

## The Effects of Non Performing Loan and Loan to Deposit Ratio toward Return on Asset

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### Abstract

*Banking is a financial sector institution that has a very important role in the financial system in Indonesia. As an intermediation institution, banks must have good performance, because by having good performance banks will be easier to gain the trust of customers. This study aims to determine how the effect of Non Performing Loan and Loan to Deposit Ratio on Return on Assets. This research was conducted on banking companies listed on the Indonesia Stock Exchange (IDX) using the financial statements of banking companies for 2017-2022. The population in this study is all banking companies listed on the Indonesia Stock Exchange as many as 44 companies. Sampling using the purposive sampling method so that companies that meet the criteria are 5 companies. This study uses multiple linear analysis and F test to find out how the influence between variables. The results of this study show that Non Performing Loan and Loan to Deposit Ratio simultaneously both have a significant effect on return on assets with a significance value of  $0.000 < 0.05$  in banking companies listed on the Indonesia Stock Exchange (IDX). However, partially non-performing loans have an effect on return on assets with a significance value of  $0.000 < 0.05$ , while the loan to deposit ratio has no effect on return on assets with a significance value of  $0.827 > 0.05$  for banking companies listed on the Indonesia Stock Exchange (IDX).*

**Keywords:** *Non Performing Loan, Loan to Deposit Ratio, Return on Asset*

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## INTRODUCTION

Banking is a financial sector institution that has a very important role in the financial system in Indonesia. According to Banking Law Number 10 of 1998 Article I Number 3, what is meant by Bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit and or other forms in order to improve the standard of living of many people. Banks have the function of bridging finances between parties who have excess funds to those who experience lack of funds. Bank is a company engaged in service business, where public trust will occupy a large portion in maintaining the survival of a Bank. The development of a bank is strongly influenced by the level of customer trust (Shamsuddhoha & Alamgir, 2014). As an intermediation institution, banks must have good performance, because by having good performance banks will be easier to gain the trust of customers. The reason for researching the banking sector is because the performance of banks has a strong influence on the economy in Indonesia and people's welfare in the future.

In general, a bank's financial performance is reflected in financial statements consisting of various financial ratios, the health of a bank is very clearly seen based on its financial performance which is mainly reflected in aspects of profitability. The measure of profitability in banking companies can be calculated using Return On Assets (ROA). The ROA ratio focuses the company's ability to reap profits in the company's operations. In this study, ROA is used as a measure of a bank's performance, to measure the effectiveness of banking companies in generating profits by utilizing their assets. According to Kasmir (2012), the higher the ROA value, the better a company's financial performance is and vice versa. The minimum ROA standard reference for banks in Indonesia is 1.5% as stipulated in Bank Indonesia Circular Letter No.6/23/DPNP/2004. According to Riyanto (2010) Return On Asset is a comparison between net profit and total assets. This ratio shows how much net profit the company earns

when measured from the value of its assets, therefore the greater the ROA ratio the better because the company is considered capable of using its assets effectively in generating profits. One of the problems often faced by banks in terms of lending is that the credit given ends up being problematic credit or bad credit. In banking terms, it is called Non Performing Loan (NPL). NPL is a ratio to measure the level of non-performing loans at a bank. The large percentage of NPLs must be a concern for bank management because increasing credit can endanger the health of the bank. Bank Indonesia Regulation No.23/2/PBI/2021 has a maximum NPL ratio of 5%. This means that the greater the NPL level indicates that the bank is not professional in its credit management which will have an impact on bank losses. The lower NPL ratio indicates the lower non-performing loans faced by the bank so as to increase the profitability obtained by the bank. Non-Performing Loans are divided into three, namely non-current loans, doubtful loans and bad loans. Among the bank's operations related to a number of assets resulted in the opinion that credit risk is a determinant of bank performance.

Bank lending can be known from the Loan To Deposit Ratio (LDR) value. According to Kasmir (2011) LDR is a ratio to measure the composition of the amount of credit provided compared to the amount of public funds and own capital used. The ability of banks to lend to customers must certainly be balanced with the number of deposits obtained by banks, so that this LDR ratio reflects a picture of a bank's ability to control deposits and loans. According to Bank Indonesia Circular Letter No.6/23/DPNP/2004, the LDR level is said to be healthy if it is in the range of 78%-100%. Interest payments obtained from customer credit payments will increase these profits thereby increasing the profitability of a bank.

The key to bank success lies in the management of the bank itself. Bank management must attract the hearts of the public so that its role as financial intermediation runs well. One of the main indicators used as the basis for assessment is the bank's financial statements. The bank's financial performance contained in the financial statements describes the financial condition and health of the bank in a certain period of time. Profitability is one of the references in measuring the amount of profit to find out whether the company has run its business efficiently. The main factor that affects a bank's Return on Assets as a measure of bank profitability is management, namely the entire management of a bank, such as capital management, general management, profitability management and liquidity management which will ultimately affect the bank's profit generation. High NPLs will increase impairment loss reserves so as to reduce company profitability. An LDR that is too high will lead to low bank liquidity but an LDR that is too low gives an indication of the company's lack of effectiveness in generating profits. The purpose of this paper is to find out how NPL and LDR are related and influential on ROA. From research conducted by Oktaviantari (2013), Non Performing Loans (NPL) have a positive but not significant effect on Return on Assets (ROA) and Loan to Deposit Ratio (LDR) variables have a positive and significant effect on Return on Assets (ROA). While research conducted by Capriani (2016) Non-Performing Loans (NPL) has no effect on profitability, then research conducted by Septiani (2016) Loan to Deposit Ratio (LDR) has a positive but not significant effect on profitability. So from the description above, the researcher is interested in conducting further research.

## RESEARCH METHODS

### Data Description

In this study, the method used is quantitative research method. This research was conducted on banking companies listed on the Indonesia Stock Exchange (IDX) using the financial statements of banking companies for 2018-2022. There are two types of variables

used in this study, namely the Dependent Variable measured by Return On Asset and the Independent Variable measured using Non Performing Loan ( $X_1$ ) and Loan to Deposit Ratio ( $X_2$ ). The population in this study is all banking companies listed on the Indonesia Stock Exchange as many as 44 companies. Sampling in this study was carried out using the purposive sampling method so that the companies that met the criteria were 5 companies.

### Dependent Variable

Return on Assets (ROA) is a ratio that measures how efficient a company is in managing its assets to generate profits in a period. The determination of Return on Assets stipulated in Bank Indonesia Circular Letter No.6/23/DPNP/2004 is at least 1.5% for banks in Indonesia, and the calculation formula is as follows:

$$\text{Return on Asset} = \frac{\text{Earning After Interest and Tax}}{\text{Sales}}$$

### Independent Variable

Non-Performing Loan (NPL) is a non-performing loan or bad loan at a bank. Based on Bank Indonesia Circular Letter No.6/23/DPNP/2004 Non-Performing Loans can be calculated from the comparison between non-performing loans to the total value of loans, which can be formulated as follows:

$$\text{Non Performing Loan} = \frac{\text{Total Bad Debts}}{\text{Total Loans}}$$

Loan to Deposit Ratio (LDR) is a ratio that shows the level of a bank's ability to channel third party funds collected by the bank. According to Bank Indonesia Circular Letter No.6/23/DPNP/2004, the Loan to Deposit Ratio is said to be healthy if it is in the range of 78%-100%. The formula for calculating the Loan to Deposit Ratio is as follows:

$$\text{Loan to Deposit Ratio} = \frac{\text{Total Loans}}{\text{Total Deposits}}$$

### Data Analysis Method

The data analysis technique used is to use multiple linear regression analysis.

## RESULT AND DISCUSSION

Based on multiple linear regression analysis used in this study to determine how much influence between Non Performing Loan ( $X_1$ ) and Loan to Deposit Ratio ( $X_2$ ) on Return on Asset (Y). Here are the results of multiple linear regression analysis:

**Table 1.** Multiple Linear Regression Analysis Results

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	554.124	79.765		6.947	.000
1 Non Performing Loan ( $X_1$ )	-1.065	.132	-.866	-8.078	.000
Loan to Deposit Ratio ( $X_2$ )	-.002	.011	-.024	-.221	.827

a. Dependent Variable: Y

Based on table 1, it can be seen that in the Non-Performing Loan variable ( $X_1$ ) a significance value of  $0.000 < 0.05$  is obtained, then the Non Performing Loan ( $X_1$ ) partially has a significant effect on Return on Assets (Y), This ratio shows the ability of bank management

to manage troubled financing provided by the bank. That is, the higher this ratio, the worse the quality of bank financing, which causes the number of non-performing loans to increase. The greater the NPL, the greater the risk of credit failure disbursed, which has the potential to reduce interest income and reduce profits. The loss of profit opportunities from bad loans affects the planned profit projections so that it directly affects profits. So the higher the NPL, the lower the ROA will be due to the loss of the bank's opportunity to earn profits. This also illustrates that the role of the bank in carrying out its function as an intermediary is still going well and the bank is in good health because the NPL value is still below the standard for a maximum value of 5%. This high NPL ratio will indicate that credit quality is poor, causing the number of non-performing loans to increase and result in bank losses. While in the variable Loan to Deposit Ratio (X<sub>2</sub>) obtained a significance value of  $0.827 > 0.05$ , then the Loan to Deposit Ratio (X<sub>2</sub>) partially did not have a significant effect on Return on Assets (Y). Loan to Deposit Ratio (LDR) shows how far a bank is able to pay back the withdrawal of funds by the public by relying on the financing provided as a source of liquidity. That is, how far is the provision of financing to customers, financing can offset the bank's obligation to be able to immediately meet the demands of depositors who wish to withdraw their funds used by the bank to provide financing. From these results, it can be concluded that partially the Non-Performing Loan (NPL) ratio has an influence on Return on Assets in banking companies, inversely proportional to the Loan to Deposit Ratio (LDR) ratio which partially does not have a significant effect on the Return on Assets of banking companies. This can happen because the bank management does not apply the principle of prudence in assessing prospective customers who apply for loans. The size or size of the bank's LDR does not have an influence on Return on Assets because the size or size of the credit provided is not supported by good credit quality. this can happen because the bank's management lacks in applying the precautionary principle in assessing potential customers who make financing. Banks can bear increased credit risk if banks are not careful in extending credit and uncontrolled expansion in lending.

**Table 2.** F-Test

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	266285.365	2	133142.683	45.387	.000 <sup>b</sup>
Residual	79204.502	27	2933.500		
Total	345489.867	29			

a. Dependent Variable: Y

b. Predictors: (Constant), X<sub>2</sub>, X<sub>1</sub>

Based on table 2, it can be seen that the significance level obtained a significance value of  $0.000 < 0.05$ , it can be concluded that Non-Performing Loan (X<sub>1</sub>) and Loan to Deposit Ratio (X<sub>2</sub>) simultaneously have a significant effect on Return on Assets. These results are in accordance with the theory which explains that there are 2 factors that can influence profitability, namely internal factors and external factors. The amount of loans extended, the existence of bad loans, the amount of third party funds, and the amount of operating expenses used by banks are internal factors that have an impact on profitability. Meanwhile, the high BI interest rate, the existence of policies issued by the government, both fiscal and non-fiscal, are external factors that can affect profitability.

## CONCLUSION

Based on the results of statistical analysis, data processed by multiple linear regression analysis on non-performing loan variables and loan to deposit ratio simultaneously both have a significant effect on return on assets with a significance value of  $0.000 < 0.05$  in banking companies listed on the Indonesia Stock Exchange (IDX). However, partially non-performing loans have an effect on return on assets with a significance value of  $0.000 < 0.05$ , while the loan to deposit ratio has no effect on return on assets with a significance value of  $0.827 > 0.05$  for banking companies listed on the Indonesia Stock Exchange (IDX). The limitations of this study are that at the time of research and the sample used is still lacking, and also not enough to add variables that pay attention to credit risk in banking. For future researchers, they can add a year period in the next study and increase the number of samples, so that it can be more accurate and it is hoped that other measurement variables will be added

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