

CREDIT PERFORMANCE IN BANKING IN INDONESIA DURING 2019-2020

Wikan Isthika¹, Amalia Nur Chasanah², Mila Sartika³

¹Accounting Department, Dian Nuswantoro University Semarang, Indonesia

^{2,3}Management Department, Dian Nuswantoro University Semarang, Indonesia

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ABSTRACT

In 2020, the Covid-19 pandemic affected all sectors of the economy. One of them is the banking industry. This study aims to see how the performance of bank credit in Indonesia was before the pandemic and in the early years of the pandemic. This study uses the variables capital adequacy ratio (CAR), operating costs to operating income (BOPO), return on assets (ROA), and loan to deposits ratio (LDR) in measuring non-performing loans (NPL) or non-performing financing (NPF). This study uses monthly data from conventional and Islamic banking financial reports for 2019 and 2020. Data testing uses the classical assumption test and multiple linear regression tests. The results of testing the classical assumptions state that the data is feasible for regression testing. Furthermore, the results of the study found that all variables namely CAR, LDR, ROA and BOPO, simultaneously affected the NPL or NPF variable. Meanwhile, partially, it was found that CAR and LDR were proven to be able to affect NPL or NPF, while ROA and BOPO had no effect on NPL or NPF in Indonesian banks for the past two years.

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Corresponding Author

Amalia Nur Chasanah

Email: amalia.nurchasanah@dsn.dinus.ac.id

INTRODUCTION

From 2020 to 2021, Indonesia will experience the Covid-19 pandemic which will greatly impact all aspects of people's lives. One aspect that is greatly affected is the economy. The Indonesian government issued several regulations relating to the handling of Covid-19. The first regulation was issued in March namely large-scale social restrictions (PSBB), followed by April PSBB applied to the closure of schools and workplaces, restrictions on religious activities, socio-culture, use of public facilities, use of transportation, and other activities related to aspects of defense and security (kemlu.go.id, 2020). The impact of the issuance of this regulation is that many business actors are feeling the negative impact of the current pandemic conditions. Indirectly due to the declining business conditions, the ability to pay bank debt and leasing has also decreased.

The OJK stated that the impact of the Covid-19 pandemic had penetrated the real sector and would have a negative impact on the liquidity and capital of financial service institutions (Elena, 2020). This is because the people affected by Covid-19 will not be smooth in carrying out debt and financing obligations which will disrupt the liquidity of financial institutions. According to the chairman of the Association of Indonesian Finance Companies (APPI), as disclosed on merdeka.com, there are 6 things that are detrimental to the financing industry. The first thing is the restructuring of financing to the debtor, the second is the difficulty in billing the debtor. Furthermore, it is related to loans that still have to be made in installments by the finance company to the bank. The fourth thing is the cessation of banking funding sources to finance companies. Fifth, new financing has decreased due to people's purchasing power and tight financing liquidity. The last is the increase in NPF due to the reduced ability to pay debtors.

The performance of Conventional Commercial Banks based on the banking industry profile report for the second quarter of 2020 stated that its function had begun to decline due to slowing credit growth and lower than the growth of third party funds. Conventional commercial bank credit risk began to increase and profitability decreased compared to the previous year.

Table 1. Performance of Conventional Commercial Banks

Indikator	Nominal			Qtq		Yoy	
	Juni 19	Maret 20	Juni 20	Maret 20	Juni 20	Juni 19	Juni 20
Total Asset (Rp Milyar)	7.920.019	8.443.184	8.313.961	2,81%	-1,53%	7,66%	4,97%
Kredit (Rp Milyar)	5.255.085	5.483.646	5.316.379	1,70%	-3,05%	9,84%	1,17%
DPK (Rp Milyar)	5.532.926	5.924.944	5.967.088	3,77%	0,71%	7,27%	7,85%
-Giro (Rp Milyar)	1.367.355	1.563.497	1.539.537	9,81%	-1,53%	6,73%	12,59%
-Tabungan (Rp Milyar)	1.736.841	1.832.289	1.877.861	-0,66%	2,49%	5,81%	8,12%
-Deposito (Rp Milyar)	2.428.731	2.529.159	2.549.690	3,60%	0,81%	8,66%	4,98%
CAR (%)	22,63	21,67	22,55	(174)	88	62	(8)
ROA (%)	2,51	2,57	1,94	10	(63)	8	(56)
NIM (%)	4,90	4,31	4,46	(60)	15	(20)	(44)
BOPO (%)	80,24	88,84	84,94	945	(390)	77	471
NPL Gross (%)	2,47	2,74	3,10	25	36	(16)	63
NPL Net (%)	1,14	0,98	1,13	(17)	15	(5)	(1)
LDR (%)	94,98	92,55	89,10	(188)	(346)	222	(588)

Source: SPI June 2020

In addition to the above, the use of conventional commercial bank funds can be seen in table 2 where it can be seen that most of the banking funds are channeled in the form of credit to third parties. It can be seen that credit demand is quite weak with credit risk tending to increase. This was due to the global and domestic economic slowdown.

Table 2. Use of Conventional Commercial Bank funds

Penggunaan Dana	Nominal (Rp M)			Porsi (%)	qtq (%)		yoy (%)	
	Jun 19	Mar 20	Jun 20		Mar 20	Jun 20	Jun 19	Jun 20
Kredit yang diberikan	5.315.600	5.552.719	5.384.415	65,24	1,73	-3,03	9,86	1,29
-Kepada Pihak Ketiga	5.255.085	5.483.646	5.316.379	64,42	1,70	-3,05	9,84	1,17
-Kepada Bank Lain	60.514	69.073	68.036	0,82	4,18	-1,50	11,86	12,43
Penempatan pada Bank Lain	271.051	244.486	218.567	2,65	1,25	-	3,33	-19,36
Penempatan pada Bank Indonesia	627.762	771.609	692.303	8,39	6,22	-	-7,36	10,28
Surat Berharga	923.707	992.389	1.169.418	14,17	4,58	17,84	-4,91	26,60
Penyertaan	44.378	50.995	51.112	0,62	1,38	0,23	10,77	15,17
CKPN Aset Keuangan	162.657	264.993	275.171	3,33	60,65	3,84	-1,75	69,17
Tagihan Spot dan Derivatif	20.929	80.616	31.030	0,38	284,87	-	2,96	48,26
Tagihan Lainnya	332.467	301.092	430.999	5,22	-9	43	27,43	29,64
Total	7.698.551	8.258.900	8.253.016	100	4,01	-0,07	6,38	7,20

Source: SPI June 2020

In accordance with the 2020 banking industry profile report, the highest type of credit use was productive credit of 73.13% consisting of working capital loans of 46.06% and investment loans of 27.08%. Meanwhile, consumption credit only amounted to 26.87%. Productive credit experienced a slowdown compared to last year, and this was also due to the government's PSBB regulations.

The performance of Islamic banks is inseparable from the impact of the Covid-19 pandemic, it was stated that profitability began to show a decline as a result of the economic slowdown. Sharia bank financing was also reported to have experienced a slowdown in productive and consumptive financing. However, for financing risk, it was noted that the non-performing financing (NPF) ratio had decreased. However, in terms of profitability, there was a decrease in ROA, which means there was a slowdown. Judging from the banking performance, both conventional public and Islamic commercial banks have been indirectly affected by the Covid-19 pandemic. In this study, the focus will be on credit activities, which can be seen that there has been a decline in both productive credit and consumptive credit. Factors that influence non-performing loans and non-performing financing include the capital adequacy ratio (CAR), loan to deposit ratio (LDR), return on assets (ROA) and operational spending and operating income (BOPO).

Capital Adequacy Ratio (CAR) is a ratio regarding capital adequacy that shows the ability of banks to provide funds to overcome possible risks of loss. The higher the CAR value of a bank, the better it will be in facing the risk of loss. Furthermore, the Loan to Deposits Ratio (LDR) is a measurement of the liquidity of a bank. A high LDR means that a bank does not have sufficient liquidity to cover obligations to party fund owners

third. Another factor that affects non-performing loans or non-performing financing is Return on Assets (ROA), which is an indicator in measuring the ability of banks to generate profits. The higher the ROA, the better the banking ability to generate profit. The last factor in this study is Operational Expenditure to Operating Income (BOPO),

which is a ratio that describes the level of banking efficiency. The smaller the BOPO value, the more efficient the banking operations will be.

Many studies related to non-performing loans and non-performing finance have been carried out including by Jusmansyah and Sriyanto (2013) using CAR, BOPO and ROA variables with the research period from 2006 - 2010. The results showed that CAR and ROA had an effect on NPLs while BOPO had no effect against NPLs. Furthermore, research on Islamic banking in Indonesia has also been conducted by Havidz and Setiawan (2015) who found that the variable firm size, OER, GDP growth has a significant effect on NPF while ROA, FDR, CAR and the inflation rate have no effect on NPF. Subsequent research was conducted by Prasanth, et al (2020) who examined the factors that influence NPLs in India. They found results that LDR, ROE, CAR had a significant effect on NPL with the 2015-2019 research period. Based on the results of previous research, the researcher is interested in re-examining the factors that influence NPLs in banking in Indonesia, both conventional commercial banks and Islamic commercial banks. Seeing the current pandemic conditions which affect all sectors of the economy, one of which is the lack of ability to pay debtors, is a driving factor for researchers to take the topic of Non-Performing Loans and/or Non-Performing Financing. The research periods that we will examine are 2019 and 2020.

LITERATURE REVIEW

Capital Adequacy Rate (CAR)

The capital adequacy rate according to Jusmansyah (2013) is the sum of all bank assets that contain risk which is shown in the ratio including credit which is also financed from their own capital in addition to funding from sources outside the bank. Every bank is required to maintain the CAR value so that it remains within safe limits, in other words, customers will be guaranteed or feel protected. This can also maintain the overall financial stability of the bank. The greater the CAR value, the more capable the bank is in facing the risk of loss. Based on the above understanding, it can be said that CAR is used to measure capital adequacy to support risky assets such as lending activities to customers. The calculation of this ratio can be shown by the following formula:

$$CAR = \frac{\text{Capital Bank}}{\text{Risk Weighted Asset}} \times 100\%$$

Loan to Deposit Ratio (LDR)

The Loan to Deposits Ratio is a ratio used to measure a bank's ability to meet its short-term obligations or a ratio that reflects the level of liquidity of a bank. The liquidity of a bank is used to guarantee its customers. When they want to take their funds. A high LDR value indicates that even a bank does not have good enough liquidity, whereas if the LDR is low then the bank has an adequate level of liquidity. This is the same as the Loan to Funding Ratio (LFR) which is used to measure bank liquidity by comparing total credit with third party funds. The difference between LDR and LFR is that there are securities on LFR. A high LFR level indicates low liquidity from a bank, and conversely a low LFR value indicates high liquidity from a bank. Furthermore, for Islamic banks, the ratio that describes the ability of Islamic banks to utilize funds for financing is the financing to deposits ratio (FDR). Management that is less able to channel financing can be shown by a low FDR level. Vice versa, if an Islamic bank has more funds to channel through financing it will be indicated by a high FDR value (Supriani and Sudarsono, 2018). The LDR calculation formula is:

$$\text{LDR} = \frac{\text{Total Credit}}{\text{Total Third party Fund}} \times 100\%$$

$$\text{FDR} = \frac{\text{Total Financing}}{\text{Total receipt of fund}} \times 100\%$$

Return On Assets (ROA)

Return On Assets according to Jusmansyah (2013) is a calculation used to see the ability of banks in the form of ratios. This ratio is obtained from data on profit before tax and average total assets. A high ROA value indicates a large profit or profit level for the company, in this case, Indonesian banking. Vice versa, a low ROA value indicates that the bank's profit or profit level is also low. High profits can be a sign that the possibility of problems will occur at the bank is low, conversely if the profits are low it can be a sign that the bank has the potential to experience more problems than banks with high profits. Return on assets is one of the bank's performance parameters in generating profits. ROA figures are obtained from profit before tax compared to the average total assets.

$$\text{ROA} = \frac{\text{Earning before tax}}{\text{Average Total Asset}} \times 100\%$$

Operating Costs to Operating Income (BOPO)

Measurement of bank efficiency also needs to be done in assessing non-performing loans. The level of bank efficiency can be shown by calculating operational costs compared to operating income. This calculation can show whether the operational activities carried out by the bank have been running efficiently or not. Operational costs are indicated by the amount of interest costs provided by the bank to customers. As for the operational income side, it is indicated by the amount of interest paid by customers who have loans to banks.

A small BOPO value means that the bank's operations are more efficient. Conversely, the higher the BOPO value, the more inefficient the bank's operations will be. According to Eng, Tan Sau (2013) the greater the BOPO, the more inefficient the bank's operations are, and conversely the lower the BOPO value, the more efficient the operations of a bank. The BOPO benchmark figure is 92%.

$$\text{BOPO} = \frac{\text{Operating Costs}}{\text{Operating Income}} \times 100\%$$

Non-Performing Loans (NPL)

According to Bank Indonesia regulations (2019), the NPL value must be below 5% of the gross loans given to customers. The classification in NPL includes substandard, namely when the debtor does not pay the loan according to schedule or interest on the loan between 90 days and 120 days. Furthermore, the second classification is doubtful, namely the debtor does not pay the loan according to schedule or the interest on the loan is between 120 days and 180 days. The third classification is loss and loss, namely if the debtor does not pay the loan or loan interest within more than 180 days. Non-performing loans (Jusmansyah, 2013) or non-performing financing at Islamic commercial banks are the level of non-performing loans or the percentage of loans that cannot be met with payments of both principal and interest. So that makes the risk of loss in lending activities to be high. Based on research by Rachman, et al (2018) the high NPL ratio in banking will have systemic impacts and risks in the entire banking

sector which will eventually cause a financial crisis. A high NPL ratio indicates a low level of soundness of a bank because NPL is related to loan loss provisions set aside by banks to cover potential losses. The NPL calculation can be formulated as follows:

$$NPL = \frac{\text{problem credit}}{\text{Total credi}} \times 100\%$$

$$NPF = \frac{\text{Not current total financing}}{\text{Total financing}} \times 100\%$$

Conceptual Framework

The following is a conceptual framework and hypothesis development in the research that will be carried out:

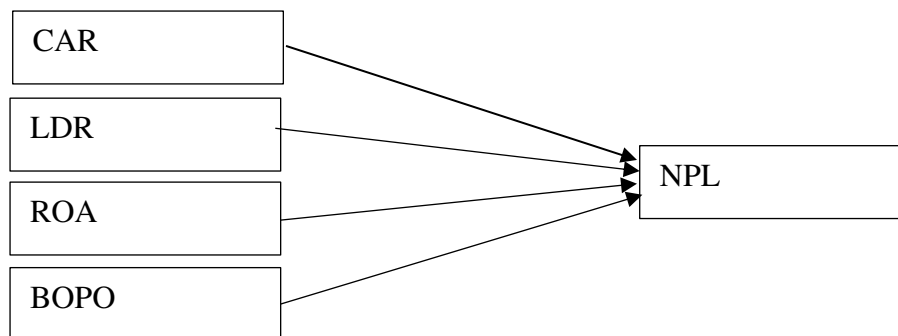


Figure 1. Conceptual Framework

Hypothesis

The following are the hypotheses proposed in this study:

H1: Capital Adequacy Ratio has an effect on NPL

H2: Loan to Deposit Ratio affects NPL

H3: Return on Assets has an effect on NPL

H4: Operating costs have an effect on NPL

RESEARCH METHODS

The type of data used is secondary data. The data is taken from Indonesian Banking Statistics from the Financial Services Authority website. The financial reports used are monthly financial reports from Conventional banking and Sharia banking for 2020 and 2021. Tests use SPSS with multiple linear regression analysis. The equation used is:

$$NPL = a + b_1CAR + b_2 LDR + b_3 ROA + b_4 BOPO + e$$

NPL = non-performing loans

CAR = Capital adequacy ratio

LDR = Loan to Deposit Ratio

ROA = Return on Assets

BOPO = Operating costs to operating income

a = constant

b1-b4 = regression coefficient

e = errors

The classic assumption tests performed were data normality, multicollinearity, autocorrelation and heteroscedasticity tests.

RESULTS AND DISCUSSION

Descriptive statistics

The following data are descriptive statistics that describe the data used in the research. To interpret the descriptive statistical results of the variables CAR, LDR, ROA, BOPO and NPL can be seen in the following table:

Table 3. Descriptive Data

Variable	N	Min	Max	Mean	Std. Deviation
CAR	48	19,6	24,3	21,765	1,4977
LDR	48	76,4	96,2	85,083	7,005
ROA	48	1,3	2,7	1,908	0,4561
BOPO	48	82,78	93,66	86,81	2,57
NPL	48	3,13	90,35	34,65	32,43

From the output it can be seen that the CAR variable has a minimum value of 19.6 a maximum of 24.3 with an average of 21.765 and a standard deviation of 1.4977 because the average value is greater than the standard deviation, it can be seen that the data is evenly distributed or there are no deviations. The LDR variable has a minimum value of 76.4, a maximum of 96.2, an average of 85.083 and a standard deviation of 7.005, so there is no deviation in this variable. ROA, BOPO and NPL variables have standard deviation values that are lower than the average. This can be interpreted that the four variables have stable data or no deviations occur. The normality test can be seen that the residual data has been normally distributed (Table 4).

Table 4. Data Normality

	Unstandardized Residual
Kolmogorov-Smirnov Z	0.134
Asymp. Sig. (2-tailed)	0.067

From the output, the Kolmogorov Smirnov value is 0.134 and has a significance value of 0.067. Because this value is greater than 0.05, it can be concluded that the residual data is normally distributed (Ghozali, 2016).

Multicollinearity

Table 5. Multicollinearity Test

	Tolerance	VIF	Keterangan
CAR	0,512	1,952	No multicollinearity
LDR	0,117	8,555	No multicollinearity
ROA	0,155	6,434	No multicollinearity
BOPO	0,851	1,175	No multicollinearity

From the output it can be seen that all independent variables have tolerance values above 0.1 and VIF values below 10, so it can be concluded that the model is free from multicollinearity (Ghozali, 2016).

Autocorrelation

Table 6. Autocorrelation Test

Durbin-Watson	1,893
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From the output, the Durbin Watson value is 1.893 with a dl value of 1.2848 and a du value of 1.7209. The model is said to be free from autocorrelation if it has a DW value between du and 4-du, that is, between 1.7209 and 2.2791. From the output, the DW value of 1.893 is between du and 4-du so the model has no autocorrelation (Ghozali, 2016).

Heteroscedasticity

Table 7. Heteroscedasticity

Variabel	T	Sign
LCAR	1,019	0,315
LLDR	1,047	0,302
LROA	-0,971	0,338
LBOPO	1,790	0,082

In this study, Heteroscedasticity testing used the Park test. Based on the existing output, it can be seen that the significance values of the independent variables namely CAR, LDR, ROA, and BOPO are respectively 0.315, 0.302, 0.338 and 0.082 above 0.05. It can be concluded that the model is free from heteroscedasticity because the significance value is above 0.05 (Ghozali, 2016).

ANOVA

Table 8. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	34269,389	4	8567,347	147,371	0,000
Residual	2034,708	35	58,135		
Total	36304,098	39			

From table 8, it can be seen that the model has a calculated F value of 147.371 and a significance of 0.000. The significance value of the results is below 0.05 so that the model is feasible to use or in other words that the four independent variables, namely CAR, LDR, ROA and BOPO simultaneously or together influence the NPL variable significantly.

Coefficient of Determination

Table 9. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.972 ^a	.944	.938	7,62460

Based on table 7, it is known that the value of 0.938 is the Adjusted R square value. This means that the independent variable can explain the dependent variable. In other words, the CAR, LDR, ROA, and BOPO variables can affect the NPL variable by 93.8%. Furthermore, the remaining 6.7% is explained by other variables not included in this study.

Regression Analysis

After passing the classical assumption test, the following equation is obtained from the output:

Table 10. Regression Results and Hypothesis Testing

Variabel	B	Std Error	T	Sign
(Constant)	-457,042	53,761	-8,501	0,000
CAR	10,763	1,160	9,279	0,000
LDR	2,374	0,592	4,010	0,000
ROA	4,828	7,434	0,649	0,520
BOPO	0,549	0,655	0,838	0,408

Equality:

$$NPL = -457.042 + 10.763 \text{ CAR} + 2.374 \text{ LDR} + 4.828 \text{ ROA} + 0.549 \text{ BOPO}$$

1. The constant -457.042 means that if the CAR, LDR, ROA and BOPO remain the same or there is no change, then the NPL is negative 457.042.
2. The CAR coefficient is 10.763, which means that if CAR increases by 1 unit while other variables remain the same, the NPL increases by 10.763.
3. The LDR coefficient is 2.374 so if it is interpreted that when the LDR increases by 1 unit while other variables remain the same, then the NPL increases by 2.374.
4. The ROA coefficient is 4.828, which means that if the ROA increases by 1 unit while other variables remain the same, then the NPL will increase by 4.828.
5. The BOPO coefficient of 0.549 means that if BOPO increases by 1 unit while other variables remain the same, then the NPL will increase by 0.549.

Hypothesis testing

Hypothesis 1 Capital Adequacy Ratio has an effect on NPL/NPF. From table 10 it can be seen that the CAR variable has a regression coefficient of 10.763 with a significance level of 0.000. Because the significance value is less than 0.05, it can be concluded that hypothesis 1 Capital Adequacy Ratio has a significant effect on NPL is accepted. The emergence of credit risk can be covered by the presence of capital, in this case with a high CAR ratio, banks are increasingly able to deal with unpaid credit risks. If the CAR ratio is high, a bank will be more daring in increasing the amount of loans to customers. Distributing a high loan amount will increase the potential for late payment credit risks and even unpaid credit. This can increase problem loans from banks.

According to Astrini, Suwendra and Suwarna (2018) state that the CAR ratio must be able to represent bank capital so that it can cover the business risks faced by banks including losses or credit problems. The results of this study have a different direction from the results of research conducted by Astrini, Suwendra, and Suwarna (2018) and Kusuma and Haryanto (2016) who found CAR to have a significant negative effect on CAR. The results of this study support the results of research from Poetry and Sanrego (2011) who found that CAR has a positive effect on NPF in Islamic banks. Hypothesis 2 Loan to Deposit Ratio has an effect on NPL/NPF From table 10 it can be seen that the LDR variable has a regression coefficient of 2.374 with a significance level of 0.000. Because the significance value is less than 0.05, it can be concluded that hypothesis 2 Loan to Deposit Ratio has a significant effect on NPL is accepted. The results showed

that the relationship between LDR and NPL and/or NPF was positive. This indicates that the high NPL/NPF is due to the rising LDR. The high LDR was due to the increase in third party funds collected from demand deposits, savings and time deposits. The large number of third party funds collected by the bank will increase the number of loans given to customers. The high number of loans given will increase the risk of problem credit. Astrini, Suwendra and Suwarna (2018) and Firmansyah (2014) who also found that a bank's liquidity has a positive effect on problematic credit or financing. A high LDR or FDR value will have a higher potential or risk in dealing with problem loans or high uncollectible loans.

Hypothesis 3: Return on Assets has an effect on NPL/NPF

From table 10 it can be seen that the ROA variable has a regression coefficient of 4.828 with a significance level of 0.520. Because the significance value is more than 0.05, it can be concluded that hypothesis 3 Return on Assets has an effect on NPL is rejected. The size of the value of ROA does not affect creditor default. The results of this study do not support the research conducted by Kusuma and Haryanto (2016) stating that ROA has an effect on credit performance. However, the results of this study support Malimi's research (2017) which found that ROA had no effect on NPL or NPF values. This shows that the profitability obtained by the bank cannot be used as a reference in seeing the potential magnitude of default by creditors.

Hypothesis 4 Operating costs have an effect on NPL/NPF

From table 10 it can be seen that the BOPO variable has a regression coefficient of 0.549 with a significance level of 0.408. Because the significance value is more than 0.05, it can be concluded that hypothesis 4 Operating costs have an effect on NPL is rejected. The results of this study are not in line with Kusuma and Haryanto (2016) who found that BOPO has an effect on non-performing loans. However, the results of this study support the research of Jusmansyah and Sriyanto (2013) and Firmansyah (2014) who found that BOPO partially had no effect on NPLs. The ability to repay loans cannot be seen solely from the level of operational efficiency of a bank. Bad credit or financing is an external factor of society or creditors. So that effective bank operations cannot be a benchmark in policies for managing bad credit or financing (Firmansyah, 2013).

CONCLUSION

From the research results, it can be concluded that the Capital Adequacy Ratio and Loan to Deposit Ratio have a significant effect on NPL/NPF while the ROA and BOPO variables have no significant effect on NPL/NPF.

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