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THE IMPACT OF NON-PERFORMING LOANS AND THE BI RATE ON RETURN ON ASSETS

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Abstrak

Kenaikan suku bunga juga membawa perubahan dalam pengelolaan sumber pendanaan dan penyaluran dana (kredit). Perubahan tingkat suku bunga tentunya tidak hanya mempengaruhi keuntungan yang dihasilkan oleh bank, namun juga bagaimana bank mengelola pendapatan bunga yang diperoleh dan bunga yang dibayarkan. Penelitian ini bertujuan untuk mengetahui pengaruh Non Performing Loan (NPL) dan Suku Bunga Bank Indonesia (BI Rate) terhadap Return on Assets (ROA). Sampel yang digunakan dalam penelitian ini adalah bank BUMN yang terdaftar di Bursa Efek Indonesia (BEI) periode 2020-2022. Metode penelitian yang digunakan adalah metode asosiatif dengan pendekatan kuantitatif. Teknik analisis data yang digunakan adalah regresi linier berganda. Hasil penelitian menunjukkan bahwa Non Performing Loan (NPL) mempunyai pengaruh negatif dan signifikan terhadap Return on Assets (ROA) dan BI rate mempunyai pengaruh negatif dan tidak signifikan terhadap Return on Assets (ROA).

Kata kunci: *Non Performing Loan, BI Rate, Return on Assets*

Abstract

The increase in interest rates also brings changes in the management of funding sources and distribution of funds (credit). Changes in interest rates of course not only affect the profits generated by banks, but also how banks manage the interest income earned and interest paid. This research aims to determine the effect of non-performing loans (NPL) and the Bank Indonesia Interest Rate (BI Rate) on Return on Assets (ROA). The sample used in this research is state-owned banks listed on the Indonesian Stock Exchange (BEI) for the period 2020-2022. The research method used is an associative method with a quantitive approach. The data analysis technique used is multiple linear regression. The research results show that Non Performing Loans (NPL) have a negative and significant influence on Return on Assets (ROA) and the BI Rate has a negative and insignificant influence on Return on Assets (ROA).
Keywords: *Non Performing Loans, BI Rate, Return on Assets*

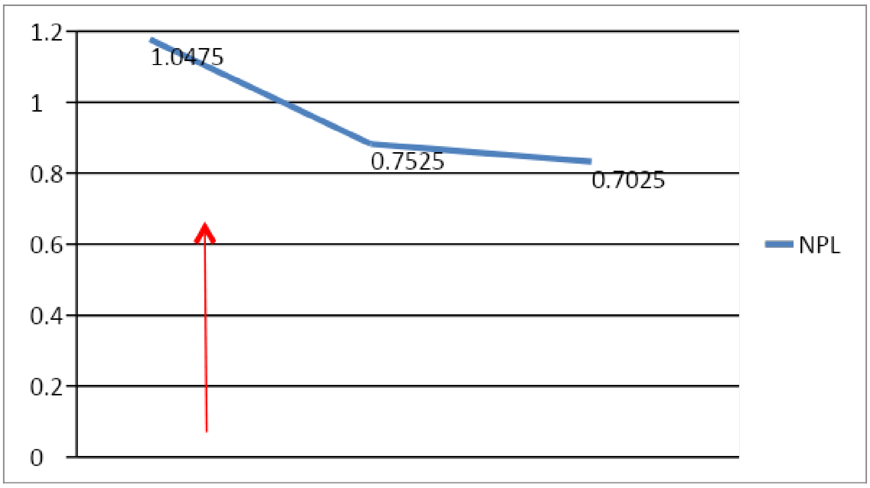
1. INTRODUCTION

Banks play an important role in economic growth and economic development cannot be separated from the banking sector. This is because the banking sector has one main function as a financial intermediary between parties who have funds (surplus) and parties who need funds (deficit) (Darmawan et al., 2020). The main objective of banking operations is to achieve maximum profitability. Profitability is the bank's ability to generate or obtain profits effectively and efficiently. Generally, the profits obtained by a company come from company sales and capital gains and the most important thing is how profitability shows the company's efficiency. (Anggit Hesti Sutomo, 2021)

The rate of economic growth in 2022 which is calculated based on Gross Domestic Product (GDP) at current prices will reach IDR 19,588.4 trillion and GDP per capita will reach IDR 71.0 million, growing by 5.31% higher than the achievement in 2021 which experienced growth 3.70%. This economic growth affects the banking intermediation function which is reflected in the growth in investment credit and construction sector credit. Simultaneously with the continuation of government infrastructure development projects and private real estate projects. Banks remain resilient, supported by capital adequacy and increasing profits.

Increasing profits has an impact on profitability. Bank profitability reflects the results of its performance from lenders. The size of the loan disbursed determines the profitability achieved by the bank (Anggit Hesti Sutomo, 2021). Decentralized lending is a significant source of income for banks and is also a form of bank allocation activity, which is often the root cause of banks facing significant problems. The inability of customers to pay some or all of their debts to the bank as agreed will result in problematic credit and loss of profits and losses for the bank itself. Problem loans arise due to various factors arising from the debtor's side, external conditions or errors by the lending bank (Veithzal & Jauvani, 2010). Below is graph 1 which shows the distribution of non-performing loans to Indonesian state-owned banks.

Graph 1. Problem Loans 2020 – 2022



Source: Processed financial report, 2023

Based on Graph 1, regarding non-performing loans at state-owned banks, they experienced a decline after the Covid-19 pandemic occurred in 2020. In 2020, non-performing loans were 1.0475%, one year after Covid-19 occurred, they decreased by 0.295% in 2021 to 0.7525 % for the level of non-performing loans that occur. Then in 2022 it will decrease again to 0.7025%.

Bank intermediation is also influenced by external bank factors such as changes in the macroeconomic situation that occurred in Indonesia, namely the Bank Indonesia Interest Rate (BI Rate) or now the terminology has been changed to the BI 7-day repo rate (Astuty & Rahman, 2015). According to (Fauziah, 2021), in general, the existence of Bank Indonesia's interest rate policy will certainly have a significant impact on the growth of banks in Indonesia. Of course, this interest rate policy will not continue to have a positive impact on the banking industry, and banks may experience a decline in profits due to this policy, both due to external and internal factors. Below is Table 1. which shows the development of Indonesian bank interest rates.

Table 1 BI Rate Development

Month	2020	2021	2022
January	5.00	3.75	3.50
February	4.75	3.50	3.50
March	4.50	3.50	3.50
April	4.50	3.50	3.50

May	4.50	3.50	3.50
June	4.25	3.50	3.50
July	4.00	3.50	3.50
August	4.00	3.50	3.75
September	4.00	3.50	4.25
October	4.00	3.50	4.75
November	3.75	3.50	5.25
December	3.75	3.50	5.50

Source: BPS, 2023

The increase in interest rates also brings changes in the management of funding sources and distribution of funds (credit). Changes in interest rates of course not only affect the profits generated by banks, but also how banks manage the interest income earned and interest paid.

Previous research has had mixed results regarding the impact of non-performing loans and the BI ratio on Return on Assets (ROA). (Ramdani, 2018) research concluded that non-performing loans have a negative impact on return on assets (ROA). This means that the greater the value of this ratio, the smaller the ROA value of the bank, and the more positive the BI rate has a positive impact on the company's profit or profits. This means that the increase in the BI rate value is accompanied by an increase in the ROA value. However, this research is not in line with (Avrita, 2016) who concluded that non-performing loans as proxied by the Non-Performing Loan (NPL) ratio have a positive and significant influence on the ROA variable. This is also not in line with research by (Dwijayanthy & Naomi, 2009) which concluded that BI interest rates have no effect on bank profitability. Considering the mixed results of these studies, further research is needed to show the impact of NPLs and BI interest rates on ROA. Based on the background, phenomena and research gaps, the author is interested in research entitled "The Impact of Non-Performing Loans and the BI Rate on Return on Assets in State-Owned Banks listed on the Indonesia Stock Exchange (BEI) for the 2020-2022 period".

Return on Assets (ROA)

According to (Ismail, 2018), return on assets (ROA) is used to measure bank management's ability to generate overall profits. The higher the bank's ROA, the greater the profit it will earn, and the better the bank will be in utilizing assets. Based on the standard for assessing the health level of bank No. 6/9/PBI/2004 given by Bank Indonesia ROA > 1.5. The higher the ROA of a bank, the higher the profit the bank earns, which means the bank uses the assets it owns more efficiently to generate profits. Return on Assets (ROA) is formulated as follows:

$$ROA = \frac{Profit\ before\ Tax}{Total\ Assets} x\ 100\%$$

Non Performing Loans (NPL)

According to (Ismail, 2018), a problem loan is any loan that has a high risk because the debtor is in default or faces obstacles in fulfilling predetermined obligations. The maximum non-performing loan ratio allowed by Bank Indonesia is 5% and exceeding 5% will affect the bank's health assessment. Based on Bank Indonesia Circular Letter No. 3/30/DPNP dated 14 December 2001, the amount of non-performing loans is calculated as follows:

$$NPL = \frac{Substandard\ Credit + Doubtful + Congested}{Total\ Credit} x\ 100\%$$

BI Rate

The BI rate is a monthly interest rate announced by Bank Indonesia periodically for a certain period of time and functions as a signal (attitude) of monetary policy (Siamat, 2014). The BI rate is announced by the Board of Directors of Bank Indonesia every month and is applied in financial operations carried out by

Bank Indonesia through short-term money market liquidity management in order to achieve operational objectives of monetary policy. The operational objectives of monetary policy are reflected in the development of Overnight Interbank Money Market (PUAB O/N) interest rates. Following changes in PUAB interest rates, trends in deposit interest rates and bank loan interest rates are expected to occur.

(Ramdani, 2018) stated in research entitled "The Impact of Non-Performing Loans (NPL) and BI Interest Rates on Profitability (ROA) of PT Bank QNB for the 2010-2017 period". The analysis method uses multiple regression analysis. From the results of the discussion, NPL has a negative effect on ROA, BI rate has a positive effect on ROA and both have a significant effect on ROA. (Agustami & Moris Wirekso, 2017) stated that his research showed that non-performing loans had a positive but not significant effect on ROA, BOPO had a negative effect on ROA and both had a significant effect on ROA simultaneously. (Dwijayanthy & Naomi, 2009) in their research showed that inflation had an effect on bank profitability, the BI rate had no effect on bank profitability and the exchange rate was proven to have a negative effect on profitability.

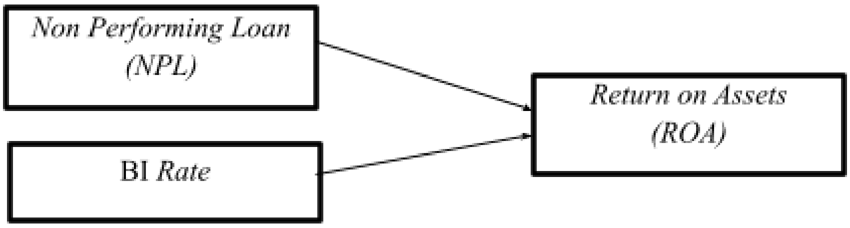


Figure 1 Research Framework

2. RESEARCH METHODS

Types of research

This research uses an associative research method which aims to determine the relationship between two or more variables with the independent variable (X), NPL and BI Rate and the dependent variable (Y), namely Return on Assets (ROA). The type of data used is quantitative data obtained from banking companies' annual financial reports.

Population and Sample

Population is a generational field consisting of objects and subjects that show certain qualities and characteristics that are used by researchers to study and draw conclusions (Prof. Dr. Sugiyono, 2019). In this study, the research population is state-owned banks listed on the Indonesian Stock Exchange in 2020-2022, totaling 4 banks. Saturated sampling was used as a sampling technique, a technique using the entire population as a sample, 4 banks were obtained, namely: Bank Tabungan Negara, Bank Rakyat Indonesia, Bank Mandiri, and Bank Negara Indonesia.

Analysis Method

The data analysis method used in this research is regression analysis. According to Ghozali (2011) regression analysis basically studies the dependence of a dependent variable on one or more independent variables. (Prof. Dr. Sugiyono, 2019) explains that regression analysis aims to determine the relationship between the independent variable and the dependent variable. Because the independent variables in this research are bivariate, the regression analysis used is multiple linear regression.

$Y = \alpha + \beta 1 X 1 + \beta 2 X 2 + e$

Information :

Y = Return on Assets (ROA)

α = Constant

β 1-2 = Regression Coefficient

X1 = Non-Performing Loans (NPL)

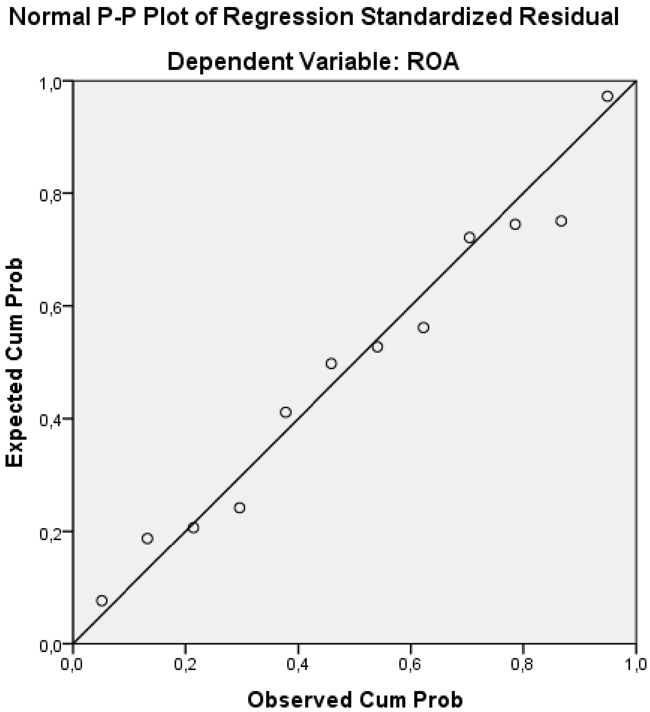
X2 = BI Rate

e = error

3. RESULT AND DISCUSSION

3.1. Classic Assumption Test Results

Figure 2. Normality Test



Based on Figure 2, it shows that the data used in this research is normally distributed. According to (Imam, 2011), the regression model is said to have a normal distribution if the plotting data that depicts the actual data follows a diagonal line.

3.2. Multicollinearity Test Results

Table 2. Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,462	3,364		1,029	,330		
	NPLs	-1,391	,556	-,646	-2,502	,034	,954	1,048
	BI_Rate	-,101	,873	-,030	-,116	,910	,954	1,048

Based on Table 2, it can be seen that the tolerance value obtained for the NPL and BI rate variables is 0.954 each, which means > 0.10. The VIF values obtained were respectively 1.048 < 10. Therefore, it can be concluded that there was no multicollinearity in the tested data.

3.3. Autocorrelation Test Results

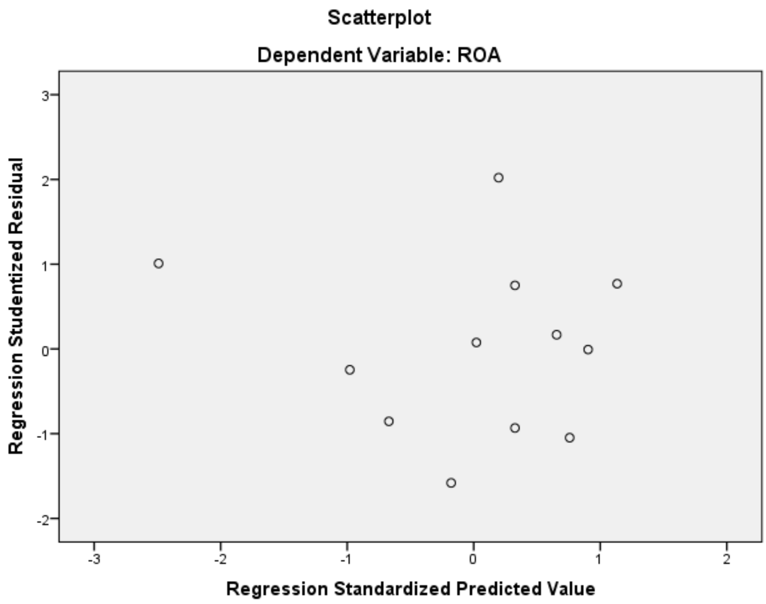
Table 3. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,653 [a]	,427	,300	,89429	2,021

Based on Table 3, the results of data processing show a Durbin-Watson (DW) statistical value of 2.021. This value is compared with the dl and du values in the Durbin-Watson table, with du of 1.579 < 2.021 < 2.421. So it can be concluded that the data does not have autocorrelation.

3.4. Heteroscedasticity Test Results

Figure 3. Heteroscedasticity test



From Figure 3, it can be seen that the data (points) are spread randomly above and below the zero line on the Y axis and do not form a particular pattern. Therefore, it can be concluded that there are no symptoms of heteroscedasticity in the data tested.

3.5. T Test Results

Table 2 shows that the NPL sig value is 0.034 < 0.05, which shows that the Non-Performing Loan NPL ratio has an effect on Return on Assets (ROA) with a calculated t value of -2.502. So it can be concluded that there is a negative and significant influence of NPL on ROA. This negative and significant influence reflects that every increase in NPL will cause a decrease in ROA.

The research results show that Non Performing Loans (NPL) have a negative and significant influence on ROA. Therefore, the hypothesis is accepted that NPL has a negative effect on the ROA of state-owned banks listed on the Indonesian Stock Exchange (BEI) in 2020-2022. In other words, the greater the NPL value, the ROA value decreases. The results of this research are in line with research by (Widyastuti & Aini, 2021), (Agustami & Moris Wirekso, 2017), (Maharani et al., 2020), (Sulastrini et al., 2023), (Nurfitriani, 2021) and (Ramdani, 2018) who stated in their research that non-performing loans have a negative impact on bank profitability. Loans are assets and the main source of income for banks, so that when customers are unable to fulfill their obligations, resulting in problematic credit, this indicates a problem in taking out the loan provided . The results of this research are not in line with research by (Qonitatillah, 2021), (Hediati & Hasanuh, 2021) and (Risky Diba Avrita & Irene Rini Demi Pangestuti, 2016) which says that NPL has a positive effect on ROA.

Based on Table 3, it can be seen that the BI Rate sig value shows a value of 0.910 > 0.05, with a calculated t value of -0.116 which shows that the BI Rate has a negative and insignificant effect on ROA. This shows that if there is an increase in the BI Rate it will affect financing and lending to banks so that it can cause a reduction in bank income. ROA of state-owned banks is less sensitive to changes in the BI Rate and often increases when the BI Rate increases. Companies tend to improve because bank management can anticipate increases in the BI Rate and increased profits from loan interest rates, in line with research by (Widyastuti & Aini, 2021) .

3.6. F Test Results

Table 4. F test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5,362	2	2,681	3,352	,082 b
	Residual	7,198	9	,800		
	Total	12,559	11			

Based on Table 4, it shows that the calculated F value is 3.352 with a sig level. amounting to 0.082 > 0.05, this shows that the NPL and BI Rate simultaneously have an insignificant effect on ROA.

4. CONCLUSION

Based on test results regarding the influence of Non-Performing Loans (NPL) and BI Rate on Return on Assets (ROA) in state-owned banks listed on the Indonesian Stock Exchange (BEI) in 2020-2022, NPL has a negative and significant effect on ROA, BI Rate has a negative and insignificant effect on ROA, while NPL and BI Rate simultaneously have an insignificant effect on ROA. It is hoped that future researchers can add bank external factor variables such as inflation and bank internal factors such as the bank's capital adequacy ratio.

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