# ANALYSIS OF FACTORS AFFECTING BANKING PROFITABILITY

## (Case Study on Banking Companies Listed on the Indonesia Stock Exchange 2016-2018)

**Garin Pratiwi Solihati**

Business and Economic Faculty, Mercubuana University, Indonesia

**Abstract:** Banking has a major role in the economy; it is not detached from the role of the bank as an intermediation institution. The Bank has a duty to raise funds from the community and distribute back to the community in the form of credit. The research aims to determine the influence of variable Loan to Funding Ratio (LFR), Non Performing Loan (NPL), Capital Adequacy Ratio (CAR), Net Interest Margin (NIM) to profitability that is proscribed with Return On Asset (ROA). The population of this research is the finance sector of the bank's subsectors registered in IDX, which is 45 companies. Based on the purposive sampling technique obtained as many as 31 companies. This research uses the documentation obtained from the annual financial statements published on the website www.idx.co.id. The analytical techniques used are multiple linear regressions. The results showed that LFR had no effect on ROA at 0.066, the NPL had an impact on ROA's 0.010, NIM's impact on ROA by 0.000, CAR had no effect on ROA by 0.840. Based on the research results, LFR, NPL, NIM, CAR has significant effect on ROA. Meanwhile, the NPL and NIM partially have significant negative effects on ROA, LFR and CAR are not significantly affected by ROA. Therefore, the increase in the NPL and the height of interest received by the bank affects profitability.

**Keywords:** LFR, NPL, CAR, NIM, ROA

## 1. INTRODUCTION

Based on regulations (Bank Indonesia Number 13/1 / PBI / 2011) profitability is one of the main elements assessed in determining the soundness of a bank and one of the indicators commonly used in measuring bank profit is the ratio of Return on Assets (ROA) compared to Return On Equity (ROE) because the value of the profitability of a bank is measured by assets whose funds mostly come from public deposits so that ROA is more representative in measuring the level of bank profitability.

On the other hand, profitability has an important meaning for the company in maintaining its survival for the long term because an investor or shareholder of a business entity has an interest in current and expected income in the future, income stability and linkages with other company earnings so that investors or shareholders need to pay attention to the profitability of the company.

The indicator used to see the company's ability to obtain profitability is shown by several financial ratios, one of which is Return on Assets (ROA). Return on Asset (ROA) needs to be considered by investors in investing in stocks, because Return on Assets acts as an indicator of a company's efficiency in using assets to earn profits and ROA shows the company's performance.

## 2. LITERATURE AND HYPOTHESIS DEVELOPMENT

### A. Profitability

According to Bank Indonesia regulations, profitability is one of the main elements assessed in determining the soundness level of a bank and one of the indicators commonly used in measuring bank profit is the ratio of Return On Assets (ROA) compared to Return On Equity (ROE) because the profitability value of a bank is measured by

assets whose funds mostly come from public deposits so that ROA is more representative in measuring the level of bank profitability. Based on Attachment 14 of Circular (Bank Indonesia, 2011), ROA can be calculated using

the formula:

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

## B. Financial Report Analysis

According to PSAK Number 1 Paragraph 7 of the 2013 Revision, it states that financial statements are a structured presentation of the financial position and financial performance of an entity. According to the Statement of Accounting Standards (PSAK): 001 Presentation of Financial Statements, the purpose of financial statements is to provide information concerning the financial position, performance, and changes in the financial position of a company that is beneficial to a large number of users in making decisions

Winda Widyanty, Dian Primanita Oktasari,Business and economic faculty of mercubuana university (2020) in Financial Ratio Analysis as a Prediction Tool of Bankruptcy on Banking Companies Listed in Indonesia Stock Exchange, The results of the multivariate test showed that the LDR variable had a significant effect on the profitability of bankruptcy of banks in Indonesia at $\alpha > 5\%$ but did not have the same sign as predicted. CAR, NPL, BOPO, ROE, and NIM variables have the same mark as the predicted but not significant. The ROA variable is not significant and has a different sign than predicted. In general, the results do not accept all Ha. The accuracy of bank bankruptcy predictions in 2018 amounted to 94.7%. Therefore, the level of errors made in predicting bankruptcy is type II, that is, banks that are predicted to go bankrupt are not bankrupt

## C. Loan to Funding Ratio

(Latumaerissa, 2014) states that the LFR ratio is the financial ratio of banking companies that is related to the liquidity aspect. This ratio describes the extent to which savings are used for lending. If the level of the LFR ratio is too low, the higher the level of bank liquidity and will cause bank losses. An LFR ratio that is too high results in higher credit disbursement and causes liquidity difficulties.

With the issuance of Bank Indonesia Regulation Number 19/6 / PBI / 2017 concerning Amendments to Bank Indonesia Regulation Number 15/15 / PBI / 2013 all mention of the Loan to Funding Ratio or LFR in the Bank Regulation is read as Loan to Funding Ratio or LFR since August 3 2015 Concerning Amendments to Bank Indonesia Regulation Number 17/21 / PBI / 2015 which was replaced by Bank Indonesia Regulation Number 19/6 / PBI / 2017. Adjustments are made by including securities (SSB) issued by banks in the Loan to Funding Ratio  (LFR) calculation in the GWM-LFR policy. In line with the inclusion of SSB issued by banks in the calculation of LFR, the term LFR is changed to Loan to Funding Ratio (LFR). In accordance with Bank Indonesia Regulations, the LFR / LFR ratio can be calculated using the formula:

$$LFR = \frac{Credit}{DPK+\ Bank\ Securities} \times 100\ \%$$

## D. Non Perfoming Loan

NPL shows the ability of bank management in managing non-performing loans provided by banks. In Bank Indonesia Regulation Number: 17/11 / PBI / 2015 concerning Amendments to Bank Indonesia Regulation Number: 15/15 / PBI / 2013 concerning Bank Umum Statutory Reserves in Rupiah and Foreign Exchange for Conventional Commercial Banks, the NPL ratio is not allowed more than 5%. The higher the NPL ratio, the worse the quality of credit, which causes the number of non-performing loans to increase, which can increase the likelihood of a bank being in trouble

$$NPL = \frac{Non\ Performing\ Credit}{Total\ Credit} \times 100\ \%$$

## E. Capital Adequacy Ratio

CAR is a financial ratio to measure the capital adequacy of a bank. The higher the CAR, the stronger the bank's ability to bear risk, and the bank is able to make a large enough contribution to bank profitability (ROA). The CAR ratio as stated in SE Number: 6/23 / DPNP can be formulated as follows:

$$CAR = \frac{Bank\ Capital}{ATMR} \times 100\ \%$$

## F. Net Interest Margin

Net Interest Margin (NIM) is a ratio that shows the ability of bank management to manage its earning assets to generate net interest income. According to Bank Indonesia Regulation Number: 10/15 / PBI / 2008 the Net Interest Margin limit is above 6%. Based on Bank Indonesia Circular Letter Number 6/23 / DPNP dated May 31, 2004, Net Interest Margin (NIM) can be formulated as follows:

$$NIM = \frac{Net\ Interest}{Productive\ ActivaAverage} \times 100\ \%$$

## A. Thought Framework

Based on these things, the research framework can be described as follows:
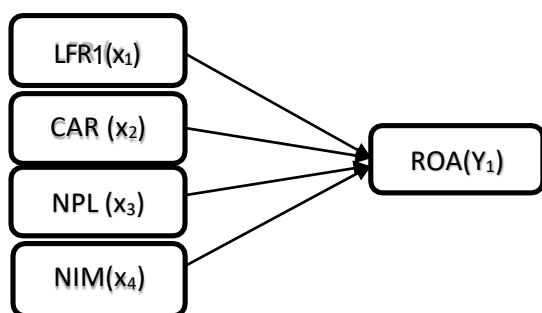


Picture. Thought Framework

## B. Research Hypothesis

Based on the theory and framework described previously, the following research hypothesis can be formulated: H1: Loan Funding Ratio (LFR) has an effect on Return On Assets (ROA).
H2: Non Performing Loan (NPL) has an effect on Return On Assets (ROA). H3: Capital Adequacy Ratio (CAR) affects the Return on Assets (ROA).
H4: Net Interest Margin (NIM) has an effect on Return On Assets (ROA)

## 3. METHOLODOGY

## A. Design Method

The research approach used is a quantitative approach, which is to examine a particular population or sample. The sampling technique is generally carried out randomly, data collection uses research instruments, data analysis is quantitative / statistical in nature with the aim of testing the predetermined hypothesis. (Sugiyono, 2017).
The type of sample selection in this study is using purposive sampling method, namely the sampling technique with certain considerations. The considerations in sampling, namely:

1.) Financial sector companies in the bank subsector that are listed on the Indonesia Stock Exchange for the period 2016-2018.

2.) Financial sector companies in the bank subsector that publish financial reports during the observation period from 2016-2018.

3.) Conventional bank subsector financial sector companies.

4.) Companies in the financial sector, the bank subsector that has a positive ROA.

## B. Population and Sample

Population is a generalization area consisting of objects / subjects that have certain qualities and characteristics that are determined by researchers to study and then draw conclusions (Sugiyono, 2017). The population in this study were 45 banking companies listed on the Indonesia Stock Exchange (BEI) for the period 2016-2018.

The determination of the sample of this research can be presented as follows:

**Table 1. Reseacrh Sampling Criteria**

| No | Criteria | Amount |
|----|----------|--------|
| 1. | Finance subsector sector companies listed on the Indonesia Stock Exchange for the 2016-2018 period | 45 |
| 2. | Bank subsector financial sector companies that are not listed (delisting) on the Indonesia Stock Exchange for the period 2016-2018 | (1) |
| 3. | Bank subsector financial sector companies that are included in Islamic Bank. | (3) |
| 4. | Subsector bank financial sector companies that have a negative ROA. | 10 |
|    | Companies Sample | 41 |
|    | **Total Sample (3 x 31) =** | **123** |

*Source: Researcher Data Processing Results (2020)*

## C. Variable Operation

This study aims to determine whether there is an effect of several independent variables on the dependent variable. The research data will be processed using the SPSS version 25 statistical tool and analyzed quantitatively so that it can clarify the picture of the object under study, then the results will be drawn Definition and Operational Variables, the variables is:

Loan to Funding Ratio (LFR) Non Performing Loan (NPL) Capital Adequacy Ratio (CAR) Net Interest Margin (NIM) Return on Assets (ROA)

## D. Analysis Method

Data analysis method used was paired sample t-test. Paired sample t-test is a procedure used to compare the average of two variables in one group. This means that this analysis is useful for testing two related samples or two paired samples. Paired t-test test in this study is used to prove the hypothesis that has been formulated, namely comparing LFR, NPL, CAR, NIM, and ROA of Financial sector companies in the bank subsector that are listed on the Indonesia Stock Exchange for the period 2016-2018, Financial sector companies in the bank subsector that publish financial reports during the observation period from 2016-2018, Conventional bank subsector

financial sector companies, Companies in the financial sector, the bank subsector that has a positive ROA.

Paired Sample T Test results are determined by the significance value. This value then determines the decisions taken in the study. Is a test used to determine how much influence each independent variable has on the dependent variable partially. If the significance value of an independent variable is <0.05, then the variable has a partially significant effect on the dependent variable, but on the contrary, if the significance value of the independent variable is> 0.05 then the variable does not have a significant effect on the dependent variable

## 4. RESULTS AND DISCUSSION

### A. Results

The results of data processing can be seen from the descriptive statistics below:

**Table 2. Descriptive Statistics**

*Descriptive Statistics*

| N | | Min | Max | Mean | Std. Dev |
|---|---|---|---|---|---|
| ROA | 93 | .090 | 4.00 | 1.68 | 1.0144 |
| NPL | 93 | .030 | 6.39 | 2.64 | 1.305 |
| LFR | 93 | 41.99 | 145.26 | 83.58 | 15.889 |
| NIM | 93 | 1.53 | 12.00 | 5.40 | 1.868 |
| CAR | 93 | 10.52 | 66.43 | 22.78 | 7.751 |
| Valid N | 93 | | | | |

*Source: Researcher Data Processing Results (2020)*

### Normality Test

The normality test aims to test whether in the regression model, confounding or residual variables have a normal distribution. The results of the normality test can be a Kolmogorov-Smirnov statistical table. The guidelines used in decision making are: a) The value of significance or probability <0.05, the data distribution is not normal, b) The value of significance or probability> 0.05 means that the data distribution is normal.
The results of the Kolmogorov-Smirnov normality test in this study are:

**Table 3. Normality Test**

*One-Sample Kolmogorov-Smirnov Test*

| | | Unstandardized Residual |
|---|---|---|
| N | | 93 |
| Normal Parameters[a,b] | Mean | .0000000 |
| | Std. Deviation | .74329057 |
| Most Extreme Differences | Absolute | .082 |
| | Positive | .082 |
| | Negative | -.049 |
| Test Statistic | | .082 |
| Asymp. Sig. (2-tailed) | | .146[c] |

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

*Source: Researcher Data Processing Results (2020)*

The results of the Kolmogorov-Smirnov normality test in this study showed a significant result of 0.146> 0.05. Thus it can be concluded that the data is normally distributed.

**Multicolonierity test**

Multicolonierity test aims to test whether the regression model found a correlation between independent variables (independent). A good regression model should not have a correlation between the independent variables. To detect whether there is multicolonierity in the regression model, it can be seen from the tolerance value and variance inflation factor. The method of decision making is the VIF value <10 and the tolerance value> 0.10, so the multicollinearity free regression.
The multicolonierity test results of this research can be seen in the following table:

**Table 4 . Multicolonierity test Results**

| Coefficients[a] | | | | Collinearity Statistics | |
|---|---|---|---|---|---|
| Model | | T | Sig. | Tolerance | VIF |
| 1 | (Constant) | -2.389 | .019 | | |
| | NPL | -2.627 | .010 | .952 | 1.051 |
| | LFR | 1.862 | .066 | .859 | 1.164 |
| | sq_nim | 6.538 | .000 | .841 | 1.189 |
| | sq_car | -.203 | .840 | .928 | 1.078 |

a. Dependent Variable: ROA

Source: Researcher Data Processing Results (2020)

In the table above, the Regression Model does not have a correlation between the independent variables because the tolerance value of the LFR (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) is above 0.10 while VIF value is below 10.

**Autocorrelation Test**

The autocorrelation test aims to test whether in the linear regression model there is a correlation between confounding error in period t and confounding error in period t-1 (previous). Autocorrelation testing using the run- test can be presented as follows:

**Table 5. Autocorrelation test Results _Runs Test_**

| | Unstandardized Residual |
|---|---|
| Test Value[a] | -.08426 |
| Cases < Test Value | 46 |
| Cases >= Test Value | 46 |
| Total Cases | 92 |
| Number of Runs | 36 |
| Z | -2.306 |
| Asymp. Sig. (2-tailed) | .051 |

a. Median

Source: Researcher Data Processing Results (2020)

From table 5 above shows the asymp sig. at the output runs test of 0.303> 0.05, then the data did not experience autocorrelation

**Heteroscedasticity test**

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from one observation residual to another. To determine whether there is heteroscedasticity or not, the Park test can be used. Park's test suggests a method that variance (s2) is a function of the independent variable. Heteroscedasticity testing can be seen in the following table:

**Table 6. heteroscedasticity test Results**

Coefficients$^a$

| Model | | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. | Collinearity Statistics Tolerance | VIF |
|---|---|---|---|---|---|---|---|---|
| 1 | (Constant) | 4.042 | 3.668 | | 1.102 | .273 | | |
| | PKLN_NPL | -.057 | .188 | -.034 | -.302 | .763 | .875 | 1.143 |
| | PKLN_LFR | -.569 | .769 | -.091 | -.739 | .462 | .750 | 1.333 |
| | PKLN_NIM | .627 | .891 | .084 | .704 | .484 | .795 | 1.257 |
| | PKLN_CAR | -.718 | 1.043 | -.077 | -.688 | .493 | .911 | 1.098 |

a. Dependent Variable: PARK_Y
Source: Researcher Data Processing Results (2020)

The test on the regression model above shows no symptoms of heteroscedasticity because the significant value of the LFR (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) variable is above 0.05.

**Results of Research Data Analysis**

Research Model

The research hypothesis testing used is multiple linear regression. The regression model used is: Sqrt_ROA = -1,922 - 0.163 NPL + 0.010 LFR + 1,445 sq_nim - 0.023 sq_car

**Table 7. Research Model**

Coefficients$^a$

Unstandardized Coefficients

| Model | | B | Std. Error | T | Sig. |
|---|---|---|---|---|---|
| 1 | (Constant) | -1.922 | .804 | -2.389 | .019 |
| | NPL | -.163 | .062 | -2.627 | .010 |
| | LFR | .010 | .005 | 1.862 | .066 |
| | sq_nim | 1.445 | .221 | 6.538 | .000 |
| | sq_car | -.023 | .115 | -.203 | .840 |

a. Dependent Variable: ROA
Source: Researcher Data Processing Results (2020)

The explanation of the multiple linear regression equation is:

(1)Constant value (a) = -1,922, indicating that if the value of the independent variables, namely LFR (Loan to Funding Ratio), NPL (Non Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) is constant, then the Return on Assets value remains at -1,922

(2)The value of b1 = -0.163 in the NPL (Non-Performing Loan) Ratio variable, indicating that every 1 unit increase in the NPL (Non-Performing Loan) ratio, the Return on Assets decreased by 0.163 assuming other variables were considered constant;

(3)The value of b2 = -0.010 in the LFR (Loan to Funding Ratio) variable indicates that every 1 unit increase in LFR (Loan to Funding Ratio), the Return on Assets has decreased by 0, 010, assuming other variables are considered constant;

(4)The value of b3 = 1.445 in the NIM (Net Interest Margin) variable indicates that every 1 unit increase in NIM (Net Interest Margin), the Return on Assets will increase by 1.445, assuming other variables are considered constant;

(5)The value of b4 = -0.023 in the CAR (Capital Adequacy Ratio) variable shows that every 1 unit increase in CAR (Capital Adequacy Ratio), the Return on Assets decreases by 0, 023 assuming other variables are considered constant.

## Coefficient of Determination

The coefficient of determination hypothesis is intended to determine how much the ability of the model to explain the dependent variable. If the coefficient of determination ($R^2$) is greater or closer to 1, it can be said that the ability of the independent variable (X) is large for the dependent variable (Y).

**Table 8. Coefficient of Determination Results**

*Model Summary[b]*

| Model | R | R Square | Adjusted R Square |
|---|---|---|---|
| 1 | .681[a] | .463 | .439 |

a. Predictors: (Constant), sq_car, LFR, NPL

b. Dependent Variable: ROA

Source: Researcher Data Processing Results (2020)

The coefficient of determination test results obtained Adjusted R square value of 0.463. This means that 46.3% of the dependent variable Return on Assets can be explained by the independent variable LFR (Loan to Funding Ratio), NPL (Non Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) while the rest is 53.7% (100% - 46.3%) is explained by other variables outside of the variables studied.

## Simultaneous Hypothesis Testing (Test F)

The F test is used to show whether all the independent variables included in the model have a joint influence on the dependent variable. To test this hypothesis the F statistic is used as follows: 1) If Fcount <Ftable; then H0 is accepted and Ha is rejected, at α = 0.05; If Fcount> Ftable; then H0 is rejected and Ha is accepted, at α = 0.05 The research hypothesis testing (F test) is: (a) H0 is accepted and Ha is rejected (LFR ratio (Loan to Funding Ratio), NPL (Non Performing Loan), NIM ( Simultaneously, Net Interest Margin), CAR (Capital Adequacy Ratio) have no effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016-2018);

(b)H0 is rejected and Ha is accepted (the ratio of LFR (Loan to Funding Ratio), NPL (Non Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) simultaneously affects the Return on Assets of listed banking companies on the Indonesia Stock Exchange for the period 2016-2018).

**Table 9. F Test Results**

*ANOVA*[a]

| Model | Sum of Squares | Df | Mean Square | F | |
|---|---|---|---|---|---|
| Regression | 43.843 | 4 | 10.961 | 18.976 | .000[b] |
| Residual | 50.828 | 88 | .578 | | |
| Total | 94.671 | 92 | | | |

a. Dependent Variable: ROA
b. Predictors: (Constant), sq_car, LFR, NPL, sq_nim

*Source: Researcher Data Processing Results (2020)*

The simultaneous / joint significant test (F statistical test) results in the calculated F value of 18,976. At degrees of freedom 1 (df1) = 4, and degrees of freedom 2 (df2) = 88, the value of Ftable at a significant confidence level of

0.05 is 2.47. Thus Fcount = 18,976> Ftable = 2.47 with a significant level of 0.000 <0.05. Then Ha is accepted, meaning that simultaneously the ratio of LFR (Loan to Funding Ratio), NPL (Non Perfoming Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) has a significant and significant effect on Return on Assets in banking companies listed on the Stock Exchange. Indonesia for the period 2016-2018

**Partial Hypothesis Testing (t test)**

The t test is used to show how far the influence of one independent variable on the dependent variable. The decision making criteria follow the following rules: (1) If -ttable <tcount <ttabel; then H0 is accepted and Ha is rejected, at α
= 0.05; (2) If tcount <-ttable or tcount> ttable; then H0 is rejected and Ha is accepted, at α = 0.05
The research hypothesis testing (t test) is: (a) H0 is accepted and Ha is rejected (LFR ratio (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) partially has no effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016-2018); (b) H0 is rejected and Ha is accepted (the ratio of LFR (Loan to Funding Ratio), NPL (Non Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) partially affects the Return on Assets in listed banking companies on the Indonesia Stock Exchange for the period 2016-2018)

**Table 10. test results**

*Coefficients*[a]

| Model | Standardized Coefficients | Tolerance |
|---|---|---|
| (Constant) | .019 | |
| NPL | .010 | .952 |
| LFR | .066 | .859 |
| sq_nim | .000 | .841 |
| sq_car | .840 | .928 |

a. Dependent Variable: ROA

The value of t table for a probability of 0.05 at 110 degrees of freedom is 1.98177. Thus the results of the t test can be explained as follows: (1) The results of the t test calculation partially obtained the t value of the NPL (Non-Performing Loan) ratio of -0.248 with a significant value of 0.010. The value of t count> t table or -0.248> -1.98177 and a significant value of 0.010 <0.05. Then H0 is accepted, meaning that the NPL (Non-Performing Loan) ratio has no significant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018; (2) The results of the calculation of the t test partially obtained the LFR

(Loan to Funding Ratio) value of -1.471 with a significant value of 0.66. The value of t count> t table or 1.471> -1.98177 and a significant value of 0.066> 0.05. Then H0 is accepted, meaning that LFR (Loan to Funding Ratio) has no and insignificant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018;

(3) The results of the partial t-test calculation obtained the t value of NIM (Net Interest Margin) of 5.853 with a significant value of 0.000. The value of t count> t table or 5.853> 1.98177 and a significant value of 0.000 <0.05. Then Ha is accepted, meaning that NIM (Net Interest Margin) has no significant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018; (4) The results of the calculation of the t test partially obtained the t value of CAR (Capital Adequacy Ratio) of 1.876 with a significant value of 0.840. The value of t count <t table or 1.876 <1.98177 and a significant value of 0.842> 0.05. Then H0 is accepted, meaning that CAR (Capital Adequacy Ratio) has no and insignificant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018.

## B. Discussion

### Effect of the Partial Loan to Funding Ratio (LFR) on Return on Assets

The results of the calculation of the t test partially obtained the t value of the LFR (Loan to Funding Ratio) ratio of 1,862 with a significant value of 0.066. The value of t count> t table or -1.862> -1.98177 and a significant value of 0.066> 0.05. So H0 is accepted, meaning that the LFR (Loan to Funding Ratio) ratio has no and insignificant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018.

The results of this study are not in line with previous research conducted by (Narayana, 2013) which states that partially LFR has a positive and significant effect on ROA and the results of this study are not in accordance with the theory (Pandia, 2012) where if the bank wants to have a high level of liquidity , then the bank will be at a high level of safety but will get a low level of profitability. Likewise, vice versa, if the bank wants to get maximum profit, the bank's liquidity will be low. A high LFR will have two impacts, namely if credit is channeled effectively it will generate profits, whereas if credit expansion is not controlled and is disbursed inadvertently, it will create a bigger risk and impact on profits. Based on the results of the research above, it can be concluded that the high or low LFR does not necessarily affect the profits obtained by a bank because of the additional capital provided by the owner to anticipate an increase in credit in the future.

### The Partial Effect of NPL (Non Performing Loan) on Return on Assets

The results of the partial t-test calculation obtained the t value of the NPL (Non-Performing Loan) of -2,627 with a significant value of 0.010. The value of t count> t table or -2.627> -1.98177 and a significant value of 0.010> 0.05. Then H0 is accepted, meaning that NPL (Non-Performing Loan) has no significant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018.

The results of this study are not in line with previous research conducted by (Moch. Dzulkirom, 2016) which states that partially NPL has no significant effect on ROA. The NPL ratio has a negative effect on ROA because all loans have a high risk, because the debtor fails or has problems fulfilling his predetermined obligations to the bank. So that it can cause losses to the bank

### The Partial Effect of NIM (Net Interest Margin) on Return on Assets

The result of the calculation of the t test partially obtained the t value of NIM (Net Interest Margin) of 6,538 with a significant value of 0,000. The value of t count> t table or 6,538> -1,98177 and a significant value of 0,000> 0.05. So H0 is accepted, meaning that NIM (Net Interest Margin) has no significant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018.

The results of this study are in line with previous research conducted by (Moch. Dzulkirom, 2016) which states that NIM partially has a significant effect on ROA. The NIM ratio has a negative effect on ROA because the difference from the interest earned by the bank will affect the bank's profitability. So that it can cause loss or profit to the bank.

**Effect of CAR (Capital Adequacy Ratio) Partially on Return on Assets**

The results of the calculation of the t test partially obtained the t value of CAR (Capital Adequacy Ratio) of -0.203 with a significant value of 0.840. The value of t count <t table or -0.203 <1.98177 and a significant value of 0.840>
0.05. Then H0 is accepted, meaning that CAR (Capital Adequacy Ratio) has no and insignificant effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016–2018. The results of this study are not in line with previous research conducted by Deden Edwar Yokeu Bernardin (2016) which states that CAR has a significant effect on ROA and the results of this study are not in line with Sudirman's (2013) theory, where additional capital is made after it is known that the minimum capital adequacy ratio. or CAR under existing regulations, additional capital is also made if the bank is unable to cover its operational costs. Every bank whose assets increase, causes risk-weighted assets to also increase so that an increase in the minimum amount of capital is also required. Based on the results of the above research, it can be concluded that any additional bank capital will   not necessarily increase the profits obtained by the bank because of the risk-weighted assets. The increase in capital is only to cover increased risk-weighted assets.

**Effect of LFR (Loan to Funding Ratio), NPL (Non Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio)**

From the research results obtained F count> F table or 12.097> 2.45 with a significant level of 0.000. So simultaneously LFR (Loan to Funding Ratio), NPL (Non Perfoming Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) against Return on Assets in banking companies listed on  the Indonesia Stock Exchange for the period 2016 - 2018

## 5.  CONCLUSIONS AND SUGGESTION

### A.  Conclusion

The conclusions of the results of this study are: (1) LFR (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) simultaneously have an effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016-2018 with the results of the determination coefficient test after transformation obtained 53.7% of the dependent variation of Return on Assets which can be explained by the independent variable LFR (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio); (2) Partially LFR (Loan to Funding Ratio) has no effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016 - 2018; (3) NPL (Non Performing Loan) partially affects the Return on Assets of banking companies listed on the Indonesia Stock Exchange for the period 2016 - 2018; (4) NIM (Net Interest Margin), partially affects Return on Assets in banking companies listed on the Indonesia Stock Exchange for the period 2016 - 2018; (5) Partially CAR (Capital Adequacy Ratio) has no effect on Return on Assets in banking companies listed on the Indonesia Stock Exchange  for the period 2016 - 2018

### B.  Suggestion

Suggestions Suggestions from this study are: (1) For banking companies, so that the management considers the LFR (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) because of this variable. can affect Return on Assets; (2) For investors, if you want to invest in a banking company listed on the IDX, you can pay attention to the LFR (Loan to Funding Ratio), NPL (Non-Performing Loan), NIM (Net Interest Margin), CAR (Capital Adequacy Ratio) which affects Return on Assets; (3) For further researchers, it is recommended to add other variables, such as OEOI and third party funds because the coefficient of determination shows 46.3% of the Return on Assets variable is influenced by other variables.

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