# Analysis of ROA, ROE, CR, and Der on Stock Return of Non-Banking Companies in LQ-45 Index in Indonesia Stock Exchange 2015-2019

**Herry Santoso[1], Keane Owen[2], Zabrina Raissa[3]**
[1,2,3]*Pelita Harapan University, Indonesia*

## Abstract

*This study has a main purpose to analyze and assess empirically financial ratios consisting of Return on Assets (ROA), Return on Equity (ROE), Current Ratio (CR), and Debt to Equity Ratio (DER) and its Impact on Stock Return. Secondary data will be used for this research. Purposive sampling will be used to choose the sample needed to be analyzed with the purpose of obtaining the right sample criteria. The sample for this study is non-banking companies registered in LQ-45 Index in Indonesian Stock Exchange from the year 2015 to 2019 which consists of 39 companies. Multiple linear regression is chosen as the model to be used in this research to analyze the obtained data. The result of study indicated that ROA has positive influences on stock return, but CR has negative influences. While for ROE and DER, those have no influence on stock returns.*

## I. Introduction

The interest of companies to list themselves on the stock exchange continues to increase, this can be seen directly from the latest data from IDX where there are 51 new companies that are listed on the JCI in 2020 while the pandemic is still ongoing. The growth of individual investors also grew significantly from year to year, recorded in 2020, there was a growth of more than 45%. Tandelilin (2010) states that investment itself is a commitment in the form of monetary or money or resources in the present which aims to obtain a benefit in the future. Of course, all investors expect the highest possible return, but with the increasing number of choices and fluctuations in the market, the uncertainty and risk in investing becomes even greater.

One of the traditional financial market theories, namely the Efficient Market Hypothesis (EMH), Fama (1970), states that stock prices are always reflected by all available information and can be processed equally by all market players (equally). And also this theory assumes that all individual investors are rational decision makers and make decisions that are not influenced by psychological or emotional factors. However, this theory certainly reaps a lot of criticism, especially with the fact that there is a phenomenon of market bubbles. Where if this theory is true, then the market bubble that caused the stock crash should not have occurred. And also there are investors who consistently outperform the market, such as Warren Buffet, who uses the value investing method to predict the safety margin of a stock price.

Bank Indonesia in Lubis, A. et al. (2019). Defines financial inclusion as all efforts aimed at eliminating all forms of price and non-price barriers to public access in utilizing financial services. The Otoritas Jasa Keuangan (2016) defines financial inclusion as the

availability of access to various financial institutions, products and services in accordance with the needs and abilities of the community in order to improve public welfare.

Financial statements are basically a source of information for investors as one of the basic considerations in making capital market investment decisions and also as a means of management responsibility for the resources entrusted to them (Prayoga and Afrizal 2021) . Financial performance is a measuring instrument to know the process of implementing the company's financial resources. (Ichsan, R. et al. 2021)

Return on Assets (ROA) & Return on Equity (ROE) are two variables that are very often used to examine the health of the company, because these two variables are parameters to see the company's profitability (Gallo, 2016). Many previous studies have analyzed these two variables in different industries and have shown quite varied results. Hendra (2019) in his research in the aviation industry showed results that had no effect for these two variables on stock returns, but the opposite results were found in Prihantini's (2019) research where these two variables had an effect.

Current Ratio (CR) & Debt to Equity Ratio (DER) are also two parameters that are often used as one of the variables to examine the liquidity of a company. And liquidity from the company is one of the factors to analyze the ability of a company to generate profits and cash flow to bear operating costs (Gallo, 2015). The two variables are also very popular to study their influence on stock returns. According to Thamrin (2012), in his research on companies engaged in the manufacturing industry where these two variables show an influence on stock returns. But the opposite result is found in Tumonggor's research (2017) in the cosmetics industry and household where these two variables do not show an effect.

In this study, the author took the object of research, namely company shares listed on the LQ-45 index on the Indonesia Stock Exchange (IDX) in 2015-2019. This is because the stocks in the LQ-45 index represent blue chip stocks in the Indonesian financial market. Blue chips are shares of companies that have a high reputation and are market leaders in their industry and have stability and consistency in paying dividends (Darmadji and Fakhrudin, 2001). Based on the discussion above, the author proposes the title "ANALYSIS OF ROA, ROE, CR, AND DER TOWARDS STOCK RETURN OF NON-BANKING COMPANIES ON THE LQ-45 INDEX IN THE INDONESIA STOCK EXCHANGE 2015-2019"

## II. Review of Literature

### 2.1. Theoretical basis
### a. Return on Assets (ROA) Ratio

Return on Assets Ratio or often called Return on Assets (ROA) is one of the profitability ratios. According to Sudana (2009), Return on Assets shows the company's ability to use all of its assets to generate after-tax profits. Fahmi (2012) added that this asset return ratio also measures how efficient a company is in managing its assets in order to generate profits within a certain period. In the context of banking, Dendawijaya (2003) adds that the greater the ROA, the greater the level of profit achieved and the better the position of the bank (company) in the use of assets. The following is the formula for calculating ROA:

$$ROA = \frac{\text{Net Profit after Tax}}{\text{Total Assets}} \times 100\%$$

### b. Return on Equity (ROE) Ratio

According to Kasmir (2015), the Return on Equity (ROE) ratio is a ratio to measure net profit after tax with own capital. Brigham and Houston (2010) reveal that ROE is an

important ratio because shareholders want a high rate of return on their invested capital. The greater the level of ROE, the greater the net profit generated from own capital so that it is a sign that the company is able to print high profits. ROE can be found using the following formula:

$$ROE = \frac{\text{Net Profit After Tax}}{\text{Total Equity}} \; x \; 100\%$$

### c. Current Ratio (CR)

According to Kasmir (2010), the Current Ratio is a ratio that shows the company's ability to meet or pay obligations for current debt (short-term debt) with current assets without taking into account the value of inventories. Panjaitan (2018) adds that the high Current Ratio will have an impact on the small amount of obligations that must be paid by the company and does not guarantee the company to pay debts that are due soon. Conversely, the low ratio indicates that the company's lack of capital in paying debts that are due soon.

The following is a formula for calculating the Current Ratio:

$$CR = \frac{Current\ Assets}{Current\ Liabilities} \; x \; 100\%$$

### d. Debt to Equity Ratio (DER)

Kasmir (2015) argues that the Debt to Equity Ratio (DER) is used to measure the amount of company capital that is used as debt guarantee. Puspitasari, et.al. (2018) added that the high ratio of debt to equity value indicates that the low level of funding that will be provided by the owner and the low depreciation of the asset value will have an impact on low profit growth. The lower the DER will have an impact on increasing the company's profit because the level of funding provided by the owner is quite large, followed by a greater loan limit for the company if it experiences a loss or depreciation of asset value. DER is also known as leverage ratio which can be formulated as follows:

$$DER = \frac{\text{Total Amoun of debt}}{\text{Total Modal}} \; x \; 100\%$$

### e. Return Share

According to Jogiyanto (2003), Return is the result obtained from investment. Returns can be in the form of realized returns that have occurred or expected returns that have not occurred but are expected to occur in the future.

The following is the formula for calculating stock returns:

$$Return\ saham = \frac{P_T - P_{T-1}}{P_{T-1}} \; x \; 100\%$$

Information:
PT = stock price for the current period
PT-1 = stock price of the previous period

## 2.2. Previous Research

Hafni (2019), in his research,Analysis of the Effect of CR, DER, ROE, EPS on the Return of LQ45 Stocks Listed on the Indonesia Stock Exchange for the 2012-2016 period.

Andesta (2015), his research,The Effect of ROA, ROE, NPM and CR on Stock Returns in Companies Listed in the Jakarta Islamic Index. The results of the research are ROA, ROE and CR have an effect and NPM has no effect.

Samalam (2018), his research is the effect of ROA, ROE and DER on stock returns in insurance companies on the Indonesia Stock Exchange for the period 2012 – 2016. The results of his research are ROA, ROE and DER have no effect. Naryoto (2013), his research is the Effect of ROE, CR, TATO and EPS on Stock Return. The result of the research is that ROE, DER and TATO have no effect. CR and EPS have an effect. Basalama (2017), his research isEffect of CR, DER and ROA on Stock Returns in Automotive and Component Companies for the 2013-2015 Period. The results of the study CR had no effect, while DER and ROA had an effect.

Printhantini (2009), his research is Analysis of the Effect of Inflation, Exchange Rate, ROA, DER and CR on Stock Returns of Real Estate and Property Companies Listed on the Indonesia Stock Exchange for the Period 2003-2006. The results of the research are Inflation, Exchange Rates, ROA, DER and CR have an effect. Hendra (2019), his research is The Effect of DER, CR, ROA and ROE on Stock Prices and Their Implications for Stock Returns in the Aviation Industry. The result of the research is that DER has an effect. CR, ROA and ROE have no effect. Tumonggor (2017), his research isAnalysis of the Effect of CR, ROE, DER and Growth on Stock Returns in the Cosmetics and Households Industry Listed on the IDX for the 2010-2016 period. The results of the research are that CR, ROE and DER have no effect, while Growth has an effect.

Febrioni (2016), his research isThe Effect of ROA, ROE, EPS, and CR on Stock Returns in Companies Listed on the LQ45 Index on the Indonesia Stock Exchange in 2011-2015. The result of the research is that ROA, RO and CR have no effect, while EPS has an effect. Thamrin (2012), his research is Analysis of CR and DER Against Stock Return of Manufacturing Companies Listed on the Indonesia Stock Exchange. The result of the research is that CR and DER have an effect.

## 2.3. Framework

The author formulates the framework of thought as follows:
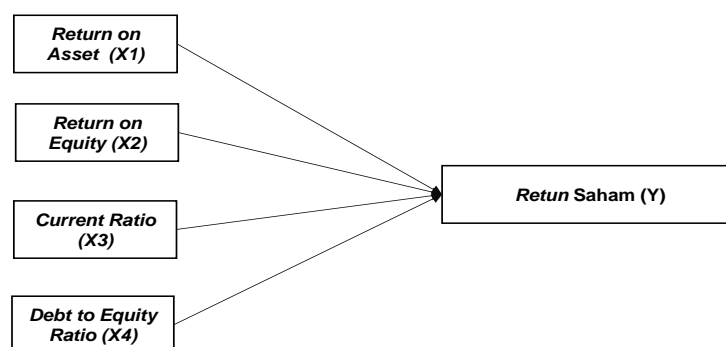


## 2.4. Hypothesis

The author formulates a hypothesis that is in accordance with the framework that has been made. The purpose of testing the hypothesis is to determine whether or not there is an effect of all independent variables (ROA, ROE, CR, and DER) on the dependent variable (Stock Returns), which are as follows:

H0. *Return* Stocks are not affected by all independent variables (ROA, ROE, CR and DER)

H1. Is the stock return of companies that are in the LQ-45 Index on the IDX in 2015 – 2019 influenced by the ROA variable?

H2.    Is the stock return of companies that are in the LQ-45 Index on the IDX in 2015 – 2019 influenced by the ROE variable?

H3.    Is the stock return of companies that are in the LQ-45 Index on the IDX in 2015 – 2019 influenced by the CR variable?

H4.    Is the stock return of companies that are in the LQ-45 Index on the IDX in 2015 – 2019 influenced by the DER variable?

## III. Research Methods

### 3.1. Research Model

The research model used is panel data regression consisting of time series data and also cross-sectional data, where the independent variable is regressed to the dependent variable, namely stock returns. The independent variable used is the Profitability Ratio which consists of the Return on Assets Ratio (ROA) and Return on Equity Ratio (ROE). As for the Liquidity Ratio, the Current Ratio (CR) is selected and the Solvency Ratio is the Debt to Equity Ratio (DER). In short, ROA, ROE, CR, and DER act as independent variables. Meanwhile, stock return is the dependent variable. The multiple linear regression models in this study are as follows:

$Return$Stock $= + 1$ ROA it $+ 2$ ROE it $+ 3$ CR it $+ 4$ DER it $+ \square_{it}$ … (Equation 3.1)

Where:

| | | | |
|---|---|---|---|
| $Y$ | $= Return$ Stock (Independent Variable) | $N$ | = Number of observations |
| $\square$ | = Constant | $T$ | = Quantity time |
| $1\text{-}\beta5$ | = Regression coefficient | $NT$ | = Number of panel data |
| $I$ | = 1,2,3… N | $\square$ | = $Error$ |
| $t$ | = 1,2,3… T | | |

### 3.2. Research Unit

This study analyzes non-banking companies listed on the LQ-45 Index for the period February 2021 to July 2021. The data used in this study are financial reports from public companies obtained from the Indonesia Stock Exchange website and the Company's website.

### 3.3. Operationalization of Research Variables

Operationalization of variables has the aim of being able to easily explain all the variables taken in this study.

### a. Stock returns

$Return$ is the result obtained from investment activities. Returns are divided into two, namely realized returns (Returns that occur or can also be called real returns) and expected returns (Returns expected by investors). Stock return is the level of profit enjoyed by investors on an investment they make (Ang, 1997)

Stock return is the difference between the current stock price (closing price in period t) and the previous period's stock price (closing price in period t-1) divided by the stock price of the previous period (closing price in period t-1), Prihantini (2006)

$Return$ stock = (Pt-(Pt-1))

 (Pt-1)

### b. Return on Assets (ROA)

Return on Assets (ROA) measures the ability to generate profits from the total assets used (Wiagustini, 2010).

According to Wulandari (2013), there are several reasons to choose ROA over other profitability ratios, namely:

1) This ratio includes calculations to measure the efficiency of capital use, product efficiency, and sales efficiency.
2) This ratio can be used to compare industry ratios between companies
3) ROA can be used to measure the profitability of each product produced by the company.
4) ROA can be used to measure performance efficiency per division
5) ROA can be used as a control function and a planning function.

Return on Assets (ROA) can be calculated by the formula:

Return on Assets (ROA) = (Earning after tax)
$$\text{(Total Assets)}$$

### c. Return on Equity (ROE)

According to Tandelilin (2010) stated that Return on Equity describes the extent to which the company's ability to generate profits that can be obtained by shareholders. Meanwhile, according to that Return on Equity is measuring the company's ability to generate net income based on a certain capital.

### d. Current Ratio (CR)

Current Ratio (CR) is a way to test the level of protection obtained by lenders centered on short-term loans granted to companies to fund the company's operational activities (Helfert, 1998).

### e. Debt to Equity Ratio (DER)

This ratio, to measure, total debt, with total, equity. This ratio is calculated by comparing the company's total debt, including current debt with total equity (Kasmir, 2007). Investors should pay attention to the Debt to Equity Ratio (DER) because this variable shares information about the amount of debt or obligations borne by the company..

### 3.4. Population and Sample
### a. Population

The population is a group consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions (Sugiyono, 2010). The population used in this study was taken from several companies listed on the Indonesia Stock Exchange listed on the LQ-45 Index. The number of non-banking companies in the LQ-45 Index is 39 companies each.

### b.Sample

The sample method used in this research is purposive sampling method. Purposive sampling method is one way of taking samples based on certain determinations or parameters that have been determined. The criteria for this research are:

1. Company non-banking in the LQ-45 Index
2. Companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019.
3. Companies whose shares are actively traded on the IDX during 2015 to 2019.

# IV. Results and Discussion

## 4.1. Descriptive statistics

Descriptive statistics aim to analyze the data by explaining the observation data, the mean, and standard deviation, median, maximum and minimum values of each variable used in this study.

| | RETURNSAHAM | ROA | ROE | CR | DER |
|---|---|---|---|---|---|
| Mean | -0.046847 | 0.076497 | 0.181836 | 2.140536 | 0.846392 |
| Median | -0.031922 | 0.062105 | 0.144524 | 1.62252 | 0.538359 |
| Maximum | 0.188462 | 0.381631 | 1.399665 | 7.857973 | 12.14695 |
| Minimum | -0.39433 | -0.009767 | -0.042079 | 0.335592 | 0.001749 |
| Std. Dev. | 0.13916 | 0.068493 | 0.233263 | 1.538588 | 1.699016 |
| Skewness | -0.272183 | 2.414937 | 3.999904 | 2.127418 | 6.02784 |
| Kurtosis | 2.212018 | 11.10371 | 19.65057 | 7.559012 | 40.24309 |
| | | | | | |
| Jarque-Bera | 3.745436 | 363.4075 | 1393.39 | 158.7936 | 6257.249 |
| Probability | 0.153705 | 0 | 0 | 0 | 0 |
| | | | | | |
| Sum | -4.59097 | 7.496723 | 17.81988 | 209.7725 | 82.94637 |
| Sum Sq. Dev. | 1.878447 | 0.455059 | 5.277916 | 229.6235 | 280.0055 |
| | | | | | |
| Observations | 98 | 98 | 98 | 98 | 98 |

*Source: Data based on the author's processing using Software Eviews 10*

Return the highest stock value of 0.188462 was PT Charoen Pokphand Indonesia Tbk in 2016, and the lowest of -0.39433 was PT Tower Bersama Infrastructure Tbk in 2015. The average value (mean) was -0.046847.

The highest ROA with a value of 0.381631 was PT Unilever Indonesia Tbk in 2016, and the lowest at -0.09767 was PT Medco Energi International Tbk in 2018. The mean value was 0.076497.

The highest ROE with a value of 1.399665 was PT Unilever Indonesia Tbk in 2019, and the lowest was PT Medco Energi Internasional Tbk with a value of -0.042079 in 2018. The mean value is 0.181836.

The highest CR of 7.857973 was PT Mitra Keluarga Karyasehat Tbk in 2017 and the lowest was PT XL Axiata Tbk in 2019 which was 0.335592. The average value is 2.140536.

The highest DER with a value of 12,14695 was PT Tower Bersama Infrastructure Tbk in 2016, while the lowest value of 0.001749 was PT Ace Hardware Indonesia Tbk in 2016. The mean value was 0.846392.

## 4.2. Selection of Regression Model

The selection of the regression model will be carried out in three tests. The three tests in selecting the regression model are: Chow test, Hausman test and Lagrange Multiplier test.

## a. Chow test

The Chi-square probability value is 0.0258, where the value is <5% so that the CEM model is the best and chosen. After the Chow test, it is necessary to carry out further Hausman test to ensure whether the CEM model remains the best model or not.

```
Redundant Fixed Effects Tests
Equation: FEM
Test cross-section fixed effects
```

| Effects Test | Statistic | d.f. | Prob. |
|---|---|---|---|
| Cross-section F | 1.209310 | (34,59) | 0.2569 |
| Cross-section Chi-square | 51.822148 | 34 | 0.0258 |

## b. Hausman test

The random cross-section probability value is $0.2280 > 5\%$ so that REM is the best model and further Lagrange Multiplier testing needs to be done to ensure that REM remains the best model.

```
Correlated Random Effects - Hausman Test
Equation: UJI_HAUSMAN
Test cross-section random effects
```

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|---|---|---|---|
| Cross-section random | 5.635900 | 4 | 0.2280 |

## c. Lagrange Multiplier Test

The Breusch-Pagan value for the cross-section is 0.102891 with a probability value of both 0.2874 where $> 5\%$ so that the CEM model is the best model for this test.

```
Lagrange multiplier (LM) test for panel data
Date: 09/28/21   Time: 16:09
Sample: 2015 2019
Total panel observations: 98
Probability in ()
```
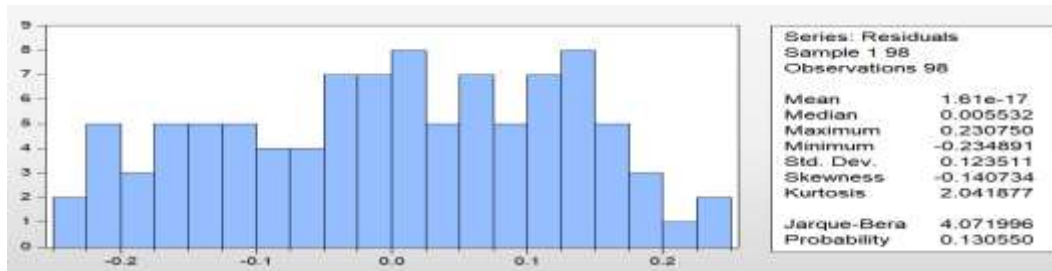
| Null (no rand. effect) Alternative | Cross-section One-sided | Period One-sided | Both |
|---|---|---|---|
| Breusch-Pagan | 0.102891 | 1.028905 | 1.131795 |
| | (0.7484) | (0.3104) | (0.2874) |
| Honda | -0.320766 | -1.014349 | -0.944069 |
| | (0.6258) | (0.8448) | (0.8274) |
| King-Wu | -0.320766 | -1.014349 | -1.063522 |
| | (0.6258) | (0.8448) | (0.8562) |
| GHM | -- | -- | 0.000000 |
| | -- | -- | (0.7500) |

After conducting the three tests mentioned above, CEM is the best model for this research

## 4.3. Classic Assumption Test Results

### a. Normality test

The probability value of 0.130550 is greater than 5%, it can be interpreted that it can be concluded that the data is normally distributed.

| | | |
|---|---|---|
| Series: Residuals | | |
| Sample 1 98 | | |
| Observations 98 | | |
| Mean | | 1.81e-17 |
| Median | | 0.005532 |
| Maximum | | 0.230750 |
| Minimum | | -0.234891 |
| Std. Dev. | | 0.123511 |
| Skewness | | -0.140734 |
| Kurtosis | | 2.041877 |
| Jarque-Bera | | 4.071996 |
| Probability | | 0.130550 |

## b. Multicollinearity Test

There is no value that exceeds 0.9 among the independent variables as shown in the table below, so there is no multicollinearity problem in this study.

| | RETURNSAHAM | ROA | ROE | CR | DER |
|---|---|---|---|---|---|
| RETURNSAHAM | 1 | 0.2373 | 0.0473 | -0.0904 | -0.3236 |
| ROA | 0.2373 | 1.0000 | 0.8236 | 0.1307 | -0.1603 |
| ROE | 0.0473 | 0.8236 | 1.0000 | -0.1692 | 0.2821 |
| CR | -0.0904 | 0.1307 | -0.1692 | 1.0000 | -0.2210 |
| DER | -0.3236 | -0.1603 | 0.2821 | -0.2210 | 1.0000 |

## c. Heteroscedasticity Test

All independent variables as described in the table below, namely ROA, ROE, CR, and DER have probability values of 0.5831, 0.8776, 0.9400, and 0.7393, all of which are > 0.05. It can be concluded that there is no heteroscedasticity problem.

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.119223 | 0.015007 | 7.944478 | 0.0000 |
| ROA | -0.161312 | 0.292883 | -0.550771 | 0.5831 |
| ROE | -0.013687 | 0.088625 | -0.154435 | 0.8776 |
| CR | 0.000399 | 0.005284 | 0.075497 | 0.9400 |
| DER | -0.002075 | 0.006217 | -0.333779 | 0.7393 |

## d. Autocorrelation Test

The DW value of 1.959870 is rounded up to 1.9599.

| | | | |
|---|---|---|---|
| R-squared | 0.212259 | Mean dependent var | -0.046847 |
| Adjusted R-squared | 0.178378 | S.D. dependent var | 0.139160 |
| S.E. of regression | 0.126139 | Akaike info criterion | -1.253190 |
| Sum squared resid | 1.479729 | Schwarz criterion | -1.121304 |
| Log likelihood | 66.40633 | Hannan-Quinn criter. | -1.199845 |
| F-statistic | 6.264781 | Durbin-Watson stat | 1.959870 |
| Prob(F-statistic) | 0.000165 | | |

After doing the test, there is no autocorrelation problem either positive or negative.

| Hipotesis Nol | Keputusan | Jika | Hasil Akhir Pengujian |
|---|---|---|---|
| Tidak ada autokorelasi positif | Tolak | 0 < dw < dL | dw (1.9599) > dL (1.5656) |
| Tidak ada autokorelasi positif | Tidak Ada Keputusan | dL ≤ dw ≤ dU | dL (1.5656) ≤ dU (1.7795) ≤ dw (1.9599) |
| Tidak ada autokorelasi negatif | Tolak | 4-dL < dw < 4 | dw (1.9599) < 4-dL (2.4344) < 4 |
| Tidak ada autokorelasi negatif | Tidak Ada Keputusan | 4-dU < dw < 4-dL | dw (1.9599) < 4-dU (2.2205) < 4-dL (2.4344) |
| Tidak ada autokorelasi positif atau negatif | Tidak Ditolak | dU < dw < 4-dU | **dU (1.7795) < dw (1.9599) < 4-dU (2.2205)** |

## 4.4. Hypothesis testing

This test includes two tests consisting of the F test and t test.

```
Dependent Variable: RETURNSAHAM
Method: Panel EGLS (Cross-section random effects)
Date: 09/28/21   Time: 14:44
Sample: 2015 2019
Periods included: 5
Cross-sections included: 35
Total panel (unbalanced) observations: 98
Swamy and Arora estimator of component variances
```

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| ROA | 1.469582 | 0.565704 | 2.597793 | 0.0109 |
| ROE | -0.340186 | 0.171471 | -1.983927 | 0.0502 |
| CR | -0.028085 | 0.010188 | -2.756509 | 0.0070 |
| DER | -0.009380 | 0.012047 | -0.778665 | 0.4382 |
| C | -0.029489 | 0.029634 | -0.995124 | 0.3223 |

| Effects Specification | | | S.D. | Rho |
|---|---|---|---|---|
| Cross-section random | | | 0.030827 | 0.0604 |
| Idiosyncratic random | | | 0.121573 | 0.9396 |

| Weighted Statistics | | | | |
|---|---|---|---|---|
| R-squared | 0.197383 | Mean dependent var | | -0.043127 |
| Adjusted R-squared | 0.162862 | S.D. dependent var | | 0.134410 |
| S.E. of regression | 0.122833 | Sum squared resid | | 1.403176 |
| F-statistic | 5.717736 | Durbin-Watson stat | | 1.928562 |
| Prob(F-statistic) | 0.000369 | | | |

| Unweighted Statistics | | | | |
|---|---|---|---|---|
| R-squared | 0.212145 | Mean dependent var | | -0.046847 |
| Sum squared resid | 1.479945 | Durbin-Watson stat | | 1.828522 |

### a. Simultaneous Significance Test (F Test)

The probability value (F-statistic) is $0.000369 < 0.05$, meaning that all the independent variables contained in this study have an influence on the dependent variable, namely stock returns.

### b. Coefficient of Determination Test (R-squared)

The R-Squared value is 0.197383 or 19.74%, this means that the independent variables in this study, namely ROA, ROE, CR, and DER have affected 19.74% of the proportion of the dependent variable, namely stock returns. While the remaining 80.26% is influenced by other variables not included in this study.

### c. Individual Parameter Significance Test (t Test)

The independent variables consisting of ROA and CR have probability values of 0.0109 and 0.0070, respectively, all of which are smaller than the significance level of 5%, so this can be interpreted that the independent variables ROA and CR each have an influence on the variable. The dependent is the stock return. As for ROE and DER which are also independent variables, the probability values are 0.0502 and 0.4382, respectively, which are greater than the 5% significance level, so it can be concluded that ROE and DER have no effect on the dependent variable.

## 4.5. Discussion of Hypothesis Testing
## a. Effect of Return on Assets (ROA) on Stock Return

ROA has a t-statistic value of 2.597793 and a probability value of $0.0109 < 0.05$ where it can be concluded that ROA has a positive effect on the dependent variable. The results of this

study are in accordance with the results of research conducted by Andesta (2019), Basalama (2017), and Prihantini (2009) which explain that ROA has an influence on stock returns. Meanwhile, according to Samalam (2018), Hendra (2019) and Febrioni (2016), ROA has no effect on stock returns. The higher the ROA value, it means that the company has used its assets optimally and effectively to generate profits. The higher the profit earned, the stock return will also increase.

### b. Effect of Return on Equity (ROE) on Stock Return

ROE has a t-statistic value of -1.983927 and a probability value of $0.0502 > 0.05$ meaning that ROE has no effect on the dependent variable. The results of this study are in accordance with the results of research conducted by Hafni (2019), Samalam (2018), Naryoto (2013), Hendra (2019), Tumonggor (2017) and Febrioni (2016) which state that ROE has no effect on stock returns. Meanwhile, according to Andesta (2015), ROE has an influence on stock returns. ROE in terms of no effect on stock returns, because ROE is more affected than the composition of the company's equity where if the company issues new shares, the ROE will definitely decrease.

### c. Effect of Current Ratio (CR) on Stock Return

CR has a t-statistic value of -2.756509 and a probability value of $0.0070 < 0.05$ means that CR has a negative effect on the dependent variable. According to Andesta (2015), Naryoto (2013), Prihantini (2009), and Thamrin (2012), state that CR has an influence on stock returns. Meanwhile, Hafni (2019), Basalama (2017), Hendra (2019), Tumonggor (2017), and Febrioni (2016) stated that CR has no effect on stock returns. CR in this case has a negative effect, meaning that the relationship between CR and stock returns is inversely proportional, when CR increases, stock returns will fall and vice versa. A high CR value does not mean the company has good financial and liquidity conditions, because a high CR can also be influenced by high receivables and inventories where many of the receivables have not been collected and also a lot of inventory that has not been sold for a long time.

### d. Effect of Debt to Equity Ratio (DER) on Stock Return

From the table above, DER has a t-statistic value of -0.778665 and a probability value of $0.4382 > 0.05$ means that DER has no effect on the dependent variable.

This is in accordance with the research of Hafni (2019), Samalam (2018), Naryoto (2013), and Tumonggor (2017) which states that DER has no effect on stock returns. Meanwhile, Basalama (2017), Prihantini (2009), Hendra (2019), and Thamrin state that DER has an influence on stock returns. A high DER does not directly mean that the company's financial condition is in a bad condition. A high DER is sometimes caused by the withdrawal of a new loan. As long as this loan is a productive loan in the sense that this loan is used to buy productive assets so that it can increase sales in the future, then this DER should not have a problem. Investors are sometimes happy to see the company invested in growing and expanding. Companies when expanding sometimes require large funds, so sometimes they need to borrow from banks. Under these conditions, DER sometimes has no effect on stock returns.

# V. Conclusion

The conclusions that can be drawn from the results of this test are as follows:

- All independent variables both ROA, ROE, CR, and DER simultaneously have an effect on stock returns of non-banking companies on the LQ-45 Index on the Indonesia Stock Exchange (IDX) in 2015-2019.
- Individually, ROA has a positive effect, while CR has a negative effect on stock returns of non-banking companies on the LQ-45 Index on the IDX in 2015-2019, while ROE and DER have no effect on stock returns of non-banking companies on the LQ-45 Index on the IDX. in 2015-2019.

# References

Ang, Robert. (1997). Indonesian Capital Market Smart Book, Mediasoft, Indonesia

Atidhira, Yustina, The Influence of Return on Assets, Debt to Equity Ratio, Earnings per Share, and Company Size on Share Return in Property and Real Estate Companies

Brigham & Houston. (2014). Fundamentals of Financial Management. Jakarta: Four Salemba.

Cashmere. (2010). Introduction to Financial Management. First Edition. Second printing. Jakarta: Kencana

Cashmere. (2015). Analysis of Financial Statements. First Edition. Eighth Printing, Jakarta: PT Raja Grafindo Persada.

Dendawijaya, L. (2003). Banking Management. Jakarta: PT Ghalia Indonesia.

Erari. (2014). Analysis of the Effect of Current Ratio, Debt to Equity Ratio, and Return On Assets on Stock Returns in Mining Companies on the Indonesia Stock Exchange.

E. Fama. (1970). Efficient capital markets: a review of theory and empirical work. Journal of Finance.

Fahmi, Irham. (2014). Corporate Financial Management and Capital Markets. Jakarta: Media Discourse Partners.

Fiadevi, Luh Putu Wulandari and Luh Komang Sudjarni, (2013), Effect of CAR, NPL, and CR on Profitability of BPRs in Gianyar Regency, Journal of Economics and Business, Udayana University Bali.

Gallo, Amy. (2015). A Refresher on Debt-to-Equity Ratio. Retrieved fromhttps://hbr.org/2015/07/a-refresher-on-debt-to-equity-ratio?registration=success

Gallo, Amy. (2016). A Refresher on Return on Assets and Return on Equity. Retrieved fromhttps://hbr.org/2016/04/a-refresher-on-return-on-assets-and-return-on-equity

Ghozali, Imam. (2018). Multivariate Analysis Applications With IBM SPSS 25 Edition 9 Program.

Ghozali, Imam. (2016). Application of Multivariate Analysis With IBM SPSS 2.University of Diponegoro Semarang. Semarang: Diponegoro University Publishing Agency.

Hartono, Jogiyanto. (2013). Portfolio Theory and Investment Analysis. Yogyakarta: BPFE Yogyakarta.

Helfert, EA, (1998), Financial Analysis Techniques. Jakarta: Erlangga

Ichsan, R. et al. (2021). Determinant of Sharia Bank's Financial Performance during the Covid-19 Pandemic. Budapest International Research and Critics Institute-Journal (BIRCI-Journal). P. 298-309.

Irman, Purwati, Juliyanti. (2020). Analysis on The Influence Of Current Ratio, Debt to Equity Ratio and Total Asset Turnover Toward Return On Assets On The Otomotive and Component Company That Has Been Registered In Indonesia

Kuncoro, Mudrajad. (2013). Research Methods For Business & Economics. Jakarta: Erlangga Publisher.

Lubis, A. et al. (2019). Antecedents Effect of Financial Inclusion for the People of North Sumatera. Budapest International Research and Critics Institute-Journal (BIRCI-Journal). P. 401-408.

Ni Putu Alma Kalya Amira & Ni Luh Putu Wiagustini. (2020) Return on Assets, Return on Equity, and Earning Per Share Influence on Stock Returns. E-Journal of Management, Vol. 9, No. 3, 2020 : 1069-1088

Panjaitan, RY. (2018). Effect of Current Ratio, Debt to Equity Ratio, Net Profit Margin and Return on Assets on Profit Growth of Consumer Goods Companies Listed on the Indonesia Stock Exchange Period 2013 – 2016. Journal of Management, 4(1), 61-72.

Pratama, (2018), Comparative Analysis of Profitability, Liquidity, Solvency, and Volatility Before and After Right Issues on the Indonesia Stock Exchange (IDX) 2013-2014 Period

Puspasari, MF, Suseno, YD, & Sriwidodo, U. (2017). Effect of Current Ratio, Debt to Equity Ratio, Total Asset Turnover, Net Profit Margin and Company Size on Profit Growth. Journal of Human Resource Management, 11(1).

Sorongan (2019), Effect of Return on Assets, Return on Equity, Earning Per Share on Share Prices in Automotive Companies Listed on the IDX. Scientific Journal of Business Management and Innovation at Sam Ratulangi University. Stock Exchange Within 2011-2017

Sudana, I Made. (2009). Financial Management Theory and Practice. Surabaya: AUP.

Sugiyono. (2010). Qualitative Quantitative Research Methods and R&D. Alphabet. Bandung.

Tandelilin, Eduardus. (2010). Portfolios and Investments: Theory and Applications. Issue 1. Canisius. Yogyakarta

Wijaya (2019), Analysis of the development of Return on Assets (ROA) and Return on Equity (ROE) to Measure Financial Performance. Scientific Journal of the University of Management Sciences, Muhammadiyah University