Stock Returns Analysis with Dividend Policy as an Intervening Variable in Idx30 Index Companies on the Indonesia Stock Exchange

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ABSTRACT: Stock Returns is the profit the investor obtains for investing in a company. Shareholders or investors in their investments can get a return offered by a stock in the form of capital gains (the difference between the selling value and the purchase value) and dividends. This study aimed to determine whether the influence of the Leverage Ratio and Market Ratio can contribute to Stock Returns with Dividend Policy as an intervening variable in IDX30 Index Companies listed on the Indonesia Stock Exchange. The population in this study were all IDX30 Index companies listed on the Indonesia Stock Exchange. The sample selection in this study used Probability Sampling, namely the purposive sampling method. The samples in the study amounted to 15 companies based on specific criteria for 2019-2022. The type of data in this study uses quantitative data. Data analysis technology in this study uses path analysis. The results showed that Leverage can contribute to increasing Stock Return, Market Ratio can contribute to increasing Stock Return, Leverage can contribute to increasing Stock Return through Dividend Policy, and Market Ratio can contribute to increasing Stock Return through Dividend Policy.

KEYWORDS: Leverage, Dividend Policy, Market Ratio and Stock Returns.

I. INTRODUCTION

One of the capital markets operating actively in Indonesia is the Indonesia Stock Exchange (IDX). The IDX is the result of the Jakarta Stock Exchange (BEJ) merger with the Surabaya Stock Exchange (BES). In general, people/investors can invest in the capital market. The main objective of investors investing is to obtain the maximum rate of return (return) at a specific risk or with minimum risk (Husnan in Susanty and Bastian, 2018). In investing their capital (investment), investors need to know the rate of return on their investment. Therefore, making investment decisions must be distinct from the main objectives of the investment activity itself (Yuninggisih et al., 2019).

In this study, the investment instruments that will be discussed are those in the form of shares in the IDX30 Index. IDX30 index stocks have a large volume of stock trading, high market capitalization is supported by good company fundamentals and have the ease or possibility to meet their short-term obligations, such as accounts payable, dividends, taxes and others.

Table 1.1 Average Stock Returns of IDX30 Index Companies in 2019-2022

<table>
<thead>
<tr>
<th>Stock Name</th>
<th>Stock Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Total</td>
<td>-4,6</td>
</tr>
<tr>
<td>Average</td>
<td>-0,15</td>
</tr>
</tbody>
</table>

Source: IDX, 2023 (data processed)

In the 2019-2022 period, stock returns on the IDX30 Index experienced fluctuating levels caused by macro and micro factors. Macro factors include economic levels, interest rates, legal events, and social events that cause stock prices to fluctuate. Micro factors, for example, income, that the company's stock price will follow the company's income or ability to make a profit. Return is the result obtained from its investment in capital gains (the difference between the selling value and the purchase value) and dividends (Nurmawan & Nur, 2022). In making investment decisions, investors prefer stocks that provide high returns. Therefore, investors need various information for decisions, such as conducting technical and fundamental analyses. Fundamental analysis
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estimates future stock prices by estimating the value of fundamental factors. One uses financial ratios such as Leverage Ratio, Market Ratio and Dividend Policy. Leverage describes a company’s ability to fulfill and maintain its ability always to fulfill its obligations to pay debts promptly (Fahmi, 2018). This leverage ratio compares the company’s overall debt burden to its equity (Pradani et al., 2021). In other words, this ratio shows how much of the company’s assets are owned by shareholders compared to those owned by creditors (debtors). The concept of the Leverage ratio is critical, mainly to show financial analysis in seeing the trade-off between risk and return of various types of decisions. The balance between risk and return can maximize the stock price. Investors’ profits will increase if the stock price rises (Brigham & Houston, 2018). In this study, the leverage ratio is proxied by the Debt Equity Ratio (DER). Debt to Equity (DER) is a ratio used to measure the proportion of debt to capital. This ratio is the quotient between total debt and capital (Hery, 2017). Market ratios consider the share price with profit or turnover, book value per share, and the company's cash flow. According to Fahmi (2018), the market value ratio assesses stock market conditions in a certain period. This ratio relates the share price to profit and book value price. The demand and supply of the relevant shares on the stock exchange market determine this value. According to Suwaidi and Artanto (2021), if the ratio value obtained is low, the company's management has not satisfied shareholders successfully and vice versa. If the ratio value obtained is high, the benefits for shareholders and high returns increase. This study proxies the Market Ratio by earnings per Share (EPS). Earning Per Share compares net profit after tax in one financial year and the number of shares issued. Hery (2017) argues that EPS can be used as a ratio to measure management success in providing returns for investors who own common shares. According to Martono & Harjito (2018), dividend policy is a decision whether the profit earned by the company will be distributed to shareholders as dividends or retained in the form of retained earnings for future investment financing. Dividend Policy / DPR compares the amount of part of the company's income that will be distributed to shareholders (Purba, 2019). Based on signal theory, the relationship between DPR and stock returns is positive, meaning that a high DPR certainly causes the value of its share price to increase. This increase also boosts the demand for these shares, increasing the share price and resulting in a positive return (Amarjit in Suwaldiman, 2018).

II. STUDY OF THEORY AND HYPOTHESES

A. Signaling Theory
According to Brigham & Houston (2019: 500), the signal theory is an action taken by company management that can provide clues to investors about how management views the company's prospects. Suppose the information is a good signal for investors. In that case, any relevant information about the issuer will be quickly absorbed by the market, and the market will quickly express it in the form of changes in stock prices in the capital market. If the current stock price is higher than the previous one, the stock growth has increased, which means it will get a stock returns.

B. Markowitz Portfolio Theory
According to Sugiyani (2019), Markowitz suggests that an efficient portfolio needs to be applied, which means looking at the highest level of return that can be returned. With certain assumptions, portfolio theory produces a linear relationship between risk and return. The greater the risk of an investment or loan, the greater the desired rate of return to cover that risk (Adnyana, 2020). Forming a portfolio with this model provides an advantage where each investor can utilize all the information provided in the market (Giharta & Sedana, 2017).

RESEARCH MODEL

![Research Theoretical Framework](image)

Hypothesis
H1. Leverage has a positive effect on stock returns.
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H2. Market Ratio has a positive effect on stock returns.
H3. Leverage has a positive effect on stock returns Through Dividend Policy.
H4. Market Ratio has a positive effect on stock returns Through Dividend Policy

III. RESEARCH METHODS

This study uses quantitative data types, namely data containing information in the form of numbers derived from secondary data. The population used is all IDX30 index companies listed on the Indonesia Stock Exchange, as many as 30. Using the purposive sampling method resulted in a sample size of 15 companies with an observation period of 4 years, so the number of observations in this study was 60. The data source used in this study is data obtained from the Indonesia Stock Exchange (IDX) in the form of financial statement data company annual reports. The data collection technique used is using the Documentation method. The analysis method used is the path analysis method.

IV. RESEARCH RESULTS AND DISCUSSION

A. RESEARCH RESULTS

Table 1. Outliers Test Results

There are outliers if Mahal. Distance Maximum > Prob. and the number of variables [=CHIINV(0.001;4): searched through Excel] = 18.466

<table>
<thead>
<tr>
<th>Residuals Statistics^a</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>-4,1668</td>
<td>63,0984</td>
<td>41,0740</td>
<td>9,88948</td>
<td>60</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-4,575</td>
<td>2,227</td>
<td>.000</td>
<td>1,000</td>
<td>60</td>
</tr>
<tr>
<td>Standard Error of Predicted Value</td>
<td>713</td>
<td>3,656</td>
<td>1,210</td>
<td>.591</td>
<td>60</td>
</tr>
<tr>
<td>Adjusted Predicted Value</td>
<td>-4,7428</td>
<td>68,5379</td>
<td>41,1805</td>
<td>10,18035</td>
<td>60</td>
</tr>
<tr>
<td>Residual</td>
<td>-6,73059</td>
<td>21,82531</td>
<td>.00000</td>
<td>4,65363</td>
<td>60</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-1,402</td>
<td>4,547</td>
<td>.000</td>
<td>.970</td>
<td>60</td>
</tr>
<tr>
<td>Stud. Residual</td>
<td>-1,886</td>
<td>4,666</td>
<td>.010</td>
<td>1,011</td>
<td>60</td>
</tr>
<tr>
<td>Deleted Residual</td>
<td>-12,17006</td>
<td>22,98034</td>
<td>.10651</td>
<td>5,10496</td>
<td>60</td>
</tr>
<tr>
<td>Stud. Deleted Residual</td>
<td>-1,940</td>
<td>6,300</td>
<td>.026</td>
<td>1,186</td>
<td>60</td>
</tr>
<tr>
<td>Mahal. Distance</td>
<td>123</td>
<td>18,031</td>
<td>2,941</td>
<td>5,177</td>
<td>60</td>
</tr>
<tr>
<td>Cook’s Distance</td>
<td>.000</td>
<td>.718</td>
<td>.027</td>
<td>.107</td>
<td>60</td>
</tr>
<tr>
<td>Centered Leverage Value</td>
<td>.002</td>
<td>.561</td>
<td>.059</td>
<td>.104</td>
<td>60</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Stock Returns (Y)

The outlier test analysis of the data shows a Mahal value. The maximum distance is 18.031. This is below the outlier limit of 18.466, indicating no outliers in the data to be investigated. This data is considered to be of good quality and can be analyzed further with a total of 60 samples.

Regression Analysis

Modeling with structural equations:

Table 1. Equation Structure Test 1

<table>
<thead>
<tr>
<th>Coefficients^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardized Coefficients</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>DER (X1)</td>
</tr>
<tr>
<td>EPS (X2)</td>
</tr>
</tbody>
</table>

a. Dependent Variable: DPR (Z)

DPR (Z) = 0.055 + 0.002 X1 + 0.123 X2 + e
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Table 2. Equation Structure Test 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>52,901</td>
<td>1,244</td>
</tr>
<tr>
<td>DER (X1)</td>
<td>0.283</td>
<td>0.098</td>
</tr>
<tr>
<td>DPR (Z)</td>
<td>19,102</td>
<td>8,832</td>
</tr>
<tr>
<td>EPS (X2)</td>
<td>68,143</td>
<td>5,427</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Stock Returns (Y)

\[ Y = 52,901 + 0.283X1 + 19,102Z + 68,143X2 + e \]

Calculating Path Coefficient

Model Path Coefficient 1

Referring to the regression output of the first equation model in the coefficients table section, it can be seen that the significance value of the two variables is Leverage = 0.000 (< 0.05) and Market Ratio = 0.000 (< 0.05), these results provide the conclusion that Regression Model I, namely the variable Leverage has a significant effect on Dividend Policy and Market Ratios have an effect on Dividend Policy. The R Square value in the model summary table is 0.730. Meanwhile, the value of \( e_1 \) can be found using the formula \( e_1 = \sqrt{1 - 0.730} = 0.520 \). Thus, the path diagram of structure model I is obtained as follows:

Model 2 Path Coefficients

Based on the regression output of the second equation model in the coefficients table section, it can be seen that the significance value of the three variables is Leverage = 0.006 (< 0.05), Market Ratio = 0.036 (< 0.05) and Dividend Policy = 0.000 (< 0.05), these results provide the conclusion that Model II Regression, namely that each variable has a significant effect on Stock Returns. The R Square value in the model summary table is 0.819. Meanwhile, the value of \( e_2 \) can be found using the formula \( e_2 = \sqrt{1 - 0.819} = 0.425 \). Thus, the path diagram of structure model II is obtained as follows:

Partial Test (t Statistical Test)

Hypothesis Testing 1

Based on the t-test results, the significant value of Leverage is 0.006. The significant value of Leverage is smaller than the expected significance (0.05), indicating that the Leverage variable has a positive and significant effect on Stock Returns in IDX30 Index companies listed on the Indonesia Stock Exchange for the 2019-2022 period.
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Hypothesis Testing 2
Based on the t-test, the Market Ratio value is 0.000. The significant value of the Market Ratio is smaller than the expected significance (0.05), indicating that the Market Ratio variable has a positive and significant effect on Stock Returns in IDX30 Index companies listed on the Indonesia Stock Exchange for the 2019-2022 period.

Hypothesis Testing 3
According to the results of the t-test, the indirect effect obtained a value of 0.289 is greater than the direct effect of 0.192, indicating that the Leverage variable has a positive effect on Stock Returns through Dividend Policy in IDX30 Index companies listed on the Indonesia Stock Exchange for the 2019-2022 period.

Hypothesis Testing 4
According to the results of the t-test, the indirect effect obtained a value of 0.935 is greater than the direct effect of 0.833, indicating that the Market Ratio variable has a positive effect on Stock Returns through Dividend Policy in IDX30 Index companies listed on the Indonesia Stock Exchange for the 2019-2022 period.

B. Discussion
The Effect of Leverage on Stock Returns
Based on the results of hypothesis testing that researchers have carried out, the DER ratio influences stock returns, so the first hypothesis can be accepted by stating that the leverage ratio proxied by DER can contribute to stock returns.

This result shows that investors have different perspectives on DER. DER is a ratio analysis that shows the debt ratio. Such a debt ratio is more reflective of the company’s relatively high risk, which creates stock price uncertainty and affects the stock return received by investors. Some investors who like to take risks (risk seekers) tend to choose stocks with high DER levels. The higher DER indicates that the capital structure uses more debt than equity. This is so that the company can pay all its debts. These investors view DER as a company that is responsible to third parties, namely creditors. Therefore, if the DER value is higher, the company's responsibility will increase (Anjani, 2016).

Developing and growing companies need financial resources to finance their company activities. Companies need a lot of operational funds and cannot be covered by company equity alone. Debt is a source of financing for companies. Financing can be obtained from internal or external equity (Yuniningsih et al., 2019). The use of debt is increasing, which can be seen from the large increase in the debt-to-equity ratio. Obtaining financing through debt allows the company's shareholders to maintain control of the company with limited investment. From investments financed with borrowed funds, the company earns higher income compared to interest payments, so the return on capital for shareholders will be higher (Bambang, 2017).

The results of this study are supported by research conducted by Alfani & Takarini (2021) and Pratama & Nur (2022), which state that the DER variable has an effect on stock returns.

The Effect of Market Ratios on Stock Returns
Based on the results of hypothesis testing that researchers have carried out, the Market ratio has an influence on stock returns, so the second hypothesis can be accepted by stating that the market ratio proxied by EPS can contribute to stock returns.

Investors invest based on the motive to get a large return. A high EPS reflects the yield or income shareholders receive from each share. Investors must consider factors before investors decide to invest. For investors, Earning Per Share (EPS) information is considered the most basic and useful information because it can describe the future revenue prospects of a company. Moreover, as a measure of the company’s success in generating profits and prospering its shareholders (Fitri & Wikartika, 2022). The higher the earnings per share, the higher the investor’s thinking about the company’s future success, so investors will be more willing to buy shares at a higher price to get a higher return from the shares.

In theory, a company’s large EPS makes investors interested in investing in the company. The increased demand for shares causes higher stock prices (Hidayati & Suwaidi, 2022). and ultimately higher stock returns (Artanto & Suwaidi, 2021). This test is based on Sitompul's public offering capital market theory and its problems, which state that earnings per Share (EPS) is used to determine the stock price. If earnings increase, the stock price increases, the increase in stock price can increase stock returns.

The results in this study are supported by research conducted by Asrini (2020) and Nurman & Nur (2022), which state that EPS significantly affects stock returns.

The Effect of Leverage on Stock Returns through Dividend Policy
Based on the results of hypothesis testing, there is an indirect effect of the leverage ratio on stock returns through dividend policy. It can be concluded that dividend policy is an intervening variable for the leverage ratio on stock returns. So, the third
hypothesis is accepted. This means that the dividend payout ratio (DPR) variable can mediate the effect of the leverage ratio (DER) on stock returns in companies listed on the IDX30 index in 2019-2022. An increase in debt affects the amount of net income available to shareholders. The higher a company’s debt, the lower its ability to pay dividends. Similarly, a company with a lower DER means it has less debt. Low debt levels are seen to increase company profits. If a company’s profit increases, then its dividends will also increase. This increase in dividends also has an impact on increasing stock returns (Fitri, 2017).

Increasing or decreasing debt will affect the amount of net income, including dividends received by shareholders because debt repayment obligations take precedence over dividend distribution. Higher dividends naturally lead to higher share prices because investors are more confident that their investment will be paid in dividends. This increase also increases the demand for these stocks, thus causing higher stock prices and having an impact on positive returns (Darmayuda, 2022).

The results in this study are supported by research conducted by Cahyaningrum et al. (2022) and Anismawati (2019), which found that Dividend Policy (DPR) can moderate Leverage (DER) on Stock Returns.

The Effect of Market Ratios on Stock Returns through Dividend Policy

Based on the results of hypothesis testing, there is an indirect effect of the market ratio on stock returns through dividend policy. It can be concluded that dividend policy is an intervening variable for market ratios on stock returns. So, the fourth hypothesis is accepted. This means that the dividend payout ratio (DPR) variable can mediate the effect of market ratio (EPS) on stock returns in companies listed on the IDX30 index in 2019-2022.

IDX30 index companies are one of the fastest growing indices on the Indonesia Stock Exchange, with the highest number of shares sold. This can be seen from the number of companies included in the IDX30 index, which is rigorously evaluated periodically every period. The role of the IDX30 Index in the capital market is to be used as a passive investment product, such as index mutual funds, ETFs, a proxy for measuring and modelling investment returns, systematic risk, and an asset class proxy in asset allocation—or an active portfolio benchmark. Therefore, the companies included in the IDX30 index are still companies that investors are watching closely.

Earnings per Share is an indicator of the form of share profits owned by shareholders. High earnings per Share indicate that a company is growing and needs additional capital (Fitri & Wikartika, 2022). When foreign capital comes in, profits are distributed as dividends, thus increasing the dividend payout ratio. Regular dividend increases to investors create a positive view of the company in the stock market. From this positive view, it will increase the demand for company shares and increase stock returns (Kusumawati, 2019).

The “bird in the hand” theory states that investors actually value expected returns from dividends more than returns from capital gains because the risk associated with dividend income is lower. Therefore, the optimal dividend policy for a firm maximizes share price by balancing current dividends and future growth. When the stock price rises, the greater the return earned by shareholders each period (Merinda & Pertwi, 2019).

The results in this study are supported by research conducted by Andriyani et al. (2021) and Asrini (2020), which found that Dividend Policy (DPR) can moderate Market Ratio (EPS) on Stock Returns.

CONCLUSIONS

Based on the research results carried out by conducting data collection and processing stages, the following conclusions can be drawn: (1) Leverage can contribute to increasing Stock Returns. This shows that some investors take risks by choosing stocks that have high DER values. These investors view the DER scale as a form of corporate responsibility. When the DER value is higher, it will increase the company’s dependence on returning capital to shareholders.; (2) Market Ratio can contribute to increasing Stock Returns. This shows that the size of EPS affects a company’s future success. The higher the EPS, the greater the company’s success in the future, which in turn will cause the stock price to increase and the higher the stock return.; (3) Leverage can contribute to increasing Stock Returns through Dividend Policy. Dividend Policy can increase Stock Returns when Leverage is high and decrease Stock Returns when Leverage is low.; (4) Market Ratio can contribute to increasing Stock Returns through Dividend Policy. A dividend Policy can create a balance between current dividends and future growth to maximize stock prices and increase stock returns.

SUGGESTION

Based on the results of research and discussion as well as some conclusions and limitations in this study, the researcher can provide the following suggestions: The movement of the DER ratio must concern company management because an increase or
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decrease in DER significantly affects stock returns. The company's revenue or profit must concern the company's management because investors are more interested in investing in companies with significant revenues. After all, the company is seen as having greater future success. The use of the company's debt payment rate must be a concern because it will have an impact on dividend payments to investors, where the increase or decrease in debt will ultimately affect the size of net income. High dividends will cause the value of the share price to increase, with an impact on high returns. The company's management must pay attention to the balance between current dividends and future growth because it will affect the share price, which impacts returns. It is hoped that future researchers can increase the research period, add other variables that are not included in this study regarding the factors that influence stock returns and expand the research objects from various sectors and indices listed on the Indonesia Stock Exchange.

REFERENCES

Stock Returns Analysis with Dividend Policy as an Intervening Variable In IDX30 Index Companies on The Indonesia Stock Exchange


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