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The Influence of Capital Adequacy Ratio, Non Performing Loan and BI Rate on Probability with Loan To Deposit Ratio as Moderating Variable

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Abstract
The purpose of this research is to determine the influence of the Capital Adequacy Ratio, Non Performing Loan and BI Rate on the Probability with Loan To Deposit Ratio as a Moderating Variable in case studies at Bank Persero for the 2016-2023 period. The population in this research is all Persero Banks (Bank Mandiri, Bank Rakyat Indonesia, Bank Negara Indonesia and Bank Tabungan Negara Indonesia. This research uses secondary data and the data analysis method uses panel data regression analysis. The sample used in this research uses non- probability sampling using saturated sampling techniques, so that the number of samples is as large as the population, namely 4 banking companies. Data analysis uses descriptive tests, classical assumption tests, panel data regression analysis and hypothetical testing using the Eviesw 10 tool. Based on the research results, it shows that the Capital Adequacy Ratio has an effect. significantly on Return On Assets, Non Performing Loans have a significant effect with a negative relationship on Return On Assets and the BI Rate interest rate has no effect on Return On Assets. In moderation, the Loan To Deposit Ratio variable is not able to moderate the Capital Adequacy Rati and Non Performing Loan variables. Return On Assets, LDR variable is able to moderate the relationship between BI Rate and Return On Assets. the coefficient of determination (Adjusted R-Square) is 0.476412 which means the dependent variable, namely ROA, can be explained by the independent variables Capital Adequacy Ratio, Non-Performing Loans and BI Rate of 47.64% while the remaining 52.36% is explained by other variables in outside the research model.

Keywords: BI Rate, Capital Adequacy Ratio, Non Performing Loan, Probability and Loan To Deposit Rasio

Introduction

Banking is an important component in the economic structure of a country. The progress of a country's economy cannot be separated from the progress and influence of financial institutions, especially banks, which have an important role in a country's economic efforts. The economic sector is able to improve the quality of life, productivity, and income of the community to achieve national goals. As for Law No. 10 of 1998 concerning Banking, banks are defined as business entities that collect funds from the general public in the form of savings and channel them to the public in the form of credit or other means, with the aim of improving people's lives. a large number of people. As per Banking Law Number 10 of 1998, credit is an agreement between a bank and another entity that provides a sum of money or securities. The borrower is required to repay the amount, together with accrued interest, within a specified period.

State-owned Commercial Banks are the leading commercial banks operating in the country of Indonesia. The current state-owned commercial banks are Bank Mandiri, Bank Rakyat Indonesia (BRI), Bank Negara Indonesia (BNI), and Bank Negara Indonesia (BTN). State-owned commercial banks function as State-Owned Enterprises (SOEs) in their commercial operations. Law Number 19 Year 2003 or often referred to as the BUMN Law

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provides an accurate description of a trading business in which most or all of the capital is controlled by the state. As referred to in Article 1 paragraph 2, a corporation, also known as Persero, is a state-owned enterprise (SOE) in the form of a limited liability company. The government has majority control over its capital. The main purpose of this company is to generate financial profit.

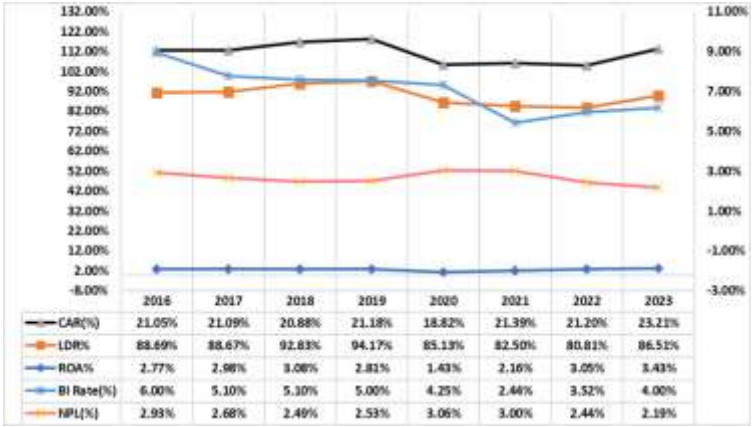
According to (Januardhy, 2021) Profitability is the ability of a company to earn profits in relation to sales of total assets and own capital. The ratio used for measuring the rate of return and the amount of assets owned is Return On Asset (ROA). Profitability, often referred to as the ability to make a profit, is based on a percentage that measures how much money a business can make over a period of time. Bank profitability refers to the profitability of a for-profit bank. Since banks are established to pursue the goal of profit, bank profitability becomes very decisive because bank income becomes the main goal that must be achieved.

According to (Putri, R. N. O. S., & Dewi, 2018), the profitability of a company depends not only on increasing annual profits or the amount of assets generated, but also on how the company manages and makes available assets more efficiently used to create greater profits for operating activities. . Profitability ratio analysis used in the banking industry is usually return on equity (ROE) and return on assets (ROA).

This study uses ROA as a performance measurement tool for Bank Persero, where ROA can focus on the company's ability to use its assets to generate income from its operating activities, while ROA can also calculate the ability of Banking management to generate income from its assets. income to achieve the highest possible level of profitability.

The following is the average Capital Adequacy Ratio, Non Performing Loan, BI Rate Probability or Return On assets and Loan To Deposit Ratio at Bank Persero 2016-2023:

Figure 1. Average ROA, CAR, NPL, BI Rate and LDR Period 2016-2023



	2016	2017	2018	2019	2020	2021	2022	2023
CAR(%)	21.05%	21.09%	20.88%	21.18%	18.82%	21.39%	21.20%	23.21%
LDR%	88.69%	88.67%	92.83%	94.17%	85.13%	82.50%	80.81%	86.51%
ROA%	2.77%	2.98%	3.08%	2.81%	1.43%	2.16%	3.05%	3.43%
BI Rate(%)	6.00%	5.10%	5.10%	5.00%	4.25%	2.44%	3.52%	4.00%
NPL(%)	2.93%	2.68%	2.49%	2.53%	3.06%	3.00%	2.44%	2.19%

Source: Indonesian Banking Statistics (OJK) and Indonesian Monetary Economic Statistics (BI), 2022 (processed)

Based on Figure 1, it can be seen that Return On Assets (ROA) from 2016 - 2018 has increased every year, while in 2019-2020 it has decreased while in 2021-2023 it has increased continuously. The higher the ROA generated by the company, the more effective the company is in managing its company.

In terms of the ratio of Non Performing Loan (NPL) or non-performing loans from 2016-2019 NPL has decreased while in 2020 it has increased but in 2021-2023 it has decreased continuously, it can be said that with the decrease in NPL, the risks faced are small but the company must also pay attention to the ups and downs of NPL because it will be a risk to the banking world if it increases.

From the external side of the bank, namely the BI Rate where from 2016 - 2020 the BI rate has decreased continuously 2021 - 2023 has increased, banking companies must be more careful with this increase.

In terms of Loan To Deposit Ratio (LDR) in 2016-2018 it increased continuously while in 2020-2022 it decreased continuously but in 2023 it increased and was better than the previous year.

According to (Sri Mulyani, 2021) Capital adequacy ratio (CAR) is a capital adequacy ratio that plays a role in compensating for the risk of losses that a bank may face. The higher the capital adequacy ratio of an Islamic bank, the better the bank's ability to bear any financing risk or productive asset risk.

Researchers (Aishya et al., 2022) and (Sudarjah et al., 2021) Capital adequacy ratio (CAR) has a significant effect on Return On Assets (ROA) while according to Susan (Rachmawati & Marwansyah, 2019) CAR has no significant effect on ROA.

According to (Rachmawati & Marwansyah, 2019) Non Performing Loan (NPL) ratio is the ratio between total non-performing loans and total loans received by customers. If non-performing loans exceed the credit received by customers, then non-performing bank loans are getting higher and the cost of providing productive assets is getting higher. Other high costs can affect bank performance.

Researchers (Adnyana & Cipta, 2023) say that NPL has a positive and significant effect on Return on Asset (ROA) Meanwhile, research (Sudarjah et al., 2021) NPL has a significant negative effect on ROA.

According to (Sudarjah et al., 2021) The BI interest rate is an interest rate set by Bank Indonesia and reflects its monetary stance. The BI rate decision is announced to the public. If future price increases are expected to exceed the target, a decision is made to increase the BI rate; if inflation is expected to be below the expected target, a decision is made to reduce the BI rate. Research (Sudarjah et al., 2021) BI Rate has a positive but insignificant relationship with ROA. Meanwhile, researchers (Rachmawati & Marwansyah, 2019) said that the BI Rate has no effect on ROA.

Based on the description of the above phenomena and the inconsistency of previous researchers, so that researchers have the desire to examine with the title: "The Effect of Capital Adequacy Ratio, Non Performing Loan and BI Rate on Return On Assets with Loan To Deposit Ratio as Moderating Variable" The Effect of Capital Adequacy Ratio, Non Performing Loan and BI Rate on Return On Assets with Loan To Deposit Ratio as Moderating Variable ".

Method

Type, Population and Sample

The type used in this study is quantitative data. Quantitative data is data in numerical form. The research place was conducted at Bank Persero (Bank Mandiri, Bank Rakyat Indonesia (BRI), Bank Negara Indonesia (BNI) and Bank Negara Indonesia (BTN) through

internet media using the sites www.idx.go.id and www.bi.go.id. The population in this study were all Indonesian Persero Banks consisting of 4 Banking Companies. The research subject is in the form of annual reports that have been pre-processed by Bank Indonesia and published on the Indonesia Stock Exchange. By using Saturated Samples, researchers used the entire population as a sample, namely 4 banking companies for the period 2016 - 2023.

Analysis Method

Data analysis includes the use of descriptive analysis, panel data regression selection, and classical assumption testing. The methodology used involves the utilization of panel data regression analysis, specifically using the Eviews 10 analysis tool. Descriptive analysis was conducted to calculate the mean, maximum, minimum, and standard deviation. Panel data testing is carried out using three models, namely the Fixed Effects Model, Random Effects Model, and Common Effects Model. The model selection process includes conducting the Chow Test, Hausman Test, and Lagrange Multiplier Test. Conventional assumption tests are carried out to ensure that the data is normally distributed, there is no heteroscedasticity, multicollinearity, and autocorrelation.

Results and Discussion

Descriptive Analysis

Descriptive statistical tests provide an overview of the description of each variable used in the study. This information is presented with Mean, Maximum, Minimum and Standard Deviation. Descriptive statistics of the variables of this study are presented in table 2. as follows The results of descriptive analysis of the variables of this study are presented in the table below:

Table 1. Descriptive Analysis Test

Date: 06/28/24
Time: 00:42
Sample: 1 32

	ROA (Y)	LDR (Z)	CAR (X1)	NPL (X2)	BI_RATE (X3)
Mean	2.363750	89.51063	20.33375	2.825000	4.906563
Median	2.565000	88.12000	19.98500	2.820000	5.100000
Maximum	4.030000	113.5000	25.28000	4.780000	6.000000
Minimum	0.130000	77.61000	15.83000	1.020000	3.520000
Std. Dev.	1.097903	8.010364	2.146823	0.773150	0.854350
Skewness	-0.270592	1.035265	0.419036	0.441365	-0.283906
Kurtosis	2.047662	4.028663	3.256492	3.657993	1.715363
Jarque-Bera	1.599770	7.126986	1.024204	1.616223	2.630270
Probability	0.449381	0.028340	0.599235	0.445699	0.268438
Sum	75.64000	2864.340	650.6800	90.40000	157.0100
Sum Sq. Dev.	37.36715	1989.144	142.8744	18.53060	22.62732
Observations	32	32	32	32	32

Source: Eviews 10.2024 Output

Based on table 1 shows that the number of observations in the study was 32 which was a combination of 4 Persero Bank companies for the period 2016-2023. The results of descriptive statistical analysis are explained as follows:

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Return On Assets (Probability)

The independent variable Return On Assets (ROA) has a Mean value of 2.363750, a Maximum value of 4.0300000, a Minimum value of 0.130000, and a Standard Deviation value of 1.097903.

Capital Adequacy Ratio

The independent variable Capital Adequacy Ratio (CAR) has a Mean value of 20.33375, a Maximum value of 25.28000, a Minimum value of 2.146823, and a Standard Deviation value of 2.146823.

Non Performing Loan

The independent variable Non Performing Loan (NPL) has a Mean value of 2.825000, a Maximum value of 4.780000 Minimum value of 1.020000 and a Standard Deviation value of 0.854350.

BI Rate

The independent variable BI Rate has a Mean value of 4.906563, a Maximum value of 6.000000, a Minimum value of 3.520000 and a Standard Deviation value of 0.854350.
Loan To Deposit Ratio Moderation variable LDR has a mean value of 89.51063, a maximum value of 113.5000, a minimum value of 77.61000 and a standard deviation value of 8.010364.
From the above variables it can be concluded that the Return On Assets, Capital Adequacy Ratio, Non Performing Loan, BI Rate and Loan To Deposit Ratio variables have a Mean Value greater than the Standard Deviation, which means that the data can be said to be good or no deviation occurs.

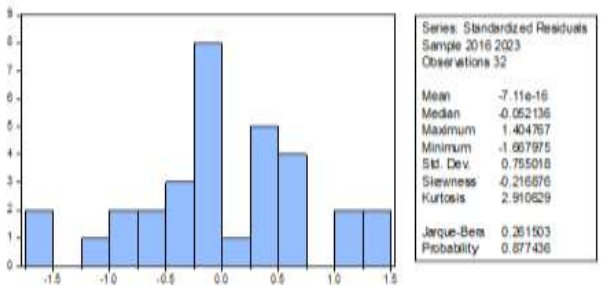
Classical Assumption Test

By using the classical assumption test we can find out the extent of the accuracy of the regression analysis results, and it is used to assess whether or not there can be results that have been carried out. The classic assumption test consists of normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

Normality Test

The normality test is a way to see whether the residual value is normally distributed or not. So the normality test is not carried out on each variable but on the residual value.

Table 2. Normality Test



Source: Eviews 10.2024 Output

Based on Table 2 it is known that the probability value of the J-B statistic is 0.251503. Because the probability value = 0.877436 is greater than the significant level of 0.05 (5%), it can be assumed that normality is met from this study.

Multicollinearity Test

In this study, the Multicollinearity Test is needed because it is to determine whether there is a relationship between the correlation of independent variables or not.

Table 3. Multicollinearity Test

Variance Inflation Factors
Date: 06/28/24 Time: 01:11
Sample: 1 32
Included observations: 32

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	3.772197	286.0250	NA
CAR(X1)	0.003266	103.4885	1.105597
NPL(X2)	0.031333	20.33630	1.375791
BI_RATE(X3)	0.029200	54.86718	1.565557
LDR(Z)	0.000306	187.5867	1.444151

Source: Eviews 10.2024 Output

In table 3. it is known that the VIF on the CAR variable is 1.105597, the NPL variable is 1.375791, the BI_Rate variable is 1.565557 and the LDR variable is 1.444151 so it can be concluded that there is no multicollinearity in the research data and the assumptions are met.

Heteroscedasticity Test

The heteroscedasticity test can be done using the Glejser test, it is said that there is no heteroscedasticity in this study if the significant value is> 0.05. The following are the results of the Heteroscedasticity test:

Table 4. Heteroscedasticity Test

Heteroskedasticity Test: Glejser

F-statistic	2.292962	Prob. F(4,27)	0.0853
Obs*R-squared	8.114022	Prob. Chi-Square(4)	0.0875
Scaled explained SS	6.703310	Prob. Chi-Square(4)	0.1524

Source: Eviews 10.2024 Output

Based on table 4. obtained results in the form of a Chi-Square probability value of 0.0875. The Chi-Square probability value is greater than the significance level (0.0875> 0.05), meaning that there is no Heteroscedasticity.

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Autocorrelation Test

The Autocorrelation test is an analysis conducted to determine the existence of a correlation that exists in the prediction model with changes in time.

Table 5. Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.293134	Prob. F(3,24)	0.1036
Obs*R-squared	7.129051	Prob. Chi-Square(3)	0.0679

Source: Eviews 10.2024 Output

Based on table 5, the results obtained in the form of a Chi-Square probability value of 0.0679 Chi-Square probability value is greater than the significance level (0.0679> 0.05), meaning there is no autocorrelation.

Panel Data Regression Model Selection

There are three stages in choosing the estimation method in panel data, namely testing the common effects model and the fixed effects model (Chow Test), testing the fixed effects model and the Random effects model (Hausmann Test), and testing the moded Random effects and Common effects model (Breusch-Pagan LM Test).

The following is a table of model selection results conducted by researchers :

Table 6. Panel Model Selection Results

No	Jenis Uji	Model Yang di uji	Hasil	Model yang dipilih
1	Uji *Chow*	*Common Effects vs Fixed Effects*	*Prob. F Statistik α 0,0000 < 0.05*	*Fixed Effects*
2	Uji *Hausman*	*Fixed Effects vs Random Effects*	*Prob. Chi-Square 0,8366 α > 0,05*	*Random Effects*
3	Uji *Lagrange Miltiplier*	*Random Effects vs Common Effects*	*Breusch-pagan 0,0000 α<0,05%*	*Random Effects*

Source: Eviews 10.2024 Output Processed by researchers

Based on Table 6. The panel model test results show that a good model to use in this study is the Random Effects Model (REM).

T Test (Partial)

The t test aims to test each Independent variable partially whether it has a significant effect on the dependent variable Credit or not using a significant level of 5%. The results of the t test above can be seen from the partial hypothesis test results, namely:

Table 7. T Test (Partial)

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 06/28/24 Time: 01:25
Sample: 2016 2023
Periods included: 8
Cross-sections included: 4
Total panel (balanced) observations: 32
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.856532	1.087792	1.706698	0.0989
CAR	0.130890	0.038578	3.392905	0.0021
NPL	-0.847353	0.113270	-7.480844	0.0000
BI_RATE	0.048814	0.098878	0.493678	0.6254

Source: Eviews 10.2024 Output

Statistical Test Results on the Capital Adequacy Ratio (CAR) variable on ROA there is a tcount value of 3.392905 with a probability value of 0.0021 <0.05 and has a positive regression coefficient value of 0.0021, it can be concluded that H0 is rejected and H1 is accepted or partially CAR has a significant effect on ROA.

Statistical Test Results on the Non Performing Loan (NPL) variable on lending there is a tcount value of -7.480844 with a Probabiliti value of 0.0000 <0.05 and has a negative regression coefficient value, it can be concluded that H0 is rejected and H2 is accepted or partially NPL has a significant effect with a negative relationship on ROA.

Statistical Test Results on the BI Rate variable on ROA there is a tcount value of 0.493678 with a probability value of 0.6254> 0.05 and has a positive regression coefficient value, it can be concluded that H0 is accepted and H3 is rejected or partially BI Rate has no effect on ROA.

Moderation

Moderation testing is carried out to compare how much influence the direct variable has with related variables. As a variable that moderates between direct and indirect variables is the Loan To Deposit Ratio (LDR). The following are the results of the Moderation Variable test:

Table 8. Test Moderation

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 06/28/24 Time: 01:15
Sample: 2016 2023
Periods included: 8
Cross-sections included: 4
Total panel (balanced) observations: 32
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.127933	16.92520	-0.302976	0.7649
CAR	0.326106	0.667917	0.488243	0.6304
NPL	-1.325608	1.518007	-0.873256	0.3924
BI_RATE	1.059832	1.411428	0.750894	0.4610
LDR	0.094265	0.196710	0.479207	0.6367
LDR*CAR	-0.003310	0.007739	-0.427751	0.6732
LDR*NPL	0.006708	0.017119	0.391866	0.6991
LDR*BI_RATE	-0.010676	0.016403	-0.650879	0.0222

Source: Eviews 10.2024 Output

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For the ROA regression equation = α + β1t CARit + β2tNPLit + β3BI Rateit +CARit∗ LDRit + e, which was tested using the eviews 10 program, the t test results as in the table above obtained the coefficient of the CAR * LDR variable has a probability level = 0.6784> 0.05, so it can be said that the Loan To Deposit Ratio (LDR) variable cannot moderate the effect of the Capital Adequacy1Ratio (CAR) on Return On Assets (ROA).

For the ROA regression equation = α + β1t CARit + β2tNPLit + β3BI Rateit +NPLit∗ LDRit + e, which was tested using the eviews 10 program, the t test results as in the table above obtained the coefficient of the NPL * LDR variable has a probability level = 0.7040 <0.05, so it can be said that the Loan To Deposit Ratio (LDR) variable is unable to moderate Non Performing Loand (NPL) on Return On Assets (ROA).

For the regression equation ROA = α + β1t CARit + β2tNPLit + β3BI Rateit +BI rateit∗ LDRit + e, which was tested using the eviews 10 program, the t test results as in the table above obtained the coefficient of the BI Rate * LDR variable has a probability level = 0.0222 <0.05, so it can be said that the Loan To Deposit Ratio (LDR) variable is able to moderate the BI Rate on Return On Assets (ROA).

Test Coefficient of Determination (R2)

To determine the effect of independent variables on related variables together - the coefficient of determination is used. The coefficient of determination is the percentage of the influence of the independent variable on the related variable.

Table 9 Test Coefficient of Determination (R2)

R-squared	0.527082	Mean dependent var	2.363750
Adjusted R-squared	0.476412	S.D. dependent var	1.097903
S.E. of regression	0.794436	Sum squared resid	17.67160
F-statistic	10.40229	Durbin-Watson stat	0.440745
Prob(F-statistic)	0.000091		

Source: Eviews 10.2024 Output

Based on table 9, the coefficient of determination (Adjusted R-Square) is 0.476412, which means that the dependent variable, ROA, can be explained by the independent variables Capital Adequacy Ratio, Non Performing Loan and BI Rate by 47.64% while the remaining 52.36% is explained by other variables outside the research model.

Discussion

Effect of Capital Adequacy Ratio on Return On Assets

From the Statistical Test Results on the Capital Adequacy Ratio variable on Return On Assets, there is a tcount value of 3.392905 with a probability value of 0.0021 <0.05 and has a positive regression coefficient value of 0.0021, it can be concluded that H0 is rejected and H1 is accepted or partially CAR has a significant effect on ROA. With the increase in capital ratio will affect the probability of the company, the higher the probability, the higher the capital

needed. This research is in line with previous research where according to researchers (Aishya et al., 2022) and (Sudarjah et al., 2021) Capital adequacy ratio (CAR) has a significant effect on Return On Assets. So the researcher can conclude that the Capital Adequacy Ratio has a significant positive effect on Return On Assets.

Effect of Non Performing Loan on Return On Assets

From the results of the Statistical Test on the Non Performing Loan (NPL) variable on lending there is a tcount value of -7.480844 with a Probabiliti value of 0.0000 <0.05 and has a negative regression coefficient value, it can be concluded that H0 is rejected and H2 is accepted or partially NPL has a significant effect with a negative relationship on ROA. With the increase in NPL, it will affect a company's probability, the smaller the NPL, the smaller the risk borne by the bank so that it can increase the probability of the company, on the contrary, the higher the NPL, the higher the risk faced by a banking company. This research is in line with previous research where researchers While research (Sudarjah et al., 2021) and (Akbar et al., 2024) say that Non Performing Loan (NPL) has a significant negative effect on Return On Asset (ROA). So the researcher can conclude that Non-performing Loan (NPL) has a significant negative effect on Return On Asset (ROA).

Effect of BI Rate on Return On Assets

From the results of the Statistical Test on the BI Rate variable on ROA there is a tcount value of 0.493678 with a probability value of 0.6254> 0.05 and has a positive regression coefficient value, it can be concluded that H0 is accepted and H3 is rejected or partially BI Rate has no effect on Return On Assets (ROA). So with the increase in interest rates BI Rate can not affect the probability of a banking company. This research is in line with previous research where researcher researchers (Rachmawati & Marwansyah, 2019) said that the BI Rate has no effect on Roa. So researchers can conclude that the high and low interest rates set by BI cannot affect a company's probability.

The Effect of Loan To Deposit Ratio as a Moderating Variable in the Relationship Between Capital Adequacy Ratio and Return On Assets

From the results of the test results conducted by researchers that the results of the CAR * LDR variable coefficient have a probability level = 0.6784> 0.05, so it can be said that the Loan To Deposit Ratio (LDR) variable cannot moderate the influence of the Capital Adequacy Ratio (CAR) on Return On Assets (ROA). So that from the results of the statistical analysis it can be concluded that the fourth hypothesis (H4) is rejected or the Loan to Deposit ratio is unable to moderate the Capital Adequacy Ratio on Return On Assets at the Persero Bank company for the period 2016-2023.

The Effect of Loan To Deposit Ratio as a Moderating Variable in the Relationship Between Non Performing Loan and Return On Assets

From the results obtained, the coefficient of the NPL * LDR variable has a probability level = 0.7040 <0.05 so that it can be said that the Loan To Deposit Ratio (LDR) variable is not able to moderate Non Performing Loand (NPL) on Return On Assets (ROA). So that from the

results of the statistical analysis it can be concluded that the Fifth Hypothesis (H5) is rejected or the Loan to Deposit Ratio is not able to moderate between Non Performing Loan and Return On Assets at the Persero Bank company for the period 2016-2023.

The Effect of Loan To Deposit Ratio as a Moderating Variable in the Relationship Between BI Rate and Return On Assets

From the test results, the BI Rate * LDR variable has a probability level = 0.0222 <0.05, so it can be said that the Loan To Deposit Ratio (LDR) variable is able to moderate the BI Rate on Return On Assets (ROA). So that from the results of the statistical analysis it is concluded that the 6th hypothesis (H6) is accepted. The results of this study determine that the Loan To Deposit Ratio is able to strengthen the relationship between Bi Rate and Return On Assets at Bank Persero for the period 2016-2023. At the time before conducting moderation testing, the BI Rate variable had no effect on Return On Assets, but after being moderated by the Loan to Deposit Ratio variable, the BI rate variable had a significant value, so that the Loan to Deposit Ratio could strengthen the effect of BI rate on Return On Assets.

Conclusion

Based on data analysis and discussion of the effect of Capital Adequacy Ratio, Non Performing Loan and BI Rate on Probability with Loan To Deposit Ratio as Moderating Variable. Then the following conclusions will be drawn, the results showed that the Capital Adequacy Ratio (CAR) had an effect on Return On Assets (ROA) at the Persero Bank in the 2016-2023 period. This shows that the high and low CapitalAAdequacyRRatio (CAR) can partially affect the distribution of loans that are distributed Return On Assets (ROA). The results showed that Non Performing Loan (NPL) had a significant effect with a negative relationship on Return On Assets (ROA) at Bank Persero for the 2016-2023 period. This shows that the high and low Non Performing Loan (NPL) will partially affect the loan disbursement. The higher the non-performing loan, the lending will decrease, on the other hand, the lower the Non Performing Loan, the lending will increase. The results showed that the BI Rate interest rate on Return On Assets (ROA) at the Persero Bank for the period 2016 - 2023. This shows that the high and low BI Rate partially does not affect the distribution of Return On Assets (ROA). The results showed that the Loan To Deposit Ratio (LDR) variable moderated the effect of the Capital Adequacy Ratio (CAR) on Return On Assets (ROA). The results showed that the Loan To Deposit Ratio (LDR) variable moderated the Non Performing Loan (NPL) on Return On Assets (ROA). The results showed that the Loan To Deposit Ratio (LDR) variable can moderate the BI Rate on Return On Assets (ROA).

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