

The Effect of Inflation, Interest Rate, Gross Domestic Product, Operational Efficiency Ratio, Loan to Deposits Ratio in Private Bank Return on Asset in IDX



Cornellya¹, Josephine², Shania Suriyanto³, Tetty Tiurma Uli Sipahutar⁴, Vetris Kangdra⁵

^{1,2,3,4,5} Department of Accounting, Faculty of Economics, Prima Indonesia University, Medan

ABSTRACT: Private Bank activities can't be separated from the company's profit known as Return On Assets. Bank management needs to maintain the amount of Return On Assets. The goal of this study is to examine the effect of inflation, interest rate, gross domestic product, operational efficiency ratio and loan to deposits ratio regarding on Return on Assets at private bank listed on Indonesia Stock Exchange period 2016-2020. Quantitative data is used in this type of the research is regression analysis multiple linear. The population in this study were 34 private banks listed in Indonesia Stock Exchange period 2016-2020. Samples taken as much as 18 company. From this analysis, the regression analysis of Return On Assets = $3.754 + 0.067 \text{ Inflation} + 0.090 \text{ Interest Rate} - 5.500 \text{ Gross Domestic Product} - 0.042 \text{ Operational Efficiency Ratio} + 0.000 \text{ Loan to Deposits Ratio} + e$. The result of this research is that inflation has no effect on ROA in private banks which are listed on the Indonesia Stock Exchange period 2016-2020. Interest rate has no effect on ROA on private banks which are listed on the Indonesia Stock Exchange period 2016-2020. Gross Domestic Product has no effect on ROA in private banks which are listed on the Indonesia Stock Exchange period 2016-2020. Operational Efficiency Ratio has an effect on ROA in private banks which are listed on the Indonesia Stock Exchange period 2016-2020. Loan to Deposit Ratio has no effect on ROA of private banks which are listed on the Indonesia Stock Exchange period 2016-2020. Inflation, Interest Rates, Gross Domestic Product, Operational Efficiency Ratio, and Loan to Deposit Ratio affect the ROA of private bank which are listed on the Indonesia Stock Exchange period 2016-2020.

KEYWORDS: Inflation, Interest Rates, Gross Domestic Product, Operational Efficiency Ratio, Loan to Deposit Ratio and Return On Assets

I. INTRODUCTION

1.1 BACKGROUND

Private banking activities cannot be separated from company profits, known as Return on Assets. From the company side (issuer), ROA can be used as a ratio analysis the ability of a company to manage its assets. Banking stability can be monitored from ROA in the annual financial statements. In addition, ROA can also used in decision making for investors and creditors. According to Kasmir (2012:202), the higher the ROA, the better the company's ability in carrying out its business activities.

A low inflation rate indicates that prices are not soaring so that people can save money in the bank. Return on Assets is one of the most important thing in maintaining the survival of the company so that the company must pay attention to the level of company profits. The rise and fall of the company's profit level affected by inflation. According to Martha (2018: 87), the decline in the rupiah exchange rate against the US dollar will cause inflation. For example, inflation occurs at the People's Bank Indonesia Agro Niaga Tbk in 2019 was 2.72%. Inflation that occurred this year smaller than in 2018 even though global economic conditions are in on the verge of a recession. Lower inflation should result in an increase in profit before tax, but profit before tax in 2019 decreased.

If interest rates increase, the company's ability to finance investment will decrease because the increase in the BI rate will also be followed by an increase in interest rates loan interest at commercial banks. And vice versa, when the benchmark interest rate is low, then the company's ability to earn profits is also low. Exchange rate fluctuations indicated that it could result in the company experiencing a loss or making a profit exchange rate gap. Bank Danamon Indonesia Tbk interest rate in 2019 by 5% decreased from 2018 resulted in an increase in profit before tax in 2019 by IDR 5,487,790,000,000 more than

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in 2018. Interest rate decline aims to maintain a balance between encouraging growth momentum and overall macro stability.

The amount of income received by the community is not influenced by inflation and interest rates but GDP. The bigger the GDP, the people's ability to save too higher so that it can increase the bank's ROA. At Bank Rakyat Indonesia Agro Niaga Tbk, GDP in 2020 is IDR 15,434,200,000,000, a decrease from 2019 with profit before tax in 2020 of IDR 64,071,757,000, an increase from the year 2019. GDP decreased due to the pandemic situation so that several business sectors more reduced.

BOPO reflects the level of efficiency of the bank in carrying out its operations. The lower the BOPO, the more efficient the bank is in controlling costs operations. With the cost efficiency, the benefits obtained will also be the greater it is. At Bank Bumi Arta Tbk, the BOPO in 2019 was IDR 137,605,000,000 greater than the BOPO in 2017 with profit before tax at in 2018 of IDR 126,522,545,756, which is bigger than 2017. If the BOPO increases, then the previous profit should have decreased, but the profit before tax in 2018 increase.

Loan to Deposit Ratio states how far the bank's ability to repay withdrawals made by depositors by relying on the credit provided as a source of liquidity. The size of the loan to deposit ratio of a bank will affect bank ROA. At Bank Danamon Indonesia Tbk, the LDR in 2018 was IDR 101,650,553,000,000 increased when compared to 2017 while profit before tax in 2018 of IDR 4,925.686 million, a decrease compared to 2017. If the LDR increases it will result in an increase in profit before tax, but in 2018 profit before tax decreased.

Based on the description above, it can encourage researchers to conduct research that entitled "The influence of Inflation, Interest Rates, GDP, BOPO and LDR on Bank ROA Private sector on the IDX for the 2016-2020 period."

1.2 LITERATURE REVIEW

1.2.1 DEFINITION OF RETURN ON ASSETS (ROA)

Return on Assets (ROA) is one of the profitability ratios. In analysis financial statements, this ratio is most often highlighted, because it can show success the company makes a profit. ROA focuses on the company's capabilities to earn earnings in the company. ROA is used to measure efficiency and the effectiveness of the company in generating profits by utilizing assets that are it has.

According to V. Wiratna Sujarweni (2017:85), ROA is the ratio used for measures the ability of the capital invested in overall assets to generate a net profit.

According to Pirmatua Sirait (2017:142), ROA is also called the earnings power ratio (earnings), describes the company's ability to generate profits from sources available sources.

1.2.2 EFFECT OF INFLATION ON ROA

Dodi (2020:2), Inflation increases causing the real value of savings to decline because people use their wealth to meet expenses due to rising prices goods and affect bank profitability.

Puspitasari (2016:10), Inflation has the potential to increase loan interest. Interest increase credit will certainly hamper credit growth itself. While income from credit sector will be small. This condition can have an impact on bank profitability concerned.

1.2.3 EFFECT OF INTEREST RATES ON ROA

According to Wira (2015:20-21), the higher the inflation rate, the BI Rate will be adjusted. Finally, loan interest rates were raised. The problem is that if the BI Rate goes up, loan interest rates can go up. Because the greater the inflation, the greater the probability of defaulting on credit, so that Banks increase lending rates. Growing inflation, people's purchasing power is increasing decreases and the company finds it increasingly difficult to increase sales and profits tend to decline. As a result, the company finances its activities with credit, the company's profits have increased smaller the more eroded by the bank's interest expense.

Ayerza (2018:89), Interest rate is the price of using money or ordinary. It is also seen as a lease for the use of money for a certain period of time. If there high interest rates, people automatically like to keep their funds in the bank because they can expect favorable returns.

Wibowo, Syaichu (2013:2), the increase in SBI interest rates has an impact on an increase in deposit interest which ultimately results in high interest rates credit, so that investment in the economy decreases.

1.2.4 EFFECT OF GDP ON ROA

Sahara (2013:152) GDP increases, it will be followed by an increase in people's income so the ability to save also increases. This saving increase will affect bank profitability.

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Hendratno and Winarno (2019:201), macroeconomic GDP has an effect on bank's profit earning ability, in this paper is ROA. GDP Change in an increasing condition, identify the increase in income obtained by the community who impact on people's saving power increases.

1.2.5 EFFECT OF BOPO ON ROA

Parenrengi, Sudarmin and Hendratni (2018:13), the smaller the BOPO value, the increased profit.

Widiyanti, Marlina, Taufik and Gita Lyani Pratiwi (2015:528), the smaller the ratio operational costs will be better for bank profitability.

Dewi, Luh Eprima, Herawati and Sulindawati (2015:2), the bigger the BOPO, the bigger will be smaller or decrease the financial performance of banks.

1.2.6 EFFECT OF LDR ON ROA

Suciaty, Haming and Alam (2019:58-59), the higher the LDR, the more profitable the bank increase. Peling, Adiatmayani and Sedana (2018:3005), the higher the profitability of a bank.

1.2.7 CONCEPTUAL FRAMEWORK

The conceptual framework that can be seen in figure 1:

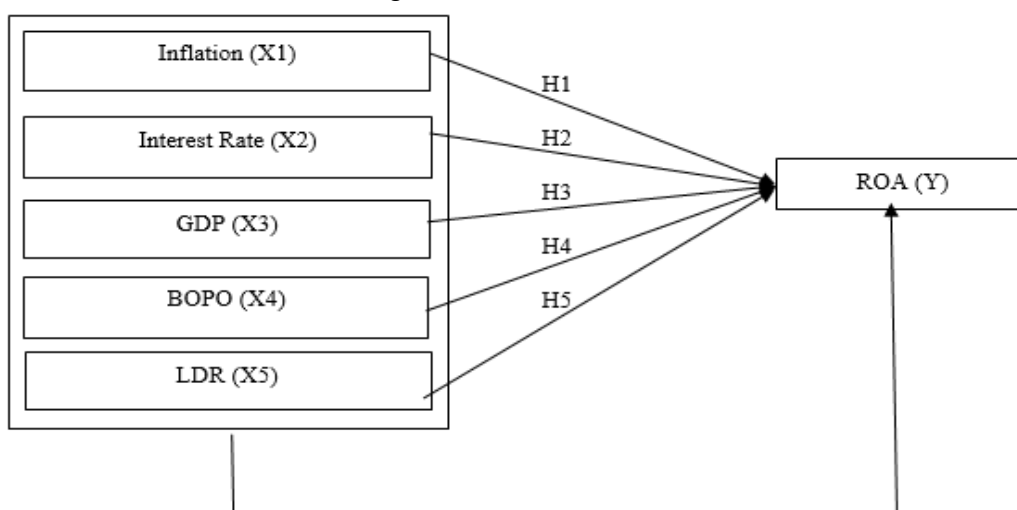


Figure 1. Conceptual Framework

1.2.8 RESEARCH HYPHOTHESIS:

The hypotheses developed in this study are as follows:

H1: Inflation Affects ROA in Private Banks listed on the Stock Exchange Indonesia 2016-2020 period

H2: Interest Rates affects ROA on Private Banks listed on the Stock Exchange Indonesia for the 2016-2020 period

H3: GDP has an effect on ROA in Private Banks listed on the Stock Exchange 2016-2020 period

H4: BOPO affect ROA on Private Banks listed on the Stock Exchange Indonesia for the 2016-2020 period

H5: LDR has an effect on ROA in Private Banks listed on the Indonesia Stock Exchange 2016-2020 period

H6: Inflation, Interest Rates, GDP, BOPO and Net Open Position have an effect on ROA on Private Banks listed on the Indonesia Stock Exchange for the 2016-2020 period

II. RESEARCH METHODOLOGY

2.1 RESEARCH METHOD

Quantitative approach using multiple linear regression. This type of quantitative research is a causal relationship.

2.2 POPULATION AND SAMPLE

According to Suprpto (2017: 70) population is "a complete group of elements, which are usually people, objects, transactions or events in which we are interested in studying them or becoming the object of research".

The population in this study were 34 private banks listed on the Indonesia Stock Exchange for the 2016-2020 period.

According to Hikmawati (2019:60), "the sample is part of the population, there will be no sample if there is no population."

The sample criteria can be described in table 2 as follows:

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Table 2. Research Sample

No.	Criteria	Number of Samples
1.	Private Banks Listed on the Indonesia Stock Exchange for the 2016-2020 Period.	34
2.	Private Banks that don't publish their reports in Indonesia Stock Exchange 2016-2020 Period	(2)
3.	Private Banks that have negative profits for the period 2016-2020	(14)
Total		18
Total sample (5 x 18 companies)		90

Source: www.idx.co.id

2.3 DATA COLLECTION TECHNIQUES

Data collection techniques with documentation and literature review. Documentation was carried out to obtain banking financial statements and a literature review to obtain theories that support this research.

2.4 TYPES AND SOURCES OF RESEARCH DATA

The type of research data is quantitative data. Secondary data sources to obtain this research data.

2.5 VARIABLE OPERATIONAL DEFINITION

Variable	Variable Definition	Variable Indicator	Scale measuring
Inflation (X1)	Inflation is an event that describes situations and conditions where the price of goods increases and the value of the currency weakens. Source: Fahmi (2015:61)	Inflation = Inflation Rate Source : website bi.go.id	Ratio
Interest Rate (X2)	Bank Interest can be interpreted as remuneration provided by the bank (which is based on conventional principles) to customers who keep their money in the bank or which must be paid by borrowing to the bank. Source : Hery (2019:58)	Interest Rate = BI Rate Source: website bi.go.id	Ratio
GDP (X3)	Gross Domestic Product is the total value of final goods and services produced by the entire population of a country in a given period.	Gross Domestic Product	Ratio
Cost Operational Income Operational (X4)	BOPO, the comparison between total operating expenses to total operating income. Source: Indonesian Bankers Association (2016:179)	Revenue Operating Expenses Operational = $\frac{\text{Operation Costs}}{\text{Operating Income}} \times 100\%$ Source : Harmono (2018:120)	Ratio
Loan to Deposit Ratio	Loan to Deposit Ratio (LDR) is the ratio between the total volume of loans disbursed by banks and the amount of funds received from various sources. Indonesia Bankers Association (2015:12)	Loan to Deposit Ratio = $\frac{\text{Credit Granted}}{\text{Funds Received}} \times 100\%$ Source: Sujarweni (2017:102)	Ratio
Return on Assets (Y)	ROA of often also referred to as Return on Assets is a ratio that looks at the extent to which investments that have been invested are able to return profits as expected	ROA = $\frac{\text{Profit before tax}}{\text{Total (Capital) Assets}} \times 100\%$ Source: Hasibuan (2015:100)	Ratio

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2.6 CLASSICAL ASSUMPTION TEST

2.6.1 NORMALITY TEST

According to Ghozali (2016:154) the normality test aims to test the residuals have a normal distribution. In this study, to detect normality used two ways, namely: Graphic Analysis and Statistical Analysis.

2.6.2 MULTICOLLINEARITY TEST

According to Ghozali (2016:103) the multicollinearity test aims to test whether the regression model has found a correlation between the independent variables. Tolerance value 0.10 or equal to VIF value 10.

2.6.3 HETEROSCEDASTICITY TEST

According to Ghozali (2016: 134), heteroscedasticity is a condition in which there is an inequality of variance from the residuals for all observations in the regression model. Scatterplot used for analysis method.

2.7 RESEARCH DATA ANALYSIS MODEL

2.7.1 RESEARCH MODEL

Multiple Linear Regression Analysis used in this study is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Information :

Y = ROA

a = Constant

b₁, b₂, b₃, b₄, b₅ = Regression State

X₁ = Variable Inflation

X₂ = Interest Rate Variable

X₃ = GDP Variable

X₄ = BOPO Variable

X₅ = Variable Loan to Deposit Ratio

e = Estimated Error (0.05)

2.7.2 SIMULTANEOUS HYPOTHESIS TESTING

According to Hantono (2017: 72) the F test is used to test whether the independent variables jointly affect the dependent variable. The basis for decision making in the F test is based on the calculated F value from the F table:

- F_{count} < F_{table} then the independent variable simultaneously affects the variable dependent
- F_{count} > F_{table}, the independent variable simultaneously has no effect on the dependent variable

2.7.3 PARTIAL HYPOTHESIS TESTING

According to Hantono (2017:74) the t-test is used to the test the independent variable affect the dependent variable. Decision making basis:

- t_{count} > t_{table} then the independent variable partially affects the dependent variable.
- t_{count} < t_{table} then the independent variable partially has no effect on the variable dependent.

2.7.4 DETERMINANT COEFFICIENT (R²)

According to Ghozali (2016: 95) the coefficient of determination (R²) essentially measures how far the model's ability to explain the variation of the dependent variable.

III. RESULTS OF RESEARCH AND DISCUSSION

3.1 RESEARCH RESULTS

Data processing utilizes SPSS version 25 through:

3.1.1 DESCRIPTIVE STATISTICS

The details of the research data are as follows:

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Tabel 3.1
Statistik Deskriptif
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Inflasi	90	1.68	3.61	2.8320	.64689
Suku Bunga	90	3.75	6.00	4.7500	.76254
PDRB	90	1240680000000.00	1583390000000.00	1442022000000.0020	1267681644294.37740
BOPO	90	17.19	96.72	47.7586	15.27331
LDR	90	38.99	167.23	87.4747	21.27206
ROA	90	.11	3.97	1.6186	.95990
Valid N (listwise)	90				

Sumber : Data Diolah (2021)

1. The sample was 90 at a minimum inflation of 1.68 in all samples in 2020, a maximum value of 3.61 in all samples in 2017, a mean of 2.8320 and a standard deviation of 0.64689.
2. The sample was 90 at a minimum Interest Rate of 3.75 in all samples in 2020, a maximum value of 6.00 in all samples in 2018, a mean of 4.7500 and a standard deviation of 0.76254
3. The sample was 90 at a minimum GDP of 1240680000000.00 in all samples in 2016, a maximum value of 1583390000000.00 in all samples in 2019, a mean of 1442022000000.0020 and a standard deviation of 1267681644294.37740
4. The sample is 90 in BOPO which is a minimum of 17.19 Bank Woori Saudara Indonesia 1906 Tbk in 2019, a maximum value of 96.72 Bank Mayapada International Tbk in 2020, a mean of 47.7586 and a standard deviation of 15.27331
5. The sample is 90 in the LDR which is a minimum of 38.99 Bank Capital Indonesia Tbk in 2020, a maximum value of 167.23 Bank Tabungan Pensiunan Nasional Tbk in 2019, a mean of 87.4747 and a standard deviation of 21.27206
6. The sample is 90 at a minimum ROA of 0.11 Bank Mayapada International Tbk in 2020, a maximum value of 3.97 Bank Central Asia Tbk in 2018, a mean of 1.6186 and a standard deviation of 0.95990

3.2 CLASSICAL ASSUMPTIONS TEST

3.2.1 NORMALITY TEST

The Kolmogorov Smirnov test used its significance level > 0.05 to show its distribution was normal. Kolmogorov Smirnov's normality test results are:

Tabel 3.2
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		90
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.69011785
Most Extreme Differences	Absolute	.089
	Positive	.055
	Negative	-.089
Test Statistic		.089
Asymp. Sig. (2-tailed)		.075 ^c

a. Test distribution is Normal.

b. Calculated from data

c. Lilliefors Significance Correction

Asymp Sig (2-tailed) 075 > 0.05 indicates that the normality test meets normality requirements

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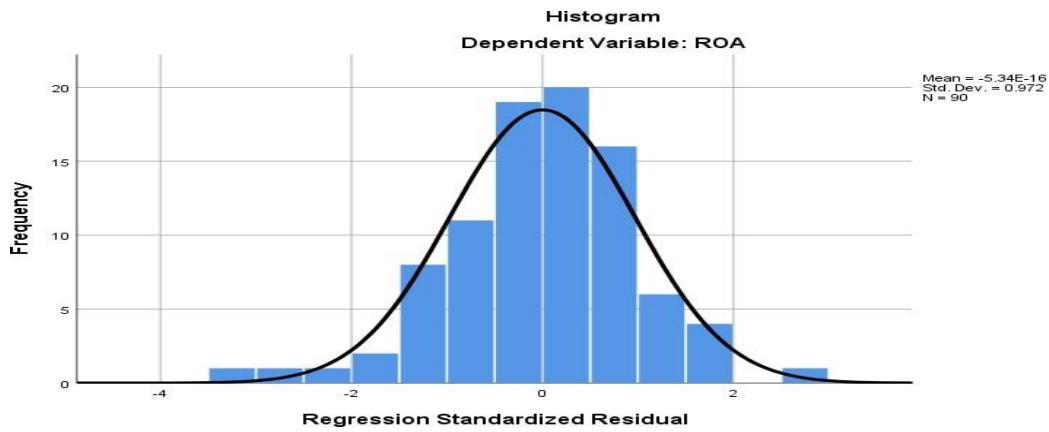


Figure 3.1 Histogram Normality Test

Source : Data Processed (2021)

According to Figure 3.1, the data is normally distributed because it is not tilted to the left creating the left creating the inverted bell shape of the histogram

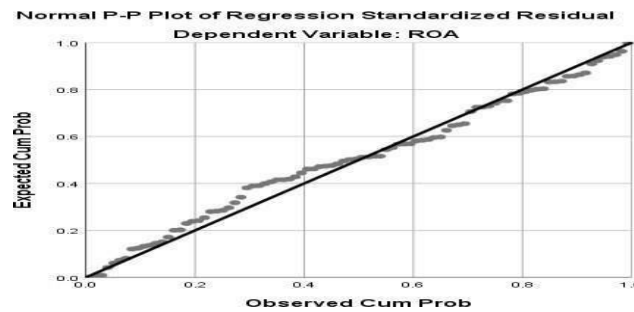


Figure 3.2 Normal Probability Plot Test

Source: Data Processed (2021)

If the points closest to the diagonal and following the diagonal direction show normal probability plot findings, the data is considered a normal distribution

3.2.2 MULTICOLLINEARITY TEST

There is no multicholinerity in this regressopm when the VIF value is < 10 and the tolerance is > 0.10. Multicholinerity test results:

Tabel 3.3 Hasil Uji Multikolinieritas

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Inflasi	.457	2.188
	Suku Bunga	.653	1.532
	PDRB	.569	1.756
	BOPO	.920	1.087
	LDR	.897	1.115

Source: Data Processed (2021)

Table 3.3 shows the tolerance value < 10 and the VIF value < 10 means that it does not experience multicholinerity fo the single variable under consideration.

3.2.3 AUTOCORRELATION TEST

Autocorrelation problems can be measured using the Durbin-Watson test. Below are the results of the Durbin-Watson test and autocorrelation:

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Tabel 3.4
Hasil Uji Autokorelasi
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.695 ^a	.483	.452	.71036	2.063

a. Predictors: (Constant), LDR, Inflasi, BOPO, SukuBunga, PDRB

b. Dependent Variable: ROA

From above it shows dw of 2,063. The sample was 90, $du = 1.7758$. $1.7758 < 2.063 < 4-1.7758$ or $1.7758 < 2.063 < 2.2242$ then no the occurrence of autocorrelation.

3.2.4 HETEROSKEDASTICITY TEST

The diagram method (Scatterplot Diagram) will be used in the study.

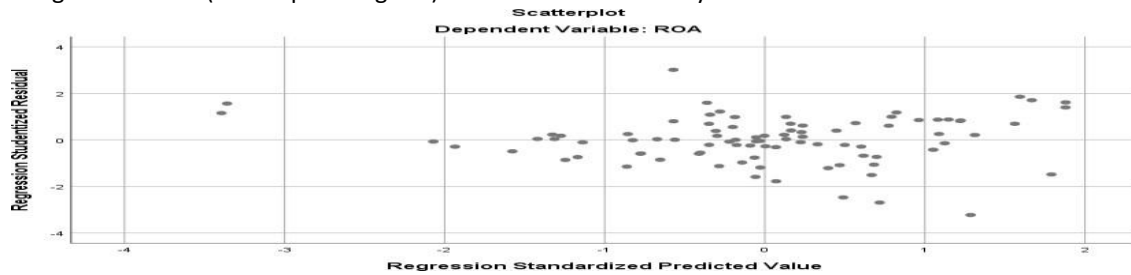


Figure 3.3 Heteroskedasticity Test

Source: Processed Data (2021)

Figure 3.3 shows that the data is heteroskedasticity because the points are distributed in a random way and without patterns.

Table 3.5 Spearman Rho Correlations

		Test Results						
			Inflation	TribesPipe	PDRB	BOPO	LDR	Unstandardized Residual
Spearman's rho	Inflation	Correlation	1.000	.300**	-.600**	-.114	.141	.015
		S Coefficient						
		Sig. s (2-tailed)	.	.004	.000	.287	.184	.890
		N	90	90	90	90	90	90
	TribesPipe	Correlation	.300**	1.000	.100	-.030	.311**	.063
		S Coefficient						
		Sig. s (2-tailed)	.004	.	.348	.776	.003	.558
		N	90	90	90	90	90	90
	PDRB	Correlation	-.600**	.100	1.000	.063	.055	.007
		S Coefficient						
		Sig. s (2-tailed)	.000	.348	.	.557	.604	.948
		N	90	90	90	90	90	90
BOPO	Correlation	-.114	-.030	.063	1.000	-.163	-.118	
	S Coefficient							
	Sig. s (2-tailed)	.287	.776	.557	.	.125	.266	
	N	90	90	90	90	90	90	
LDR	Correlation	.141	.311**	.055	-.163	1.000	.001	
	S Coefficient							

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		Sig.					
Coefficients							
Sig. (2-tailed)		.184	.003	.604	.125	.	.991
N		90	90	90	90	90	90
Unstandardized Residuals	Correlation	.015	.063	.007	-.118	.001	1.000
	Sig.						
	Coefficients						
Sig. (2-tailed)		.890	.558	.948	.266	.991	.
N		90	90	90	90	90	90

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3.5 shows that the variables of inflation, GDP, interest rates, BOPO and LDR all have significant values exceeding 0.05 which indicates that there is no heteroskedasticity.

3.3 DATA ANALYSIS RESULTS

3.3.1 MULTIPLE LINEAR REGRESSION ANALYSIS

Table 3.6 shows multiple linear regressions that are used to perform calculations on free variable values and constant values.

Tabel 3.6 Hasil Analisis Regresi Linier Berganda Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	3.754	1.338		2.807	.006
	Inflasi	.067	.172	.045	.389	.698
	Suku Bunga	.090	.122	.071	.736	.464
	PDRB	-5.500E-14	.000	-.073	-.699	.487
	BOPO	-.042	.005	-.662	-8.096	.000
	LDR	.000	.004	.007	.086	.932

a. Dependent Variable: ROA

$$ROA = 3.574 + 0.067 \text{ Inflation} + 0.090 \text{ Interest Rate} - 5.500 \text{ GRDP} - 0.042 \text{ BOPO} + 0.000 \text{ LDR}$$

1. The constant of 3,754 means inflation, interest rates, GDP, BOPO and LDR are zero then ROA is 3,754 units.
2. Inflation of 0.067 means that other independents are zero, and positive inflation indicates an increase. ROA rose 0.067 for each unit of inflation increase.
3. An interest rate of 0.090 indicates that the other independents variables are zero and the interest rate is positive, indicating that an increase in the interest rate per unit increase the ROA by 0.090.
4. Senilai GDP -5,500 means that ROA is reduced by 5,500 points if the GDP per unit increases by that amount, which indicates that the other independents are all zero
5. Since all other independent variables are zero, then BOPO -0.042 indicates that an increase in BOPO per unit can decrease ROA by 0.042
6. An LDR value of 0.000 indicates the absence of the independent variables while the LDR is positive, implying an increase in the LDR per unit which increases the ROA by 0.000

3.3.2 COEFFICIENT OF DETERMINATION (R²)

The termination coefficient serves as a measure of the influence of free variables on bound variables. The formula below can be used to calculate the coefficient of determination:

Table 3.7 Coefficients of Determination model summary^b

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.695 ^a	.483	.452	.71036

a. Predictors: (Constant), LDR, Inflation, BOPO, Interest Rates, GRDP

b. Dependent Variable: ROA

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Table 3.7 shows Adjusted R Square (R^2) worth 0.452 (45.2%) affects ROA, the remaining 54.8% is influenced by other variables, such as NIM, CAR and Third Party Funds, as shown above.

3.3.3 SIMULTANEOUS HYPOTHESIS TESTING (STATISTICAL TEST F)

The F test establishes its free variable put the combined effect on the bound variable or not. There is no evidence to support the hypothesis that inflation, interest rates, GDP, BOPO and LDR affects ROA in private banks listed on the IDX for the period 2016-2020 (F-table = 2.32, 90-5-1=84) F-count > F-table 15,702>2.32 and sig 0.000<0.05, meaning that the hypothesis that H0 was rejected and H1 was accepted is correct.

Tabel 3.8 Hasil Uji Statistik F

Model	ANOVA ^a					
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.617	5	7.923	15.702	.000 ^b
	Residual	42.387	84	.505		
	Total	82.005	89			

a. Dependent Variable: ROA

b. Predictors: (Constant), LDR, Inflasi, BOPO, SukuBunga, PDRB

3.3.4 PARTIAL HYPOTHESIS TESTING (STATISTICAL TEST T)

The t-test determines whether a free variable affects a bound variable or not. Below can be concluded from the results of data processing:

Tabel 3.9 Hasil Uji Statistik t Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	3.754	1.338		2.807	.006
	Inflasi	.067	.172	.045	.389	.698
	SukuBunga	.090	.122	.071	.736	.464
	PDRB	-5.500E-14	.000	-.073	-.699	.487
	BOPO	-.042	.005	-.662	-8.096	.000
	LDR	.000	.004	.007	.086	.932

a. Dependent Variable: ROA

The results of partial statistical tests include:

1. There is an inflation t-table value of 1.988 (90-5-1=84), t-count (0.389) < t-table (1.988), and significance of the value (0.698) > 0.05. This means that for 2016-2020 inflation will not affect private banks listed on the IDX.
2. T-count (0.736) > T-table (1.988) and its significance (0.464) > 0.05 means that the interest rate has no effect on the ROA of Private Bank companies listed on the IDX between 2016 and 2020, with a t-table value (1.988) (90-5-1 = 84).
3. There is no connection between the ROA of private banks listed on the IDX in 2016-2020 and the table value of GDP (90-5-1=84). The t-count value (-0.699) > the t-table value (-1.988) and the significance of the value (0.487) > 0.05 indicate that GDP has no impact on ROA.
4. This means that for the years from 2016 to 2020, the ROA affects the ROA of Private listed on the IDX, as evidenced by the BOPO t-table of 1,988 (90-5-1=84), the t-count (-8.096) < the t-table (- 1,988) and its significance (0.000) < 0.05
5. The T-table LDR is 1.988 (90-5-1=84), the t-count (0.086) < of the t-table (1.988), as well as its significance (0.932) > 0.05 which shows that the LDR has no influence on the ROA of private banks companies listed on the IDX between 2016 and 2020.

3.4 DISCUSSION

3.4.1 EFFECT OF INFLATION ON ROA

Inflation has no bearing on the ROAs of private banks listed on the IDX between 2016 and 2020, according to the research findings. This happens when inflation is high, which can result in reduced banking assets but the resulting pre-tax profit can be high.

As Hendratno (2019) explains, high inflation illustrates an increase in goods, due to which the money supply decreases due to price increases, and with high inflation, assets can decrease. This research agrees with Hendratno and Alex Winarno (2019). As a result of high inflation, the purchasing power of consumers is reduced as the company's assets are depleted.

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This research is contrary to Dodi (2020:2). The increase in inflation has resulted in the real value of tuben decrease because its assets are used to cover expenses due to the increase in the price of goods by being influenced by bank profitability.

3.4.2 EFFECT OF INTEREST RATES ON ROA

Interest rates have no bearing on the ROAs of private banks listed on the IDX between 2016 and 2020, according to research. This happens when high bank interest rates result in bank loans decreasing but high bank savings rates encourage customers to make deposits so that profit before tax becomes high.

As Sasmita, Andirani and Ilman (2019) point out, interest rates have a negative and negligible impact on ROA. The study confirmed their findings. The ROAs of a number of banks listed on the IDX are not significantly affected. The cost increases along with the overall interest rate, which in turn affects the cost of savings. In his research, an increase in interest rates on the line of credit reduces the total amount of the loan because the borrower cannot afford to repay the loan with an interest spread. Although interest rates on savings and deposits are rising, people do not automatically deposit money in the bank.

This research is contrary to Wira (2015:20-21), high inflation and BI rate made adjustments which eventually resulted in an increase in credit interest rates. The BI rate has increased, prompting an increase in lending interest, followed by an increase in inflation. Rising interest expense results in declining profits.

3.4.3 EFFECT OF GDP ON ROA

From the results of the study, GDP had no influence on ROA in private banks listed on the IDX between the period 2016 and 2020. This happens when GDP is high due to customers choosing to use their money and even customers reduce their storage of money in banks so that profits from taxed fall.

While Sahara (2013) asserts that GDP has a significant impact on ROA, this study refutes this statement. Consumers benefited from an increase in gross domestic product asset encouraged banks to improve saving habits, which in turn increased consumer income. GDP increased by 519,204.6 in the second quarter of 2008, followed by a mean ROA of Islamic banks of 1.20%, which continued in the third quarter. GDP fell by 519,391.7 in the fourth quarter, as did the ROA, which fell from 1.42% to 1.07%. As with the ROA of Islamic banks in Indonesia, the average change in GDP had a positive effect between 2008 and 2010. According to this, the ROA of the company increases then GDP increases and decreases when GDP decreases. As a result, it can be that the size of the country's GDP has an impact on the ROA of the company.

This research is contrary to Sahara (2013:152) GDP increases followed by an increase in income so that the ability to save comes to save which ultimately affects profitability.

3.4.4 EFFECT OF BOPO ON ROA

Sourced from research findings, BOPO has an impact on ROA in Indonesia private banks listed on the IDX from 2016 to 2020. This happens at a time when operating expenses are high but the resulting operating income is high can result in high pre-tax profits.

This research supports the findings of Sasmita, Andriani and Ilman (2019) who found that BOPO has a negative influence on ROA. Each increase in operating costs will cause a decrease in profit before tax, but ROA also decreases. An illustrated in the chart, BOPO has a strong negative influence on ROA.

This research is in line with Parenrengi, Sudarmin and Hendratni (2018:13), the smaller the value of BOPO, The increase in profit.

3.4.5 EFFECT OF LDR ON ROA

According to the research findings, LDR had no influence on the ROA of private banks listed in BEI between 2016 and 2020. Banks often find themselves in this situation when they have high operating costs but also receive large money, but they are forced to spend this money to operate the company, reducing their ability to make a profit.

Suciaty, Haming and Alam (2019:58-59) claim that banks will make more profits if they have a higher LDR. In contrast to Peling, Adiatmayani and Sedana (2018: 3005), this study found that the higher the LDR, the greater the business profit.

IV. CONCLUSIONS AND SUGGESTIONS

4.1 CONCLUSIONS

For the period 2016-2020, this study examines the effect of inflation on private banks ROA which is listed on the Indonesia Stock Exchange. The ROA of Indonesian private banks will not be affected by interest rates between 2016 and 2020. For 2016-2020, the ROA of Indonesian private banks that goes public will be affected by Operational Efficiency Ratio. There is no impact on ROA of Indonesian private banks which is listed on Indonesia Stock Exchange because of Loan to Deposit Ratio. The ROA of private banks is affected by inflation, Gross Domestic Product, interest rates, Operational Efficiency Ratio, and Loan to Deposit Ratio.

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An important theoretical implication of this research is the findings of this study can contribute to the development of financial accounting theory and practice in an institutional context banking. Furthermore, the research can be the basis for the Indonesia Stock Exchange to re-evaluate the failure of inflation, interest rates, Operational Efficiency Ratio, and Loan to Deposit Ratio in increasing and decreasing ROA.

4.2 SUGGESTIONS

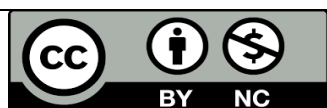
It is hopes that additional research samples, such as those are from Indonesia Stock Exchange issuers, can be added to the database for futher research. Futher research on this topic must consider the other factors that affect Return On Assets, such as Non Performing Loan, Net Interest Margin, and Transaction Processing Facility. The researcher can take advantage of a different measurement model for ROA measurement approaches, such as Non Performing Loan, Net Interest Margin, and Transaction Processing Facility.

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