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Research Paper

Does Dividend Payment Generate a Market Signal to Investors?

Farida Farida[1], Nur Wahyuni[3], Venus F Firdaus[3], Mery Wanialisa[4], Rahayu Endang Suryani[5], Nursina Nursina[6]

[1,2,3,4,5,6] Universitas Persada Indonesia Y.A.I, Indonesia

Abstract

In perfect market theory, the information will provide signals that are reflected in stock price movements. In the context of dividend payments, these theories are still debatable. Dividend payments will please shareholders as prosperity increases. But not sharing profits can also give a positive signal. The purpose of this study is to see if dividend payment able to give a positive signal on rising stock prices. The research will also look at whether profitability, leverage, asset growth, and interest rates also signal rising stock prices. Logistic regression analysis is applied to answer the research objectives. Purposive sampling is based on retail companies that specialize in the category of supermarkets and minimarkets that have been listed on the Indonesia Stock Exchange for the period 2013 to 2022. The results of this research conclude that dividend payments give a positive signal on rising stock prices. The chance of a stock price increase is 4.7 times compared to a company that does not pay dividends. Interest rates also inform investors to be careful in making investment decisions. Investors are only willing to bear additional risk if the expected profit is above the risk premium. Information on the company's financial performance such as profitability, leverage, and asset growth is not significant on the increase in stock price. This means that it does not provide signals for investors.

Keywords: *Dividend Theory, Signaling Theory, Premium Risk, Logistic Regression*

INTRODUCTION

Stock market analysts often read signals that occur from both fundamental and macro factors. One factor that often concerns investors and market analysts is the payment of dividends by companies. A dividend payment is an amount of money distributed to shareholders as part of a company's profits. This means that the company must make a profit as a mandatory condition. However, companies that benefit do not necessarily distribute dividends to shareholders. Dividend payment is a corporate action decided together in the general meeting of shareholders. Usually, companies that have many strategic business plans will delay dividend payments or only provide a small part of the dividend.

In this context, the relationship between stock movements and dividend payments has been the subject of interesting research. Many investors use dividend payments as an important market signal for making investment decisions. They believe that companies that regularly pay consistent dividends demonstrate financial stability and good performance.

One of the assumptions behind this relationship is the relationship between a company's dividend payment decisions and its financial health. Companies that can pay high and consistent dividends tend to have strong cash flow and stable profits. This can affect investors' perception of the company's prospects and, consequently, affect the stock price.

In addition, dividend payments can also provide direct benefits to shareholders. The dividends received can be used for a variety of purposes, such as return on capital or reinvestment. Shareholders who earn dividends can feel more confident and tend to maintain or increase their position in the stock market. This can put additional pressure on the stock price, which in turn can be a signal to other investors. Shareholders prefer income received now over future ones.

However, it is important to remember that the relationship between stock movements and dividend payments is not the only factor that affects stock prices. There are many other variables to consider, such as macroeconomic conditions, industry performance, monetary policy, and various other fundamental and technical factors. Therefore, it is important to conduct a comprehensive analysis and consider all relevant factors before making an investment decision. In addition to the benefits in the form of dividends, the company's profitability, leverage level, and asset growth are interesting to study. Interest rates as one of the macro factors also often provide direct market signals. Research on fundamental factors of companies and macroeconomics has indeed been carried out. However, it is interesting to see how likely dividend payments will be to provide market signals compared to other factors.

In this context, further research into the relationship between stock movements and dividend payments can provide valuable insights for investors and market analysts. With a better understanding of this relationship, they can make more informed investment decisions and take advantage of the market signals provided by dividend payments.

LITERATURE REVIEW

The stock market has an important role in global economic activity, and many factors influence stock price movements. Several theories try to explain the link between dividend payments and stock prices. The following are some commonly discussed theories:

First, Signaling Theory argues that dividend policy can be used as a cue by a company's management to investors to communicate information about a company's financial condition and prospects. If the company announces a dividend increase, this can be considered a sign that management believes that the company has positive growth projections. Conversely, if the company reduces dividends or does not pay dividends at all, this can be taken as a signal that management feels uncertain about the company's prospects. In this theory, higher dividend payments or dividends can lead to an increase in stock prices.

The second theory is the dividend Replacement Theory. It states that if a company does not distribute dividends, investors can create their own cash flow instead of dividends. Investors can sell a portion of the stock to generate cash flow. In this theory, dividend payments do not directly affect the stock price because investors can create their own "artificial dividends".

The third theory is the Dividend Irrelevance Theory. This theory was put forward by Modigliani and Miller in 1961. They argue that, under ideal assumption conditions, a company's dividend policy does not affect the company's value and share price. According to this theory, investors don't care about whether a company pays dividends or not, because they can generate their cash by selling some of their shares if needed. However, this theory is based on some assumptions that are not always met in real practice, such as the absence of taxes, the assumption of efficient markets, and zero transaction costs.

The fourth theory related to dividend payments is Investment Opportunity Theory. This theory argues that companies that have good investment opportunities tend to choose to retain the profits for use in future investment projects. In this case, the company may choose not to pay dividends or pay lower dividends. Investors appreciate this investment opportunity and therefore, stock prices can increase despite low or no dividend payments.

Some of the above theoretical approaches to the relationship between dividend payments and stock prices are still a topic of research and debate in finance. Other factors such as profitability, leverage, asset growth, and macro conditions can also influence this relationship.

RESEARCH METHOD

Sampling in this study is included in non-probability sampling, namely purposive sampling. The total population is 41 companies. They are all companies on the Jakarta Stock Exchange in the retail sector during the period 2013 to 2022. From a total of 41 companies, 6 retail companies were selected that specialize in minimarkets and supermarkets.

Quantitative methods with binary logistic analysis techniques were applied in this study. For response variables use a nominal measurement scale in the form of a dummy. A value of 1 represents the rising stock price and 0 for other indicators. If $P(Y=1|Xi) = P(Xi)$, then the logistic regression model is (Farida et al., 2015);

$$g(X_i) = In \frac{P(Xi)}{1-P(Xi)}$$

As for the explanatory variables, using categorical or continuous data (Farida et al., 2016) and dummy modifiers represent dividends. Dividend payments are represented by a value of 1, and 0 for others. In addition to dividends, other explanatory modifiers are ROA (return on assets) for profitability, DER (debt to equity ratio) for leverage, asset growth, and BI rate. The logit transformation model is as follows;

$$g(x_i) = \beta_1 + \beta_2 ROA + \beta_3 DER + \beta_4 AG + \beta_5 \text{BI-rate} + \sum_{k=1}^{kj-1} \beta_6 Dummy \text{ (Dividend payments)}$$

In addition to logit efficiency, a tendency value or odds ratio is also issued when data running.

FINDINGS AND DISCUSSION

This study uses panel data types. Total observations are 60, that is, 6 companies over 10 years. Of this total (Table 1), there were 38 times (63.33%) shares experienced price increases. While 22 times (36.67%), the stock declined. During those 10 years, there were 34 times that issuers paid dividends (56.67%). The remaining 26 times (43.33%) companies did not pay dividends.

Table 1. Stock Price Movement and Dividend Payment

Stock price:	Frequency	Percentage (%)
Increase	38	63.33
Other	22	36.67
Dividend:		
Paid	34	56.67
Not paid	26	43.33

Source: Data processed, 2024

For the description, variables in the study (Table 2) show that the average ROA is 0.63 percent. On average over the past ten years, the retail industry has experienced difficult conditions. Since covid 2019, many have suffered losses due to declining sales, while operational costs have increased. The company suffered a loss, as seen in the lowest ROI ratio reaching minus 25.17 percent. While the maximum ROA ratio is only 9.9 percent.

The average DER variable of the total 60 observations was 268%. This means that debt financing dominates compared to equity. This value indicates the company's capital structure is at risk, if not offset by a greater increase in revenue compared to the interest costs to be paid. In contrast, the average growth of the company's assets is only 14.7 percent, far below the DER. This means that the increase in capital structure financed from debt is not able to increase the company's

wealth. The fundamental macro factor in this study involves interest rates. The interest rate (BI_rate) reflects the willingness of investors to invest. The average interest rate over the 10 years of observation was 5.4 percent. This interest rate indicates the risk-free income that the investor will receive. So that the expected return by investors must be above the risk premium.

Table 2. Descriptive Analysis Result

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	60	0.0063	0.079	-0.252	0.099
DER	60	2.69	4.091	0.0002	23.42
Asset growth	60	0.1474	0.557	-0.2054	4.23
BI rate	60	5.46	1.361	3.521	7.54

Source: Data processed 2024

Based on the processed logistic regression (Table 3), the likelihood ratio value of 13.96 with Prob > chi2 is 0.0159. This value is less than 0.05. This means that simultaneously, 5 independent variables (ROA, DER, asset growth, BI rate, and dividend payments) can explain or predict stock price increases. For a partial test look at the Prob > chi-square of each independent variable. The independent variables ROA, DER, and asset growth are respectively 0.46, 0.345,0.642. This value is greater than 0.05, meaning that each of these variables does not significantly affect the increase in the company's stock price. The BI rate with a confidence level of 95% indicates 0.07 or greater than 0.05. This means that the BI rate does not significantly affect the increase in stock prices, but at a confidence level of 90%, it is stated to be significant. For variable dividend payments, it show a significant influence on the increase in stock prices.

Table 3. Output of logistic regression

Logistic regression		Number of obs =		60
		LR chi2 (5) =		13.96
		Prob > chi2 =		0.0159
		Pseudo R2 =		0.1770
Log likelihood = -32.4501454				
Stock price_d	Coefficient	Odds ratio	Z	P>|z|
ROA	3.383	29.445	0.73	0.468
DER	-0.086	0.917	-0.94	0.345
Asset growth	0.549	1.732	0.47	0.642
BI rate	-0.454	0.635	-1.80	0.072**
Dividend_d	1.55	4.72	2.12	0.034*
_cons	2.415	11.192	1.65	
*0,05, **0,1				

Source: Data processed 2024

Although it does not significantly affect the increase in stock price, the ROA coefficient shows a positive value, meaning that companies that can increase profits will increase stock prices. In this study, the company's profitability is not able to provide signals to investors. The DER coefficient indicates a negative value. This means that the higher the company's debt, the stock price will fall. The third independent modifier, the value of the coefficient for asset growth is positive. The higher the growth of the company's assets, the stock price will rise. Likewise, the BI_rate coefficient indicates negative. This means that the higher the interest rate, the stock price will fall. People prefer to invest in the money market because the expectation of return is high and risk-free. In conditions of market uncertainty, such as during Covid, investors will be more cautious. Unstable

interest rates will signal investors in the capital market.

Dividend payments have a positive coefficient. In this study, dividend payments significantly affected stock prices. Companies that pay dividends have a chance of stock prices rising by 4.7 times compared to companies that do not pay dividends. Although the company makes a profit, it is not necessarily a company that distributes profits. Dividend payments can give positive signals to investors. So if the company pays dividends, the stock price is predicted to rise.

The goodness of fit test for logistic regression from Table 3 is Pseudo R square. The result of the Pseudo R square is 0.177. This indicates that the independent variable is only able to explain the dependent variable by 17.7 percent. This value is small, but it doesn't mean it's not good. Because Pseudo r square is not a natural interpretation, but only an imitation to replace r square in OLS. The pseudo r square in logistic regression is not a priority. As long as statistical testing Z shows significant results and is by economic theory in general, it is considered a viable model rather than a pseudo r square.

CONCLUSIONS

The performance of companies listed on the stock exchange, and macro fundamental conditions are signals that help investors in making decisions. However, in stock trading transactions, often decisions related to financial performance are overlooked. It is proven that many studies related financial performance with stock price movements do not produce consistent results. Of the five variables, performance indicators such as profitability, leverage level, and asset growth proved not to significantly affect the movement or increase in stock prices. Only dividend payments can give a positive signal to the increase in stock price. Dividend payments provide a 4.7 times chance of the share price rising compared to companies that do not pay dividends. This means that every time the company announces that it will distribute dividends, investors can predict that the stock price will rise.

The interest rate as one of the macroeconomic variables in this study is also able to provide signals for investors to make decisions. Investors will be careful in making investment decisions if the interest rate is high. The expected rate of return from a risk-free investment is an indicator of whether the stock price will rise or fall. Investors will invest if the expected profit is above the risk premium.

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