Determinan Return Saham
THE DETERMINANTS OF STOCK RETURNS

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ARTICLE INFORMATION

ABSTRACT
This study aims to determine the effect of ROA, CR, PBV and MVA through a quantitative approach. The research population is LQ-45 Index company. Purposive sampling was used as a sampling technique with the criteria of LQ-45 companies that published financial reports on the Indonesia Stock Exchange in 2001-2020, thus the sample that met the criteria consisted companies. The analysis technique used multiple linear regression with panel data with the help of Eviews 11 software. The result of the study prove that the ROA, PBV and MVA variables have effect on stock returns, while beta and ROA variables have no effect on stock returns. Investors companies that are their investment target, because these ratios have been proven to affect stock returns.

Keywords: Beta, ROA, CR, PBV, MVA

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INTRODUCTION

The COVID-19 pandemic experienced by all the people of the world and Indonesia certainly has hampered the movement of people, the economy, politics and so on. Recently, the government set a new normal so that some policies were changed and relaxed, including in the investment world. In the financial environment of the COVID-19 pandemic, investors must be more careful in their investment portfolio (Tambunan, 2020). However, this actually has a positive impact on the development of the number of investors. OJK (2021), stated that the number of investors increased by 57.2% and shares 59.14% from 2020. However, throughout 2020, the JCI was at its lowest point at 3,937 which had an impact on the decline of all indexes (Faisal, Hasanah and Adam, 2021).

In the investment process, of course, investors want a return or referred to as a stock return that is in accordance with what they expect (Legiman, Tommy and Untu, 2015). In investment management, returns are referred to as profits from investment activities, it is very natural for investors to demand a certain level of return on the funds invested (Handini and Astawinnetu, 2020). An investor expects a high return from investment activity. However, to get a high return, investors face high risk, meaning that the higher the expected return, the higher the risk (Hartono, 2016).

Risk is a very important thing in buying shares, by knowing the risk of an investment, we will know the amount of return that will be obtained (Ikhsan and Budi Santoso, 2019). Beta is a measure of the systematic risk of a security or portfolio relative to market risk (Jogiyanto, 2003). The greater the beta of a security, the sensitivity of the security’s return to market returns is greater, this means that if the beta of the stock is high, it means that the risk to the stock is high and of course has a high stock return, this is evidenced by the effect of stock returns on beta in research by (Azhari, Suharti and Nurhayati, 2020). Research by Ismayanti and Yusniar (2014), Parhusip and Silalahi, (2017) and Hidayat, Hasnawati and Hendrawaty, (2019) as well as in research conducted by Tullah (2011) which states that beta has an effect on stock returns. This is in contrast to the results of research conducted by Nyoman and Septiani, (2014), Ratnani (2021) and Pratama, Nur and Ruray (2021) which state that beta has no effect on stock returns.

H1: Beta has a effect on stock returns

According to Situngkir and Batu, (2020) LQ-45 index stocks are shares of large companies that have stable profits or blue chips, have high liquidity, large market capitalization.
high trading frequency and has growth prospects as well as fairly good financial conditions. However, the performance of companies that are included in the LQ-45 index does not always experience good things, for example 35 issuers that are included in this index during the second quarter experienced a decrease in net profit of around 2.4% on a Year On Year (YOY) basis, one of which is PT. Astra International Tbk. (ASII) which recorded the worst performance in this period (Wareza, 2019). Based on data that has been processed, the stock return value of ASSI issuers tends to be unstable and even decreases, one of which is in 2018-2020 as follows: in 2018 the stock return value was at a value of -0.009, while in 2019 it decreased so that the stock return value became -0.158 and for 2020, progress has been made even though it is still in the negative line, which is at -0.129.

One way for investors to know the performance of a company is by analyzing the company’s financial ratios (Aldi, Erlina and Amalia, 2020). According to Tarau, Rasjid and Dungga (2020) simultaneously stock returns can be influenced by several factors, namely ROA, CR and PBV, ROE, QR, DER, DAR, ITO, TATO, PER. In this study, the conventional financial ratios that will be used are only the ROA ratio as a representative of the profitability ratio, CR as a representative of the liquidity ratio and PBV as a representative of the market ratio and the MVA ratio as a representative of modern financial ratios. According to Prihadi (2019), return on assets (ROA) measures the level of profit on the assets used to generate profits. A high ROA value means the better the company's performance on the use of its assets (Anisa, 2015). In research conducted by Widarko and Firdausy (2019), Meilinda and Destriana (2019) and Pangestu and Wijayanto (2020) stated that ROA has an effect on stock returns. This result contradicts the research of Samalam, Mangantar and Saerang (2018), Nainggolan (2016) and Saraswati, Halim and Sari (2020) which state that ROA has no effect on stock returns.

H2: ROA has a effect on stock returns

While the current ratio (CR) is one of the ratios used to measure the company's ability to pay short-term obligations or debts that are due immediately when billed in their entirety (Kasmir, 2010). Research conducted by Situmeang and Dini (2019), Nandani and Sudjarni (2017) and Istiqomah and Mardiana (2020) states that CR has an effect on stock returns. However, in a study conducted by Basalam, Murni and Sumarauw (2017), Kamponsina, Murni and Untu (2020) and Worotikan, Koleangan and Sepang (2021) obtained the opposite result,
namely CR has no effect on stock returns.

**H3: CR has a effect on stock returns**

According to Fakhruddin (2008) price to book value (PBV) is used to compare the market value of a stock with the book value of the stock, calculated by dividing the current stock market price by the net book value per share. The higher the PBV, the higher the stock price of the company, the better the company's performance, so that it can provide a better rate of return in the future (Ginting and Erward, 2013). The results of research conducted by Antara and Suryantini, (2019) stated that PBV had an effect on stock returns, the same thing also happened in research conducted by Akbar and Herianingrum (2015) and Ginting and Erward (2013) that PBV had an effect on stock returns. This contradicts the results of research conducted by Elvina (2015), Wardiningsih (2019), (Claudhea *et al.*, 2021).

**H4: PBV has a effect on stock returns**

Market value added (MVA) is a measure of company wealth created for investors, if the MVA value is positive then shareholder wealth will increase and if the MVA value is negative it will indicate how much shareholder wealth has been lost (Sari, 2011). This is supported by research conducted by Amna (2020), Yanti and Sugiyono (2018) and Badaruddin *et al.* (2017) that MVA has an influence on stock returns. Other results were found in the research of Mutmainnah and Santoso, (2018), S. and Muhammad (2021) and Yusmaniarti and Oktaria (2019) that partially MVA has no effect on stock returns.

**H5: MVA has a effect on stock returns**

Based on the unstable financial condition and return of LQ-45 Index companies and differences in research results from previous researchers, the purpose of this study is to test whether beta, ROA, CR, PBV and MVA have an influence on company stock returns on the LQ-45 Index. So that by knowing it, investors are helped in targeting their investments and getting stock returns as expected.

**RESEARCH METHODS**

The research uses a quantitative approach. According to Bungin (2005) the object of quantitative research methods has naturalistic, empirical, and behavioristic regularities, in which all research objects must be reduced to an observable fact (phenomenon).

Data collection, data processing and writing of results are carried out for 3 (three) months starting on June 1 to August 31, 2021. The research
location is on the Indonesia Stock Exchange (IDX), which is located at the Indonesia Stock Exchange Building Tower 1, 6th Floor, Jl. Gen. Sudirman Kav. 52-53, South Jakarta 12190, Indonesia. IDX telephone number 021-515-0515, Tool Free: 0800-100-9000 (National), Email: Callcenter@idx.co.id, website: www.idx.co.id.

The research population includes LQ-45 companies listed on the Indonesia Stock Exchange in 2001-2020. The technique used in determining the sample is purposive sampling, with sample criteria as follows: 1), companies included in LQ-45, and 2) issuing financial statements and trading shares on the Indonesia Stock Exchange in 2001-2020, from these criteria obtained a sample of 2 companies, namely ASII and INDF issuers.

The research method used in this study is hypothesis testing and case study analysis on LQ-45 companies listed on the Indonesia Stock Exchange. Hypothesis testing in this study aims to determine the effect of the independent variables Beta, ROA, CR, PBV and MVA on the dependent variable of stock returns, so that observations can be made on the effect. Meanwhile, the case study in this research is a method used to analyze and contextually in general, all companies that are sampled in the study by connecting the independent variables and the dependent variable so that conclusions can be drawn.

The source of data in this study is secondary data. The data in this study are sourced from the financial statements and stock prices of LQ-45 companies published by the Indonesia Stock Exchange (www.idx.co.id, idnfinacials.com and yahoo.finance.com). The procedure carried out in the process of collecting data in this study was carried out through several stages, namely:

1. Exploring data from secondary sources to obtain data on annual reports, financial statements and reports of each LQ-45 company listed on the Indonesia Stock Exchange in 2001-2020 and then recording and studying documents or archives that are in accordance with the problem being studied.

2. Conduct a literature study, namely by studying, researching, reviewing and reviewing literature in the form of books, legislation, magazines, newspapers, articles, websites and previous research that has a relationship with the problem being studied. This literature study aims to obtain as many theories as possible, which are expected to be able to support the data collected and further processing.
The data analysis method used in this research is the panel data technique. Panel data is a combination of cross section data and time series data (Andri Faisal, 2019). The research cross section data consisted of 2 companies, while the research time series data consisted of twenty years, namely 2001 to 2020, from the combined data it produced 40 data. Data management in this study used the Eviews 11 application. This study used descriptive analysis, classical assumption test, and hypothesis testing with panel data regression.

RESULTS AND DISCUSSION

Descriptive Analysis

Table 1. Results of Descriptive Data Analysis

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Med</th>
<th>Max</th>
<th>Min</th>
<th>S.dev</th>
<th>Obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>0.27</td>
<td>0.06</td>
<td>2.81</td>
<td>-0.63</td>
<td>0.65</td>
<td>40</td>
</tr>
<tr>
<td>Beta</td>
<td>1.26</td>
<td>1.28</td>
<td>2.11</td>
<td>0.74</td>
<td>0.25</td>
<td>40</td>
</tr>
<tr>
<td>ROA</td>
<td>0.07</td>
<td>0.06</td>
<td>0.16</td>
<td>0.01</td>
<td>0.03</td>
<td>40</td>
</tr>
<tr>
<td>CR</td>
<td>1.34</td>
<td>1.32</td>
<td>2.04</td>
<td>0.73</td>
<td>0.32</td>
<td>40</td>
</tr>
<tr>
<td>PBV</td>
<td>1.97</td>
<td>1.81</td>
<td>4.47</td>
<td>0.09</td>
<td>1.04</td>
<td>40</td>
</tr>
<tr>
<td>MVA</td>
<td>55.60</td>
<td>20.00</td>
<td>224.00</td>
<td>-19.00</td>
<td>73.20</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: EViews 11 processed data

Based on the results of the output of Eviews 11 in Table 1 with a total of 40 observations. In the dependent variable stock return produces a (median) value of 0.06, the highest value (maximum) 2.81 and the lowest value (minimum) -0.63. With a standard deviation of 0.65 which exceeds the result of the average (mean) stock return of 0.27, this means that the range of variation of stock return data used is quite wide. While the independent variable beta has the highest (maximum) value of 2.11 and the lowest (minimum) value of 0.74, ROA with the highest (maximum) value of 0.16 and the lowest (minimum) value of 0.01, CR with the highest (maximum) value of 2.03 and the lowest (minimum) 0.73, PBV with the highest (maximum) value of 4.47 and the lowest (minimum) value of 0.09 and MVA with the highest (maximum) value of 224 and the lowest (minimum) value of -19.

The following is the conclusion of the panel data regression model selection using EViews 11.

Table 2. Conclusion of Model Test

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Selected Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>CEM</td>
</tr>
<tr>
<td>Hausman</td>
<td>FEM</td>
</tr>
<tr>
<td>Lengrang</td>
<td>CEM</td>
</tr>
<tr>
<td>Multiplayer</td>
<td></td>
</tr>
</tbody>
</table>

Source: EViews 11 processed data
Based on the table above, it can be concluded that the selected model is the Common Effect model with a cross-section value and a Breusch-Pagan line $0.3405 > 0.05$. The following is the Common Effect Model panel data regression model:

$$
\text{Table 3. Results of Panel Data Regression Model}
$$

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Probabilitas</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-1.629838</td>
<td>0.792107</td>
<td>-2.057599</td>
<td>0.0474</td>
</tr>
<tr>
<td>Beta</td>
<td>0.582936</td>
<td>0.384168</td>
<td>1.517399</td>
<td>0.1384</td>
</tr>
<tr>
<td>ROA</td>
<td>5.465745</td>
<td>2.615571</td>
<td>2.089695</td>
<td>0.0442</td>
</tr>
<tr>
<td>CR</td>
<td>0.062731</td>
<td>0.283423</td>
<td>0.221333</td>
<td>0.8262</td>
</tr>
<tr>
<td>PBV</td>
<td>0.498232</td>
<td>0.111393</td>
<td>4.472758</td>
<td>0.0001</td>
</tr>
<tr>
<td>MVA</td>
<td>-5.61E-15</td>
<td>1.65E-15</td>
<td>-3.389126</td>
<td>0.0018</td>
</tr>
</tbody>
</table>

*Source: EViews 11 processed data*

Regression model equations based on testing with Eviews II:

$$
\text{Return} = -1.629838 + 0.582936 \times (\text{Beta}) + 5.465745 \times (\text{ROA}) + 0.062731 \times (\text{CR}) + 0.498232 \times (\text{PBV}) + -5.61E-15 \times (\text{MVA}).
$$

The classical assumption test conducted in this study aims to produce an estimator that is the Best Linear Unbiased Stimator (BLUE). The linear regression model has several assumptions that must be met to produce a BLUE estimate, namely multicollinearity, homoscedastic and autocorrelation (Ansofino *et al.*, 2016).

**Multicollinearity Test**

It was concluded from the tests conducted that the relationship between the independent variables all yielded a value less than 0.90 which means that there is no multicollinearity between the independent variables. More details will be presented in the table below.

$$
\text{Table 4. Multicollinearity Test Results}
$$

<table>
<thead>
<tr>
<th>Ret</th>
<th>B</th>
<th>ROA</th>
<th>CR</th>
<th>PBV</th>
<th>MVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ret</td>
<td>1</td>
<td>0.05</td>
<td>0.23</td>
<td>0.10</td>
<td>0.42</td>
</tr>
<tr>
<td>B</td>
<td>0.05</td>
<td>1</td>
<td>0.21</td>
<td>-0.28</td>
<td>0.16</td>
</tr>
<tr>
<td>ROA</td>
<td>0.23</td>
<td>0.21</td>
<td>1</td>
<td>-0.15</td>
<td>0.17</td>
</tr>
<tr>
<td>CR</td>
<td>-0.10</td>
<td>-0.28</td>
<td>-0.11</td>
<td>1</td>
<td>-0.11</td>
</tr>
<tr>
<td>PBV</td>
<td>0.42</td>
<td>-0.16</td>
<td>0.17</td>
<td>-0.11</td>
<td>1</td>
</tr>
<tr>
<td>MVA</td>
<td>0.01</td>
<td>0.15</td>
<td>0.40</td>
<td>-0.09</td>
<td>0.60</td>
</tr>
</tbody>
</table>

*Source: EViews 11 processed data*

Heteroscedasticity Test
If the results of the heteroscedasticity test show the Prob. Chi-square value of more than 0.05, it can be said that there is no heteroscedasticity, here are the results of the heteroscedasticity test as follows,

<table>
<thead>
<tr>
<th>Table 5. Heteroscedasticity Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*R-squared</td>
</tr>
<tr>
<td>Scaled explained SS</td>
</tr>
</tbody>
</table>

*Source:* EViews II processed data

If the results of the heteroscedasticity test show the Prob. Chi-square value of more than 0.05, it can be said that there is no heteroscedasticity. The results of data processing in this study the Prob. Chi-square value of 0.1397 or greater than 0.05, this means that there is no similarity in variance in this study.

**Autocorrelation Test**

The following are the results of the autocorrelation test in this study,

<table>
<thead>
<tr>
<th>Table 6. Autocorrelation Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*R-squared</td>
</tr>
</tbody>
</table>

*Source:* data olah EViews II

The results of the autocorrelation test above show the Prob. Chi-square value of 0.5224 or more than 0.05, this means that the data in this study does not occur autocorrelation.

**Hypothesis testing**

**Partial Test (t Test)**

Test (t) aims to show how much influence the independent variables individually on the dependent variable. In this study, the following results were obtained:

<table>
<thead>
<tr>
<th>Table 7. Partial Test Results (t Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variabel</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>Beta</td>
</tr>
<tr>
<td>ROA</td>
</tr>
<tr>
<td>CR</td>
</tr>
<tr>
<td>PBV</td>
</tr>
</tbody>
</table>
Based on the results above, the following conclusions can be drawn:

a. Effect of Beta on stock return
The beta variable which is proxied by stock returns produces a prob value of 0.1384, which is greater than 0.05. So that the beta of the stock can be interpreted as having no effect on stock returns.

b. Effect of ROA on stock return
The ROA variable produces a prob value of 0.0442, which is smaller than 0.05. So that the stock ROA can be interpreted as having an effect on stock returns.

c. Effect of CR on stock return
The CR variable produces a prob value of 0.8262 which means it is greater than 0.05, so the CR variable can be interpreted as having no effect on stock returns.

d. The effect of PBV on stock returns
The PBV variable produces a prob value of 0.0001 which means it is smaller than 0.05. So it can be interpreted that PBV has an effect on stock returns.

e. Effect of MVA on stock returns
The MVA variable produces a prob value of 0.0018 which means it is smaller than 0.05. So it can be interpreted that MVA has an effect on stock returns.

Simultaneous Test (F Test)
Simultaneous test is a test used to determine the effect of all independent variables on the dependent variable. The following are the results of the F test in this study:

<table>
<thead>
<tr>
<th>Table 8. Simultaneous Test Results (F Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root MSE</td>
</tr>
<tr>
<td>Mean dependent var</td>
</tr>
<tr>
<td>S.D. dependent var</td>
</tr>
<tr>
<td>Akaike info criterion</td>
</tr>
<tr>
<td>Schwarz criterion</td>
</tr>
<tr>
<td>Hannan-Quinn criter.</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
</tr>
<tr>
<td>R-squared</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
</tr>
<tr>
<td>S.E of regression</td>
</tr>
<tr>
<td>Sum squared resid</td>
</tr>
<tr>
<td>Log likelihood</td>
</tr>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
</tr>
</tbody>
</table>

In this study, the value of Prob (F-Statistic) was 0.001931 which was smaller than the value of 0.05 so that in this study it can be concluded that together the independent variables are beta, ROA, CR. PBV and MVA affect stock returns.

Determination Test (R²)
Determination test (R²) is a test conducted to see the magnitude of
the regression model in explaining the independent variables. The results of the determination test ($R^2$) in this study can be seen in Table 4.8. The test results in Table 8 of the adjusted R-squared value of 0.329061, indicate that beta, ROA, CR, PBV and MVA as independent variables can explain 33% of stock returns. While the other 67% is explained by other factors that are not used in this study.

**Effect of Beta on Stock Return**

The results of the study prove that beta has no effect on stock returns. Beta is used by investors to indicate the level of stock sensitivity to market conditions, but in this study it proves that beta has no effect on stock returns. This means that the rise and fall of stock beta has no effect on stock returns. This research is in line with Septiani and Supadmi (2014) and Sari (2011) which state that beta has no effect on stock returns.

**Effect of ROA on Stock Return**

ROA in this study shows an influence on stock returns. This is because the higher the ROA, the more effective the company is in utilizing its assets to generate net profit after tax, with the increasing ROA, the better the company's profitability (Sari, 2013). If the ROA of a company is getting better, it will also increase investor interest in the company's shares, so the share price will be high so that the stock return will also increase because the higher the stock price, the higher the stock return. The results in this study are in line with research conducted by Sepriana and Saryadi (2018), Susilowati *et al.* (2019) and in research Istiqomah and Mardiana (2020) which states that ROA has an effect on stock returns.

**Effect of CR on Stock Return**

The results of the study reject the hypothesis which states that CR has an effect on stock returns. According to Widyatuti (2017) a low CR is the most commonly used measure to determine the ability to meet its short term, low CR is usually considered as an indicator of problems in liquidity. On the other hand, a company that has a CR that is too high is not good because it shows a lot of idle funds which in turn can reduce the company's profit capability. Because of this uncertainty, it is difficult to use CR as a reference in assessing a company's finances. The results in this study agree with research conducted by Tullah (2011), Budialim (2013) and Meilinda and Destriana (2019) which state that CR has no effect on stock returns.

**Effect of PBV on Stock Return**

PBV in this study proves that PBV has an effect on stock returns. This means that an increase or
decrease in PBV will affect stock returns. According to Cahyaningrum and Antikasar (2017) PBV shows how far the company is able to create firm value relative to the amount of capital invested. The higher this ratio means the market believes in the company's prospects (Sugiono and Untung, 2008). The results in this study are in line with research conducted by Akbar and Herianingrum (2015), Anugrah and Syaichu (2017) and research conducted by Saraswati, Halim and Sari (2020) which states that PBV has an effect on stock returns.

**Effect of MVA on Stock Return**

The results of research on the MVA variable prove that MVA has a negative effect on stock returns. This means that an increase or decrease in MVA will affect stock returns. A negative MVA can mean that managers fail to create added value for the company Amri (2016), a negative MVA value is because the market value of the company is smaller than the amount of capital invested by shareholders. So the company is considered to have failed to increase wealth for shareholders. The results that support the results of this study include Silalahi and Manulung (2021) which state that MVA has a negative effect on stock returns.

**CONCLUSION**

The results of research conducted on LQ-45 companies during 2001 to 2020 are as follows:
1. Stock beta has no effect on the company's stock return.
2. Return on assets (ROA) has a positive effect on the company's stock returns.
3. Current ratio (CR) has no effect on the company's stock return.
4. Price to book value (PBV) has a positive effect on the company's stock returns.
5. Market value added (MVA) has a negative effect on the company's stock returns.

In this study only the ratio of Beta, ROA, CR, PBV and MVA as the basis for measuring stock returns. For further researchers, they should add other variables or include variables outside this research, such as return on equity (ROE), earnings per share (EPS), price earning ratio (PER) and so on.

In this study only use stock prices to calculate stock returns. For further researchers, it is better to add dividends, companies that do not do stock splits and others in calculating stock returns.

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Sepriana, F. and Saryadi (2018) ‘Pengaruh return on assets (ROA), return on equity (ROE), earning per share (EPS), price book value (PBV), dan debt to...


