Journal of Management, E-Business & Entrepreneurship Research
Vol. 1. No. 1, 2021

The Effect of Probability, Liquidity and Leverage on Stock Returns in LQ45 Companies

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ABSTRACT

Investment is an activity that is very important to do at this time where investment has a role in economic growth, business development of the company and investors are expected to provide a positive reciprocal relationship that is getting profits. The purpose of this study was to examine the effect of profitability, liquidity and leverage on stock returns. The variables used are Return On Assets (ROA), Current Ratio (CR) and Debt to Equity Ratio (DER). The test in this study uses multiple linear regression using a sample of 33 active companies that are always listed on the LQ45 index in the 2017-2019 period. The results of the partial test show that ROA and DER have an effect on Stock Return, while CR has no effect on Stock Return. Simultaneously ROA, CR, and DER affect Stock Return

Keywords: Probability, Liquidity, Leverage, Stock Return

1. INTRODUCTION

Investment is an activity that is very important to do at this time. Investment not only helps in fostering economic growth in Indonesia which is currently developing but also helps companies in developing their business and provides reciprocal relationships which are generally positive relationships to investors. According to the Financial Services Authority (OJK), investment is an activity in which a person makes investments, which are generally long-term in nature to procure complete assets or buy shares and other securities so that they can benefit (ojk.go.id). A person who carries out investment activities or commonly referred to as an investor can carry out several types of investment activities such as investing in property such as buying a house or land, gold, or shares.

According to Angraini and Yusra (2019), investors invest in stocks because they are interested and with the hope that they will benefit, namely the distribution of high profits or dividends. The capital market is a means where investors can invest in shares. According to the Indonesia Stock Exchange (IDX), the capital market is a facility or place where companies or other institutions that need funds from the public to develop and expand their business, increase working capital, meet with people who want to invest their funds (idx.co.id).

Investors have the main goal of making a profit. Stock return is the rate of return from sales and purchases, either in the form of increases or decreases from the shares that have been purchased. According to Devaki (2017) when making decisions in investing in stocks, investors need to do calculations or analyses to assess the company's performance in order to reduce the level of risk in investment and obtain the desired level of return. This opinion is supported by Junaeni (2017) who explains that by seeking information beforehand on the investment to be made, an investor will know the rate of return obtained and the risks they will face.

According to Hartono (2010) in Devaki (2017), stock returns are the expectations of investors on funds invested through stocks where the results are yields and capital gains (losses).

Yield is the profit obtained by investors which are distributed by the company in the form of dividends or bonus shares and are carried out periodically on investments from investors. Kusuma and Topowijono (2018) describe capital gain as the profit an investor gets on the sale of shares where the selling price is greater than the purchase price.

Stock indexes fluctuated in 2019 due to the trade war between the United States and China which made stock markets in Asia weak. This trade war caused the Jakarta Composite Index (IHSG) to decline. This condition causes market players to become uneasy and the emergence of pressure that is felt due to investment in risky assets on global markets, which can put pressure on IHSG movements.

This study uses LQ45 because it looks at the stock price performance of 45 stocks that have high liquidity value and have a large market capitalization and are supported by good company fundamentals. In addition, the LQ45 Index also has an objective nature where is due to periodic monitoring of the performance of the stock components. The assessment of the movement of the stock order is carried out every three months with a change of shares, which is every six months.

Financial performance reflects the level of health of a company. Financial ratios enable investors to assess the company's current and past financial performance and can serve as a guide for future performance assessments (Nurunnisak, Dhiana, and Putri 2018). Financial ratios consist of profitability, liquidity, and leverage.

Profitability shows the company's ability to create net profit in sales and investment. The financial ratio variable that can be used in measuring profitability is Return On Assets (ROA) where ROA is the ratio of net income to total assets to measure returns on total assets after interest and taxes (Brigham and Houston, 2001 in Apriliani and Hartini, 2016). Research conducted by Nurunnisak, et al (2018) shows that there is an influence between ROA and stock returns, but research conducted by Apriliani (2016) shows that ROA has no effect on stock returns.

Liquidity shows the ability of the company to meet its short-term obligations. The variable used in measuring liquidity is the Current Ratio (CR) which is the ratio between current assets and current liabilities. Research conducted by Angraini and Yusra (2019), Susilowati and Nawangsasi (2018), and Hadiningrat, Mangantar, and Pondaag (2017) found that CR had no effect on stock returns while research conducted by Asmirantho, Mulya, and Firmansyah (2016) showed that CR has an influence on stock returns.

Leverage shows the measurement of the investment structure in a company (Nurunnisak, et al, 2018). The variable used in measuring leverage is the Debt to Equity Ratio (DER). DER is the ratio used in measuring the debt to equity of the company which will show a picture of the feasibility and financial risk. Research conducted by Angraini and Yusra (2019) shows that DER has an influence on stock returns, but research conducted by Candradewi (2016) shows that DER has no effect on stock returns.

Based on the explanation above, the research model in this study is as follows:

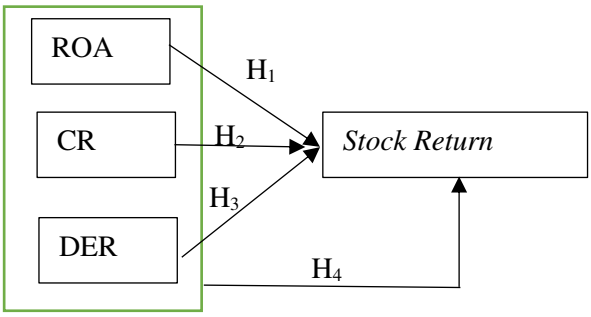

Figure 1
Research Model

Based on Figure 1, it can be seen that the research hypothesis of the study can be described as follows:
H1: ROA has an influence on Stock Return
H2: CR has no effect on Stock Return
H3: DER has an effect on Stock Return
H4: ROA, CR, and DER have a simultaneous effect on Stock Return

2. THEORETICAL BASIS

2.1. Probability

Profitability according to Horne and Wachowicz (2008) cited by Candradewi (2016) is the company's ability to generate net income and has a relationship with the company's sales and investment. Return on Assets is a form of profitability ratio that is used to measure the company's ability regarding the overall funds invested and used in operating activities and has the goal of generating profits by utilizing the assets owned by the company (Febriono, 2016). According to Nurunnisak, et al (2018) the probability ratio shows the percentage of profit (net income) obtained by the company in relation to overall resources or the average number of assets. Furthermore, Nurun-nisak, et al (2018) explain that ROA is a ratio that measures the company's efficiency in managing company assets to generate profits in one period. A high ROA value indicates a good company performance which means that the profits obtained by shareholders will be high as well.

$$\text{ROA} = \frac{Net\ Profit}{Total\ Asset} \times 100\%$$

2.2. Liquidity

Liquidity shows the ability of the company to meet its short-term obligations. According to Angraini and Yusra (2019), liquidity is the company's ability to meet short-term obligations or debts that need to be paid immediately using the company's current assets. Sutriani (2014) explains that high liquidity will show the company's ability to meet its short-term obligations. Nurunnisak, et al (2018) explained that the current ratio is a ratio used to measure the financial performance of the liquidity balance of the company where this ratio shows the company's ability to meet its short-term debt obligations over the next 12 months. The current ratio is calculated by dividing current assets by current liabilities where the higher the current ratio, the stronger the company's financial position (accu-rate.id). This opinion is supported by Sartono (2008) and quoted by Candradewi (2016) which explains that the better the percentage of the current ratio, the higher the company's ability to meet its short-term obligations.

$$CR = \frac{Current\ Asset}{Cuerrent\ Liabilities}$$

2.3. Leverage

Leverage shows the measurement of the investment structure in a company (Nurunnisak, et al, 2018). The leverage ratio is the ratio used to measure the company's assets that are paid for using debt (Fahmi, Kosasih, and Putra, 2019). Debt to Equity Ratio (DER) is a financial ratio used to measure company performance through solvency aspects. Van and Wachowicz (1997) explain that the DER is a debt ratio that is illustrated by the comparison between all debts, both long and short term, and capital. DER is used to assess debt with all equity which can provide an overview of the feasibility and financial risk of the company.

Angraini and Yusra (2019) explain that the greater the DER ratio, this indicates that the capital structure used is more utilizing debt relative to equity and indicates a higher corporate risk. This opinion is supported by Kasmir (2012) and Puspita (2016) who explain that a high DER

indicates a higher company risk where is due to a higher level of debt compared to the company's total capital. Investors who have thoughts of making long-term investments will choose companies that have low DER compared to high ones (Angraini and Yusra, 2019). Circumstances that show a high DER in a company will cause a decrease in demand for shares due to the information provided is considered bad by investors.

$$\text{DER} = \frac{Total\ Liability}{Equity}$$

2.4. Stock Return

Stock returns received by investors are influenced by various factors, namely internal and external factors (Lewellen, 2004; Ang and Bekaert, 2007; Hosseini, Ah-mad and Lai 2011, and Candradewi, 2016). Stock return is income earned through investment or further stock returns can be said to be a return from investments made by investors. According to Istiqoma (2018) the value of stock returns is obtained through calculating the difference between capital gains and capital losses from stock prices in the previous period. Hartono (2017) further explains that return is the profit obtained from investment.

$$Stock\ Return = \frac{Pt - Pt - 1}{Pt - 1}$$

3. RESEARCH METHODS

3.1. Data Collection Technique

The data collection technique in this research is secondary data. According to Sekar-an (2016), secondary data is data that has been previously collected and used for purposes other than the purposes carried out in the research. Secondary data in this study is the company's financial statements obtained through the stock price index.

3.2. Population and Sample

The population in this study are listed companies and their financial statements are published by the Indonesia Stock Exchange (IDX) and the sample of this study is companies listed in the LQ45 index. The sampling method is purposive sampling which uses the following criteria:

- Actively listed in the LQ 45 index from 2017 to 2019
- Have published financial reports

Through the above criteria, it is found that as many as 33 companies meet the criteria.

3.3. Data Analysis Tecnique

3.3.1. Multiple Linear Regression Analysis

According to Ghozali (2016), multiple regression analysis is used to show the relationship between the dependent variable and the independent variable where this opinion is supported by Sekaran (2016) which explains that multiple regression analysis is a means used to objectively assess the relationship between variables. independent and dependent.

3.3.2. Hypothesis Test

To test the hypothesis in this study, the t-test was used to partially test the variables and the F-test to test the variables simultaneously or simultaneously. The significant rate used in this study is 5%. If the significant value is > 0.05, it indicates that the hypothesis is rejected or the

independent variable has no effect on the dependent variable either partially or simultaneously. If the significant value is <0.05 then this indicates that the hypothesis is accepted or the independent variable has an effect on the dependent variable partially or simultaneously.

4. RESULT AND DISCUSSION

4.1. Descriptive Statistics

Based on the results of data processing obtained statistical data as follows:

Table 1
Descriptive Statistics

	Min	Max	Mean
ROA	-0.70	46.66	9.45
CR	22.08	2310.01	252.78
DER	0.10	11.30	1.86
Stock Return	-0.31	0.07	-0.01

Source: Analysis data for the study

Based on the results obtained from Table 1, the average ROA value is 9.45 while the highest value is 46.66 and the lowest value is -0.70. This indicates that there are companies that lack capital management so that they do not generate profits. The maximum value of CR obtained is 2310.01 which means that the company's ability to meet its debts is very good and the average value of the company's CR obtained is 252.72 which means that the company's overall capital management ability is very good so that it can fulfill debts. In the short term, the company does not need to look for debt loans anymore. From the DER value obtained a maximum value of 11.30 which means the company is unable to generate funds to fulfill debt obligations and the minimum DER value is 0.10 which indicates that the company is not able to maximize its profits.

4.2. Normality Test

In conducting the normality test, the Kolmogorov-Smirnov (KS) test was used. The KS test is used to determine whether the data distribution has been normally distributed or not.

Table 2
Kolmogrov-Smirnov

	Unstandarized Residual
	36
Asymp. Sig. (2-tailed)	0.112

Source : Analysis data collected for the study

From the results of the normality test with KS, it is found that the KS value is 0.112, which means that the KS value is > 0.05, indicating that the data is normally distributed.

4.3. Multicollinearity Test

The multicollinearity test was used to test the correlation between the independent variables and the regression model. This test uses the Variance Inflating Factor (VIF) and Tolerance test.

Table 3
Multicollinearity Test

	Tolerance	VIF
ROA	0.838	1.193
CR	0.957	1.045
DER	0.814	1.228

Source : Analysis data

From the test results that can be seen in Table 3, the overall VIF value is < 10.00 and the Tolerance value is > 0.10 so it can be concluded that there is no symptom of multicollinearity in the regression model.

4.4. Autocorrelation Test

The autocorrelation test is used to test the correlation between period t and the previous period (t-1). A good regression model is a regression that is free from autocorrelation symptoms. For the autocorrelation test, the Durbin-Watson test tool is used.

Table 4
Auto-correlation Test

Model	Durbin-Watson
1	2.203

Source: Analysis data

Based on the results obtained in table 4, the Durbin-Watson value is 2.203 where based on the criteria dU < dW < (4-dU) it is obtained 1.7355 < 2.203 < 2.2645 so it can be said that there is no autocorrelation in the regression model.

4.5. Heteroscedasticity Test

This test aims to test whether there is a similarity of variance from the residual of one observation to another observation. The test used is a test with the Glejser method, where for decision making, the basis is used, namely if Sig. > 0.05 then there is no heteroscedasticity otherwise if Sig. <0.05 means that there is heteroscedasticity in the regression model.

Table 5
Heteroscedasticity Test

Model	Sig.
ROA	0.190
CR	0.769
DER	0.156

Source: Data Analysis

From the results of the heteroscedasticity test, it was found that the value of Sig. > 0.05 so it can be concluded that there is no heteroscedasticity in the regression model.

4.6. t Test

This test is used to test the extent of the influence of the independent variable on the dependent variable partially. The significance level used in this test is 5%.

Table 6
Uji t

	B	t	Sig.
Constant	5.752	14.833	0.000
ROA	-0.057	-2.388	0.023
CR	-0.001	-1.168	0.251
DER	-0.275	-3.243	0.003

Source: Data Analysis

Stock Return = 5.752 – 0.057 ROA – 0.001 CR – 0.275 DER

Based on the test results obtained the following results:

- A constant of 5.752 means that if the independent variable is zero, the stock return will increase by 5.752
- ROA has a coefficient value of -0.057 which means that if the ROA increases by one unit, the stock return will decrease by -0.057 units with the assumption that the other independent variables are constant. The significant value obtained is 0.023 where this value is smaller than the significant provisions used, namely 0.05, then ROA has an effect on stock returns.
- CR has a coefficient value of -0.001 which means that if the CR increases by one unit, the stock return will decrease by -0.001 units with the assumption that the other independent variables are constant. The significant value obtained from the test results is 0.251 where this value is greater than the significant level used, then CR has no effect on stock returns.
- DER has a coefficient value of -0.275 which means that if DER increases by one unit, it will reduce stock returns by -0.275 units assuming other independent variables are constant. The significant value obtained from the test results is 0.003 where this value is smaller than the significant level of 0.05, then DER has an effect on stock returns.

4.7. F Test

Based on table 7, namely the F test, it can be seen that the results obtained have a significant value of 0.013 which is smaller than the significant level of 0.05 so that it can be concluded that the ROA, CR, and DER variables simultaneously affect stock returns.

Table 7
F Test

Model	F	Sig
Regression	4.204	0.013
Residual		
Total		

Source : Analysis data

4.8. Discussion

Based on the partial test results, it is found that the ROA and DER variables have an effect on stock returns, while the CR variable has no effect on stock returns. From the results of the F test, it is found that simultaneously ROA, CR, and DER have an effect on stock returns.

ROA which has a significant value that is smaller than the predetermined level indicates that the size of the ROA value generated by the company will affect investors' decision-making on their investment because if the company is less able to manage its assets, the ability to generate profits will also decrease. On the other hand, if the company is able to manage its assets properly,

it will generate profits. The results of the study which show that ROA has an effect on stock returns are in line with the results of research from Nurun-nisak, et al (2018).

The results of the t-test for the CR variable obtained a significant value of 0.251 which is greater than the predetermined significance level, so CR has no effect on stock returns. CR is a ratio used to measure the financial performance of the company's liquidity balance where this ratio shows the company's ability to meet its short-term debt obligations. The greater the value of CR, the more liquid the company is in fulfilling its short-term obligations, but from the partial test results, it is obtained that CR has no effect on stock returns because, in terms of liquidity, CR has not been able to provide adequate information for investors. The size of the results of the CR calculation does not reflect the ability to repay debt. A high CR indicates that there is excess cash than the level of need or the presence of excessive current assets and uncollectible receivables which can cause slow cash turnover. The results of the study which show that CR has no effect on stock returns are in line with the results of research from Angraini and Yusra (2019), Susilowati and Nawangsasi (2018) and Hadiningrat, Mangan-tar and Pondaag (2017).

The results of the partial test of the DER variable obtained a significant value of 0.003 < 0.05 so that DER has an effect on stock returns. DER is used to provide an overview of the capital structure owned by the company and the level of risk of non-payment of the company's debt. The greater the DER, the greater the company's burden on outsiders. The results of this study indicate that the greater the company's burden, the worse the company's performance, and this can have an impact on the return of shares that will be obtained by investors. The results of the study which show that ROA has an effect on stock returns are in line with the results of research from Angraini and Yusra (2019).

5. CONCLUSION AND RECOMMENDATION

5.1. Conclusion

Based on the results and discussion, the conclusions that can be drawn are as follows:

- ROA and DER partially affect Stock Return
- CR partially has no effect on Stock Return
- ROA, CR, and DER simultaneously affect Stock return.

The limitation of this research is that there are still several factors that are not considered in the calculation, such as company size, Indonesian money market conditions, internal and external factors of the company.

5.2. Recommendation

The advice that can be given is that companies listed in LQ45 can improve the company's financial performance, while investors and potential investors should consider the fundamentals and psychology of the stock market in Indonesia. For future research, it is better to include other financial ratios, because it is possible that variables that are not included in this study will affect stock returns

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