ANALISIS PENGARUH BOPO, LDR, NPL, DAN CAR TERHADAP ROA PADA BANK PEMBANGUNAN DAERAH DI INDONESIA PERIODE 2015 – 2020

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Abstract

This study aims to determine the effect of BOPO, LDR, NPL and CAR on ROA at Regional Development Banks registered with OJK. The population used in this study is a Regional Development Bank (BPD) company registered with the Financial Services Authority (OJK) which is actively operating from 2015 to 2020. Data collection techniques are carried out by taking secondary data found on the OJK and BI websites. The data analysis technique used is panel data analysis using E-Views and SPSS applications. This research uses multiple regression analysis method. The results showed that ROA had a significant negative effect on ROA, LDR had a significantly positive impact on ROA, NPL had an insignificant negative effect on ROA, CAR had a significant positive effect on ROA and the independent variables used in this study such as BOPO, LDR, NPL and CAR together. the same has a significant effect on the company's profitability. Partially, the BOPO and NPL variables have a significant negative effect on the Profitability (ROA) variable, the LDR variable has a significant positive effect on the Profitability (ROA) variable and the CAR variable has no effect on the Profitability (ROA) variable.
Keywords: BOPO, NPL, ROA, CAR, ROA and BPD

Economic development cannot be separated from the banking sector. This is because the bank is one of the means that have an important role in economic activity, as an intermediary institution that collects and distributes public funds effectively and efficiently.

ROA can be used to measure management's ability to control all operational and non-operational costs. The size of the ROA generated by a bank can be used as a benchmark for a bank in obtaining overall profits, not the case with Regional Development Banks from 2015 to 2019 from the development of ROA at Regional Development Banks, the average trend of which is increasing, although there are some banks that experienced an increase such as BPD West Java. A bank is said to be healthy if the ROA owned by the bank is 1.5 percent. However, there are still a number of banks that experienced a decline in the average trend, namely Jambi BPD, East Kalimantan BPD, West Kalimantan BPD, West Nusa Tenggara BPD, Papua BPD, Riau and Riau Islands BPD, Southeast Sulawesi BPD, Central Sulawesi BPD, West Sumatra BPD, South Sumatra BPD. and Bangka Belitung and BPD North Sumatra. This fact shows that there are still problems with the ROA of Regional Development Banks, so it is necessary to conduct research to find out what factors are the causes of the decline in ROA of Regional Development Banks.

Based on this background, the authors want to add and sharpen the variables from previous studies, therefore the authors are interested in doing the title "Analysis of the Effect of BOPO, LDR, NPL and CAR Research on ROA at Regional Development Banks in Indonesia for the 2015 - 2020 Period"

Literature Review

Return on Asset (ROA)

Return on assets is a ratio that shows the results (return) on the number of assets used in the company. Return on Assets (ROA) according to Hery (2016:26) is a ratio that shows

the results of using company assets in generating net income. A high ROA value will indicate that the company is able to generate relatively high profits.

$$ROA = \frac{\text{Profit Before Tax}}{\text{Total Aset}} x\ 100\%$$

Operational Costs on Operational Revenues (BOPO)

BOPO is Operational Costs on Operational Revenues which is a company's profitability ratio that compares operating expenses with operating income. BOPO can see how much the company's ability to manage its operating expenses. In banking or companies, BOPO has a big influence in measuring the level of efficiency and also the ability of banks to carry out their operational activities. For this reason, every business must make a comparison between the total operating costs and the operating income it earns.

$$BOPO = \frac{\textbf{Operational Costs}}{\textbf{Operational Revenues}}\ x\ 100\%$$

Loan Deposit Ratio (LDR)

Liquidity management is one of the complex problems in bank operational activities, this is because the funds managed by banks are mostly funds from the public which are short-term in nature and can be withdrawn at any time. The liquidity of a bank means that the bank has sufficient sources of funds available to meet all obligations (Siamat, 2005).

$$LDR = \frac{\text{Amount Of Credit}}{\text{DPK}}\ x\ 100\%$$

Non Performing Loan (NPL)

According to Dahlan Siamat (2004) that "Credit risk is a risk due to the failure or inability of the customer to return the amount received from the bank along with the interest according to a predetermined or scheduled time period." NPL reflects credit risk, the smaller the NPL, the smaller the credit risk borne by the bank.

$$NPL = \frac{\text{Troubled Credit}}{\text{Credit Total}}\ x\ 100\%$$

Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio is the capital adequacy ratio that shows the ability of the bank to maintain sufficient capital and the ability of bank management to identify, measure, supervise, and control the risks that arise that can affect the amount of capital. A bank is considered a healthy bank, if it has a CAR of at least 8% in accordance with the 40 Bank for International Settlements (BIS) standard.

$$CAR = \frac{\text{CAPITAL}}{\text{ATMR}}\ 100\%$$

Research Purposes

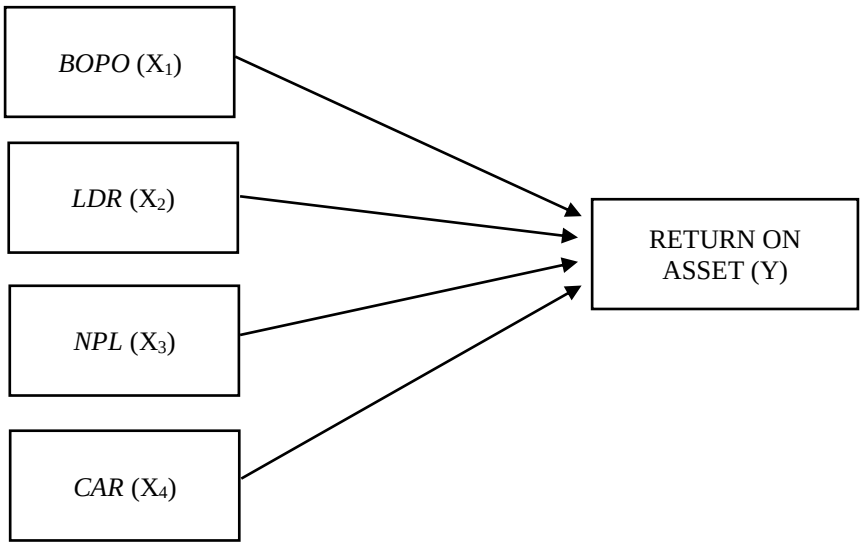
This study aims to determine the effect of BOPO, LDR, NPL and CAR on ROA at BPD registered in BI either partially or simultaneously.

The unit of analysis in this study is a Regional Development Banks with the following criteria:

1. 26 Regional Development Banks registered with BI, period 2015 – 2020.
2. 26 Regional Development Banks registered with BI, which are still active, period 2015 – 2020.
3. Have complete data in the annual financial statements for the measurement of variables used in research.

Based on the description of the previous problem formulation, a theoretical framework is made about the variables used, in the form of dependent variables and independent variables. In this study, the dependent variable is profitability (Y) and the independent variables used are BOPO (X1), LDR (X2), NPL (X3), and CAR (X4) with the following theoretical framework:

Framework



Research Hypothesis

Based on the problem formulation, theoretical study, and research framework that have been described previously, the author proposes several hypotheses in this study.

H1: BOPO has a significant negative effect on ROA in Regional Development Banks
H2: LDR has a significant positive effect on ROA at Regional Development Banks
H3: NPL has no significant effect on ROA at Regional Development Banks
H4: CAR has a significant positive effect on ROA at Regional Development Banks
H5: CAR has a significant positive effect while BOPO, LDR, NPL have a negative effect on ROA at Regional Development Banks

Method

Data Sources

The type of data used is secondary data, which is data that has been further processed. Data from this researcher has been collected and processed and published by companies for the 2015 - 2020 period, sourced from the Otoritas Jasa Keuangan (OJK). Thus the number of samples used as many as 26 BPD. The population used in this study are BPD registered with the Otoritas Jasa Keuangan (OJK).

Analysis Method

The data analysis technique used is panel data analysis using E-Views and SPSS applications. This research uses multiple regression analysis method. This method is used to determine the effect of each variable between the independent and dependent variables. This analysis technique first uses descriptive statistical tests, classical assumption tests (to ensure that there are no constraints on normality, multicollinearity, heteroscedasticity, and autocorrelation), and hypothesis testing. Which will be used to determine the effect of

Panel Data Model Selection

The choice between REM or FEM can also be made by considering the purpose of the analysis or it can also be possible that the data used as the basis for modeling can only be processed by one method due to various mathematical technical problems that underlie the calculations.

Common Effect Model (CEM)

The CEM model is the simplest approach in determining the estimation of the panel data regression model, because this approach combines all data, both cross section data and time series data. CEM assumes that the intercept and slope of the unit cross section and time series are the same.

Fixed Effect Model (FEM)

According to Gujarati (2004) FEM is assumed that the slope coefficient is constant but the intercept is not constant. The method that can be used for model estimation in FEM is the Least Square Dummy Variable method or often called LSDV. In the LSDV method, estimation is done by inserting a dummy variable which is used to explain the different intercept values due to differences in unit values.

Random Effect Model (REM)

Random Effect Model (REM), differences in unit characteristics and time periods are accommodated in the intercept, so that the intercept can change over time. According to Pangestika (2017) there are two methods that can be used to estimate REM, namely the LSDV method and the Generalized Least Square (GLS) method.

Selection of Panel Data Regression Estimation Model

Chow Test

Chow test (Chow test) is a test to determine the most appropriate Fixed Effect or Random Effect Model used in estimating panel data. The hypotheses in the chow test are:

- H0 = Common Effect Model or pooled OLS
- H1 = Fixed Effect Model

Hausman Test

Basically, the Hausman test is used to see the consistency of the estimation with OLS. Considering that REM is estimated by using this method, in panel data modeling, this test can be used to see the feasibility of using the panel model. This test is carried out to determine whether the Fixed Effect Model (FEM) or the Random Effect Model (REM) is selected.

H0 = REM model is better than FEM model

Ha = FEM model is better than REM model

Lagrangian Multiplier Test

Lagrange Multiplier (LM) is a test to find out whether the Random Effect model or the Common Effect (OLS) model is the most appropriate to use. This Random Effect significance test was developed by Breusch Pagan. The Breusch Pagan method for the Random Effect Model significance test is based on the residual value of the OLS method.

- H0 : *Common Effect Model*
- H1 : *Random Effect Model*

Classic Assumption Test

Classical Assumption Test is an analysis conducted to assess whether in a linear regression model there are classical assumption problems. Classical assumption test is done before using multiple linear regression model. Classical assumption test consists of normality test, multicollinearity test, autocorrelation test, heteroscedasticity test.

Normality Test

The normality test is used to determine whether there is a normal distribution in the regression model of the independent variable and the dependent variable or even both. If the dependent variable is not normally distributed, the results of the statistical test will decrease according to Ghozali (2016:154). Normality test was performed using the Kolmogorov-Smirnov test.

Multicollinearity Test

The multicollinearity test is intended to find out the correlation between independent variables in the regression. If there is no correlation between the independent variables, then a good regression model is declared.

AutocorrelationTest

This autocorrelation test aims to identify whether in the linear regression model there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous). Autocorrelation occurs because successive observations over time are related to each other. A good regression model should not have autocorrelation. To test the autocorrelation can be done by testing the statistics through the Durbin-Watson test (DW-test).

Heteroscedasticity Test

Heteroscedasticity test is used to check whether in the regression model there is an inequality of variance from the residual of one observation to 39 other observations. Ghazali (2016: 134). If the variance of the residuals of one observation with other observations is consistent, it can be called homoscedasticity. However, if the variance of the residual observations from one observation to another is different, it is called homoscedasticity. A good regression model should have homoscedasticity or be free from heteroscedasticity.

Hypothesis Test

Hypothesis testing is a test of a statement using statistical methods so that the test results can be declared statistically significant. By doing statistical testing of the hypothesis we can decide whether the hypothesis can be accepted (data does not provide evidence to reject the hypothesis) or rejected (data provides evidence to reject the hypothesis).

Coefficient of Determination Test

The determinant coefficient is used to measure how much the model's ability to explain the dependent variable is. This test serves to measure how big the role of the independent variables in this study is BOPO, LDR, NPL and CAR on the dependent variable, namely the profitability of the company. The value of the coefficient of determination must avoid

classical assumptions (Normality, Multicollinearity, Autocorrelation, Heteroscedasticity), Fixed Effect Model (FEM)

Simultaneous Significance Test (F Test)

The F test was conducted to test whether all of the independent variables had a significant effect on the dependent variable. In this study, the F statistical test was conducted to analyze the presence or absence and how far the influence, among others, and Company Size on Profitability.

Partial Significance Test (T Test)

The t-test was conducted to test whether each independent variable had a significant effect on the dependent variable. In this study, the t-statistic test was conducted to analyze the presence or absence and how far the influence of, among others, BOPO, LDR, NPL and CAR on the company's profitability. In testing this hypothesis, it is done by determining the level of error or (0.05).

Findings and Discussion

Instrument Data Test

Descriptive Statistical Analysis

Sample Data Descriptive Table

	N	Minimum	Maximum	Mean	Std. Deviation
ROA (y)	156	-,610	4,960	2,50853	,760273
BOPO (x1)	156	60,130	106,540	77,27923	6,536263
LDR (x2)	156	10,330	125,190	90,73949	13,516119
NPL (x3)	156	,120	15,030	2,59981	2,186109
CAR (x4)	156	13,790	36,760	22,13019	3,998420

- The maximum ROA value is 4.96 and the minimum ROA value is -0.61. with a standard deviation of 0.76.
- The average BOPO value is 77.27, the maximum BOPO value is 106.54 and the minimum BOPO value is 60.13, with a standard deviation of 6.53.
- The average LDR value is 90.73, the maximum LDR value is 125.19 and the minimum LDR value is 10.33, with a standard deviation of 13.51.
- The average NPL value is 2.59, the maximum NPL value is 12.72 and the minimum NPL value is 0.12, with a standard deviation of 2.18.
- The average CAR value is 22.13, the maximum CAR value is 36.76 and the minimum CAR value is 13.79, with a standard deviation of 3.99.

Panel Data Model Selection

Common Effect Model (CEM)

Dependent Variable: Y
Method: Panel Least Squares
Date: 06/12/21 Time: 17:28
Sample: 2015 2020
Periods included: 6
Cross-sections included: 26
Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.874888	0.478562	18.54492	0.0000

X1	-0.094397	0.004810	-19.62390	0.0000
X2	0.008729	0.001944	4.490291	0.0000
X3	-0.030844	0.013690	-2.253049	0.0257
X4	0.009792	0.006979	1.403138	0.1626

R-squared	0.823439	Mean dependent var	2.508526
Adjusted R-squared	0.818762	S.D. dependent var	0.760273
S.E. of regression	0.323664	Akaike info criterion	0.613305
Sum squared resid	15.81852	Schwarz criterion	0.711057
Log likelihood	-42.83779	Hannan-Quinn criter.	0.653008
F-statistic	176.0571	Durbin-Watson stat	1.038185
Prob(F-statistic)	0.000000		

Fixed Effect Model (FEM)

Dependent Variable: Y
Method: Panel Least Squares
Date: 06/12/21 Time: 17:34
Sample: 2015 2020
Periods included: 6
Cross-sections included: 26
Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.176504	0.595819	15.40150	0.0000
X1	-0.101417	0.006281	-16.14679	0.0000
X2	0.008105	0.002395	3.383957	0.0010
X3	0.004536	0.026679	0.170007	0.8653
X4	0.019078	0.010839	1.760098	0.0808

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.895356	Mean dependent var	2.508526
Adjusted R-squared	0.871272	S.D. dependent var	0.760273
S.E. of regression	0.272776	Akaike info criterion	0.410712
Sum squared resid	9.375275	Schwarz criterion	0.997223
Log likelihood	-2.035561	Hannan-Quinn criter.	0.648928
F-statistic	37.17538	Durbin-Watson stat	1.762327
Prob(F-statistic)	0.000000		

Random Effect Model (REM)

Dependent Variable: Y
Method: Panel EGLS (Cross-section random effects)
Date: 06/12/21 Time: 17:40
Sample: 2015 2020
Periods included: 6
Cross-sections included: 26
Total panel (balanced) observations: 156
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.048764	0.523681	17.27917	0.0000
X1	-0.097762	0.005350	-18.27193	0.0000
X2	0.008445	0.002103	4.015571	0.0001

X3	-0.017655	0.018116	-0.974537	0.3313
X4	0.013299	0.008431	1.577435	0.1168

Effects Specification	S.D.	Rho
Cross-section random	0.190713	0.3283
Idiosyncratic random	0.272776	0.6717

Weighted Statistics			
R-squared	0.765567	Mean dependent var	1.264917
Adjusted R-squared	0.759357	S.D. dependent var	0.552994
S.E. of regression	0.271273	Sum squared resid	11.11195
F-statistic	123.2770	Durbin-Watson stat	1.475842
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.821710	Mean dependent var	2.508526
Sum squared resid	15.97340	Durbin-Watson stat	1.026674

Selection Of Panel Data Regression Model

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.463787	(25,126)	0.0000
Cross-section Chi-square	81.604456	25	0.0000

Cross-section fixed effects test equation:
Dependent Variable: Y
Method: Panel Least Squares
Date: 06/12/21 Time: 17:36
Sample: 2015 2020
Periods included: 6
Cross-sections included: 26
Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.874888	0.478562	18.54492	0.0000
X1	-0.094397	0.004810	-19.62390	0.0000
X2	0.008729	0.001944	4.490291	0.0000
X3	-0.030844	0.013690	-2.253049	0.0257
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Sum squared resid	15.81852	Schwarz criterion	0.711057
Log likelihood	-42.83779	Hannan-Quinn criter.	0.653008
F-statistic	176.0571	Durbin-Watson stat	1.038185
Prob(F-statistic)	0.000000		

If the value of Prob. Cross-section Chi-square <0.05 then we will choose the fixed effect rather than the common effect. And vice versa if the value is > 0.05 then we will choose the common effect over the fixed effect. Based on the results above, the prob value is 0.000 <0.05, so the chow test chooses the fixed effect.

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.340213	4	0.6735

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
X1	-0.101417	-0.097762	0.000011	0.2665
X2	0.008105	0.008445	0.000001	0.7670
X3	0.004536	-0.017655	0.000384	0.2572
X4	0.019078	0.013299	0.000046	0.3963

Cross-section random effects test equation:
Dependent Variable: Y
Method: Panel Least Squares
Date: 06/12/21 Time: 17:41
Sample: 2015 2020
Periods included: 6
Cross-sections included: 26
Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.176504	0.595819	15.40150	0.0000
X1	-0.101417	0.006281	-16.14679	0.0000
X2	0.008105	0.002395	3.383957	0.0010
X3	0.004536	0.026679	0.170007	0.8653
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S.E. of regression	0.272776	Akaike info criterion	0.410712
Sum squared resid	9.375275	Schwarz criterion	0.997223
Log likelihood	-2.035561	Hannan-Quinn criter.	0.648928
F-statistic	37.17538	Durbin-Watson stat	1.762327
Prob(F-statistic)	0.000000		

The P Value of 0.6735 is more than 0.05, so it accepts H0 which means the best model that must be used is the random effect rather model than the fixed effect model.

- If the Hausman Test accepts H1 or p value <0.05, the model chosen is fixed effect.
- If the Hausman Test accepts H0 or p value > 0.05 then the model chosen is random effect.

Then proceed with the Lagrangian Multiplier test to determine whether we still choose the Random effect model or the Common effect model.

Lagrangian Multiplier Test

Lagrange multiplier (LM) test for panel data
Date: 06/12/21 Time: 18:06
Sample: 2015 2020
Total panel observations: 156
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	28.83163 (0.0000)	23.09619 (0.0000)	51.92781 (0.0000)
Honda	5.369509 (0.0000)	4.805849 (0.0000)	7.195065 (0.0000)
King-Wu	5.369509 (0.0000)	4.805849 (0.0000)	6.579213 (0.0000)
SLM	6.174972 (0.0000)	5.508051 (0.0000)	-- --
GHM	-- --	-- --	51.92781 (0.0000)

The value of P Value is indicated by the number below, which is 0.000 where the value is less than 0.05. So the Lagrange Multiplier Test shows that accepting H1 which means the best estimation method is Random Effect. If the p value is greater than 0.05, it means that H0 is accepted, which means that the best estimation method is Common Effect Model.

Classical assumption test

Classical assumption test is done before using multiple linear regression model. Classical assumption test consists of normality test, multicollinearity test, autocorrelation test and heteroscedasticity test.

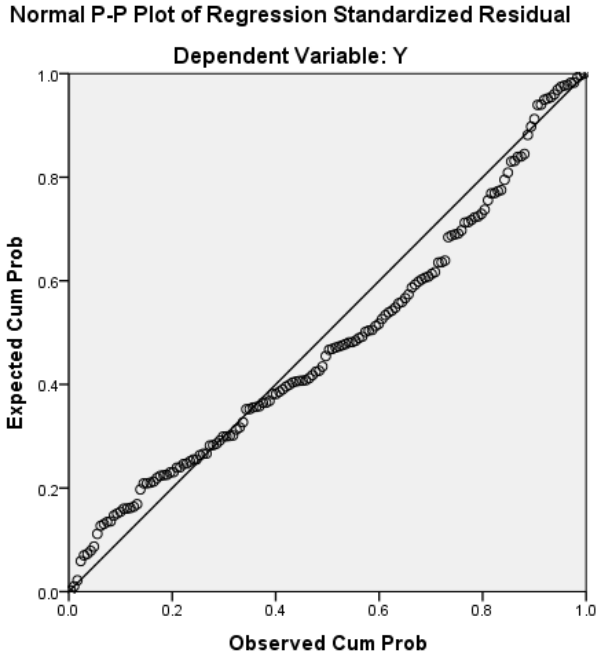
Normality Test

Output Normalitas One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		156
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	,31946043
Most Extreme Differences	Absolute	,093
	Positive	,093
	Negative	-,066
Test Statistic		,093
Asymp. Sig. (2-tailed)		,093[c]

Source: Data Processing (Appendix)

If seen from table above, it can be seen that the significant residual value is 0.093 > 0.05. Based on these results, it can be said that the regression model has met the assumption of normality or the conclusion is that the research data is normally distributed.



Multicollinearity Test

Variabel	Tolerance	VIF	Conclusion
BOPO	0,648	1,463	There is no multikolinearitas
LDR	0,979	1,021	There is no multikolinearitas
NPL	0,755	1,325	There is no multikolinearitas
CAR	0,868	1,152	There is no multikolinearitas

Based on the table above, it is known that each independent variable used in the study has a VIF value < 10 or a tolerance value > 0.10, indicating that in the regression model there is no multicollinearity problem.

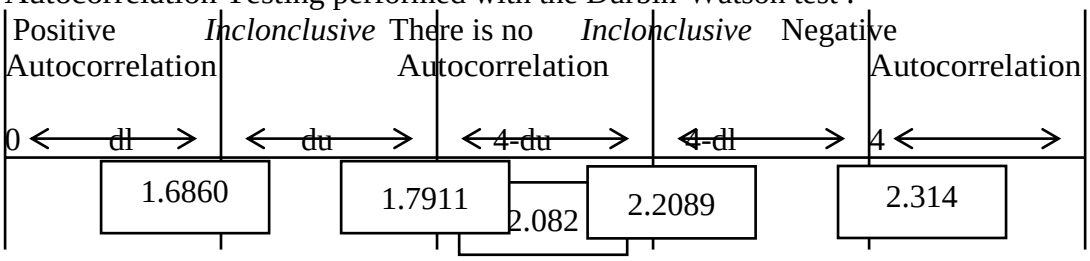
Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,907[a]	,823	,819	,32366	2,082

Source: Data Processing (Appendix)

Autocorrelation Testing performed with the Durbin-Watson test :



From The results of the autocorrelation test table above, it is known that the model under study has a number of observations of 156 with a total of 4 independent variables. Therefore, the

lower dL value of 1.6860 can be obtained with the upper limit of du 1.7911. The Durbin Watson test results obtained 2,082, thus the value of dw is between the values of du and 4-du. du<dw<4-du or 1.7911<2.082<2.2089 so that there is no autocorrelation problem.

Heteroscedasticity Test

Heteroscedasticity can be said as the variance of the error that must be homogeneous (not heterogeneous). This study uses the glesjer test, which is done by regressing the independent variable with the absolute value of the residual, here are the results:

Variabel	Sig.	Kesimpulan
BOPO	0.905	There is no heteroscedasticity
LDR	0.284	There is no heteroscedasticity
NPL	0.977	There is no heteroscedasticity
CAR	0.117	There is no heteroscedasticity

Based on the results of the heteroscedasticity test in table above, the significance value of each independent variable is above 0.05, which means that there is no heteroscedasticity.

Hypothesis Test

Coefficient of determination Tes

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,907[a]	,823	,819	,32366

Source: Data Processing (Appendix)

In the table above, the coefficient of determination or Adjusted R Square value is 0.819 or 81.9% variance of the dependent variable ROA from a combination of all independent variables, namely BOPO, LDR, NPL & CAR, while the remaining 18.1% is explained by factors others who were not included in this study.

Simultaneous Significance Test (F Test)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73,774	4	18,443	176,057	,000[b]
	Residual	15,819	151	,105		
	Total	89,592	155			

Source: Data Processing (Appendix)

Based on the table above, it can be obtained that the calculated F value is 176.057 with a significance level of 0.000. This shows that the significance level of F sig is smaller than the 0.05 significance level. This means that the independent variables used in this study such as BOPO, LDR, NPL and CAR together have a significant influence on the company's profitability.

Partial Significance Test (T Test)

Model	Predict	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Hasil
		B	Std. Error	Beta			

1	(Constant)		8,875	,479		18,545	,000	
	BOPO	Negatif Effect (-)	-,094	,005	-,812	-19,264	,000	Negatif Effect (-)
	LDR	Positif Effect (+)	,009	,002	,155	4,490	,000	Positif Effect (+)
	NPL	Negatif Effect (-)	-,031	,014	-,089	-2,253	,026	Negatif effect(-)
	CAR	Negatif Effect (-)	,010	,007	,051	1,403	,163	No Effect

Sumber: Olah data (lampiran)

H_1 : *BOPO* berpengaruh negative signifikan terhadap Profitability (*ROA*)

Based on the results of the t-test (partial) in the regression model, the t-count value is -19264 and the significance value of the BOPO variable is (0.000/2) 0.0000<0.05 (significance level 5%). So it can be concluded that partially the BOPO variable has a significant negative effect on the Profitability (ROA) variable.

H_2 : LDR has a significant positive effect on Profitability (ROA)

Based on the results of the t-test (partial) in the regression model, the t-count value is 4.490 and the significance value of the LDR variable is (0.000/2) 0.0000<0.05 (significance level 5%). So it can be concluded that partially the LDR variable has a significant positive effect on the Profitability (ROA) variable.

H_3 : NPL has a significant negative effect on profitability (ROA)

Based on the results of the t-test (partial) in the regression model, the t-count value is -2.253 and the significance value of the NPL variable is (0.026/2) 0.013<0.05 (significance level 5%). So it can be concluded that partially the NPL variable has a significant negative effect on the Profitability (ROA) variable.

H_4 : *CAR* berpengaruh negative signifikan terhadap Profitabiliy (*ROA*)

Based on the results of the t-test (partial) in the regression model, the t-count value is 1.403 and the significance value of the CAR variable is (0.163/2) 0.0815>0.05 (significance level 5%). So it can be concluded that partially the CAR variable has no effect on the Profitability (ROA) variable.

Discussion

Effect BOPO On Profitability (ROA)

The coefficient on the BOPO variable is negative indicating that every increase in the BOPO value will reduce the ROA value. This condition occurs because any increase in bank operating costs that is not accompanied by an increase in bank operating income will result in reduced profit before tax, which will ultimately reduce Return On Asstes (ROA). If operational activities are carried out efficiently (in this case the value of the BOPO ratio is low), then the income generated will increase. In addition, the large BOPO ratio is also due to the high cost of funds collected and the low interest income from investment funds (Mawardi, 2005).

Effect LDR On Profitability (ROA)

The coefficient on the LDR variable is significant positive indicating that every increase in the LDR value will increase the ROA value. This condition occurs because an increase in lending will increase the income received by Regional Development Banks. The increase in lending must be supported by quality credit and adjusted to the safe limit of Bank Indonesia's LDR. Banks need to provide sufficient liquidity to operate efficiently and meet obligations to creditors that are past due and suddenly make withdrawals.

Effect NPL On Profitability (ROA)

The coefficient on the NPL variable has a significant negative effect. The significant negative effect of NPL on ROA indicates that although the NPL is high, it does not have a serious impact on decreasing ROA. This condition is caused by the value of PPAP which can still cover non-performing loans. Banks in disbursing credit are required to form an Allowance for Earning Assets Losses (PPAP) from the profits they earn. So that if credit is experiencing problems such as substandard credit, doubtful credit and even bad credit, the PPAP formed by the bank will be even greater.

Effect CAR On Profitabilitas (ROA)

The coefficient on the CAR variable has no effect on ROA. Because Regional Development Banks are managed by the government and their capital is also regulated by the government. So the capital adequacy ratio of Regional Development Banks has no effect on ROA at Regional Development Banks, it is quite reasonable

Conclusions and Suggestions

Conclusions

Based on the results of research and discussion in the previous chapter, several conclusions can be drawn from this research, namely:

1. BOPO variable has a significant negative effect on ROA BPD Profitability of Regional Development Banks.
2. The LDR variable has a significant positive effect on the profitability of Regional Development Banks.
3. The NPL variable has a significant negative effect on the profitability of Regional Development Banks.
4. The CAR variable has no effect on the Profitability of Regional Development Banks. Simultaneously the BOPO, LDR, NPL and CAR variables together have a significant influence on the profitability of Regional Development Banks.

Suggestions

This study has several limitations, while the limitations in this study are only using research objects from Regional Development Banks, so the results of this study may not be generalized to other company sectors and the relatively short observation period is only 5 (five) years, namely 2015-2020.

Research on company profitability, in the future is expected to provide better and real results. Future research is expected to consider adding other variables that may have a stronger influence on the company's profitability and can add other tests, which can help readers to explore more about things that affect bank profitability.

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