

# An Analysis on the Influence of Financial Ratio on the Stock Return in Banking Companies Listed in the Indonesia Stock Exchange

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## ABSTRACT

This study aims to examine and analyze the effect of financial ratios (CR, TATO, ROA, LDR, BOPO, and NPL) on Stock Returns in Banking companies listed on the Indonesia Stock Exchange (IDX). The population of this study is all banking companies listed on the Stock Exchange in the period 2012-2016 a number of 30 companies and simultaneously used as a sample. Analysis of data using multiple linear regression with software EVIEWS 7. The results showed that simultaneously return stock (CR, TATO, ROA, LDR, BOPO, and NPL) have no significant effect on stock return. Partially, only CR beer has positive and insignificant influence and BOPO has positive and significant effect on stock return, while TATO, ROA, LDR, and NPL have no significant negative effect on stock return. Coefficient of Determination worth 27.5276% indicating that CR, TATO, ROA, LDR, BOPO and NPL able to explain the effect on stock return simultaneously or together equal to 27.5276%, the rest equal to 72.4724% influenced by other factors not included in variable research.

**Keywords:** Stock Return, CR, TATO, ROA, LDR, BOPO and NPL.

## INTRODUCTION

A company that stands certainly has a clear goal. There are several things that express the purpose of the establishment of a company. The first goal is to achieve maximum profit. Profit is an increase in economic benefits during an accounting period in the form of income or addition of assets. The second goal is to prosper the owner of the company or shareholders. While the third goal of the company is to maximize the value of the company reflected in the stock price. The three objectives of the company are actually not substantially different. It's just that the emphasis that each company wants to achieve is different from one another (Harjito dan Martono, 2005). The value of the company can provide maximum shareholder prosperity if the stock price

increases. The higher the share price of a company, the higher the shareholders' prosperity. The capital market is a place for companies to raise capital by offering their shares to the public.

Community / public involvement in the capital market is by buying shares offered in the capital market. Thus, it can be said that there are transactions in the capital market as a market for goods and services in general. Investing in the capital market not only requires more complex thinking and more complex information, but also faces relatively large risks when compared to other forms of deposits in the banking system. Basically, the capital market has two functions, namely the economic function and financial function. The function of the capital market economy is to provide facilities to disburse funds from

those who have excess funds to those who need funds. The function of capital market finance is to provide funds needed by other parties without having to be directly involved in the company's operating activities (Husnan, 2005). Capital market activities of both parties who have funds (investors) and who need funds (issuers) will have different interests. For issuers, the capital market is one of the alternatives to get additional funds without waiting for the results of operational activities, while for an investor, investment in the selected securities is certainly expected to provide a rate of return in accordance with the risks that must be borne by investors (Jogiyanto, 2000).

Analysis of financial statements includes the calculation and interpretation of financial ratios. Financial ratios can be calculated from the contents of financial information in the financial statements so that it can show the strength of the company. Ratio analysis is oriented towards the future, meaning that with racial analysis can be used as a tool to predict financial conditions and results of future operations. Financial ratio analysis can help business people, the government and other users of financial statements assess the financial condition of a company. Financial ratio analysis can be in the form of liquidity ratio analysis, activity ratio, and profitability ratio. In this study liquidity ratios will be used with indicators in the form of current ratio, activity ratio with indicators in the form of total asset turnover, profitability ratio with indicators in the form of return on assets and assessment of banking financial performance indicator loan to deposit ratio, operating costs - operating income and non-performing loans.

Several studies related to stock returns and financial ratios have been conducted, including Thrisye and Simu (2013) who found that CR ratios that have a positive and insignificant effect on stock returns. TATO has a negative and insignificant effect on stock returns. ROA has a positive and significant effect on stock

returns. And PER has a positive and significant effect on stock returns. Raningsih and Putra (2015) stated that profitability and leverage ratios have a positive effect on stock returns, the liquidity ratio has a negative effect on stock returns while the activity ratio and firm size have no effect on stock returns. Meanwhile, by using these ratios in assessing the health of the banking system, it will be known the achievements and weaknesses of each banking company, so that it will become a very valuable information for the parties concerned. Based on the consideration of the background of the above problems, the researcher was interested in making a study of "Analysis of the Influence of Financial Ratios on Stock Returns on Banking Companies Registered on the Indonesia Stock Exchange". The purpose of this research is to empirically examine the effect of financial ratios on stock returns on banking companies listed on the Stock Exchange both partially and simultaneously. By testing a number of variables, financial ratios such as liquidity ratios, activity ratios, profitability ratios, LDR, BOPO and NPL ratios based on the company's financial report data in Indonesia.

## **LITERATURE REVIEW**

### **Signaling Theory**

Signal theory explains the reason the company presents information to the capital market. Signal theory shows the existence of information asymmetry between the management of the company and those with an interest in the information. Signal theory suggests how companies should provide signals to users of financial statements. Signaling theory suggests how it should a company gives a signal to users of financial statements. This signal is in the form of information about what has been done by management to realize the wishes of the owner. Signals can be in the form of promotions or other information stating that the company is better than other companies. Signal theory can also help companies (agents), owners (principals), and outsiders

reduce information asymmetry by producing quality or integrity of financial statement information. To ensure the interested parties believe in the reliability of financial information submitted by the company (agent), it is necessary to get opinions from other parties who are free to give opinions about the financial statements (Jama'an, 2008).

### **Agency Theory**

Agency theory describes the relationship between principal shareholders and management as agents. Management is a party contracted by shareholders to work for the benefit of shareholders. Because they are chosen, the management must account for all their work to shareholders. Agency relationship is a contract whereby one or more people (principals) order another person (agent) to carry out a service on behalf of the principal and authorize the agent to make the best decision for the principal. If both parties have the same goal to maximize the value of the company, then it is believed that the agent will act in a manner that is in accordance with the interests of the principal. In a company, one of the conflicts of interest between the principal and the agent can arise due to an excess cash flow. Excess cash flows tend to be invested in things that have nothing to do with the company's main activities. This causes differences in interests because shareholders prefer high-risk investments that also generate high returns, while management prefers investments with lower risk.

### **Stock**

Stocks are defined as a sign of ownership or ownership of a person or entity in a company (Fakhrudin, 2001). The form is a piece of paper which explains that the owner of the paper is the owner of the company that published the paper. There are two types of shares traded, namely Preferred stock (preferrend stock) and common stock. Preferred stock is a stock that pays dividends regularly / regularly to shareholders, while common stock provides a kind of expansion over company

ownership rather than preferred shares. Which shares will be purchased by investors depends on the purpose to own the shares.

### **Stock returns**

Return is the result obtained from investment. Returns can be in the form of return on realization that has already occurred or expectation returns that have not occurred but which are expected to occur in the future (Jogiyanto, 2003). Return used in this study is realized return which is a capital gain / capital loss that is the difference between the current period stock price ( $P_t$ ) and the stock price in the previous period ( $P_{t-1}$ ). If the current stock price ( $P_t$ ) is higher than the previous period stock price ( $P_{t-1}$ ) then there is a capital gain profit, and vice versa if the current stock price ( $P_t$ ) is lower than the past period stock price ( $P_{t-1}$ ) then capital loss occurs.

### **Financial Ratio**

Financial reports published by the company provide an overview of the company's financial condition at a given time (within a period of a year), operating performance in a span of time, as well as other information relating to the company itself. From a management point of view, financial statements are media for them to communicate the financial performance of the company they manage to interested parties, while in terms of the user's point of view, it is expected to be used to make rational decisions in sound business practices. In assessing the financial condition and achievements of the company, several benchmarks are needed, including the ratio that connects financial data with one another. Financial ratio analysis is an analytical instrument in assessing company performance that explains various relationships and financial indicators, which are intended to show changes in financial conditions or operating achievements in the past and help illustrate the trend of these patterns of change, to then show the risks and opportunities inherent in the company concerned. The meaning and usefulness of financial ratios in business practices is in fact subjective depending on what an

analysis is done and in what context the analysis is applied. Although financial reporting has a broad social purpose, it is the investor and creditor, because by meeting their needs almost all the needs of other external users will be fulfilled (Warsidi, 2000). Financial ratios can be grouped into 5 (five) types, namely: liquidity ratios, leverages ratios, activity ratios, profitability ratios, and market ratios. In this study will use the current ratio / CR ratio (liquidity ratio), total assets turnover / TATO (activity ratio), return on assets / ROA (profitability ratio), loan to deposit ratio / LDR, operating-operating income (BOPO) and non-performing loan (NPL).

#### **Ratio Liquidity**

The liquidity ratio provides an overview of financial position in a short period of time, but is also used to check the efficiency of working capital used in the company. This ratio is often referred to as the working capital ratio. Not only are the Bank and short-term creditors interested in liquidity ratio figures, liquidity ratios are also useful for long-term creditors and shareholders who ultimately want to know the prospects of dividends and interest payments in the future (Munawir, 2001). The most commonly used ratio to analyze the working capital position of a company (liquidity) is to use the current ratio (CR). This ratio shows a comparison of the value of current wealth (which can immediately be made into money) with short-term debt (Munawir, 2001).

#### **Activity Ratio**

One of the objectives of financial managers is to determine how much investment efficiency in various assets. In other words, the activity ratio shows how a resource has been used optimally, then by comparing the activity ratio with industry standards, the efficiency of the company will be known. (Sartono, 2001). Activity ratios include: inventory turnover, average collection period, fixed asset turnover, and total asset turnover. The activity ratio that will be used in this research is Total Asset Turnover / TATO (Sartono, 2001). Total

Asset Turnover shows how the effectiveness of a company uses all assets to increase sales value and increase profits (Sartono, 2001). TATO is influenced by the value of net sales carried out by the company compared to the total asset value owned by the company. If the TATO value is increased, it means that there is an increase in the company's net sales, an increase in net sales of the company will encourage an increase in profit that will be responded to by an increase in the company's stock price which will ultimately increase the company's stock return (Sartono, 2001).

#### **Profitability Ratio**

The main attraction for company owners (shareholders) in a company is profitability. In this context profitability means the results obtained through management efforts on funds invested by the owner of the company. According to Machfoedz (2006) profitability is the result of policies and decisions taken by management. The owner is also interested in the distribution of the rights that are entitled, namely the amount of reinvested and how much is distributed as dividends to them. In the end, the owner is also interested in the impact companies against the market value of their investments, especially if shares are sold to the public. In making investments, investors and prospective investors will pay attention to profitability and risk factors. This is because the stability of stock prices will affect dividends and the returns that investors will receive in the future. If the company's ability to generate profit is relatively high, then the stock price will also experience an increase that will have an impact on increasing stock returns in the future (Husnan, 2000).

#### **Loan to Deposit Ratio (LDR)**

Loan to Deposit Ratio (LDR) is the ratio between the amount of all credit volume disbursed by banks and the amount of funds received from various sources. The definition of LDR is the financial ratio of a banking company that deals with liquidity aspects. A traditional measurement that shows time deposits, demand deposits,

savings, and others used in fulfilling loan requests for its customers.

### **Ratio of Operating Expenses to Operating Income (BOPO)**

The ratio of operational costs to operating income (BOPO) is often called the efficiency ratio used to measure the ability of the bank's management in controlling operational costs against operating income. The smaller the ratio means the more efficient operational costs incurred by the bank concerned (Ardhiastari and Heidi, 2005). This reflects the level of efficiency of the bank in carrying out its operations.

### **Non Performing Loan (NPL)**

NPLs often called problem loans can be interpreted as loans that have difficulty repaying due to intentional factors and external factors beyond the ability of the debtor to control. This ratio shows the ability of bank management to manage non-performing loans provided by the Bank. That is, the higher this ratio, the worse the bank's credit quality will cause the greater amount of credit, the greater the problematic bank, the loss caused by the rate of non-performing loans.

## **MATERIALS & METHODS**

Research conducted by researchers is associative research. Associative research is a research that has the purpose of knowing the relationship between two or more variables. This study aims to examine the effect of liquidity ratios, activities, profitability, LDR, BOPO and NPL on stock returns. This research is a study using secondary data where the location or scope of the research used is all banking companies listed on the Indonesia Stock Exchange. Data of companies listed on the Indonesia Stock Exchange are accessed through the website [www.IndonesiaStockExchange.co.id](http://www.IndonesiaStockExchange.co.id). This is done from November to January 2018. The population in the study is all banking companies listed on the Indonesia Stock Exchange (BEI) in the 2012-2016 period. The sampling technique in this study is to use census sampling techniques (census sampling). The

sample used in this study is 27 research samples.

The data used in this study is external data. External data is data that is searched manually by getting it from outside the company. In this study, data collection was carried out in two stages, the first stage was carried out through literature study, which came from books relating to the problem under study. In the second stage, secondary data collection was obtained from internet media by downloading via the [www.IndonesiaStockExchange.co.id](http://www.IndonesiaStockExchange.co.id) to obtain data about financial statements that have been published. The type of data used in this study is Pooled Data which is a combination of time series and cross-section data, the purpose of which is to use this data is generally to increase observations to meet the needs of the minimum number of observations (Primanti, 2011).

### **Research variable**

#### ***Dependent Variables***

Dependent variables are also called dependent variables or non-independent variables, output variables, criteria or consequence, and become the main concern in an assessment. Dependent variables or non-independent variables are variables that are affected or that result, because of the cause or independent variables (Erlina, 2011). The dependent variable for this research is stock return where the formula is:

$$\text{Stock return} = \frac{Pt - Pt_{-1}}{Pt_{-1}}$$

#### ***Independent Variable***

##### ***Liquidity Ratio***

Demonstrate the ability of a company to meet its obligations for short-term debt. The better the liquidity ratio, the smaller the risk of failure or inability of a company. In this study, the financial ratio of the liquidity aspect was measured using:

$$\text{Current Ratio} = \frac{\text{CurrentAssets}}{\text{CurrentLiabilities}} \times 100\%$$

##### ***Activity Ratio***

Activity Ratios provide an overview of how effective a company is using its entire assets

to increase sales value and increase profits. In this study, the financial ratios of activity aspects were measured using:

$$\text{Total Asset Turnover} = \frac{\text{Net income}}{\text{Total assets}} \times 100\%$$

#### *Loan to Deposit Ratio (LDR)*

LDR to calculate the company's long-term debt needs to be assessed to measure the company's ability to meet its long-term obligations. Where this ratio measures the use of capital that has been used by companies in their business cycle. Based on the provisions of BI the formula used to calculate LDR is as follows:

$$\text{LDR} = \frac{\text{Credit}}{\text{Third-party funds}} \times 100\%$$

#### *Biaya Operasional terhadap Pendapatan Operasional (BOPO)*

Operational costs are costs incurred by the bank in order to carry out its main business activities (such as interest costs, labor costs, marketing costs, and other operational costs). The formula used to calculate BOPO is as follows

$$\text{BOPO} = \frac{\text{Operational Expenditures}}{\text{Operating income}} \times 100\%$$

#### *Non Performing Loan Ratio (NPL)*

In the NPL ratio, there are several factors contained in the NPL ratio, namely:

- Unpaid loan principal is more than three months
- Installment repayments for medium and long term, more than six months
- Loans with collateral waived
- Loans for which interest payments are not paid for more than six months

Thus it can be seen that with the increasing NPL ratio, the risk of bad credit from a banking company to the loan given will be greater so that it can affect the performance of the bank. Based on BI provisions, the formula for calculating NPL is as follows:

$$\text{NPL} = \frac{\text{Credit in Substandard, Quality, Doubtful and Loss}}{\text{Total Credit}} \times 100\%$$

#### **Statistical Analysis**

Data analysis was carried out using quantitative analysis methods, namely by collecting, processing, and interpreting the

data obtained so as to provide correct and complete information for solving the problems faced. Data analysis method used in this study is a multiple regression model using the help of software Eviews 7. There are two types of testing that can be used in this study, namely the classical assumption test and hypothesis testing.

#### **Classic assumption test**

Before testing multiple linear regression analysis against the research hypothesis, it is necessary to first test a classic assumption on the data to be processed as follows:

#### **Normality test**

The normality test is useful in the initial stage in the method of selecting data analysis. The normality test functions to see whether the residual value is normally distributed or not. While Erlina (2011) explained that "the purpose of the data normality test is to find out whether the disturbing or residual variable regression models have normal distribution". This research was conducted because to do the t test and the F test assumed that the residual value followed the normal distribution

#### **Multicollinearity Test**

Multicollinearity test is to see whether or not there is a high correlation between the independent variables in a multiple linear regression model. If there is a high correlation between the independent variables, the relationship between the independent variable and the dependent variable is disrupted (Sunjoyo et al, 2013).

#### **Heteroscedasticity Test**

The heteroskedasticity test is to see whether there is a variance inequality from residual one to observation to another observation. The regression model that meets the requirements is that there is a similarity in variance from residuals, one observation to another observation remains or called homoskedasticity (Sunjoyo et al. 2013).

#### **Autocorrelation Test**

Autocorrelation test is to see if there is a correlation between a period t with the previous period (t-1). Simply put, regression

analysis is to see the effect of independent variables on the dependent variable, so there can be no correlation between observations with previous observation data (Sunjoyo et al, 2013). Autocorrelation test is only done on time series data (time series) and is not needed in cross section data as in the questionnaire where measurements are carried out simultaneously and together.

#### Determination Coefficient Test (R2)

The coefficient of determination (R2) essentially measures how far the ability of the model explains the variation of the dependent variable. The value of the coefficient of determination is between zero to one ( $0 < R2 < 1$ ). limited. Value approaching one means that independent variables provide almost all the information needed to predict the variation of the dependent variable.

#### Significant Test t (Partial)

The t test is used to find out whether individually or partially independent variables have an influence on bond ratings, assuming other independent variables are constant. The basis for decision making is: Ho is rejected or Ha is accepted if the significant value of t or p value is  $< 5\%$ . The criteria used are as follows:

Ho is accepted if  $t \text{ counts} < t \text{ table}$

Ha is accepted if  $t \text{ counts} > t \text{ table}$

#### Significant Test of F (Simultaneously)

The F test is used to determine whether the independent variables (Likuditas, activity, Profitability, LDR, BOPO, NPL Ratios) together have an influence on stock returns. The basis for decision making is: Ho will be rejected or Ha accepted if the probability value is  $F < 5\%$ .

## RESULT

Table 1. Descriptive Statistics

Inf	N	Mean	Maximum	Minimum	Std. Dev.
Y	150	-1.843703	1.249921	-5.323010	1.172469
X1	150	0.014415	1.851599	-1.339476	0.251343
X2	150	-2.379779	0.095310	-3.912023	0.520127
X3	150	-4.518194	-2.203953	-8.878426	0.960889
X4	150	-0.228284	0.662566	-2.532080	0.314711
X5	150	-0.123416	3.674889	-1.473710	0.569758
X6	150	-3.891050	-0.006935	-6.907755	1.393549

Source: The results of the software EViews 7

Based on the results obtained from Table 1, it can be explained that:

1. Variable Stock Return (Y), has a total sample of 150, the minimum value is -5.3233010, the maximum value is 1.249921, the average value is -1.843703, and the standard deviation is 1.172469. The highest stock return value is the Bank of India Indonesia Tbk while the lowest value is the Banten Regional Development Bank Tbk.
2. Liquidity Variable (X1) with proxy Current Ratio (current assets / current debt), has a total sample of 150, the minimum value is -1.339476, the maximum value is 1.851599, the average value is 1.672595, and the standard deviation is 0.251343. The highest liquidity value was obtained by Bank OCBC NISP Tbk and the lowest was obtained by Bank Mandiri Persero Tbk.
3. Activity variable (X2) with proxy Total Assets Over (net income / total assets), 150 samples, minimum value of -3.912023, maximum value of 0.095310, average value of -2.379779, and standard deviation of -3.912023. The highest activity ratio was obtained by the Banten Regional Development Bank, while the lowest value was obtained by Bank OCBC NISP.Tbk.
4. Profitability Variable (X3) with Return on Assets (Total Earnings After Interest and Tax / Total Asset) proxy, has a total sample of 150, the minimum value is -8.878426, the maximum value is -2.203953, the average value is -4.518194, and standard deviation of 0.960889. The highest profitability value was obtained at Bank Central Asia Tbk while the lowest value was obtained by MNC International Tbk.
5. LDR variable (X4) has a total sample of 150, the minimum value is -2.532080, the maximum value is 0.662566, the average value is -0.228284, and the standard deviation is 0.314711. The highest LDR value was obtained at Bank Rakyat Indonesia Tbk while the lowest

value was obtained by Bank Mega Tbk. Variabel BOPO ( $X_5$ ) memiliki jumlah sampel sebanyak 150, nilai minimum sebesar -1.473710, nilai maksimum sebesar 3.674889, nilai rata-rata sebesar -0.123416, dan simpangan baku sebesar 0.569758. Nilai BOPO yang tertinggi diperoleh pada Bank Central Asia Tbk sedangkan nilai yang terendah diperoleh oleh Bank Mandiri (Persero) Tbk.

6. Variabel NPL ( $X_5$ ) memiliki jumlah sampel sebanyak 150, nilai minimum sebesar -6.907755, nilai maksimum sebesar -0.006935, nilai rata-rata sebesar -3.891050, dan simpangan baku sebesar 1.393549. Nilai NPL yang tertinggi

diperoleh pada Bank Mega Tbk sedangkan nilai yang terendah diperoleh oleh Bank OCBC NISP Tbk dan Bank Pan Indonesia Tbk.

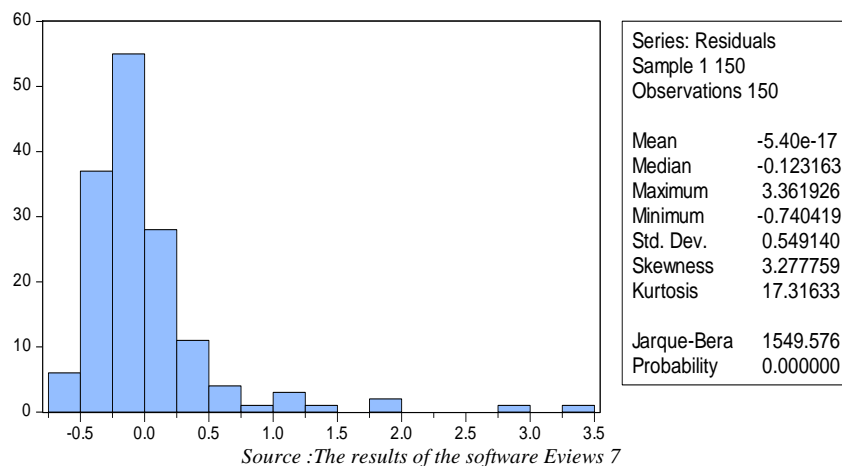
### Classic assumption test

#### Normality test

In this study, test the normality of the residuals by using the Jarque-Bera test (J-B). In this study, the probability level used is  $\alpha = 0.05$ . The basis of decision making is to look at the probability numbers of the J-B statistics, with the following conditions.

If the probability value is  $p \geq 0.05$ , then the assumption of normality is met.

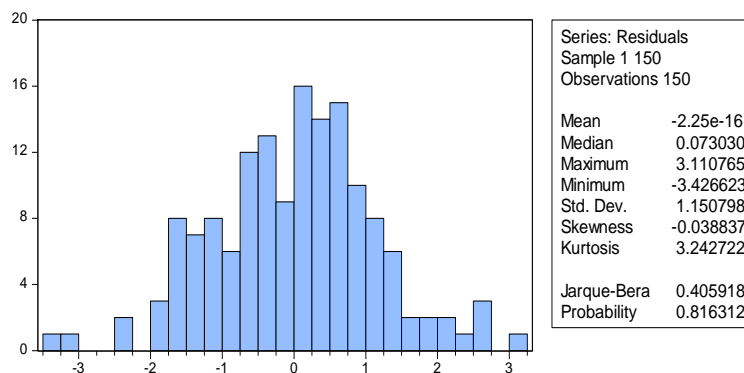
If the probability is  $< 0.05$ , then the assumption of normality is not met.



Source :The results of the software Eviews 7

Figure 1. Normality Test: Histogram Before Transformation

Because the data is not normally distributed, the researchers make improvements so that the regression model meets the assumption of normality. In this study, transforming data on variables that are not normally distributed. Then the data is retested based on the assumption of normality. The results of the normality test after the abnormal data transformation is:



Source :The results of the software Eviews 7

Figure 2. Normality Test with Jarque Test – Bera



Figure 2, it is known that the probability value of the J-B statistic is 0.816312. Because the probability value p, which is 0.816312 is greater than the probability level, which is 0.05. This means that the assumption of normality is met.

**Multicollinearity Test**

In this study, the symptoms of multicollinearity can be seen from the

correlation values between variables contained in the correlation matrix. If there is a high correlation between independent variables, which is above 0.8, this is an indication of multicollinearity. Multicollinearity test results are presented in Table 2.

**Table 2. Multicollinearity Test with Correlation Matrix**

	X1	X2	X3	X4	X5	X6
X1	1.000000	-0.039601	-0.018446	0.640682	-0.011462	-0.006425
X2	-0.039601	1.000000	0.052293	0.010969	0.045739	0.179261
X3	-0.018446	0.052293	1.000000	-0.008682	-0.024956	0.071867
X4	0.640682	0.010969	-0.008682	1.000000	-0.025288	-0.039738
X5	-0.011462	0.045739	-0.024956	-0.025288	1.000000	-0.056476
X6	-0.006425	0.179261	0.071867	-0.039738	-0.056476	1.000000

Source : The results of the software Eviews 7

From the results of multicollinearity testing in Table 5.3 it can be concluded that there are no symptoms of multicollinearity between independent variables. This is because the correlation value between independent variables is not more than 0.8.

**Heteroscedasticity Test**

Detection of the presence or absence of heteroscedasticity can be done by the Glejser test. Here are the results of the Glejser test.

**Table 3. Heteroscedasticity Test (Glejser Test)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.236688	0.389009	3.179071	0.0018
X1	0.455861	0.298884	1.525208	0.1294
X2	0.232499	0.112967	2.058118	0.0414
X3	-0.030870	0.060094	-0.513698	0.6083
X4	-0.102755	0.238805	-0.430290	0.6676
X5	-0.051012	0.101363	-0.503256	0.6156
X6	-0.012207	0.042201	-0.289257	0.7728

Source : The results of the software Eviews 7

Based on the results of the Glejser test in Table 3, it is known that all Prob> 0.05 values mean that heteroscedasticity does not occur.

**Autocorrelation Test**

Assumptions regarding the independence of residuals (non-autocorrelation) can be tested using the Durbin-Watson test. Statistical values of the Durbin-Watson test range between 0 and 4. Statistical values of the Durbin-Watson test smaller than 1 or greater than 3 autocorrelation is indicated.

**Table 4. Autocorrelation Test with the Durbin-Watson Test**

Log likelihood	-233.3647	Hannan-Quinn criter.	3.283429
		Durbin-Watson stat	1.984575

Source: The results of the software Eviews 7

Based on Table 4, the value of the Durbin-Watson statistics is 1.984575. Note that because the Durbin-Watson statistical value is between 1 and 3, ie  $1 < 1.984575 < 3$ , the assumption of non-autocorrelation is fulfilled. In other words, there are no symptoms of high autocorrelation in the residuals.

Determination of Estimation Model between Common Effect Model (CEM) and Fixed Effect Model (FEM) with Chow Test

To determine whether the CEM or FEM estimation model in forming a regression model, the Chow test is used. The hypothesis is tested as follows.

H<sub>0</sub>: The CEM model is better than the FEM model.

H<sub>1</sub>: The FEM model is better than the CEM model

Here are the results based on the Chow test using Eviews 7.

**Table 5. Results from the Chow Test**

Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.294487	(29,114)	0.1700
Cross-section Chi-square	42.697799	29	0.0485

Source: The results of the software Eviews 7

Decision making rules regarding the hypothesis as follows.

If the Chi-square cross-section probability value is  $<0.05$ , then  $H_0$  is rejected and  $H_1$  is accepted.

If the Chi-square cross-section probability value is  $>0.05$ , then  $H_0$  is accepted and  $H_1$  is rejected.

Based on the results of the Chow test in Table 5, it is known that the probability value is 0.0485. Because the probability value is  $0.0485 < 0.05$ , the estimation model used is the Fixed Effect Model (FEM) model.

Determination of the Estimation Model between Fixed Effect Model (FEM) and Random Effect Model (REM) with the Hausman Test

To determine whether the FEM and REM estimation models form a regression model, the Hausman Test is used. The hypothesis tested is as follows:

$H_0$ : The REM model is better than the FEM model

$H_1$ : FEM models are better than REM models

Here are the results based on the Hausman test using Eviews 7.

**Table 6. Hausman Test Results**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.766547	6	0.7082

Source : The results of the software Eviews 7

Decision making rules regarding the hypothesis as follows:

If the probability value of a random cross-section is  $<0.05$  then  $H_0$  is rejected and  $H_1$  is accepted.

If the probability value of a random cross-section is  $>0.05$  then  $H_0$  is accepted and  $H_1$  is rejected.

Based on the results of the Hausman Test in table 6. it is known that the probability value is 0.7082. Because the probability value is  $0.7082 > 0.05$ , the estimation model used is the Random Effect Model (REM) model.

### Hypothesis testing

In testing the hypothesis, the determination coefficient analysis, simultaneous influence test (F test), and partial effect test (t test) will be carried out. Statistical values of the coefficient of determination, F test, and t test are presented in Table 7.

**Table 7. Statistical values of the Determination Coefficient, F test, and t test**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Information
C	-3.154412	1.212007	-2.602635	0.0105	
X1	0.194046	0.568787	0.341157	0.7336	(+)Not significant
X2	-0.048826	0.251904	-0.193828	0.8467	(-)Not significant
X3	-0.192690	0.144043	-1.337729	0.1836	(-)Not significant
X4	-0.436771	0.464895	-0.939505	0.3495	(-)Not significant
X5	0.416257	0.182574	2.279932	0.0245	(+)significant
X6	-0.070102	0.148753	-0.471267	0.6384	(-)Not significant
Effects Specification					
Cross-section fixed (dummy variables)					
R-squared	0.275276	Mean dependent var	-1.843703		
Adjusted R-squared	0.052773	S.D. dependent var	1.172469		
S.E. of regression	1.141112	Akaike info criterion	3.307447		
Sum squared resid	148.4437	Schwarz criterion	4.030000		
Log likelihood	-212.0586	Hannan-Quinn criter.	3.600997		
F-statistic	1.237177	Durbin-Watson stat	2.283150		
Prob(F-statistic)	0.200896				

Source: The results of the software Eviews 7

### Determination coefficient analysis

Based on Table 7. it is known the value of the coefficient of determination (R-squared) of  $R^2 = 0.275276$ . This value can be interpreted that CR, TATO, ROA, LDR, BOPO and NPL, can influence / explain the value of the Stock Return simultaneously or together by 27.5276%, the remaining

72.4724% is influenced by other factors not included in the research variable.

### Simultaneous Influence Probability Test (Test F)

The F test aims to examine the effect of independent variables simultaneously or simultaneously on non-independent variables. Based on Table 5.8, the Prob value is known. (F-statistics), namely

0.200896 > 0.05, it can be concluded that all independent variables, namely the ratio of CR, TATO, ROA, LDR, BOPO and NPL simultaneously have no significant effect on the stock return variable.

#### **Partial Probability Test (statistical test t)**

The t test is used to find out whether individually or partially independent variables have an influence on stock returns, assuming other independent variables are constant. The basis for decision making is:  $H_0$  is rejected or  $H_a$  is accepted if the significant value of t or p value is < 5%.

Based on table 7, it can be concluded that the partial hypothesis test of each independent variable is as follows:

1. The CR variable has a t value of 0.341157 and a probability value of 0.7336. The probability value for the t test obtained is 0.7336 greater than the alpha probability level that has been set at 5% (0.05). This shows that the CR ratio has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.
2. The TATO variable has a value of t calculated at - 0.193828 and a probability value of 0.8467. The probability value for the t test obtained is 0.8467 greater than the alpha probability level which has been set at 5% (0.05). This shows that TATO has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.
3. The ROA variable has a t value of - 1.337729 and a probability value of 0.1836. The probability value for the t test obtained is 0.1836 greater than the alpha probability level which has been set at 5% (0.05). This shows that ROA has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.
4. The LDR variable has a t value of - 0.939505 and a probability value of 0.3495. The probability value for the t test obtained is 0.3495 greater than the alpha probability level which has been set at 5% (0.05). This shows that the

LDR has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.

5. The LDR variable has a t value of - 0.939505 and a probability value of 0.3495. The probability value for the t test obtained is 0.3495 greater than the alpha probability level which has been set at 5% (0.05). This shows that the LDR has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.
6. The LDR variable has a t value of - 0.939505 and a probability value of 0.3495. The probability value for the t test obtained is 0.3495 greater than the alpha probability level which has been set at 5% (0.05). This shows that the LDR has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.
7. The BOPO variable has a calculated value of 2.279932 and a probability value of 0.0245. The probability value for the t test obtained is 0.0245 less than the alpha probability level which has been set at 5% (0.05). This shows that BOPO has a significant effect on stock returns in banking companies listed on the Indonesia Stock Exchange.
8. The NPL variable has a t value of - 0.471267 and a probability value of 0.6384. The probability value for the t test obtained is 0.6384 less than the alpha probability level that has been set at 5% (0.05). This shows that NPL has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.

The equation of the multiple linear regression model formed from the results of this study is as follows:

$$Y = -2.602635 + 0.341157 X_1 - 0.193828 X_2 - 1.337729 X_3 - 0.939505 X_4 + 2.279932 X_5 - 0.471267 X_6$$

Where:

Y: Stock Return

X1: CR ratio

X2: TATO ratio

X3: ROA ratio

X4: LDR ratio  
X5: BOPO ratio  
X6: NPL ratio  
a: Constants

Based on the results of the multiple regression equation, each variable explains that:

1. A constant of -2.602635 states that if there is no independent variable the value of stock returns is -2.602635.
2. CR has a positive direction as far as 0.341157. Assuming that any increase in liquidity of 1% will cause an increase in stock returns of 0.341157%, and conversely a decrease in CR by 1% will also cause a decrease in stock returns of 0.341157%.
3. TATO has a negative relationship as far as 0.193828. Assuming that any increase in leverage of 1% will cause a decrease in stock returns of 0.193828%, and conversely a decrease in TATO of 1% will also cause an increase in stock returns of 0.193828%.
4. ROA has a negative direction as far as 1.337729. Assuming each increase in ROA of 1% will cause an increase in stock returns of 1.337729%, and conversely a decrease in ROA of 1% will also cause a decrease in stock returns of 1.337729%.
5. LDR has a direction of negative relationship as far as 0.939505. Assuming that each LDR increase of 1% would cause an increase in stock returns of 0.939505%, and conversely a 1% decrease in LDR would also cause a decrease in stock returns of 0.939505%.
6. BOPO has a positive relationship as far as 2.279932. Assuming every BOPO increase of 1% will cause an increase in stock returns of 2.279932%, and conversely a decrease in BOPO of 1% will also cause a decrease in stock returns of 2.279932%.
7. NPL has a negative direction as far as 0.471267. Assuming that any increase in NPL of 1% will cause an increase in stock returns of 0.471267%, and conversely a decrease in NPL of 1% will

also cause a decrease in stock returns of 0.471267%.

## DISCUSSION

### Effect of Current Ratio on Stock Returns

The result of partial hypothesis testing (t test) shows that the CR ratio with the proxy of current assets / current debt has a positive and insignificant effect on stock returns. According to Kasmir (2015) if the current ratio is low, it can be said that the company lacks capital to pay debt. Because in this case if the Current Assets owned by the company go up, which means that the company is able to pay off its short-term liabilities which will increase the company's profitability and will also affect stock returns. The results show that CR has a positive effect on stock returns. This is likely to occur because investors are looking for companies that have strong capital and liquidity because investors want to ensure their investments are safe so that the shares of companies that have high liquidity are sought after by investors that cause high levels of stock returns. It is important for companies to have a high level of liquidity so that companies can distribute dividends to their shareholders so that shareholders still have a good impression on the company. Companies with a high level of liquidity will most likely distribute dividends, and certainly will be sought by investors so that stock returns will follow the rise and fall of a company's liquidity. This is in line with the theory expressed by Sitompul which states that liquidity is one of 8 factors that influence stock returns. However, investors pay more attention to other ratios, which can consistently affect stock returns, for example in the cash ratio or cash position. The results of this study contradict the research conducted by I. G. K. A. Ulupui, which states that Current Ratio (CR) has a positive and significant effect on stock return decision making. Which identifies that investors will get a higher return if the company is able to meet its short-term debt. This difference may be due to differences in sample selection.

### **Effect of TATO on Stock Returns**

The result of partial hypothesis testing (t test) shows that Profitability with proxy Total Asset Turn Over has a negative and insignificant effect on stock returns. This shows that the asset turnover owned by the company in generating sales cannot explain the stock returns that will be received by investors. The company's ability to optimize its assets effectively and efficiently does not affect the interest of investors to buy shares of a company.

### **Effect of ROA on stock returns**

The results of partial hypothesis testing (ujit) show a negative and insignificant effect on stock returns. The negative influence shows that the management of the company is less efficient so investors assess the company's performance is not good and cause the stock price to go down and then have an impact on decreasing stock returns. The results of this study are not in accordance with the theory that the higher the level of profitability inability to pay (default) or better rating given to the company..

### **Effect of LDR on Stock Returns**

The results of partial hypothesis testing (t test) show a negative and insignificant effect on stock returns. This is because banks lately prefer to channel credit levels in order to increase income from the loan interest sector. Certainly the high income from these sectors can increase income banking

### **Effect of BOPO on Stock Returns**

The result of partial hypothesis testing (t test) shows a positive and significant effect on stock returns. This is consistent with the theory which states that the higher the BOPO ratio indicates the more efficient management of operational costs that can be carried out by the bank concerned.

### **Effect of NPLs on Stock Returns**

The results of partial hypothesis testing (t test) show a negative and insignificant effect on stock returns. Seen from the perspective of the investor factor which is taken into consideration in

investing in the capital market, one of them is profitability where the banking industry is mostly earned from lending. the high credit channeled, then the acquisition of interest income is greater. Thus, it can be concluded that investors remain interested in investing their shares in a bank as long as the bank earns a profit without considering the level of credit quality which is reflected in the amount of NPL.

### **CONCLUSION**

There are several things that can be concluded, including:

1. The ratio of CR, TATO, ROA, LDR, BOPO and NPL simultaneously has no significant effect on stock returns on banking companies listed on the Indonesia Stock Exchange.
2. Current Ratio ratio has a positive and insignificant effect on stock returns.
3. Total Aset Turn Over ratio has a negative and insignificant effect on stock returns.
4. Return on Asset Ratio has a negative and insignificant effect on stock returns.
5. Loan to Deposit Ratio ratio has a negative and insignificant effect on stock returns.
6. Operating Cost Ratio and Operating Income have a positive and significant effect on Stock Returns.
7. Non-Performing Loan Ratio has a negative and insignificant effect on Stock Return.

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