International Journal of Economics and Business Administration
Volume VIII, Issue 4, 2020

pp. 270-287

Ratio Analysis of Capital, Credits, Liquidity to Profit Ratio in Conventional Rural Banks in Indonesia

Submitted 20/05/20, 1st revision 19/07/20, 2nd revision 12/08/20, accepted 30/09/20

Rahmat, S.IP., MH[1]

Abstract:

Purpose: *This paper aims to conduct academic research in the field of banking financial institutions by the use of financial ratios such as capital, non-performing loans, liquidity, and profit ratios at Rural Banks in Indonesia.*
Approach/Methodology/Design: *The study covers all conventional rural banks in Indonesia using SPSS IBM 26 to determine the effect of capital ratios, non-performing loans, and liquidity on profits, before tax and after tax. The data used is secondary data based on reports sourced from the Financial Services Authority.*
Findings: *The study has determined the effect of capital ratios, non-performing loans, and liquidity on gross profit and net income both partially and simultaneously and other findings on the effect of Return on Assets. on Return on Equity at conventional rural banks in Indonesia based on financial reports from 2012 until 2018.*
Practical Implications: *The results are expected to provide a positive contribution to the understanding of capital ratios, non-performing loans, liquidity, and profits for academics, banks, regulators, investors, and other stakeholders.*
Originality/Value: *The originality of the study refers to the sample used and its value has to do with the importance to be used in banking for policy making.*

Keywords: *Capital, non-performing loans, liquidity, profit, rural banks.*

JEL Classification: *G21, G31, G32, G33.*

Paper Type: *Research article.*

[1]*Doctoral Program in Management Science, School of Postgraduates of Universitas Pendidikan Indonesia, e-mail: rahmat61@upi.edu;*

1. Introduction

Assessment of capital, non-performing loans, liquidity, and profit are some of the most widely used factors to assess bank performance, particularly for rural banks; these components are presented in each period's financial statements. Paying attention to the financial statements of conventional rural banks in Indonesia, the author wants to know the extent of the influence between the variables of capital, non-performing loans, and liquidity on profits; this is done because it has a positive impact on stakeholder decision making. The purpose of financial reports is to provide information about the financial position, performance, and changes in a company's financial position, which is useful for many users in making economic decisions (Indonesian Institute of Accountants 2009). As a data analysis source, financial reports are considered relevant to produce performance output, as stated by Sutrisno (2012). The financial report is the final result of the accounting process which includes two main reports, namely the balance sheet and the income statement (Munawir, 2004).

These financial statements that are prepared with the intention of providing financial information of a company to interested parties for their consideration in making a decision. Ratio analysis is an analysis method to determine the relationship between certain items in the balance sheet or income statement individually or combining the two reports related to financial ratios. Samryn (2011) states that the financial ratio analysis is a way of comparing company financial data. Financial ratios are the basis for answering some important questions about the financial health of a company. The ratios used in the measurement of ratios in this study refer to the provisions of Bank Indonesia by the Circular of Dir. No.30 / 12 / KEP / DIR dated April 30, 1997, concerning Procedures for Assessing the Soundness of Rural Banks, and Codification of Bank Indonesia Regulations.

Research on this ratio was carried out at Conventional BPR in Indonesia from 2012 to 2018. In this study, a tool was used in the form of the IBM 26 version of the SPSS application.

2. Literature Review

According to Bambang (2001), financial ratio is a measure used to interpret and analyze a company's financial statements. The definition of the ratio is actually just a tool stated in arithmetical terms which can be used to explain the relationship between two kinds of financial data. Meanwhile, according to Munawir (2007), financial ratio is an analysis method to determine the relationship of certain items in the balance sheet or income statement individually or a combination of the two reports. Financial ratios can be used as a tool for analyzing company performance as according to Weston (1995) financial ratio analysis provides a framework for the relationship between balance sheet items and profit and loss calculations, enabling a person to trace the history of a company and assess its current financial position.

This enables the financial manager to predict the reaction of creditors or investors to the financial condition of the company and thus to find appropriate ways to raise funds. Meanwhile, according to Sartono (2001), is the basis for assessing and directing its operating performance. Financial ratio analysis can also be used as an action plan for financial planning and control. The profit ratio is a concern in financial statement analysis because it is considered to have explained the condition of a company. The profit ratio is useful to show the success of the company in generating profits. According to Sutrisno (2009), profitability ratio is the company's ability to generate profits with all the capital working in it. Meanwhile, according to Fahmi (2012) the profitability ratio is a tool to measure the effectiveness of management as a whole, shown by the size of the level of profits obtained from sales and investment. The better the profitability ratio, the better it will describe the company's high profitability. From the theory above, it can be concluded that the profitability ratio is a ratio that measures the ability and effectiveness to generate profits. Thus, it can be concluded that to assess companies' performance, including rural banks, can be done through analysis of financial ratios sourced from financial reports (Kourtis *et al.,* 2019).

The capital ratio using the CAR formula is the capital adequacy, which shows if the bank is maintaining sufficient capital and the ability of bank management to identify, measure, supervise and control risks that arise, which may affect the amount of bank capital (Kuncoro 2011). According to Bank Indonesia Regulation Number, 9/13 / PBI / 2007, CAR is the provision of minimum capital for banks based on asset risk in a broad sense, both assets listed on the balance sheet and assets that are administrative in nature as reflected in liabilities that are still contingent and/or committed provided by the bank for third parties. Non-performing loans are the level of non-performance of credit extended by banks to debtors. According to Ismail (2009), non-performing loans are a situation in which the customer cannot pay part or all of his obligations to the bank as promised. According to Ismail (2009) NPL (Non-Performing Loan) is credit in arrears for more than 90 days. NPL is divided into substandard, doubtful, and bad credit. According to Taswan (2006), the ratio used to assess financial performance in managing non-performing loans is the ratio of non performing loans to total assets. Non-performing loans are classified into collectibility, current, substandard, doubtful, and loss. The smaller the NPL, the smaller the credit risk borne by the bank. Liquidity is the ability of a bank to fulfill its obligations to other parties, according to Darmawi (2011), liquidity is a term used to indicate the supply of cash and other assets that can easily be turned into cash. The liquidity measurement tool that is often used is the LDR (Loan to Deposit Ratio) ratio (Liapis *et al.,* 2020).

According to Kasmir (2014), LDR is a ratio used to measure the composition of the amount of credit given compared to the number of public funds and capital used. According to Darmawi (2011), LDR (Loan to Deposit Ratio) is a liquid measure of the concept of inventory in the form of a loan to deposit ratio. From the understanding of LDR, according to the experts above, it can be concluded that LDR

is a ratio that measures the extent to which a bank's ability to fulfill its obligations to depositors of funds. The higher this ratio, the lower the liquidity of the bank concerned. On the contrary, the lower the LDR ratio, the higher the bank's liquidity. This ratio is also an indicator of the vulnerability and capability of a bank. According to Kasmir (2014), the safe limit of a bank's LDR is around 80%. However, the maximum LDR limit is 110%. Return on company's condition the soundness of a bank, Bank Indonesia is more concerned with estimating Return on Assets (ROA), because Bank Indonesia, as a bank supervisor, prioritizes the value of bank profitability as the value of assets whose funds mostly come from public savings funds (Dendawijaya, 2009).

According to Hanafi and Halim (2009), Return on Assets (ROA) measures its ability to generate profits with costs to finance these assets. Meanwhile, according to Mardiyanto (2009), Return on Assets (ROA) is a ratio used to measure a company's ability to generate profits from investment activities. ROE (Return On Equity) is part of the profitability ratio, which measurement is used to assess the company's ability to generate net profit after tax from its capital. Brigham and Houston (2010) view that return on equity is the ratio of net to ordinary equity, which functions to measure the return on ordinary shareholders' investment. The calculation formula used to measure capital, bad credit, liquidity, refers to the SK Dir. No.30 / 12 / KEP / DIR dated April 30, 1997, concerning Procedures for Assessing the Soundness of BPRs and Codification of the Institutional PBI for Assessing Bank Soundness Levels as follows:

Table 1. *Financial Ratio Formula*

No	Type of Ratio	Calculation Formulas		
1	Capital	CAR	Total Capital / Risk Weighted Assets	X 100 %
2	Credit Quality	NPL	Non-performing Loans / Total Credit	X 100 %
3	Liquidity	LDR	Credit / Third-party funds	X 100 %
4	Profit	ROA	Net profit before tax / Average Total Assets	X 100 %
		ROE	Net profit after tax / Total Capital	X 100 %

Source: *Bank Indonesia.*

3. Research Methodology

There are two ways to detect whether the residuals are normally distributed or not, namely by graph analysis and statistical tests (Ghozali, 2011). The multicollinearity test aims to test whether the regression model found a correlation between independent variables. A good regression model should not correlate with the independent variables. If the independent variable is correlated, then the variable is

not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is zero (Ghozali, 2011). The heteroskedasticity test aims to test whether there is an inequality of variance from the residuals of one observation to another in the regression model. If the residual variance from one observation to another is constant, it is called homoscedasticity, and if it is different, it is called heteroscedasticity. A good regression model is a model that is homoscedastic or does not occur heteroscedasticity. Most of the cross-data contain heteroskedastic situations because it collects data that represents various sizes (small, medium, and large) (Ghozali, 2011). The autocorrelation test aims to test whether, in the linear regression model, there is a correlation between confounding error in period t and confounding error in period t-1. If there is a correlation, it is called an autocorrelation problem. Autocorrelation occurs because sequential observations over time are related to one another. This is often seen in time series data because disturbances in individuals/groups tend to affect disorders in the same individual/group in the next period; in cross-sectional data, autocorrelation problems are relatively rare due to observational disturbances. A good regression model is a regression that is free from autocorrelation (Ghozali, 2011).

Hypothesis Testing, the accuracy of the sample regression function in estimating the actual value can be measured from its goodness of fit. Statistically, at least this can be measured from the coefficient of determination, the F statistic's value, and the value of the t statistic. The statistical calculation is statistically significant if the statistical test value is in a critical area (Ho is rejected). Conversely, it is said to be insignificant if the statistical test value is in the area where Ho is accepted (Ghozali, 2011). The coefficient of determination (R2), in essence, measures how far the model's ability is to explain the variation in the dependent variable. The coefficient of determination is between zero and one. The small value of R2 means that the independent variables' ability to explain the variation in the dependent variable is minimal. A value close to one means that the independent variables provide almost all the information needed to predict the dependent variable's variation. In general, the coefficient of determination for cross-sectional data is relatively low because of the large variation between each observation, while time-series data usually has a high coefficient of determination (Ghozali, 2011). According to Imam Ghozali (2013), the F statistical test basically shows whether all the independent variables included in the model have a joint influence on the dependent variable. To test these two hypotheses, the F statistical test is used: a) Quick look, if the F value is greater than 4, then Ho can be rejected at the 5% degree of confidence; in other words, we accept the alternative hypothesis, which states that all independent variables are simultaneous and significantly affect the dependent variable. b) Comparing the calculated F value with the F value according to the table. If the calculated F value is greater than the F table value, Ho is rejected, and Ha is accepted. According to Ghozali (2013), the t statistical test basically shows how far the influence of one independent variable individually explains the dependent variable. Tests were carried out using a significant level of 0.05 ($\alpha = 5\%$). The criteria for acceptance or rejection of the hypothesis are: 1. the significant value is > 0.05, the hypothesis is

rejected (the regression coefficient is not significant). This means that partially the independent variable does not have a significant effect on the dependent variable. 2. the significant value ≤ 0.05, the hypothesis is accepted (significant regression coefficient). This means that partially the independent variable has a significant effect on the dependent variable.

3. Empirical Results

The present study used data for the 2012-2018 period. The population in this study was all conventional BPRs in Indonesia. The sampling technique is saturated sampling or census, where all members of the population are sampled, meaning that the sample used is the same as the population. All samples were taken from 34 provincial-level BPRs. The data collection method used is non-participant observation, namely recording or downloading data from reports published on the Spatial Services Authority (OJK) website. The independent variables used in this study are CAR, NPL, and LDR, while the dependent variable is the performance of conventional rural banks as measured by Return on Assets (ROA) and Return on Equity (ROE). ROA, in its simplest form, is calculated as profit before tax divided by assets, while ROE is calculated as profit after tax divided by capital.

As a basis for formulating a hypothesis, here is a theoretical framework that shows the effect of the CAR, NPL, and LDR variables on ROA and ROE and ROA on ROE.

3.1 Research Hypotheses

From the conceptual foundation, literature review, and the framework that has been described, several research hypotheses can be formulated as follows:

Model 1:
H1: CAR (Capital Adequacy Ratio) has a positive effect on ROA.
H2: (NPL) Non Performing Loans have a negative effect on ROA.
H3: LDR (Loan to Deposit Ratio) has a negative effect on ROA.

Model 2 :
H1: CAR (Capital Adequacy Ratio) has a positive effect on ROE.
H2: (NPL) Non Performing Loans have a negative effect on ROE.
H3: LDR (Loan to Deposit Ratio) has a negative effect on ROE.
H4: ROA has a positive effect on ROE.

The study uses more than two independent variables to explain the relationship, and how much influence the independent variables has on the dependent variable, therefore multiple linear regression analysis is used. Multiple regression is useful for predicting the effect of two or more predictor variables on one criterion or to prove the presence or absence of a functional relationship between two or more

independent variables (X) and the dependent variable (Y), (Usman, 2003). This study uses path analysis techniques. Path analysis is a technique for analyzing causal relationships that occur in multiple regression if exogenous variables affect endogenous variables directly and indirectly (Sarwono, 2007). The model in this study is divided into two models with the models' equation, as follows:

Model 1: Hypothesis: CAR (X1), NPL (X2), and LDR (X3) affect ROA (Y).
Model 2: Hypothesis: CAR (X1), NPL (X2), LDR (X3), and ROA (Y) affect ROE (Z).

4. Results and Discussion

This research's object is conventional rural banks recorded in the Financial Services Authority for the period 2012 to 2018. In this study, we have used Collective Data for Conventional Rural Banks in Indonesia. The data used are as follows:

Table 2. *Development of Conventional BPR Financial Ratios Period 2012 - 2018*

Bank	Year	CAR(X1)	NPL(X2)	LDR(x3)	ROA(Y)	ROE(Z)
BPR Conventional	2012	27.55	4.75	78.63	3.46	32.63
	2013	28.48	4.41	84.34	3.44	32.41
	2014	28.02	4.75	79.79	2.98	27.89
	2015	21.93	5.37	77.81	2.71	24.76
	2016	22.77	5.83	76.24	2.59	23.61
	2017	22.95	6.15	75.36	2.55	23.06
	2018	23.35	6.37	76.54	2.48	22.24
Average		25.01	5.38	78.39	2.89	26.66

Source: *OJK's Indonesian Banking Statistics Report.*

Based on calculations using the SPSS program, descriptive statistical results obtained from conventional rural banks in Indonesia are as follows (Table 3 and 4):

Table 3. *Model 1, Normality Test Results Descriptive Statistics*

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		7
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.14851157
Most Extreme Differences	Absolute	.272
	Positive	.195
	Negative	-.272
Test Statistic		.272
Asymp. Sig. (2-tailed)		.126[c]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: *SPSS Statistical Test Results, processed, 2020.*

Normality Test Results:
In the test results from the Kolmogorov-Smirnov non-parametric statistics for Model 1 states that the Asymp coefficient. Sig. (2-tailed) of 0.126 while the significance level used is 0.05. These results indicate that the data used are normally distributed because of the Asymp value. Sig. (2-tailed) is greater than 0.05 (0.126> 0.05) (Table 3).

Table 4. *Model 2, Normality Test Results Descriptive Statistics*

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		7
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.03487617
Most Extreme Differences	Absolute	.276
	Positive	.276
	Negative	-.160
Test Statistic		.276
Asymp. Sig. (2-tailed)		.115[c]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: *SPSS Statistical Test Results, processed, 2020.*

In the test results from the Kolmogorov-Smirnov non-parametric statistics for the second substructure states that the Asymp coefficient. Sig. (2-tailed) of 0.115 while the significance level used is 0.05. These results indicate that the data used are normally distributed because of the Asymp value. Sig. (2-tailed) is greater than 0.05 (0.115> 0.05) (Table 4).

Table 5. *Model 1, Multicolinearity Results*

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	3.867	5.466		.707	.530		
	CAR	.052	.058	.356	.896	.436	.268	3.725
	NPL	-.352	.255	-.646	-1.379	.262	.193	5.181
	LDR	-.005	.057	-.036	-.086	.937	.244	4.094
a. Dependent Variable: ROA								

Source: *SPSS Statistical Test Results, processed, 2020*

Multicollinearity Results:
In the multicollinearity test results, substructure 1 shows the tolerance value for the variable CAR 0.268, NPL 0.193 and LDR 0.244, (model 1) each tolerance value obtained for the three variables is more than 0.10 and the VIF value for the variable

CAR 3,725 NPL 5,181 and LDR 4,094 respectively. Each VIF value for the three variables is less than 10. Based on this value it can be concluded that there is no multicollinearity symptom in the substructure 1 regression model (Table 5).

In the multicollinearity test results, Substructure 2 shows the tolerance value for the variables CAR 0.212, NPL 0.118, LDR 0.244, and ROA 0.127, respectively, the tolerance value obtained for the four variables is more than 0.10 and the VIF value for the variable CAR 4.72, NPL 8.465, LDR 4.104, ROA 7.871, respectively, the VIF value for the four variables is less than 10. Based on these values it can be concluded that there are no symptoms of multicollinearity in the substructure regression model 2 (Table 6).

Table 6. *Model 2, Multicolinearity Results*

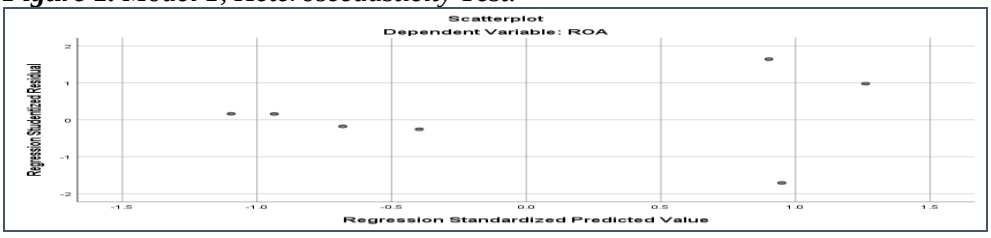
Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.220	1.698		1.307	.321		
	CAR	.048	.019	.031	2.552	.125	.212	4.721
	NPL	-.387	.094	-.067	-4.121	.054	.118	8.465
	LDR	-.039	.017	-.027	-2.348	.143	.244	4.104
	ROA	9.822	.166	.932	59.148	.000	.127	7.871
a. Dependent Variable: ROE								

Source: *SPSS Statistical Test Results, processed, 2020.*

Heteroscedasticity Results:

The correlation of heteroscedasticity is the variance bias so that the significant test becomes invalid, with the effects of individual variables that are difficult to separate. To determine whether there is heteroscedasticity between the independent variables, it can be seen from the plot graph between the predicted values of the dependent variable and its residuals. The graph of heterocesdasticity test results can be seen below (Figure 1 and 2).

Figure 1. *Model 1, Heteroscedasticity Test.*



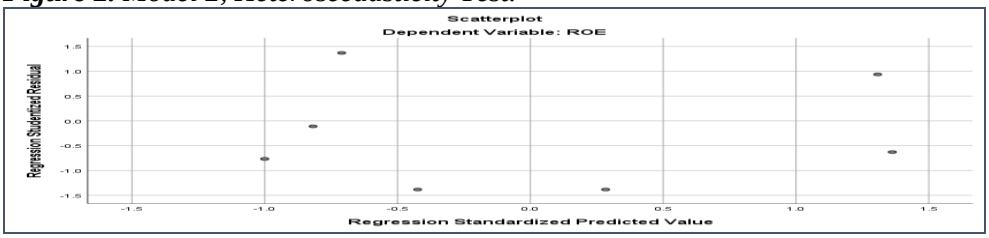
Source: *Own study.*

Based on the results of the heteroscedasticity test for substructure 1, it can be seen that the graph shows that the data (dots) spread evenly above and below the zero line, does not gather in one place, and does not form a certain pattern so that it can

be concluded that this regression test does not occur. heteroscedasticity problem (Figure 1).

Based on the results of the heteroscedasticity test for substructure 2, it can be seen that the graph shows that the data (dots) spread evenly above and below the zero line, does not gather in one place, and does not form a certain pattern so that it can be concluded that this regression test does not occur heteroscedasticity problem (Figure 2).

Figure 2. *Model 2, Heteroscedasticity Test.*



Source: *Own study.*

Autocorrelation Results:

In the test results of the non-parametric statistics, test for substructure 1 states that the Asymp coefficient. Sig. (2-tailed) of 0.431 while the significance level used is 0.05. These results indicate that the value of Asymp. Sig. (2-tailed) is greater than 0.05 (0.431> 0.05), it can be concluded that there is no autocorrelation (Table 7).

Table 7. *Model 1, Autocorrelation Test Results*

Runs Test	
	Unstandardized Residual
Test Value[a]	.01953
Cases < Test Value	3
Cases >= Test Value	4
Total Cases	7
Number of Runs	3
Z	-.788
Asymp. Sig. (2-tailed)	.431
a. Median	

Source: *SPSS Statistical Test Results, processed, 2020*

In the test results of the non-parametric statistics Runs Test for substructure II states that the coefficient of Asymp. Sig. (2-tailed) of 1,000 while the significance level used is 0.05. These results indicate that the value of Asymp. Sig. (2-tailed) is greater than 0.05 (1,000> 0.05), it can be concluded that there is no autocorrelation (Table 8).

Table 8. *Model 2, Autocorrelation Test Results.*

Runs Test	
	Unstandardized Residual
Test Value[a]	-.00774
Cases < Test Value	3
Cases >= Test Value	4
Total Cases	7
Number of Runs	4
Z	.000
Asymp. Sig. (2-tailed)	1.000
a. Median	

Source: *SPSS Statistical Test Results, processed, 2020.*

Determination Test Model 1:

The strength of the influence of the independent variable on the variation of the dependent variable can be seen from the value of the determinant coefficient (R2), which is between zero and one. The results of the adjusted R2 test in this study obtained a value of 0.746. This shows that profitability is influenced by the capital adequacy ratio (CAR), non-performing loans (NPL) and loan to deposit ratio (LDR), amounting to 74.60%, while the remaining 25.40% is influenced by other factors (Table 9).

Table 9. *Model 1, Determination Coefficient*

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.934[a]	.873	.746	.21003	1.576
a. Predictors: (Constant), LDR, CAR, NPL					
b. Dependent Variable: ROA					

Source: *SPSS Statistical Test Results, processed, 2020*

Determination Test Model 2:

The strength of the influence of the independent variable on the variation of the dependent variable can be seen from the value of the determinant coefficient (R2), which is between zero and one (Table 10).

Table 10. *Model 2, Determination Coefficient.*

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	1.000[a]	1.000	1.000	.06041	2.605
a. Predictors: (Constant), ROA, LDR, CAR, NPL					
b. Dependent Variable: ROE					

Source: *SPSS Statistical Test Results, processed, 2020*

The results of the adjusted R2 test in this study obtained a value of 100.00%. This shows that ROE is influenced by the capital adequacy ratio (CAR), non-performing loans (NPL), loan to deposit ratio (LDR), and Return On Assets (ROA). amounting to 100.00%.

Model 1 F Test:
The F test (F-test) is intended to determine the effect of the independent variables (CAR, NPL, and LDR) simultaneously (together) on the ROA of banking companies in 2012-2018.

Table 11. *Model 1, Regression Result of Test F.*

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.909	3	.303	6.871	.074[b]
	Residual	.132	3	.044		
	Total	1.042	6			
a. Dependent Variable: ROA						
b. Predictors: (Constant), LDR, CAR, NPL						

Source: *SPSS Statistical Test Results, processed, 2020*

Based on the test results obtained the calculated F value of 6.871 with a significance of 0.074. It turns out that the significance value is greater than 0.05 (0.074> 0.05), this means that simultaneously CAR, NPL, and LDR have no significant effect on ROA. The reason it did not have a significant effect was because BPRs had not optimally utilized existing capital, the number of non-performing loans tended to increase, and credit expansion was not optimal (Table 11).

Model 2 F test:
Based on the test results, the calculated F value is 7921,108 with a significance of 0,000. It turns out that the significance value is less than 0.05 (0.000 <0.05), this means that CAR, NPL, LDR, and ROA simultaneously have a significant effect on ROE (Table 12).

Table 12. *Model 2, Regression Result of Test F*

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	115.618	4	28.904	7921.108	.000[b]
	Residual	.007	2	.004		
	Total	115.625	6			
a. Dependent Variable: ROE						
b. Predictors: (Constant), ROA, LDR, CAR, NPL						

Source: *SPSS Statistical Test Results, processed, 2020*

Model 1 t-test:
The t-test (t-test) is intended to determine the effect of partially (individually) independent variables (CAR, NPL, and LDR) on the dependent variable (ROA) or to test the significance of the constant and the dependent variable (Table 13).

Table 13. *Model 1, Test Regression Results t*

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.867	5.466		.707	.530		
	CAR	.052	.058	.356	.896	.436	.268	3.725
	NPL	-.352	.255	-.646	-1.379	.262	.193	5.181
	LDR	-.005	.057	-.036	-.086	.937	.244	4.094
a. Dependent Variable: ROA								

Source: *SPSS Statistical Test Results, processed, 2020*

From the results of the analysis with the SPSS program, it can be seen that the regression equation is formed. The linear regression equation that is formed is:

Y = 3,867 + 0,052X1-0,352X2-0,005X3

From the analysis, it can be seen that the most influential independent variable is the NPL variable with a coefficient of -0.352, followed by the CAR variable with a coefficient of 0.052, and LDR with a coefficient of -0.005. While the variable that has the lowest effect is the LDR variable with a coefficient value of -0.005. From this equation, it can be seen that the NPL independent variable has a negative effect on ROA, which means that the increase in the BPR NPL ratio will result in a decrease in ROA. Meanwhile, the CAR and LDR variables have a positive effect on ROA, which means an increase in CAR and LDR results in an increase in ROA.

The effect of Capital Adequacy Ratio on ROA:
The statistical results of the t test for the Capital Adequacy Ratio (CAR) variable obtained a significance value of 0.436 which is greater than the error tolerance α = 0.05. Therefore, the significance value is greater than 0.05, it means that CAR does not have a significant effect on ROA, and the regression coefficient is positive at 0.052; This means that this research succeeded in proving the first hypothesis which states that the Capital Adequacy Ratio has a positive effect on ROA, this means that the greater the CAR, the higher the ROA. CAR is a bank performance ratio to measure the adequacy of the bank's capital to support assets that contain or generate risk, for example, loans. CAR is an indicator of a bank's ability to cover a decrease in its assets as a result of bank losses caused by risky assets with the adequacy of capital it has (Dendawijaya, 2001). The reason CAR does not have a significant effect on conventional rural banks in Indonesia is because the average CAR during

the period 2012 to 2018 is high, where the average is 25.01%, far above the standard CAR limit of 8%. This shows that credit distribution is not optimal, so it does not support an increase in profits.

The Effect of Non Performing Loans on ROA:
The statistical results of the t test for the Non Performing Loan (NPL) variable obtained a significance value of 0.262, which is greater than the error tolerance α = 0.05. Because the significance value of the NPL variable is greater than 0.05, the NPL does not have a significant effect on ROA, and the regression coefficient is negative at -0.352; This means that this study succeeded in proving the second hypothesis which states that Non-Performing Loans have a negative effect on ROA, this means that the greater the NPL, the lower the ROA. Credit risk is the risk faced by banks because they channel their funds in the form of loans to the public (Susilo, 1999). High Non Performing Loans (NPL) will increase costs, thus potentially causing bank losses. The higher this ratio, the worse the quality of bank credit, which causes the number of problem loans to increase. The bank must bear losses in its operational activities, so that it affects the decline in profit (ROA) obtained by the bank (Kasmir, 2004). The reason NPL does not have a significant effect on Conventional Rural Banks in Indonesia is because the average NPL during the period 2012 to 2018 is high where an average of 5.38% exceeds the minimum standard NPL limit of 5%, seen from developments there tends to be an increase in non-performing loans, so that it does not support an increase in profits.

The Effect of Loan to Deposit Ratio:
The statistical results of the t test for the Loan to Deposit Ratio (LDR) variable obtained a significance value of 0.937 which is greater than the error tolerance α = 0.05. Because the significance value of the Loan to Deposit Ratio variable is greater than 0.05, the LDR partially does not have a significant effect on ROA, and the regression coefficient is negative at -0.005; This means that this study succeeded in proving the third hypothesis which states that LDR has a negative effect on ROA, this means that the greater the LDR, the lower the ROA can be.

Loan to Deposit Ratio (LDR) is a measure of liquidity that measures the amount of funds placed in the form of credit originating from funds collected by the bank. The Loan to Deposit Ratio (LDR) reflects the bank's ability to repay depositors 'withdrawals by relying on the credit provided as a source of liquidity, in other words how far the provision of credit to debtors can offset the bank's obligation to immediately fulfill depositors' requests to withdraw their money. which has been used by the bank to extend loans with total third party funds. The higher the LDR, the higher the company's profit (assuming the bank is able to channel credit effectively, so the number of bad loans will be small).

The results showed that the LDR proved to have no effect on ROA, this is because the credit extended by banks did not contribute much to profits because there was a high gap between BPRs operating in providing credit. So there are BPRs that do not

optimize third party funds, on the other hand there are BPRs that are excessive in providing credit. The reason LDR has no significant effect on conventional rural banks in Indonesia is because the average LDR during the 2012 to 2018 period is classified as not optimal where the average is 78.39. This shows that credit distribution is not optimal, so it does not support an increase in profits.

Model 2 t-test:
The t test (t-test) is intended to partially determine the effect of the independent variables (CAR, NPL, LDR, and ROA) on the dependent variable (ROE) or to test the significance of the constant and the dependent variable (Table 14).

Table 14. *Model 2, Test Regression Results t.*

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.220	1.698		1.307	.321		
	CAR	.048	.019	.031	2.552	.125	.212	4.721
	NPL	-.387	.094	-.067	-4.121	.054	.118	8.465
	LDR	-.039	.017	-.027	-2.348	.143	.244	4.104
	ROA	9.822	.166	.932	59.148	.000	.127	7.871
a. Dependent Variable: ROE								

Source: *SPSS Statistical Test Results, processed, 2020*

From the results of the analysis with the SPSS program, it can be seen that the regression equation is formed. The linear regression equation that is formed is:

Z = 2,220 + 0,048X1-0,387X2-0,039X + 9,822 Y

From the analysis, it can be seen that the most influential variable is the ROA variable with a coefficient of 9,822, then NPL with a coefficient of -0.387, CAR with a coefficient of 0.048, while the variable that has the lowest influence is the LDR variable with a coefficient value of -0.039. From this equation, it can be seen that the independent variables (ROA and CAR) have a positive effect on ROE, which means an increase in the ROA and CAR Ratio of the BPR, so that ROE increases. Meanwhile, the NPL and LDR variables have a negative effect on ROE, which means that an increase in NPL and LDR results in a decrease in ROE.
The regression coefficient testing aims to test the significance of the relationship between the independent variable (X) and the dependent variable (Y and Z) both jointly (with the F test) and individually (with the t test).

The Effect of Capital Adequacy Ratio on ROE:
The statistical results of the t test for the Capital Adequacy Ratio (CAR) variable obtained a significance value of 0.125 which is greater than the error tolerance α =

0.05. Therefore, the significance value is greater than 0.05, it means that CAR does not have a significant effect on ROE, and the regression coefficient is positive at 0.048; This means that this study succeeded in proving the fourth hypothesis which states that the Capital Adequacy Ratio has a positive effect on ROE, which means that the greater the CAR, the ROE will increase. CAR is a bank performance ratio to measure the adequacy of the bank's capital to support assets that contain or generate risk, for example, loans. CAR is an indicator of a bank's ability to cover a decrease in its assets as a result of bank losses caused by risky assets with the adequacy of capital it has (Dendawijaya, 2001). The reason CAR does not have a significant effect on conventional rural banks in Indonesia is because the average CAR during the period 2012 to 2018 is high, where the average is 25.01%, far above the standard CAR limit of 8%. This shows that credit distribution is not optimal, so it does not support an increase in profits.

The Effect of Non Performing Loans on ROE:

The statistical results of the t test for the Non Performing Loan (NPL) variable obtained a significance value of 0.054 which is greater than the error tolerance α = 0.05. Because the significance value of the NPL variable is greater than 0.05, the NPL does not have a significant effect on ROE, and the regression coefficient is negative of -0.387 means that this research has succeeded in proving the fifth hypothesis which states that Non-Performing Loans have a negative effect on ROE, which means that if the NPL is getting bigger, the ROA will decrease. Credit risk is the risk faced by banks because they channel their funds in the form of loans to the public (Susilo, 1999). High Non Performing Loans (NPL) will increase costs, thus potentially causing bank losses. The higher this ratio, the worse the quality of bank credit, which causes the number of problem loans to increase. The bank must bear losses in its operational activities, so that it affects the decline in profit (ROA) obtained by the bank (Kasmir, 2004). The reason NPL does not have a significant effect on Conventional Rural Banks in Indonesia is because the average NPL during the period 2012 to 2018 is high where an average of 5.38% exceeds the minimum standard NPL limit of 5%, seen from developments there tends to be an increase in non-performing loans, so that it does not support an increase in profits.

The Effect of Loan to Deposit Ratio on ROE:

The t-test statistical results for the Loan to Deposit Ratio (LDR) variable obtained a significance value of 0.143 which is greater than the error tolerance α = 0.05. Because the significance value of the Loan to Deposit Ratio variable is greater than 0.05, the LDR partially does not have a significant effect on ROA, and the regression coefficient is negative at -0.039, which means that this study has succeeded in proving the sixth hypothesis which states that LDR has a negative effect on ROA. This means that the greater the LDR, the lower the ROE. Loan to Deposit Ratio (LDR) is a measure of liquidity that measures the amount of funds placed in the form of credit originating from funds collected by the bank. The Loan to Deposit Ratio (LDR) reflects the bank's ability to repay depositors 'withdrawals by relying on the credit provided as a source of liquidity, in other words how far the

provision of credit to credit customers can offset the bank's obligation to immediately fulfill depositors' requests for withdrawals. the money that has been used by the bank to provide loans with the total third party funds. The higher the LDR, the higher the company's profit (assuming the bank is able to channel credit effectively, so the number of bad loans will be small). The results showed that the LDR proved to have no effect on profitability, this was because the credit extended by banks did not contribute much to profits because there was a high gap between banks operating in providing credit. So there are banks that do not optimize third party funds, on the other hand there are banks that are excessive in providing credit. The reason LDR has no significant effect on conventional rural banks in Indonesia is because the average LDR during the 2012 to 2018 period is classified as not optimal where the average is 78.39. This shows that credit distribution is not optimal, so it does not support an increase in profits.

The Return on Assets has a significant effect on net income (ROE):
The statistical results of the t test for the Return On Asset (ROA) variable obtained a significance value of 0.000 which is smaller than the error tolerance $\alpha = 0.05$. Because the significance value of the ROE variable is less than 0.05, then ROA partially has a significant effect on ROE, and the regression coefficient is positive at 9.822, which means that this study succeeded in proving the sixth hypothesis which states that ROA has a positive effect on ROE, which means that the greater ROA, it will increase ROE.

5. Conclusions and Suggestions

Based on the results of the analysis and discussion previously described, the conclusions of this study are: CAR, NPL, and LDR simultaneously do not have a significant effect on ROA (Model 1), but simultaneously CAR, NPL, LDR, and ROA have a significant effect on ROE (Model 2).

Partially, CAR has no significant effect on ROA and ROE with the regression coefficient positive, NPL does not have a significant effect on ROA and ROE with a negative regression coefficient, LDR has no significant effect on ROA and ROE with the regression coefficient negative. ROA has a significant effect on ROE, and the regression coefficient is positive. In the study period 2012 to 2018, CAR did not have a significant effect on ROA and ROE; this was due to sub-optimal credit disbursement, this can be seen from the relatively high average CAR of 25.01%. In the study period from 2012 to 2018, NPL did not have a significant effect on ROA and ROE, because less than optimal credit interest income could tend to increase NPL seen from the average NPL above 5%. In the 2012 to 2018 research period, LDR did not have a significant effect on ROA and ROE because the distribution of funds in the form of credit was not optimal; this can be seen from the average LDR of 78.39%. Further research is also suggested to examine other factors that influence profitability, including intellectual capital, investment in information technology, and market share.

References:

Bambang, R. 2001. Basics of Corporate Expenditures. BPFE, Yogyakarta.
Bank Indonesia. 1997. Decree of the Board of Directors of BI No.30 / 12 / KEP / DIR.
Bank Indonesia. 2007. Bank Indonesia Regulation No. 9/13 / PBI / 2007.
Bank Indonesia. 2012. Codification of Bank Soundness Level Assessment. Jakarta: Bank Indonesia.
Brigham, E.F., Houston, F.H. 2010. Fundamentals of Financial Management. Edition 11. Jakarta: Four Salemba.
Darmawi, H. 2011. Banking Management. Publisher PT Bumi Aksara, Jakarta.
Dendawijaya, L. 2009. Banking management. Jakarta, Ghalia Indonesia.
Fahmi, I. 2012. Financial Performance Analysis. Bandung, Alfabeta.
Ghozali, I. 2011. Application of Multivariate Analysis with the SPSS Program. Semarang, Diponegoro University Publishing Agency.
Ghozali, I. 2013. Application of Multivariate Analysis with SPSS Program. Semarang, Diponegoro University Publishing Agency.
Halim, A., Mamduh M.H. 2009. Analysis of Financial Statements, Edition 4. UPP STIM YKPN, Yogyakarta.
Handono. M. 2009. The Essence of Financial Management. Jakarta, PT. Gramedia Widiasarana Indonesia (GRASINDO).
Indonesian Accountants Association (IAI). 2009. Financial Accounting Standards for Entities without Public Accountability (SAK ETAP). Jakarta, Financial Accounting Standards Board of the Indonesian Institute of Accountants
Ismail. 2009. Bank Accounting: Theory and Application in Rupiah. Jakarta, Golden.
Kasmir. 2014. Financial Statement Analysis, First Edition. Seventh Printing Jakarta, PT. Rajagrafindo Persada.
Kourtis, E., Kourtis, G., Curtis, P. 2019. An Integrated Financial Ratio Analysis as a Navigation Compass through the Fraudulent Reporting Conundrum: A Case Study. International Journal of Finance, Insurance and Risk Management, 9(1-2), 3-20. DOI: 10.35808/ijfirm/187.
Liapis, J.K., Politis, D.E., Ntertsou, D., Thalassinos, I.E. 2020. Investigating the Relationship between Tax Revenues and Tax Ratios: An Empirical Research for Selected OECD Countries. International Journal of Economics and Business Administration, 8(1), 215-229. DOI: 10.35808/ijeba/420.
Mudrajat, Kuncoro and Suhardjono. 2011. Banking Management Theory and Applications. Yogyakarta, BPFE.
Munawir, S. 2007. Financial Statement Analysis Fourth Edition. Liberty, Yogyakarta.
Munawir, S. 2004. Financial Statement Analysis. Liberty, Yogyakarta.
Samryn, M.L. 2011. Introduction to Accounting, First Edition. Raja Grafindo Persada Publisher, Jakarta.
Sartono, A. 2001. Financial Management Theory and Application. BPEF, Yogyakarta.
Sarwono, J. 2007. Path Analysis for Business Research with SPSS. Yogyakarta, Andi Offs.
Susilo. 1999. Banks and Other Financial Institutions. Yogyakarta, STIE YKPN.
Sutrisno.2009. Financial Management Theory, Concepts and Applications, Seventh Edition. Ekonisia Publisher, Yogyakarta.
Sutrisno. 2012. Financial Management Theory, Concepts and Applications. Yogyakarta.
Taswan. 2006. Banking Management. Yogyakarta, UPP STIM YPKP.
Usman, H. 2003. Social Research Methodology. Jakarta, Earth Literacy.
Weston. 1995. Fundamentals of Financial Management, Volume 1. Airlangga.