

# Effect of Profitability Ratios on Banking Capital Adequacy (study at PT. Bank Rakyat Indonesia Tbk.)

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## Abstract

*The main function of a bank is based on banking law no. 7 of 1992 is as an intermediary institution. As an intermediary institution, banks must be able to maintain profitability ratios and capital adequacy ratios. This is because the capital adequacy ratio of a bank is an important benchmark for consumers or users of these banking services. The focus of this research is to determine how much influence the profitability ratio of a bank, namely the ratio of NIM, OEOI and ROE to the Bank's Capital Adequacy, namely the CAR variable. The research method used is quantitative analysis using multiple linear regression. The results showed that all profitability ratios had a simultaneous effect on bank capital adequacy. Meanwhile, for the individual effect, only the ROE variable has no effect, while the other variables, namely NIM and BOPO, have a partial effect on CAR.*

**Keywords:** Profitability, Capital Adequacy and Banks

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## 1. INTRODUCTION

Bank is a financial institution whose main activity is to attract customer funds in the form of savings and channel it in the form of loans aimed at the welfare of the community. To assess the financial performance of a bank, namely through the analysis of the financial ratios of the bank. The performance indicators of a bank can be seen from the bank's profitability ratio and the bank's capital adequacy ratio. By analyzing the performance of these ratios, the level of public confidence in the management performance of banking companies will be obtained.

Capital factor is an important factor in determining the level of profit of a bank. The greater the capital invested in the company, it should be directly proportional to the profit level of the company. To see the value of the capital ratio, the calculation of the analysis of the Capital Adequacy Ratio (CAR) is used. CAR is a capital adequacy ratio that is useful for accommodating the risk of loss a bank may face. Meanwhile, to see the performance in generating profits, namely by analyzing the profitability ratio. Profitability ratio is a ratio that measures the company's ability to generate profits at a certain level of sales, assets and share capital (Mamduh, 2000). In this study, the

profitability ratios that will be used are the ratio of Net Income Margin (NIM), Operating Expenses to Operating Income (BOPO) and *Return on Equity* (ROE) of

PT. Bank Rakyat Indonesia Tbk (Persero) is one of the state-owned enterprises engaged in the banking sector with a very large market capability on the Indonesia Stock Exchange (BEI) with the company code BBRI. In 2019, the performance of BBRI's management was very good with a profit of Rp. 34.4 trillion. If you look at the development from 2018, BBRI's profit performance is very good, which has increased by 6.15%. In 2018 BBRI's profit was Rp. 32.4 Trillion. This high profit processing was obtained from credit growth originating from micro credit which grew by 12.19% with the credit position rising to 35.5%.

By looking at the development of BBRI's profit and the composition of BBRI's credit, the researcher is interested in further examining the bank's profitability ratio and how it affects the bank's capital adequacy ratio of PT. Bank Rakyat Indonesia Tbk with the research title, namely the effect of profitability ratios on bank capital adequacy (Study at PT. Bank Rakyat Indonesia Tbk.)

## II. METHODS

Focus of this study is to determine how much influence the profitability ratios have on capital adequacy in the banking industry. For this reason, an explanatory research was conducted. The type of data used is secondary data obtained from annual reports published by the company PT. Bank Rakyat IndonesiaTbk. In the period 2015 to 2019. In conducting the analysis, the research used multiple linear regression analysis which is useful for knowing the magnitude of the influence between the independent variables on the dependent variable and the F test and T test which are used to determine how much influence the independent variable has on the dependent variable simultaneously and partially.

## III. RESULT AND DISCUSSION

Based on the background obtained in the introduction, this study will discuss the independent variables, namely NIM, BOPO and ROE and their effects on the value of bank capital adequacy as indicated by the amount of the bank's CAR. The value of each of these variables can be seen in table 1.1 below:

**Table 1.1.** Value of the profitability ratio and capital adequacy ratio of PT. Bank Rakyat IndonesiaTbk the period 2015 to 2019 (%)

Year	Profitabilitas Rasio			Capital Ratio
	NIM	BOPO	ROE	CAR
2015	7,85	66,69	29,89	20,59
2016	8,00	68,69	23,08	22,91

2017	7,92	69,14	20,03	22,96
2018	7,45	68,40	20,49	21,21
2019	6,98	70,01	19,41	22,55

Source : Annual Report 2019

Based on table 1.1 above , it is known that the value of the profitability ratio and the capital adequacy ratio fluctuates annually. For the value of the independent variable itself, namely NIM in 2015 to 2019 respectively, namely 7.85%, 8.00%, 7.92%, 7.45% and in 2019 amounted to 6.98%. Another independent variable is the OEOI ratio with a value in 2015 of 66.69% and increased in 2016 to 2018, namely 68.69%, 69.14% and decreased in 2018 by 68.40% and increased again in 2019. Amount to 70.01%. For the ROE value of PT. BRI Tbk in 2015 amounted to 29.89% and decreased from 2016 to 2017 by 23.08% and 20.03%. For 2018 and 2019, it fluctuated, namely 20.49% for 2018 and 19.41% for 2019.

As for the value of the dependent variable itself, namely the capital adequacy ratio with the ratio value used, namely CAR, it shows that in 2015 the value was 20 , 59% and increased from 2016 to 2017, namely 22.91% and 22.96%. Meanwhile, in 2018 and 2019 the CAR values were 21.21% and 22.55%. Based on the results of this study, the researcher conducted multiple linear regression to see how much influence the profitability ratio had on bank capital adequacy. The results of the calculations can be seen in table 1.2 below.

**Table 1.2.** Calculation Results of Multiple Linear Regression

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-91,697	4,819		-19,029	,033
NIM	1,712	,081	,675	21,014	,030
BOPO	1,427	,062	1,617	22,899	,028
ROE	,124	,017	,496	7,306	,087

Dependent Variable: CAR

From the table above, the calculation of the multiple regression equation is as follows:  $Y = -91,697 + 1,712 \text{ NIM} + 1,427 \text{ BOPO} + 0.124 \text{ ROE}$ . With this equation, it can be seen that the constant is -91.697, which means that if the NIM, BOPO and ROE are zero, the bank's capital adequacy ratio will decrease by 91.697 assuming that all other independent variables are fixed. Furthermore, to test whether the independent variable has a partial effect on the dependent variable, a test with a significant value less than 0.05 or 5% is carried out. Based on table 1.2 above, it is found that all independent variables partially influence the dependent variable. This is explained by the significant value of the independent variable which is lower than 0.05 or 5%.

significant NIM value that is less than 0.05 or 0.030 indicates that the bank management's ability to generate net interest has a significant effect on the level of bank capital adequacy. Meanwhile, the significant value of BOPO is greater than 0.05, which is 0.028, which means that operating expenses to operating income affect the bank's capital adequacy. Likewise, ROE which is not significant with a value greater than 0.05, namely 0.087 which indicates that the total return on net income on equity has no effect on bank capital adequacy. Furthermore, the independent variable is tested jointly on the dependent variable. The results of the calculations can be seen in the table below:

Table 1.3 Calculation Results of the FTest

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,651	3	1,550	452,013	,035 <sup>b</sup>
	Residual	,003	1	,003		
	Total	4,655	4			

a. Dependent Variable: CAR

b. Predictors: (Constant), ROE, NIM, BOPO

Furthermore, from the table above, it is known that the effect between variables simultaneously (together) is carried out based on the probability value. If the probability value is less than 0.05 or 5%, it can be concluded that the variable is significant or influential simultaneously. Vice versa, if the variable value is greater than 0.05 or 5%, it can be concluded that the variable is not significant or has no effect simultaneously. Striking from the table above, the calculated F value is 452.013 with a significant amount of 0.035, which means that all variables simultaneously affect the

bank's capital adequacy. This research also showed the value of R square ( $R^2$ ) of 0.999 which indicates that the change in capital adequacy or the dependent variable can be explained by the independent variables studied at 99.9% and the remaining 0.01% is explained by other variables outside of the variables under study.

#### IV. CONCLUSION

Based on the results and discussion of this study, the researcher concludes that the answers to the problems raised in this study are that all independent variables consisting of NIM, BOPO and ROE all have a good effect simultaneously. However, for the partial effect, only the ROE variable does not affect individually but other variables, namely NIM and BOPO, have a partial effect on bank capital adequacy.

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