

**THE ANALYSIS TOWARDS PROFITABILITY OF COMMERCIAL BANKS  
IN INDONESIA (PERIOD OF 2016-2020)****SHEILA MAHARANI ISLAMIDINNA<sup>1</sup>, SURYANI SRI LESTARI<sup>2</sup>, MOH.MUSLIKH<sup>3</sup>**<sup>1</sup>Accounting Departement, State Polytechnic of Semarang, Indonesia<sup>2</sup>Accounting Departement, State Polytechnic of Semarang, Indonesia<sup>3</sup>Accounting Departement, State Polytechnic of Semarang, Indonesia\*Corresponding Author E-mail: [aiti\\_239@yahoo.com](mailto:aiti_239@yahoo.com)

**Abstract:** The research aims is to analyze the Profitability (Return on Asset) of Commercial Banks in Indonesia Period of 2016-2020 bu using Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), and Net Interest Margin (NIM) as the independent variabels. The population used are 7 Commercial Banks in Indonesia that enter the group of Commercial Banks Business Activities 4 (BUKU 4) Period of 2016 up to 2020. While the sampling was done by puposive sampling technique, using quantitative data and secondary data. In this research the model used is Multiple Linear Regression Analysis using IBM SPSS 25 Statistics. The results and discussion showed that CAR, LDR, and NIM simultaneously have significant effect towards ROA. Furthermore, CAR and NIM have a significant effect, while LDR has no significant effect towards ROA in Commercial Banks Business Activities 4 (BUKU 4). Then, Determination Coefficient Test ( Adjusted R2) obtained the result is 41.9% which showed the contribution of Independent Variables in explaining Dependent Variables, and 58.1% is effected by other variables that are not examined in this research..

**Keywords:** Profitability, ROA, CAR, LDR, and NIM

## INTRODUCTION

### Introduction

A faster-growing economy makes more capital needed to always improve a country's economy. A company that is engaged in services needs to provide financial services for all levels of society, and the company is known as a bank. The banking industry is one industry that is growing rapidly at this time. Banking is the core of a country's financial system because it plays an active role in supporting the national or regional economy (Sunaryo, 2020:149).

Banking's role in the business world is very strong, in both for traffic payment and fund-raising. One of the company's funding comes from the bank, therefore if the bank fails it can be impact for the companies outside of the financial sector. Bank is financial intermediary that is collect funds from the public who put their funds to the bank as investments, then as distribute funds to the public as credits.

However in 2020 there are many constraints and problems that disturbing the bank's financial performance. This problem is caused by Corona Virus Disease (Covid-19) that effect to all sectors, including the economic sector. From *kompas.com* on 19 August 2020, 14 countries are known to be entering economic recession, for both developed countries and developing countries. Indonesia is the one of the countries that enter the recession following developed countries, such as United States of America and Singapore.

According data from Statistics Indonesia or *Badan Pusat Statistik* (BPS) economic growth of Indonesia has been expanded by 2.97% year-on-year (yoy) in Q1-2020 when Corona Virus Disease (Covid-19) starting spread in the world, in Q2-2020 -5.32% year-on-year (yoy), in Q3-2020 -3.49% year-on-year (yoy), and Q4-2020 -2.19% year-on-year (yoy).

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## Research purposes

Based on formulation of the problems and research questions, the objective of this research is to identify the significant effect of Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), and Net Interest Margin (NIM) simultaneously dan partially towards Profitability at Commercial Banks Business Activities 4 (BUKU 4) Period of 2016-2020

## LITERATURE REVIEW

*Bank.* According to Law of the Indonesian (*Undang-Undang Republik Indonesia*) No. 10 the Year 1998 about Banking, bank is business entities that collect funds from the public to save and distribute them to the public in order to credits or other forms to improve the living standard of people.

*Profitability.* Munawir (2010:33) Profitability is used for the company's ability to earn a profit during a certain period.

*Return On Assets (ROA).* Dendawijaya (2013:120) ROA is a ratio used to measure the ability of bank management to earn overall profit (profit). Greater of ROA of a bank, greater position of the bank in term of use the assets.

*Capital Adequacy Ratio (CAR).* Rohmiati, et al (2018) CAR is a capital adequacy ratio that demonstrates the bank's ability to provide funds for business development needs and accommodates the risk of loss of funds that can be caused by bank operations. CAR can indicate the extent to which the decline in bank assets covered by available equity.

*Loan to Deposit Ratio (LDR).* Kasmir (2015:225) LDR is a ratio used to measure the composition of the amount of credit given compared to the amount of public funds and the capital itself used. LDR can raises ROA, so financial performance of bank will be better assuming the bank is able to channel credit effectively so that the number of bad loans will small.

*Net Interest Margin (NIM).* Almilia and Herdiningtyas (2005:138) NIM is a ratio that demonstrates the ability of bank management in managing its productive assets to generate net interest income. Net interest income is derived from interest income minus interest expense.

*Previous Research and Hypothesis.* Hantono (2017), and Sunaryo (2020) find that CAR partially has a significant effect towards Profitability (ROA). Agustiningrum (2012), and Mismiwati (2016) find that LDR partially has a significant effect towards Profitability (ROA). Yuhasril (2019), and Soares and Yunanto (2018) find that LDR partially has a significant effect towards Profitability (ROA).

H1: It is assumed that CAR, LDR, and NIM have simultaneously significant effect towards Profitability at BUKU 4 Period of 2016-2020.

H2: It is assumed that CAR partially has a significant effect towards Profitability at BUKU 4 Period of 2016-2020.

H3: It is assumed that LDR partially has a significant effect towards Profitability at BUKU 4 Period of 2016-2020.

H4: It is assumed that NIM partially has a significant effect towards Profitability at BUKU 4 Period of 2016-2020.

## RESEARCH METHODOLOGY

The data used is quantitative data for all research variables namely; ROA, CAR, LDR, and NIM at BUKU 4 Period of 2016 up to 2020. Secondary data in this research was obtained from the Publication Report of the Financial Services Authority (FSA) and the official websites of commercial banks during 2016 up to 2020.

The sample used in this research are 7 commercial banks in Indonesia entered into BUKU 4 Period of 2016-2020 selected for analysis. The sample was done by purposive sampling technique.

In this research the method used to analyze the data is Multiple Linear Regression Analysis with the equation as follows:

$$ROA = \alpha + \beta_1CAR + \beta_2LDR + \beta_3NIM + e$$

This research also using coefficient of determination test (Adjusted R<sup>2</sup>) essentially measures how far the model can go in describing variations in Dependent Variable, a value close to 1 means that Independent Variables provide almost all the information needed to predict Dependent Variable variations (Ghozali, 2018:97).

F statistical test basically shows whether all independent or free variables included in the model have a mutual effect on dependent/bound variables (Ghozali, 2018:98).

t statistical test basically show how far an individual self-explanatory/Independent Variables effects in describing Dependent Variable variations (Ghozali, 2018:99).

## RESULTS AND ANALYSIS

*Normality Test.* Table 1 using One-Sample Kolmogorov-Smirnov Test, it is known that the significance value of 0.200 is greater than 0.05. This indicates that the data in this research are normally distributed because the significance value is greater than 0.05.

**Table 1**  
**Normality Test: One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		35
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.66752067
Most Extreme Differences	Absolute	.088
	Positive	.061
	Negative	-.088
Test Statistic		.088
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

*Classical Assumption Test.* Table 2 using Tolerance and VIF shows that all Independent Variables in this research have tolerance values > 0.10 and VIF < 10, so it can be concluded that there is no multicollinearity.

**Table 2**  
**Tolerance and VIF**

Model		Collinearity Statistics	
		Tolerance	VIF
1	CAR	.956	1.047
	LDR	.922	1.084
	NIM	.954	1.048

a. Dependent Variable: ROA

Table 3 using DW test show that value of 1.809. In Durbin–Watson table, the du value is 1.653. These results indicate that the DW value of 1.809 is greater than the value of du 1.653

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and less than 4-1.653 (2.347), so it can be concluded that there is no positive nor negative autocorrelation, so the data used in this research is free from autocorrelation.

**Table 3**  
**Durbin-Watson Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.687 <sup>a</sup>	.472	.419	.33931	1.809

a. Predictors: (Constant), NIM, LDR, CAR

b. Dependent Variable: ROA

Table 4 using Park Test shows that the significance value (sig.) of all Independent Variables from this research has a significance greater than 0.05. The result of Park Test indicate that there is no heteroscedasticity.

**Table 4**  
**Park Test**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.323	5.803		.056	.956
	CAR	.032	.133	.044	.242	.810
	LDR	-.041	.043	-.173	-.946	.351
	NIM	.124	.334	.067	.372	.713

a. Dependent Variable: LN\_RES

*Multiple Linear Regression.* Based on Table 4.7,  $F_{count} = 8.908 > F_{table} = 2.91$  or significance =  $0.000 < 0.05$ , which means that there is significant effect between CAR, LDR, and NIM simultaneously towards ROA, then H1 is accepted. Table 5 shows that CAR has a  $t_{count} = 2.344 > t_{table} 2.040$  or significance =  $0.026 < 0.05$ , which means that there is a significant effect between CAR partially towards ROA, then H2 is accepted. LDR has a  $t_{count} = 0.976 < t_{table} 2.040$  or significance =  $0.337 > 0.05$ , which means that there is no significant effect between LDR partially on ROA, then H3 is rejected. NIM has a  $t_{count} = 4.277 > t_{table} 2.040$  or significance =  $0.000 < 0.05$ , which means that there is a significant effect between NIM partially on ROA, so H4 is accepted.

**Table 5**  
**Multiple Linear Regression**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-6.824	3.032		-2.251	.032
	CAR	1.369	.584	.332	2.344	.026
	LDR	.708	.726	.137	.976	.337
	NIM	1.671	.391	.572	4.277	.000

Dependent Variable is ROA

R .687<sup>a</sup>

R Square .472

Adjusted R Square .419

Std. Error of the Estimate .33931

F 8.908 significance at 0.05

Based on the tests that have been carried out on hypothesis 1 using F Statistical Test, the results show that CAR, LDR, and NIM simultaneously have significant effects towards Profitability at Commercial Banks Business Activities 4 (BUKU 4) Period of 2016-2020.

*Effect of CAR towards ROA.* Based on the tests it can be seen that the CAR partially has a significant effect towards Profitability (ROA) at BUKU 4 Periode of 2016-2020. According to Taswan (2006:184) reduction in profits and even bank losses will result in lower capital. Reduction in the amount of bank capital will reduce the Capital Adequacy Ratio (CAR), besides that reduction in CAR also reduced public confidence and this means threatening the sustainability of the banking business. The results of this research are similar as that conducted by Hantono (2017), and Sunaryo (2020) which states that CAR partially has a significant effect on ROA.

*Effect of LDR towards ROA.* Based on the result it can be seen that LDR partially has no significant effect towards Profitability (ROA) at BUKU 4 Period of 2016-2020. The results of this research are similar as that conducted by Hantono (2017), and Rohmiati, et al (2019) which stated that LDR had no significant effect on ROA.

*Effect of NIM towards ROA.* Based on the result it can be seen that NIM partially has a significant effect towards Profitability (ROA) at BUKU 4 Period of 2016-2020. According to Mismiwati (2016), NIM is a ratio shows that the ability of bank management to manage their productive assets to generate net interest income. Net interest income is derived from interest income minus interest expense. The greater NIM, the higher interest income on earning assets managed by bank, so that the possibility of the bank being in troubled conditions is getting smaller. The results of this research are similar as that conducted by Yuhartil (2019), and Sunaryo (2020) which stated that NIM partially has a significant positive effect on ROA.

## CONCLUSION

The result of this research shows that CAR, LDR, and NIM contribute to the effect of ROA is 41.9%. Whereas the remaining 58.1% is effected by other variables not examined in this research. Then CAR, LDR, and NIM simultaneously have significant effects towards ROA at Commercial Banks Business Activities 4 (BUKU 4) period of 2016-2020. CAR partially has a significant effect towards ROA Commercial Banks Business Activities 4 (BUKU 4) period of 2016-2020. LDR partially has no significant effect towards ROA at Commercial Banks Business Activities 4 (BUKU 4) period of 2016-2020. NIM partially has a significant effect towards ROA Commercial Banks Business Activities 4 (BUKU 4) period of 2016-2020.

This reasearch has limitations that can be used as related review for the next research to get better results are as follows: the variable of this research is limited, using only 3 variables, namely CAR, LDR, and NIM meanwhile there are other variables that are not used as the basis for predicting Profitability bank, so that this reasearch cannot be used as an only reference in predicting the bank's overall Profitability; the population of this research is limited to Commercial Banks Business Activities 4 (BUKU 4); the period of this research used in this research is relatively short; i.e. 5 years ranging from 2016 up to 2020 only.

Based on the limitations mentioned above, some suggestions for future agenda of the research are given as follows: It is hoped that it is necessary to add other variables other than CAR, NIM, and LDR, including BOPO, NPL, and DPK in order to obtain more varied results so that they can show the results which effect bank Profitability in the future; it is hoped that it is advised to expand more samples of the objects of the research; and it is hoped that it is good to lengthen the period of the reasearch in order to get more accurate results.

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