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THE INFLUENCE OF FACTORS AFFECTING DIVIDEND PAYOUT RATIO TO STOCK PRICE OF FIRMS LISTED IN INDONESIA STOCK EXCHANGE

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Abstract—An investor expects returns from their investment activity in the form of dividend and capital gains. Distribution of this dividend will not only improve the welfare of the shareholder, but also signal the capital market or potential future investors for the company's growth performance. This signal could lead the increase of a company's stock price on the stock exchange. Using the two-stage least square method, this study investigated the effect on a company's dividend payout ratio that financial ratios such as profitability, operating cash flow per share, corporate tax, current ratio, market-to-book value, debt-to-equity ratio, and sales growth may have. The effects of these payouts may also impact the market share price. The regression test used in this research shows that only profitability and operating cash flow affect the dividend payout ratio with a positive relationship. Furthermore, the dividend payout ratio positively affects the stock price. Profitability and operating cash flow directly and positively affect the stock price. The conclusion is that the higher the profitability and the operating cash flow of the firm, the higher the dividend payout ratio and subsequently, the higher the stock price. Firms with a high profitability signal good financial performance to an investor. A high profitability and operating cash flow ensure a firm has the ability to pay out more dividend. This distribution of dividend therefore provides positive signals to investors and leads to an increase in stock price.

Keywords—Dividend Payout Ratio, Signaling Theory* and *Green Business.

I. INTRODUCTION

In carrying out its business operations, a company has the goal to maximize the welfare of the shareholders. These goals can be achieved if the value of the company increases and this can be reflected by an increase of share price supported by successful corporate financial performance. One of many indicators of good performance is an increase in profit over consecutive periods. The level of success of a company according to the shareholders is measured by the gain of the operating income of the company. A higher profit increases a shareholder's positive perception of a company. Shareholders have confidence in high growth companies that share prices will increase. The shareholders of the company wish to enjoy the results from their investment, to be obtained in the form of dividends when a shareholder retains stock companies, as well as in the form of capital gains obtained from the sale of any shares. Further research highlights the results of stock investment in the form of dividends. Dividend distribution to shareholders is also a positive indication of a company's financial performance, since only companies generating profits are able to distribute the profits of shareholders.

Dividend distribution is not obligatory for a company, but it may signal to shareholders the "health" or future prospect of the company. On the other hand, some companies choose to hold dividend payment with the intention to internally expand by re-investing funds from profits back into the company. In general, companies that distribute dividends are companies already at mature stage. Newer companies that are still growing, however, tend to re-invest gains rather than dividend payments. Reinvestment activities are made according to management decisions, whereas shareholders wish to receive the benefits of their investment in the form of dividends. This difference of interests that may arise within a company is known as the 'agency problem'.

Dividend payments may positively signify to a shareholder or potential investors about a company's growth in the future, and this can lead to increased share prices. The following table shows how financial performance can be reflected by dividend payments.

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TABLE 1. PROFITS AND DIVIDEND PAYMENT OF 10TH THE LARGEST EMITTEN IN INDONESIA STOCK EXCHANGE (IDX)

Emiten Code	Profit 2016 (trillion Rp)	Profit 2017 (trillion Rp)	Increase/ Decrease (%)	Dividend 2017 (trillion Rp)	Dividend 2018 (trillion Rp)	Increase/ Decrease (%)
BBCA	20,6	23,3	13,11 (+)	4,9	6,3	28,57 (+)
HMSP	12,8	12,7	0.78 (-)	12,5	12,5	-
TLKM	13,5	22,1	63,7 (+)	13,5	16,6	22,96 (+)
BBRI	26,2	29	10,69 (+)	10,5	13	23,81 (+)
UNVR	6,4	7	9,38 (+)	6,4	7	9,38 (+)
BMRI	13,8	20,6	49,28 (+)	13,8	9,3	32,61 (-)
ASII	15,1	18,9	25,17 (+)	6,8	7,5	10,29 (+)
BBNI	11,3	13,6	20,35 (+)	3,7	4,8	29,73 (+)
UNTR	5	7,4	48,00 (+)	2	3,3	65 (+)
GGRM	6,7	7,8	16,42 (+)	5	-	-

(Sources: https://www.cnnindonesia.com/ekonomi, (Thursday, 24th May 2018))

Based on Table 1, the profit of 10th sample companies tended to increase, with the exception of PT Hanjaya Mandala Sampoerna Tbk. (HMSP) which suffered a slight decrease of 0.78%. In 2017, the largest increase in earnings comes from PT Telekomunikasi Indonesia Tbk. (TLKM), the figure being 63.7%. According to Table 1, from the 10th largest emitten sample PT Bank Mandiri Tbk. (BMRI), there is shown to be an increase in dividend distribution in 2018 compared to 2017, with a percentage increase of 32.61%. However, the increase in earnings of BMRI is only at 49.28%. Profit in 2017 is the foundation for the spread of dividends in 2018. The increased gains will likely be followed by an increase in the dividend payment. Almost all emittens have increased in terms of dividend payment, with the exceptions of HMSP for which dividend payments have not changed in 2 years, and BMRI for which dividend payments have decreased from 2017 to 2018, reducing by 32.61%. PT Gudang Garam Tbk. (GGRM) has not distributed dividends in 2018. The following table compares dividends against profits (the ratio of dividend payment) of the 10th emitten.

TABLE 2. DIVIDEND PAYOUT RATIO OF 10TH THE LARGEST EMITTEN ON IDX

Emitten Code	Dividend Payout Ratio Year 2017 (%)	Dividend Payout Ratio Year 2018 (%)	Increase/ Decrease (%)	Stock Price of 2017 (Rp)	Stock Price of 2018 (Rp)	Increase/ Decrease (%)
BBCA	23,79	27,04	13,66 (+)	21,900	26.000	18,72 (+)
HMSP	97,66	98,43	0,79 (+)	4.587	3.710	19,12 (-)
TLKM	100,00	75,11	24,89 (-)	4.283	3.750	12.44 (-)
BBRI	40,08	44,83	11,85 (+)	3.532	3.660	3.62 (+)
UNVR	100,00	100,00	-	54.729	45.400	17.05 (-)
BMRI	100,00	45,15	54,85 (-)	7.795	7.375	5.39 (-)
ASII	45,03	39,68	11,88 (-)	8.082	8.225	1.77 (+)
BBNI	32,74	35,29	7,79 (+)	9.625	8.800	8.57 (-)
UNTR	40,00	44,59	11,48 (+)	34.426	27.350	20.55 (-)
GGRM	74,63	-	-	80.641	83.625	3.70 (+)

(Sources: https://www.cnnindonesia.com/ekonomi, (Thursday, 24th May 2018))

Based on calculating the dividend payout ratio and stock price in 2017, three companies spread dividends above 100% of their gains, namely TLKM, BMRI, and PT Unilever Indonesia Tbk. (UNVR). The only consistent relationship in terms of dividend payment is with UNVR. The existence of such phenomena makes researchers interested in regard to whether profit, as one of a company's major indicators of financial performance, influences dividend payout ratio.

This study specifically examined companies going public that have implemented a concept of "green business" within their operational activities, such as PT Alumindo Light Metal Industry Tbk. (ALMI) that is committed to preserving the environment as a form of corporate social responsibility (CSR) through the redeployment of the production's residual waste. Aluminum waste processed back as a raw material can increase the production efficiency and reduces the negative impact on the environment. Natural gas is environmentally friendly and is used in the process of melting aluminum. Natural gas can also reduce fuel use which in turn reduces any excess pollution impact. Waste handling is carried out carefully as not to contaminate the environment, and the ABLL reporting is done by routine (Annual financial report of the ALMI, 2017).

The objective of this research is as follows: (1) To investigate the effect of financial performance on dividend payout ratio of listed companies on the Indonesia Stock Exchange (IDX) in 2017. (2) To assess if dividend payout ratio has an effect on the stock price of listed companies on the Indonesia Stock Exchange (IDX) in 2017. (3) To examine if factors affecting dividend payout ratio also directly affect the stock price of listed companies on the Indonesia Stock Exchange (IDX) in 2017.

The benefits from this research are as follows: (1) To help make investment decisions based on the influence of dividend payments. (2) To help companies to create dividend distribution policies in relation to their share price.

II. LITERATURE REVIEW

According to Amidu and Abor (2006) and Rehman (2012), dividend payout ratio shows the percentage of the company's net income allocated to shareholders dividends. The company always maintains a dividend-payout relationship to meet shareholder expectations, in the hopes that shareholders retain and don't sell their shares.The act of selling shares, particularly on a large scale, can be a bad sign for a company on the stock exchange, which results in a decrease in share prices.

The shift in today's business world is not only in regard to the processing of natural resources for profit but is also about the preservation of the environment in

the process. A company that incorporates these policies in its actions is known as a "green business". The definition of a green business according to Slovick (2008), is an organization that uses eco-friendly, renewable resources and pays attention to the impact of its business activities on the surrounding society as a form of social responsibility.

Rehman (2012) describes profitability of a company as a defining factor in a company's decision to pay dividends in the current period. Therefore, companies with a higher profitability and liquidity most likely announce the payment of dividends. This is supported by research carried out by Gill et al. (2010) that found a positive and significant relationship between the profitability of companies and dividend payouts in the US capital market. Research provided by Abor and Amidu (2006) and Rehman (2012) on the respective stock exchanges of Ghana and Karachi found a positive relationship between profitability and the dividend-payout ratio of a company.

Mohamed et al. (2008) states that a company's liquidity is generally measured by the cash flow of the company. The payment of cash dividend is not only impacted by the profitability of the company but is also assessed through the free cash flow of the company. Mohamed et al. (2008) also added that a free cash flow comes from the residual cash income of a company after payment of capital expenditure. The results of this research also showed a positive relationship between dividend payout and operating cash flows per share of companies in Malaysia (Mohamed et al., 2008). This is supported by Abor and Amidu (2006) but goes against results of research provided by Gill et al. (2010) and Rehman (2012) which prove negative results against the dividend-payout relationship.

Research shows there is a positive effect between corporate taxation and dividend-payout ratio (Abor and Amidu, 2006; Rehman, 2012). Gill et al. (2010) state that this result is only valid for the manufacturing sector on the US stock exchange, while the service sector has the opposite result.

Positive results in regard to the current ratio of dividend-payout relationship against the company are shown by Rehman (2012). Gill et al. (2010) and Bostanci et al. (2018) found a positive relationship on a market-to-book value, but only in the manufacturing sector alone, and found a negative relationship in regard to the service sector. A positive relationship was also found in Istanbul in the panel data between 2009 and 2015 (Bostanci et al., 2018).

Rehman (2012) states that as the proportions of internal funding (equity) increase over external funding (debt) in the debt-to-equity ratio, a company has more freedom to allocate profits on the dividend payment. This study further shows positive results between debt-to-equity relationship against the dividend-payout ratio (Rehman, 2012).

Amidu and Abor (2006) said that the addition to the level of sales a company achieved by the use of debt funding is because this source is faster than using inadequate internal funding. Because of this, the company's refund obligations that encourage the erosion of a part for the payment of a dividend become larger; in other words, the dividend payout ratio becomes smaller. Amidu and Abor (2006) show a negative result did not affect the company's sales growth and dividend-payout ratios.

The dividend-payout ratio determines the net income of a company that is allocated to the shareholder dividend. The greater allocation of a dividend, the better a company is from an investor's perspective. This in turn increases a company's share price on the market. Positive signals received by investors in regard to the company's ability to generate high profit makes the company of a higher interest for investment, which in turn increases share prices (Abor and Amidu, 2006; Rehman, 2012).

This research refers to research conducted by the Abor and Amidu (2006) and Rehman (2012), where according to Amidu and Abor (2006), on the stock exchange in Ghana, there is the existence of a positive influence between dividend payout and profitability, cash flow, and corporate tax. As for the risks, institutional shareholding, growth, and market-to-book value does not affect the dividend distribution policy. In research carried out on the stock market of Karachi, Rehman (2012) discovered the existence of a positive effect between debt-to-equity ratio, current ratio, profitability, and corporate taxes against the dividend payout ratio. As for the operating cash flow and market-to-book ratio, Rehman (2012) found a negative influence. Similar results were also found in a study produced by Bostanci et al. (2018) on the stock exchange in Turkey, where the dividend payment per share last year, return on equity, market-to-book ratio, market capitalization, and liquidity had positive influence against the dividend payout, while the debt ratio, the company's age, and the insider shareholders, have not been statistically proven to impact dividend payout.

III. METHODS

This research involves companies that are listed on the Indonesia Share Exchange (IDX), operate with green business principles, and have accessible financial reporting data, especially in terms of dividend payments. Secondary data is obtained from the IDX from the year 2017. This research used three models of research to obtain the results. First, to investigate which financial ratios affect the dividend payout. Second, to find the relationship between dividend payout and share price. Third, to find the relationship between financial

ratios that influence dividend payout (from the first model) on the share price. The independent variables used in this research include profitability, operating cash flow per share, corporate tax, current ratio, market-to-book value, debt-to-equity ratio, and sales growth. The dependent variables tested, among others, include dividend payout ratio and share price. The influence between the variables is explained as follows:

Model 1:

$$DPR = a + \beta_1 PROFIT + \beta_2 OCF + \beta_3 TAX + \beta_4 CR + \beta_5 MBV + \beta_6 DER + \beta_7 GROWTH + e \quad (1)$$

Model 2:

$$PRICE = a + \beta_8 DPR \quad (2)$$

Model 3:

$$PRICE = a + \beta_1 PROFIT + \beta_2 OCF + \beta_3 TAX + \beta_4 CR + \beta_5 MBV + \beta_6 DER + \beta_7 GROWTH + e \quad (3)$$

Operational definitions used in the research are as follow:

DPR = *Dividend Payout Ratio*

a = constant

β_1, β_2, β_3, β_4, β_5, β_6, β_7, β_8 = Variable coefficient of PROFIT, OCF, TAX, CR, MBV, DER, GROWTH, and PRICE

PROFIT = *Profitability, EBIT/TA*

OCF = *Operating Cash Flow per share*

TAX = *Corporate Tax*

CR = *Current Ratio, CA/CL*

MBV = *Market-to-Book Value*

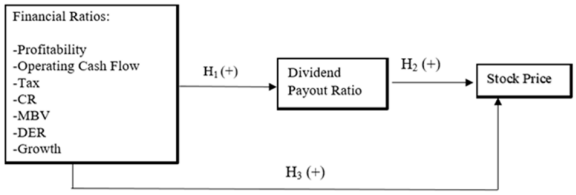
DER = *Debt-to-Equity Ratio*

GROWTH = *Sales Growth*

PRICE = *Share Price*

e = standard error

A. Research Framework



Hypothesis Statement

H_1: All of the financial ratios influence dividend payout ratio positively

H_2: Dividend payout ratio influence stock price positively

H_3: Financial ratios influence stock price positively

IV. RESULTS AND DISCUSSION

Before conducting the regression test, the first step to take is to identify the possible existence of a multicolkolarity correlation between independent variables, i.e. profitability, operating cash flow, taxes, current ratio, market-to-book value, debt-to-equity ratio, and growth. The results of the tests show that there is no correlation between the variables, as displayed in Table 3 below. It is clear that all tolerance value is above 0.10 and all VIF is under 10.

TABLE 3. MULTICOLKOLARITY TEST WITH DIVIDEND PAYOUT RATIOS (DPR) AS THE DEPENDENT VARIABLE

Independent Variable	Tolerance	VIF
Profitability	0.455	2.198
OCF	0.856	1.168
Tax	0.976	1.024
Current Ratio	0.756	1.323
Market to Book Ratio	0.456	2.194
Debt Ratio	0.589	1.698
Growth	0.883	1.132

The next step is to prove the hypothesis using a regression test. The regression test is carried out in various phases in accordance with the hypothesis. First, the regression test is conducted to identify which financial ratio affects the dividend payout ratio or is a determinant of the dividend payout ratio. Second, a regression test is done to assess the influence of the dividend payout relationship upon the stock (share) price. Third, a regression test is carried out to find the influence of the ratio of dividend payout determinant finances on the stock price. Summary of the regression test results are shown in Tables 4, 5, and 6, as follows:

TABLE 4. REGRESSION TEST RESULTS BETWEEN FINANCIAL RATIOS WITH DIVIDEND PAYOUT RATIOS (DPR)

Independent Variable	Standardized Coefficient Beta	p-value
Constant	18.871	0.022
Profitability	0.409	**0.006**
OCF	0.299	**0.006**
Tax	0.011	0.915
Current Ratio	0.112	0.325
Market to Book Ratio	0.038	0.796
Debt Ratio	0.019	0.147
Growth	-0.125	0.233
Adjusted R-square	**0.283**	
F-test (p-value)	**0.000**	

Regression model is as follows:

DPR= 18.871 + 0.409 Profitability + 0.299 OCF + 0.011 Tax + 0.112 CR + 0.038 MBV + 0.019 DER

-0.125 Growth

TABLE 5. REGRESSION TEST RESULTS BETWEEN DIVIDEND PAYOUT RATIOS (DPR) AND SHARE PRICE

Independent Variable	Standardized Coefficient Beta	p-value
Constant	-1201.786	0.45
DPR	0.408	**0.00**
Adjusted R-square	**0.155**	

Regression model is as follows:

Price = -1201.786 + 0.408 DPR

TABLE 6. REGRESSION TEST RESULTS BETWEEN DETERMINANT OF DIVIDEND PAYOUT RATIOS (DPR) AND SHARE PRICE

Independent Variable	Standardized Coefficient Beta	p-value
Constant	-225.034	0.813
Profitabiliy	0.328	**0.000**
OCF	0.535	**0.000**
Adjusted R-square	**0.486**	
F-test (p-value)	**0.000**	

Regression model is as follows:

Price = -225.034 + 0.328 Profitability + 0.535 OCF

Based on the results of the regression test between financial relations and the dividend-payout ratio, the variables of profitability and operating costs are shown to affect dividend of the payout ratio (p value of 0000). The second regression coefficients of these variables sequentially are at 0409 and 0299. After identifying the determinants of dividend payout ratio, the next step would be to assess the impact of the dividend payout ratio (DPR) on the stock prices. The results of a regression test show that the DPR affects stock prices (p value of 0000). The next regression test is conducted with the aim to identify the effect of factors of DPR, namely the profitability and operating cash flow, on the the stock price. Based on the regression test, it is shown that both variables affect the stock prices (p value of 0000). The F-test shows that all financial relationships influence the DPR and in turn, the stock price. Regarding the provision of coefficient, the most influential variables are profitability and OCF against the stock price, at 48.6%. The value of R^2 becomes larger which means there is a greater ability of the independent variable to clarify the dependent variable, and also means that better regression models were used.

Dividend payout ratio shows that the percentage of the net gains is distributed in the form of dividends. The influence of profitability and operating cash flow on the direction of the dividend payout ratio is positive, which means that when the profitability of a company increases, the dividend payments will also increase. Similarly, an increase in operational cash flow will lead to an increase of the dividend spread. A business entity that has a higher profitability has a larger ability to pay dividends when compared to a business entity with a low profitability. This happens particularly when businesses are at the stage of maturity where investment opportunities are shrinking, which leads to greater dividend payments. Operational cash flows indicate good financial performance and certainly can be a factor affecting the size of the verdict dividends. The regression coefficients indicate a positive value which means that if the dividend ratio increases, the stock price will also increase. Investors perceive companies that distribute or increase dividends in large quantities in a positive light.

Investors assume that a business entity with high profitability will also have a strong cash flow. This is consistent with the results of the regression test which indicates that the profitability and operating cash flow of a business have a positive effect on stock prices. In addition, a regression comparison model of profitability and operating cash flow in regard to the stock price has statistically the largest coefficient of determining. This means that the stock price variation is explainable by the variation of profitability and operating cash flow. This variation was quite large, and even larger when compared to the ability of the aspect of dividends in explaining the variations of stock price.

V. CONCLUSION

It can be concluded that there are similarities in the determinants of dividend size and stock price. Determinants of dividend include size of profitability and operational cash flow, which in turn affect stock prices. Profitability and operational cash flow directly affect stock prices and all signs of the regression coefficient have indicated a positive relationship. This means that there is a synchronization between the indirect influence of profitability and operational cash flow on dividends and between dividend and the stock price. There is also a direct influence between profitability and operating cash flows and the stock price.

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