthermore, Baker and Haslem (1974) classified the investors based on their behavior and classes in two distinct types, those who seek dividends and those who seek capital appreciation. The investors who seek dividends are investors which have tendency for using dividends and financial stability as the basis for their investment decision, also, they are known as a risk-averse investors. Whereas, investors who seek capital appreciation are investors which have tendency for using future expectations as the basis for their investment decision, or in the other words, these investors are willing to sacrifice their current dividends for future price appreciation.

Another opinion proposed by Baker and Wurgler (2004a, 2004b), called Catering Theory of Dividends, which has three ingredients as follows : first, for either psychological or institutional reasons, some uninformed investor demand for firms that pay cash dividends; second, limits on arbitrage allow this demand to affect current share prices of the firms that pay dividends and also the firms that pay no dividends; third, managers rationally cater to investor's demand, or in the other words, they pay dividends when investors put higher prices on payers, and they do not pay when investors prefer non payers. Baker and Wurgler (2004a) stated, the essence of this theory is the managers shall give the investors whatever they currently want, also, this theory addressed for decision whether to pay dividends, not to decide how much to pay. The implications are the insiders (caterers) tend to initiate dividends when the investors put their shares on higher price, or the otherwise, the insiders (caterers) will tend to omit their dividends when the investors prefer to put the others firm's share (or non payers) on higher price. These implications suggested that, dividends are highly relevant to share value, but in different directions at different times. Based on these implications, Baker and Wurgler (2004a) then classified investors in two types, which are category investors and arbitrageurs, where both of them are constant absolute risk aversion. The arbitrageurs are the investors with rational expectations over the terminal distribution, know the long run cost of an interim dividends, and have aggregate risk tolerance per period. Also, they are only attracted by former payers, who not pay dividends and have low earnings growth, whereas, category investors are the investors who seeking for dividends, and it means, they are preference to dividend payers. Moreover, Baker and Wurgler (2004a) assumed that, under conditions of market imperfections, such as transaction costs, taxes, and institutional investment constraints, the category investors will cause the traditional dividend clienteles. This can be happen if the category investors are uninformed and have an irrational expectation of the terminal distribution or they do not recognize the cost of a dividend, that make their demand of dividend is based on fundamental approach, but, if the category investors are satisfied by changes dividends, and they are belief that dividend payers are less risky, then the effect of bird in the hand will happen. Baker and Wurgler (2004a, 2004b), then found that, dividends effecting the stock price through dividends premium is not because of dividend clienteles but sentiment (Li and Zhao, 2008; Folk and Sapienza, 2009), because if the dividend premium is high, then it caused by, the investors are seeking firms who have characteristics of safety, which is low by dividend payment, whereas, if the dividend premium is low, then it caused by, the investors prefer firms with the characteristics of maximum capital appreciation potential, and it means, there will be no dividends payments.



### 3. HYPOTHESIS

Based on opinions of Miller and Modigliani (1961), Baker and Haslem (1974), Aharony and Swary (1980), Easterbrook (1984), Miller and Rock (1985), Acharya (1988), Brennan and Thakor (1990), Black (1996), La Porta, De Silanes, Shleifer, and Vishny (2000), Baker and Wurgler (2004a, 2004b), supported by studies of Abrutyn and Turner (1990), Yoon and Starks (1995), Zaman (2011), Srinivasan (2012), Zakaria, Muhammad and Zulkifli (2012), then the hypothesis for this study are as follow :

- H<sub>01</sub> : Dividend has no effect to stock price by classifying the dividend payers as controlled variables.
- H<sub>a1</sub> : Dividend has effect to stock price by classifying the dividend payers as controlled variables.
- H<sub>02</sub> : Stock price has no effect to dividend by classifying the dividend payers as controlled variables.
- H<sub>a2</sub> : Stock price has effect to dividend by classifying the dividend payers as controlled variables.

### 4. RESEARCH METHOD

This study is conducting three types of analysis for hypothesis testing at level of significance 0.05, which are compare means analysis (independent samples t-test), analysis of variance model, and analysis of covariate model, where the variables used in this study are dividend and stock price (both of variables are measured in Rupiah) with dividend payers classifications as controlled variables (measured by dummy). As addition, this study is also conducting two types of analysis, which are data reduction method and multinomial logistic regression by purpose to confirm the characteristics of dividend payers based on general financial factors (all variables are measured in Rupiah) and their contribution for dividend policy of each dividend payers. This study is taking 373 listed companies in Indonesia Stock Exchange for period 2010 to 2012 as samples data for this study (see Table 1).

**Table 1. Population and Samples**

Sectors	Companies		
	Population	Samples	% of samples
1	21	14	66.67
2	36	27	75.00
3	64	56	87.50
4	41	37	90.24
5	37	29	78.38
6	53	39	73.58
7	49	26	53.06
8	81	60	74.07
9	113	85	75.22
<b>8 Total</b>	<b>495</b>	<b>373</b>	

Sector 1 is Agriculture, sector 2 is Mining, sector 3 is Basic Industry & Chemicals, sector 4 is Miscellaneous Industry, sector 5 is Consumer Goods Industry, sector 6 is Property, Real Estate, and Building Construction, sector 7 is Infrastructure, Utilities, and Transportation, sector 8 is Finance, and sector 9 is Trade, Service, Investment.

This study is modifying the dummies by Fama and French (2001) and then classifying the samples into three types of dividend payers (see Table 2) as follows : companies who not paid dividend for 3 years (Code 0), companies who paid dividend for 1 year (Code 1),

companies who paid dividend for 2 years (Code 2), and companies who paid dividend for 3 years (Code 3). Furthermore, by classifying the samples into three types of dividend payers, then this study have 1,119 observations data (see Table 3).

**Table 2. Classifications of Dividend Payers**

<i>Sectors</i>	<i>Codes</i>				<i>Total Samples</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	
1	6	0	1	7	14
2	10	4	4	9	27
3	24	8	7	17	56
4	19	2	6	10	37
5	8	3	3	15	29
6	15	4	6	14	39
7	16	2	2	6	26
8	24	10	5	21	60
9	41	7	10	27	85
<b>Total</b>	<b>163</b>	<b>40</b>	<b>44</b>	<b>126</b>	<b>373</b>

Code 0 are companies who not paid dividend for 3 years, Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

**Table 3. Observations Data**

<i>Sector</i>	<i>Codes</i>				<i>Total Observations</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	
1	18	0	3	21	42
2	30	12	12	27	81
3	72	24	21	51	168
4	57	6	18	30	111
5	24	9	9	45	87
6	45	12	18	42	117
7	48	6	6	18	78
8	72	30	15	63	180
9	123	21	30	81	255
<b>Total</b>	<b>489</b>	<b>120</b>	<b>132</b>	<b>378</b>	<b>1,119</b>

Code 0 are companies who not paid dividend for 3 years, Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

## 5. RESULTS AND DISCUSSIONS

The descriptive statistics for mean value of stock price and dividends on each classified dividend payers show that the dividend payers code 3 have the highest stock prices and also have the highest dividends, followed by dividend payers code 2 and dividend payers code 1, while the dividend payers code 0 have the smallest of stock prices and also have the smallest dividends (see Table 4).

**Table 4. Mean Value of Stock Price and Dividend**

Code	Entities	Observations	Mean Value	
			Stock Price	Dividend
0	163	489	684.02	0.00
1	40	120	720.31	6.94
2	44	132	2,108.55	46.22
3	126	378	9,800.01	282.35
<b>Total</b>	<b>373</b>	<b>1,119</b>		

Code 0 are companies who not paid dividend for 3 years, Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

This study continues to analyze the differences for each mean value by conducting compare means analysis with independent samples t-test method, to confirm the difference of stock prices and dividends between each dividend payers (see Table 5). The results of compare means analysis show that the difference of stock prices between dividend payers code 1 with dividend payers code 0 is not significant, while the other differences are significant. In addition, the difference of dividends between each dividend payers are significant. Regardless of others results, this study is focusing on dividend payers code 3, where the companies who paid dividend for 3 years have higher stock prices than the others. Also, the amount of dividends which are paid by dividend payers code 3 are higher and significant than others dividend payers. It seems, the stocks by dividend payers code 3 is the stocks that most seeking by investors, and this is why the stocks are having the most higher value in capital market. Confirming these results, this study then continues the analysis by conducting the analysis of variance model for stock price and dividend by using the models (1) and (2), where variable Code 0 as a represent of non dividend payers is using as reference.

Stock Price =  $\alpha + \beta\text{Code1} + \beta\text{Code2} + \beta\text{Code3}$  ..... (1)  
 Dividend =  $\alpha + \beta\text{Code1} + \beta\text{Code2} + \beta\text{Code3}$  ..... (2)

**Table 5. Compare Means Analysis**

Code	Variable	Levene's Test	t-test
1 & 2	Stock Price	35.884*	-4.343*
1 & 3	Stock Price	9.844*	-3.635*
1 & 0	Stock Price	0.049	0.245
2 & 3	Stock Price	8.511*	-3.058*
2 & 0	Stock Price	77.843*	4.540*
3 & 0	Stock Price	40.131*	3.650*
1 & 2	Dividend	23.283*	-3.649*
1 & 3	Dividend	14.741*	-4.650*
1 & 0	Dividend	107.706*	3.013*
2 & 3	Dividend	12.369*	-3.928*
2 & 0	Dividend	149.062*	4.395*
3 & 0	Dividend	63.617*	4.771*

\*significant at 0.05

Code 0 are companies who not paid dividend for 3 years, Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

While confirming the results of compare means analysis, the variance model analysis are also confirming that the behavior of dividend payers code 3 is effecting the stock price



significantly (see Table 6) and this behavior tends to pay dividends continuously or to increase the amount of dividends (see Table 7). The models (1) and (2) construct as follow :

Stock Price = 684.02 + 36.29Code1 + 1,424.53Code2 + 9,116Code3 ..... (1)

Dividend = 0.00 + 6.94Code1 + 46.22Code2 + 282.35Code3..... (2)

By these results, this study finds that, generally, the behavior of dividend payers code 3 by continuously paying or increasing dividends to their investors will increase the stock prices in the market. It seems the investors are having tendency for looking more dividends as return for their investments and as motivation to increase their wealth. In this case, the investors appreciate dividend payers code 3 by overvaluing their stocks and that is why their stock prices are still higher than others dividend payers in the capital market.

**Table 6. Analysis of Variance Model (ANOVA)**

Dependent Variable (Rupiah) : Stock Price			
Independent Variables (Dummy) : Code 3, Code 2, Code 1			
	Coefficients	t-value	F-value
Constant	684.02		8.281*
Code 1	36.29	0.013	
Code 2	1,424.53	0.514	
Code 3	9,116.00	4.709*	

\*significant at 0.05

Code 0 are companies who not paid dividend for 3 years (excluded as reference), Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

**Table 7. Analysis of Variance Model (ANOVA)**

Dependent Variable (Rupiah) : Dividend			
Independent Variables (Dummy) : Code 3, Code 2, Code 1			
	Coefficients	t-value	F-value
Constant	0.00		13.999*
Code 1	6.94	0.102	
Code 2	46.22	0.703	
Code 3	282.35	6.149*	

\*significant at 0.05

Code 0 are companies who not paid dividend for 3 years (excluded as reference), Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

Furthermore, this study is testing the relationships between dividends to stock prices and vice versa with analysis of covariate model (ANCOVA) by controlling the variables for dividend payers and using models (3) and (4). Still consistent, the variable Code 0 as a represent of non dividend payers is using as reference.

$$\text{Stock Price} = \alpha + \beta\text{Dividend} + \beta\text{Code1} + \beta\text{Code2} + \beta\text{Code3} \dots\dots\dots (3)$$

$$\text{Dividend} = \alpha + \beta\text{Stock Price} + \beta\text{Code1} + \beta\text{Code2} + \beta\text{Code3} \dots\dots\dots (4)$$

The results of covariate model analysis construct the models (3) and (4) as follow :

$$\text{Stock Price} = 684.02 + 22.41\text{Dividend} - 119.24\text{Code1} + 388.80\text{Code2} + 2,788.99\text{Code3} \dots (3)$$

$$\text{Dividend} = -8.622 + 0.013\text{Stock Price} + 6.483\text{Code1} + 28.264\text{Code2} + 167.442\text{Code3} \dots\dots (4)$$

**Table 8. Analysis of Covariate Model (ANCOVA)**

Dependent Variable (Rupiah) : Stock Price		
Independent Variables (Dummy) : Code 3, Code 2, Code 1		
Independent Variables (Rupiah) : Dividend		
R	0.546	
R Square	0.298	
R Square Adjusted	0.296	
F-value	118.283*	
	Coefficients	t-value
Constant	684.02	
Dividend	22.41	20.941*
Code 1	-119.24	-0.049
Code 2	388.80	0.165
Code 3	2,788.99	1.672

\*significant at 0.05

Code 0 are companies who not paid dividend for 3 years (excluded as reference), Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

The results of analysis show (see Table 8), dividend is significant effecting the stock prices ( $H_0$  rejected), and this finding is consistent with Baker and Haslem (1974), Aharony and Swary (1980), Elton, Gruber and Rentzler (1984), John and Williams (1985), Abrutyn and Turner (1990), Brennan and Thakor (1990), Barsky and De Long (1993), Zaman (2011), Srinivasan (2012), and Zakaria, Muhammad and Zulkifli (2012). This is means, while dividend payments are stable (Erasmus, 2013) and keep growing (Campbell and Shiller, 1988), then the informational content of dividend successes to play role as signals to investors (Miller and Modigliani, 1961; Miller and Rock, 1985; Ofer and Thakor, 1987; Acharya, 1988; Datta and Dhillon, 1993; Black, 1996; La Porta, De Silanes, Shleifer, and Vishny, 2000), when firms are viewed as a black box or beige box by investors (Asquith and Mullins, 1986). Perhaps, the investors are often to interpret the informational content as increasing in earnings, which is means, increasing for dividend payment (Benartzi, Michaely and Thaler, 1997; Nissim and Ziv, 2001).

**Table 9. Analysis of Covariate Model (ANCOVA)**

Dependent Variable (Rupiah) : Dividend		
Independent Variables (Dummy) : Code 3, Code 2, Code 1		
Independent Variables (Rupiah) : Stock Price		
R	0.555	
R Square	0.309	
R Square Adjusted	0.306	
F-value	124.254*	
	Coefficients	t-value
Constant	-8.622	
Stock Price	0.013	20.941*
Code 1	6.483	0.112
Code 2	28.264	0.507
Code 3	167.442	4.261*

\*significant at 0.05

Code 0 are companies who not paid dividend for 3 years (excluded as reference), Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

Surprisingly, the results of analysis show, the controlled variable for behavior of dividend payers code 3 is not significant affecting the stock price (see Table 8), and this result is contrary its result before (see Table 6). In this case, this study is taking the opinion by Copeland (1983), where the dividends payment by dividend payers code 3, by point of view of investors are possible not viewed as a signal of fundamental change, especially in growth rate of dividends, but it is viewed as transitory. Although, the behavior of dividend payers code 3 is not significant, their stock prices are still the higher than others. Concerning about logical and psychological factors in market valuation (Malkiel, 1989), it is means, investors for dividend payers code 3 are acting rationally as long as they receive their return in smooth stream while they are waiting for good return opportunities as their expected value of all cash flows (Ackert and Smith, 1993; Sloan, 1996) which is might be resulted by optimum investment policies of companies in the past (Yoon and Starks, 1995; Easterbrook, 1984).

This study then testing the catering effect proposed by Easterbrook (1984) and Baker and Wurgler (2004a, 2004b), to find whether the stock prices are affecting dividends (see Table 9). This study is find, the stock prices are affecting dividends with positive sign (92) (not rejected). Also, the controlled variable for dividend payers code 3 is significant too. This finding is supporting the findings of Baker and Wurgler (2007, 2004b) as proposed before by Easterbrook (1984), and also consistent with findings of Li and Lie (2006), Li and Zhao (2008), Hoberg and Prabhala (2009), and Polk and Sapienza (2009). It cannot be denied that, the stocks of dividend payers code 3 are the stocks who can fulfill the expectations of investors, because they have characteristics which representing the wealth of investors in form of total return, which are, dividends and capital gains. And it means, these stocks are the most seeking by investors, because they valuing the stocks at higher price, and in turn, dividend payers code 3 are tend to increase their dividends. This study is explaining the (91) result of significant effect by dividends to stock prices (see Table 8) by following Miller and Modigliani (1961), Baker and Haslem (1974), Easterbrook (1984), and Miller and Rock (1985) that, the “signal” sent by dividend payers as signaler through dividend have been viewed as a positive sign by investors. Related with investor’s perception (Miller & Modigliani, 1961), this can be means that, the investors (90) are trust about the “informational contents of dividends” which are convey the accurate information about the good future



prospects of dividend payers, and in turn, the investors are valuing the stocks at higher price. Supported by evidence, the “bird in the hand” effect have been prevail to investors. On the contrary, this study is assuming by limit to the evidence, if the dividends have tendency to decrease then the “clientele effect” for investors shall prevail.

If reversing the conditions under assumption of Easterbrook (1984) about the “belief” of dividend payers, where, “pay more dividend means the stock price will be higher”, then “the signal” direction is not only coming from dividend payers to investors, but from investors to dividend payers. Confirmed by results (see Table 9), this finding consistent with Baker and Wurgler (2004a, 2004b), and also supporting the assumption of Easterbrook (1984). Despite under uncertainty circumstances (Miller and Modigliani, 1961), by following Baker and Wurgler (2004a, 2004b), perhaps the dividend payers are waiting for “signal” from investors by their sentiment to put the trust on dividend payers, in positive perception, the dividend payers are still have occasions for a better performance in future. Consistent with Baker and Wurgler (2004a, 2004b, 2006, 2007), Li and Zhao (2008), and Polk and Sapienza (2009), this study shows, the “catering effect” is happening by investor’s sentiment, because the investors are looking for safety, not only the maximum capital gains (capital appreciation), so the investors are voluntarily valuing the stocks of dividend payers at higher price, in turn, by willingly, the dividend payers shall cater the investors with dividends. Again, by following Baker and Wurgler (2004a, 2004b) and the assumptions are limited to evidence, if the investors were satisfied with the level of dividends before, then the investors shall prefer the dividend payers, means, the catering effect have prevent the shifting of their investors to others dividend payers. In addition, this study continue to analyze the characteristics of dividend payers by simplify the factors of Fama and French (2001) into general factors to have single interpretation. This study is identifying the mean value for each characteristics of dividend payers (see Table 10), and then ranks these characteristics between dividend payers (see Table 11).

**Table 10. Mean Value of Characteristics of Dividend Payers**

	<b>Code 0</b> <b>(N=489)</b>	<b>Code 1</b> <b>(N=120)</b>	<b>Code 2</b> <b>(N=132)</b>	<b>Code 3</b> <b>(N=378)</b>
NS	4,155,782.26	4,458.77	4,785.09	5,152.17
FA	956,809.65	1,092,329.39	5,582,303.90	3,234,609.64
TA	5,724,233.23	8,764,965.98	6,573,409.69	25,264,665.83
TD	4,376,985.80	6,914,273.84	4,092,768.32	18,645,257.61
RE	-174,663.24	710,058.30	798,465.77	4,041,696.56
TE	1,321,112.33	1,838,044.37	2,404,230.16	6,470,878.64
Rev	1,402,547.10	2,724,330.78	4,774,695.29	9,284,514.13
NI	20,585.02	250,758.92	296,671.30	1,486,028.37

1. NS is number of shares, FA is fixed assets, TA is total assets, TD is total debt, RE is retained earnings, TE is total equity, Rev is revenue, and NI is net income.
2. Code 0 are companies who not paid dividend for 3 years, Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

**Table 11. T<sup>64</sup> Rank of Mean Value between Dividend Payers**

<i>Factors</i>	<i>Code 0</i> (N=489)	<i>Code 1</i> (N=120)	<i>Code 2</i> (N=132)	<i>Code 3</i> (N=378)
NS	Rank 1	Rank 4	Rank 3	Rank 2
FA	Rank 4	Rank 3	Rank 1	Rank 2
TA	Rank 4	Rank 2	Rank 3	Rank 1
TD	Rank 3	Rank 2	Rank 4	Rank 1
RE	Rank 4	Rank 3	Rank 2	Rank 1
TE	Rank 4	Rank 3	Rank 2	Rank 1
Rev	Rank 4	Rank 3	Rank 2	Rank 1
NI	Rank 4	Rank 3	Rank 2	Rank 1

1. Rank 1 is Largest, Rank 2 is Larger, Rank 3 is Smaller, Rank 4 is Smallest.
2. NS is number of shares, FA is fixed assets, TA is total assets, TD is total debt, RE is retained earnings, TE is total equity, Rev is revenue, and NI is net income.
3. Code 0 are companies who not paid dividend for 3 years, Code 1 are companies who paid dividend for 1 year, Code 2 are companies who paid dividend for 2 years, and Code 3 are companies who paid dividend for 3 years.

By the results of analysis, this study finds, the dividend payers code 3 are the companies<sup>63</sup> with larger number of shares and fixed assets. Also, dividend payers code 3 have the most total assets, total debt, retained earnings, total equity, revenue, and net income, than others dividend payers. While the dividend payers code 0 as the non payers are the companies with the most number of shares, smaller total debt, and have smallest amount of fixed assets, total assets, retained earnings, total equity, revenue, and net income.

This study is conducting data reduction method (see Table 12) to confirm whether these characteristics are the important factors for dividend payers. The results of data reduction method is showing, the value of KMO is 0.707 make the factors are valid, with 85.84% of cumulative percentage to explain the factors. By component matrix,<sup>63</sup> the characteristics of dividend payers are divided into three factors, which are, Factor 1 (total assets, total debt, retained earnings, total equity, revenue, and net income), Factor 2 (fixed assets), and Factor 3 (number of shares), where all of these factors have strong correlation as loading value.

The finding for Factor 1 is<sup>81</sup> consistent with Fama and French (2001), Li and Zhao (2008), Hoberg and Prabhala (2009), Chemmanur, He, Hu, and Liu (2010), where the characteristics of dividend payers are the companies with larger size and profitable. In<sup>72</sup> the of debt, the finding is consistent with Koch and Shenoy (1999), where dividend and capital structure policies are interacting to provide significant predictive information about future cash flow. In case for dividend payers code 3, the finding for Factor 2 is consistent with Grullon, Michaely, and Swaminathan (2002), Holt (2003), and Gugler (2003), where these companies can be categorized as the mature companies, because they are tend to pay dividends in terms to reduce their excess cash and to reduce overinvestment. These findings are contrary with Kato, Loewenstein, and Tsay (2002) in Japan, where Japanese firms are not adopting dividend policy to control the overinvestment problems, because when they increase the dividends, it is often accompanies by investment. In addition, the companies with less fixed assets, will have less depreciation expense, and it means their net income will increase and make increase in dividend. The finding for Factor 3 is consistent with the finding by Beaver (1968) about the relationship of increasing number of<sup>16</sup> shares traded with the information content of earnings reported. Seems, the findings of Benartzi, Michaely and Thaler (1997) and Nissim and Ziv (2001) are supporting the finding of Beaver (1968), about

the perception by investors, which are often to interpret the informational content as the increase of earnings, which is means, increase of dividends. By the other view, Campbell and Kyle (1993) were explained, in condition of the absolute risk is constant, if increase in stock price will increase wealth of investors, then it will stimulate demand the stocks by investors.

**Table 12. Data Reduction Method**

69	Kaiser-Meyer-Olkin Measure (KMO) of Sampling Adequacy			0.707
	Bartlett's Test of Sphericity			0.000
	Component Matrix	Factor 1	Factor 2	Factor 3
	NS	-0.030	-0.307	0.945
	FA	0.205	0.760	0.307
	TA	0.872	-0.346	-0.045
	TD	0.812	-0.408	-0.057
	RE	0.936	0.094	-0.055
	TE	0.965	0.051	0.024
	Rev	0.813	0.297	0.066
	NI	0.932	0.095	0.028
	Percentage of variance	59.99%	13.33%	12.51%
	Cumulative percentage	85.84%		

NS is number of shares, FA is fixed assets, TA is total assets, TD is total debt, RE is retained earnings, TE is total equity, Rev is revenue, and NI is net income.

After confirming these characteristics as the important factors for dividend payers, then this study is conducting multinomial logistic regression to see the contribution for each characteristics and to compare the consideration of each dividend payers based on these characteristics. The dependent variable (dividend) is measure by dummy following the types of dividend payers, and the independent variables are normalized by natural logarithm, which is giving the basic model for four dividend payers as follow :

$$\text{Dividend}_{\text{Dum}} = \alpha + \beta \ln \text{NS} + \beta \ln \text{FA} + \beta \ln \text{TA} + \beta \ln \text{TD} + \beta \ln \text{RE} + \beta \ln \text{TE} + \beta \ln \text{Rev} + \beta \ln \text{NI} \dots \dots \dots (5)$$

**Table 13. Model Fitting Information**

57	<i>Model Fitting Criteria</i>		<i>Likelihood Ratio Tests</i>	
		<i>-2 Log Likelihood</i>	<i>Chi-Square</i>	<i>Sig.</i>
	Intercept Only	2730.219		
	Final	2202.813	527.405	0.000

**Table 14. Goodness of Fit and Pseudo R-Square**

		<i>Chi-Square</i>	<i>Sig.</i>
Pearson		3084.562	0.999
Deviance		2202.813	1.000
Cox and Snell	0.376		
Nagelkerke	0.412		
McFadden	0.193		



The results of analysis show the final model is fit through the value of chi-square which is significant at level 0.05 (see Table 13). The goodness of fit test (see Table 14) shows the chi-square<sup>80</sup> insignificant at level 0.05, then it means the all the data is fit to the final model with pseudo R-Square 0.376 (Cox and Snell), 0.412 (Nagelkerke), and 0.193 (McFadden). In addition, the tests of likelihood ratio for the effect for the model are showing, the number of shares, total debt, retained earnings, revenue and net income are significant at level 0.05, then these characteristics are giving contribution for the model, while fixed assets, total assets and total equity are insignificant at level 0.05, which are giving less contribution for the model (see Table 15).

<sup>76</sup>  
**Table 15. Likelihood Ratio Tests**

	<i>-2 Log Likelihood</i>	<i>Chi-Square</i>	<i>Sig.</i>
Intercept	2426.292	223.479	0.000
lnNS	2253.563	50.750	0.000
lnFA	2209.913	7.100	0.069
lnTA	2209.282	6.469	0.091
lnTD	2228.685	25.872	0.000
lnRE	2232.128	29.315	0.000
lnTE	2203.364	0.551	0.908
lnRev	2309.408	106.595	0.000
lnNI <sup>62</sup>	2245.115	42.302	0.000

lnNS is<sup>75</sup> natural logarithm of number of shares, lnFA is natural logarithm of fixed assets, lnTA is natural logarithm of total<sup>62</sup> assets, lnTD is natural logarithm of total debt, lnRE is natural logarithm of retained earnings, lnTE is natural logarithm of total equity, lnRev is natural logarithm of revenue, and lnNI is natural logarithm of net income.

The results of multinomial logistic regression (see Table 16) are giving the parameter estimates for the model of dividend payers code 0 relative to dividend payers code 3 (Model 5.1), the model of dividend payers code 1 relative to dividend payers code 3 (Model 5.2), the model of dividend payers code 2 relative to dividend payers code 3 (Model 5.3), the model of dividend payers code 1 relative to dividend payers code 0 (Model 5.4), the model of dividend payers code 2 relative to dividend payers code 0 (Model 5.5), and the model of dividend payers code 2 relative to dividend payers code 1 (Model 5.6).

$$\text{Dividend}_{0/3} = \dots\dots\dots 11.241 + 0.437\text{NS} + 0.152\text{FA} - 0.507\text{TA} + 0.650\text{TD} - 0.031\text{RE} - 0.041\text{TE} - 0.758\text{Rev} - 0.542\text{NI} \dots\dots\dots (5.1)$$

$$\text{Dividend}_{1/3} = \dots\dots\dots 7.784 + 0.498\text{NS} + 0.123\text{FA} - 0.384\text{TA} + 0.466\text{TD} - 0.319\text{RE} - 0.139\text{TE} - 0.322\text{Rev} - 0.380\text{NI} \dots\dots\dots (5.2)$$

$$\text{Dividend}_{2/3} = \dots\dots\dots 2.586 + 0.134\text{NS} + 0.142\text{FA} - 0.305\text{TA} + 0.387\text{TD} - 0.445\text{RE} - 0.046\text{TE} + 0.137\text{Rev} - 0.239\text{NI} \dots\dots\dots (5.3)$$

$$\text{Dividend}_{1/0} = \dots\dots\dots -3.457 + 0.061\text{NS} - 0.029\text{FA} + 0.123\text{TA} - 0.184\text{TD} - 0.288\text{RE} - 0.098\text{TE} + 0.436\text{Rev} + 0.162\text{NI} \dots\dots\dots (5.4)$$

$$\text{Dividend}_{2/0} = \dots\dots\dots -8.655 - 0.303\text{NS} - 0.010\text{FA} + 0.202\text{TA} - 0.263\text{TD} - 0.415\text{RE} - 0.004\text{TE} + 0.895\text{Rev} + 0.302\text{NI} \dots\dots\dots (5.5)$$

$$\text{Dividend}_{2/1} = \dots\dots\dots -5.198 - 0.364\text{NS} + 0.018\text{FA} + 0.079\text{TA} - 0.079\text{TD} - 0.127\text{RE} + 0.094\text{TE} + 0.459\text{Rev} + 0.140\text{NI} \dots\dots\dots (5.6)$$

**Table 16. Parameter Estimates**

<i>Dependent</i>	<i>Independent</i>	<i>B</i>	<i>Std. Error</i>	<i>Wald</i>	<i>Exp(B)</i>
Dividend <sub>0/3</sub> **	Intercept	11.241	0.897	157.083	
	lnNS	0.437*	0.071	37.863	1.547
	lnFA	0.152*	0.060	6.503	1.164
	lnTA	-0.507*	0.211	5.787	0.602
	lnTD	0.650*	0.136	22.879	1.916
	lnRE	-0.031	0.087	0.125	0.970
	lnTE	-0.041	0.136	0.092	0.960
	lnRev	-0.758*	0.094	65.470	0.469
	lnNI	-0.542*	0.090	36.579	0.582
Dividend <sub>1/3</sub> **	Intercept	7.784	1.172	44.097	
	lnNS	0.498*	0.089	31.536	1.645
	lnFA	0.123	0.079	2.454	1.131
	lnTA	-0.384	0.314	1.500	0.681
	lnTD	0.466*	0.196	5.667	1.594
	lnRE	-0.319*	0.106	9.037	0.727
	lnTE	-0.139	0.191	0.530	0.870
	lnRev	-0.322*	0.123	6.856	0.725
	lnNI	-0.380*	0.111	11.662	0.684
Dividend <sub>2/3</sub> **	Intercept	2.586	1.154	5.025	
	lnNS	0.134	0.087	2.385	1.143
	lnFA	0.142	0.082	2.994	1.152
	lnTA	-0.305	0.354	0.745	0.737
	lnTD	0.387	0.223	3.008	1.473
	lnRE	-0.445*	0.107	17.283	0.641
	lnTE	-0.046	0.206	0.049	0.955
	lnRev	0.137	0.128	1.148	1.147
	lnNI	-0.239*	0.114	4.432	0.787
Dividend <sub>1/0</sub> ***	Intercept	-3.457	1.052	10.801	
	lnNS	0.061	0.072	0.733	1.063
	lnFA	-0.029	0.070	0.171	0.972
	lnTA	0.123	0.279	0.193	1.130
	lnTD	-0.184	0.179	1.057	0.832
	lnRE	-0.288*	0.087	10.885	0.750
	lnTE	-0.098	0.166	0.349	0.907
	lnRev	0.436*	0.110	15.831	1.547
	lnNI	0.162	0.089	3.345	1.176

\* Significant at 5%

\*\* The reference category is: Code 3

\*\*\* The reference category is: Code 0

\*\*\*\* The reference category is: Code 1

**Table 16. Parameter Estimates (continued)**

<i>Dependent</i>	<i>Independent</i>	<i>B</i>	<i>Std. Error</i>	<i>Wald</i>	<i>Exp(B)</i>
Dividend <sub>20</sub> ***	Intercept	-8.655	1.160	55.702	
	lnNS	-0.303*	0.089	11.442	0.739
	lnFA	-0.010	0.079	0.017	0.990
	lnTA	0.202	0.347	0.338	1.223
	lnTD	-0.263	0.222	1.399	0.769
	lnRE	-0.415*	0.100	17.338	0.660
	lnTE	-0.004	0.198	0.001	0.996
	lnRev	0.895*	0.127	50.026	2.448
	lnNI	0.302*	0.105	8.294	1.353
Dividend <sub>21</sub> ****	Intercept	-5.198	1.376	14.261	
	lnNS	-0.364*	0.103	12.396	0.695
	lnFA	0.018	0.093	0.039	1.019
	lnTA	0.079	0.414	0.036	1.082
	lnTD	-0.079	0.262	0.090	0.924
	lnRE	-0.127	0.114	1.227	0.881
	lnTE	0.094	0.236	0.157	1.098
	lnRev	0.459*	0.148	9.620	1.583
	lnNI	0.140	0.123	1.304	1.151

\* Significant at 5%

\*\* The reference category is: Code 3

\*\*\* The reference category is: Code 0

\*\*\*\* The reference category is: Code 1

**The number of shares (NS).** Model 5.1 shows the number of shares have significant effect to dividend payment, where dividend payers code 0 have higher probability ( $p = 1.547$ ) to pay dividends when the number of shares are increasing ( $\beta = 0.437$ ) relative to dividend payers code 3. In model 5.2, the number of shares have significant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.645$ ) to pay dividends when the number of shares are increasing ( $\beta = 0.498$ ) relative to dividend payers code 3. In model 5.3, the number of shares have insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.143$ ) to pay dividends when the number of shares are increasing ( $\beta = 0.134$ ) relative to dividend payers code 3. In model 5.4, the number of shares have insignificant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.063$ ) to pay dividends when the number of shares are increasing ( $\beta = 0.061$ ) relative to dividend payers code 0. In model 5.5, the number of shares have significant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.739$ ) to pay dividends when the number of shares are decreasing ( $\beta = -0.303$ ) relative to dividend payers code 0. In model 5.6, the number of shares have significant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.695$ ) to pay dividends when the number of shares are decreasing ( $\beta = -0.364$ ) relative to dividend payers code 1.

**Fixed Assets (FA).** Model 5.1 shows the fixed assets have significant effect to dividend payment, where dividend payers code 0 have higher probability ( $p = 1.164$ ) to pay dividends when the fixed assets are increasing ( $\beta = 0.152$ ) relative to dividend payers code 3. In model 5.2, the fixed assets have insignificant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.131$ ) to pay dividends when the fixed assets are increasing ( $\beta = 0.123$ ) relative to dividend payers code 3. In model 5.3, the fixed assets have



insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.152$ ) to pay dividends when the fixed assets are increasing ( $\beta = 0.142$ ) relative to dividend payers code 3. In model 5.4, the fixed assets have insignificant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.972$ ) to pay dividends when the fixed assets are decreasing ( $\beta = -0.029$ ) relative to dividend payers code 0. In model 5.5, the fixed assets have insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.990$ ) to pay dividends when the fixed assets are decreasing ( $\beta = -0.010$ ) relative to dividend payers code 0. In model 5.6, the fixed assets have insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.019$ ) to pay dividends when the fixed assets are increasing ( $\beta = 0.018$ ) relative to dividend payers code 1.

**Total Assets (TA).** Model 5.1 shows total assets have significant effect to dividend payment, where dividend payers code 0 have lower probability ( $p = 0.602$ ) to pay dividends when total assets are decreasing ( $\beta = -0.507$ ) relative to dividend payers code 3. In model 5.2, total assets have insignificant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.681$ ) to pay dividends when total assets are decreasing ( $\beta = -0.384$ ) relative to dividend payers code 3. In model 5.3, total assets have insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.737$ ) to pay dividends when total assets are decreasing ( $\beta = -0.305$ ) relative to dividend payers code 3. In model 5.4, total assets have insignificant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.130$ ) to pay dividends when total assets are increasing ( $\beta = 0.123$ ) relative to dividend payers code 0. In model 5.5, total assets have insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.223$ ) to pay dividends when total assets are increasing ( $\beta = 0.202$ ) relative to dividend payers code 0. In model 5.6, total assets have insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.082$ ) to pay dividends when total assets are increasing ( $\beta = 0.079$ ) relative to dividend payers code 1.

**Total Debt (TD).** Model 5.1 shows the total debt has significant effect to dividend payment, where dividend payers code 0 have higher probability ( $p = 1.916$ ) to pay dividends when the total debt is increasing ( $\beta = 0.650$ ) relative to dividend payers code 3. In model 5.2, the total debt has significant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.594$ ) to pay dividends when the total debt is increasing ( $\beta = 0.466$ ) relative to dividend payers code 3. In model 5.3, the total debt has insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.473$ ) to pay dividends when the total debt is increasing ( $\beta = 0.387$ ) relative to dividend payers code 3. In model 5.4, the total debt has insignificant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.832$ ) to pay dividends when the total debt is decreasing ( $\beta = -0.184$ ) relative to dividend payers code 0. In model 5.5, the total debt has insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.769$ ) to pay dividends when the total debt is decreasing ( $\beta = -0.263$ ) relative to dividend payers code 0. In model 5.6, the total debt has insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.924$ ) to pay dividends when the total debt is decreasing ( $\beta = -0.079$ ) relative to dividend payers code 1.

**Retained Earnings (RE).** Model 5.1 shows the retained earnings have insignificant effect to dividend payment, where dividend payers code 0 have lower probability ( $p = 0.970$ ) to pay dividends when the retained earnings are decreasing ( $\beta = -0.031$ ) relative to dividend payers code 3. In model 5.2, the retained earnings have significant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.727$ ) to pay dividends when the

retained earnings are decreasing ( $\beta = -0.319$ ) relative to dividend payers code 3. In model 5.3, the retained earnings have significant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.641$ ) to pay dividends when the retained earnings are decreasing ( $\beta = -0.445$ ) relative to dividend payers code 3. In model 5.4, the retained earnings have significant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.750$ ) to pay dividends when the retained earnings are decreasing ( $\beta = -0.288$ ) relative to dividend payers code 0. In model 5.5, the retained earnings have significant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.660$ ) to pay dividends when the retained earnings are decreasing ( $\beta = -0.415$ ) relative to dividend payers code 0. In model 5.6, the retained earnings have insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.881$ ) to pay dividends when the retained earnings are decreasing ( $\beta = -0.127$ ) relative to dividend payers code 1.

**Total Equity (TE).** Model 5.1 shows the total equity has insignificant effect to dividend payment, where dividend payers code 0 have lower probability ( $p = 0.960$ ) to pay dividends when the total equity is decreasing ( $\beta = -0.041$ ) relative to dividend payers code 3. In model 5.2, the total equity has insignificant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.870$ ) to pay dividends when the total equity is decreasing ( $\beta = -0.139$ ) relative to dividend payers code 3. In model 5.3, the total equity has insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.955$ ) to pay dividends when the total equity is decreasing ( $\beta = -0.046$ ) relative to dividend payers code 3. In model 5.4, the total equity has insignificant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.907$ ) to pay dividends when the total equity is decreasing ( $\beta = -0.098$ ) relative to dividend payers code 0. In model 5.5, the total equity has insignificant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.996$ ) to pay dividends when the total equity is decreasing ( $\beta = -0.004$ ) relative to dividend payers code 0. In model 5.6, total equity has insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.098$ ) to pay dividends when total equity is increasing ( $\beta = 0.094$ ) relative to dividend payers code 1.

**Revenue (Rev).** Model 5.1 shows the revenue has significant effect to dividend payment, where dividend payers code 0 have the lower probability ( $p = 0.469$ ) to pay dividends when the revenue is decreasing ( $\beta = -0.758$ ) relative to dividend payers code 3. In model 5.2, the revenue has significant effect to dividend payment, where dividend payers code 1 have lower probability ( $p = 0.725$ ) to pay dividends when the revenue is decreasing ( $\beta = -0.322$ ) relative to dividend payers code 3. In model 5.3, the revenue has insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.147$ ) to pay dividends when the revenue is increasing ( $\beta = 0.137$ ) relative to dividend payers code 3. In model 5.4, the revenue has significant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.547$ ) to pay dividends when the revenue is increasing ( $\beta = 0.436$ ) relative to dividend payers code 0. In model 5.5, the revenue has significant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 2.448$ ) to pay dividends when the revenue is increasing ( $\beta = 0.895$ ) relative to dividend payers code 0. In model 5.6, the revenue has significant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.583$ ) to pay dividends when the revenue is increasing ( $\beta = 0.459$ ) relative to dividend payers code 1.

**Net Income (NI).** Model 5.1 shows the net income has significant effect to dividend payment, where dividend payers code 0 have the lower probability ( $p = 0.582$ ) to pay dividends when the net income is decreasing ( $\beta = -0.758$ ) relative to dividend payers code 3. In model 5.2, the net income has significant effect to dividend payment, where dividend



payers code 1 have lower probability ( $p = 0.684$ ) to pay dividends when the net income is decreasing ( $\beta = -0.380$ ) relative to dividend payers code 3. In model 5.3, the net income has significant effect to dividend payment, where dividend payers code 2 have lower probability ( $p = 0.787$ ) to pay dividends when the net income is decreasing ( $\beta = -0.239$ ) relative to dividend payers code 3. In model 5.4, the net income has insignificant effect to dividend payment, where dividend payers code 1 have higher probability ( $p = 1.176$ ) to pay dividends when the net income is increasing ( $\beta = 0.162$ ) relative to dividend payers code 0. In model 5.5, the net income has significant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.353$ ) to pay dividends when the net income is increasing ( $\beta = 0.302$ ) relative to dividend payers code 0. In model 5.6, the net income has insignificant effect to dividend payment, where dividend payers code 2 have higher probability ( $p = 1.151$ ) to pay dividends when the net income is increasing ( $\beta = 0.140$ ) relative to dividend payers code 1.

## 6. CONCLUSIONS & LIMITATIONS

Based on discussions above, it can be concluded that, in Indonesia, the signaling effect can be derived from two sides, which are by side of investors and by side of dividend payers. And it means, the signaling effect has two directions, which are by side of investors to dividend payers or vice versa. Even though the signaling effect has two directions, but the bird in the hand effect is still standing by point of view of investors. Perhaps the investors are expecting dividend payers to spend the earnings as dividend<sup>71</sup> rather than to keep it in form of retained earnings as the reserve fund for next investment (La Porta, De Silanes, Shleifer, and Vishny, 2000).

By point of view of dividend payers, the effects of bird in the hand and the catering effect can occur simultaneously under condition where the dividend payers voluntarily provide continues dividends which is tend to increase, as a form of compensation or reward to investors that using their sentiment<sup>79</sup> and perception of trust, voluntarily assess the stocks of dividend payers at higher price in the capital market. On the other hand, the tendency of dividend payers for giving dividends to meet the demand of investors, indirectly affect the behavior of investors continuously to put demand on stock of dividend payers, make this behavior reducing the clientele effect. But, limited to evidence, this study is not judging the clientele effect in Indonesia is absolutely exact. Even so, the findings of this study are supporting the implications offered by Baker and Wurgler (2004a), where dividends are highly relevant to stock price, but in different directions at different times. The implications of this findings are perhaps the investors do not need constantly increase for dividend payment, but the most important is, the companies keep pay dividend for each years. In addition, this study is find that, the characteristics of dividend payers are usually firms with larger number of shares and fixed assets, also, they have the most largest of total assets, total debt, retained earnings, revenue, and net income. While the characteristics of non dividend payers are firms with the most number of shares, smaller total debt, and have smallest amount of fixed assets, total assets, retained earnings, revenue, and net income. This study also is not judging whether the relationship between investors with dividend payers are interdependent or equally for bargaining power in the context of dividends and stock price, limited to the evidence in this study. All of these limitations are need further analysis for next studies in the future.

## 7. CONTRIBUTIONS

This study claims three contributions by this study. First, as an empirical evidence, since dividends are affecting the stock prices, then this tendency shows, the behavior of

Investors in Indonesia prefer for dividend payers who keep continue distributing their earnings in form of dividends. Conversely, the stock prices also are affecting the dividends, which is means, in turn, dividend payers are expecting the investors to trust them by using their sentiment and perception to keep valuing their stock at higher price in capital market.

Second, as the applied theories, since the behavior of investors in Indonesia is demanding more dividend, and the dividends are behave certain, then this behavior is fit with signaling effect and bird in the hand effect. As the result, the dividend payers shall behave to cater the investors with dividends in term to meet their demand that continuously increase. This behavior of dividend payers is fit with signaling effect and catering effect. By combining these effects, then the signaling effect can be derive from two directions.

Third, the methodology as the procedures for testing the hypothesis about the relationship of dividends and stock prices by controlling the dividend payers. Although the findings of this study are not absolute limited to the samples in certain periods, but i do hope this study will be a reference for next studies in the same area.

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