Detection of Determinants Bank Sustainability Performance

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Abstract
Banks are financial institutions that function as a means of transactions carried out by the public in the form of deposits or loans. This study stems from the discovery of the problem company's sustainability level in commercial banks in the BUKU 4 group in 2019 which declined after being analyzed using the Financial ustainability Ratio accompanied by conditions of economic growth in Indonesia whichworsened from the previous year. This study was conducted to determine the effect of financial ratios in the form of Return on Assets, Capital Adequacy Ratio, Loan to Deposit Ratio, and Non-Performing Loans on Financial.

Sustainability Ratio using quantitative research methods through multiple linear regression analysis. The use of a sample of 5 banks out of 7 population banks was determined using the purposive sampling method and using quarterly company reports from 2017-2019. Based on the results of the study indicate that the Return on Assets, Loans to Deposit Ratio, and Non-Performing Loans have a significant effect on the Financial Sustainability Ratio. While the Capital Adequacy Ratio has no significant effect.

Keywords: Assets, Capital, Loan, Financial, Bank

1. Introduction

In the current economic development, banks have a very large role in improving the community's economy through business activities, banks are a source of capital in starting a business. Assessment of the performance and growth of a bank can use financial ratios. These financial ratios are profitability ratios, operational efficiency ratios, portofolio quality ratios, and sustainable capability ratios. The sustainable capability ratio can be grouped into 2, namely: sustainable operational capability or operating sustainability and sustainable financial capability or financial sustainability. From these financial ratios, the financial sustainability ratio or FSR is the right choice in banking financial analysis and is considered as a determining ratio, This is because sustainable financial ratios can be used to determine the level of financial growth of a bank and can also be used to determine whether the bank can continue its financial performance or not. Financial Sustainability in a company refers to the state of the company's ability to meet long-term needs through operational activities. The greater the value obtained in the calculation of the financial sustainability ratio or FSR, the better of the company's performance.

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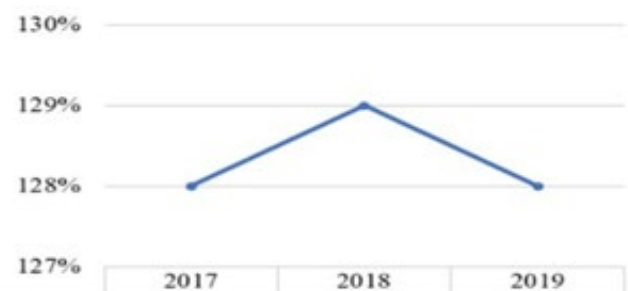

Figure 1: Financial Sustainability Ratio in the BUKU 4 Category

Source: Indonesia Stock Exchange – 2020

Figure 1, it can be seen that from the accumulation of all income and expenses at commercial banks in Indonesia, which are included in the BUKU 4 category, fluctuated from 2017 to 2019 as measured in the calculation of the Financial Sustainability Ratio (comparison between financial income and financial burden) or FSR. Where the acquisition in 2017 was at 128 percent, then it rose in 2018 which reached 129 percent. However, for 2019 the acquisition again decreased to 128 percent.

BANK	2017	2018	2019
BNI	126%	126%	124%
BRI	129%	130%	128%
MANDIRI	124%	127%	128%
DANAMON	119%	120%	117%
COMMERCIAL CIMB	114%	116%	115%
BCA	148%	148%	146%
PANIN	112%	119%	121%
Source: Indonesia Stock Exchange, 2020			

Table 1. Financial Sustainability Ratio of commercial banks in the BUKU 4 category

Of the 7 banks in the BUKU 4 category, 5 of them experienced an increase in income from 2017-2018 and the others remained. In contrast, from 2018-2019, only 2 banks continued to experience an increase, namely Bank Mandiri from 127 percent to 128 percent and Bank Panin from 119 percent to 121 percent in 2019. Bank BNI experienced a decline from 2018's gain of 126 percent to 124 percent in 2019. Bank BRI from 130 percent in 2018 fell to 128 percent in 2019, Bank Danamon experienced a decline but from 120 percent in 2018 to 117 percent in 2019, Bank CIMB also experienced a decline from 116 percent to 115 percent, and Bank BCA decreased from 148 percent in 2018 to 146 percent in 2019.

The phenomenon of declining performance at the 5 banks simultaneously certainly raises questions when viewed from the previous year's report which was in an increasing condition. In the previous year, 2018 there tended to be an increase that occurred in BRI banks, namely from 129 percent to 130 percent, Bank Mandiri from 124 percent to 127 percent, Bank Danamon with an increase in performance from 119 percent to 120 percent, Bank CIMB rose from 114 percent to 116 percent. The other 2 banks experienced steady performance, namely Bank BNI in position of 126 percent and Bank BCA in position of 148 percent from 2017 to 2018.

When viewed from the caste placement where BUKU 4 is the highest caste in the banking world, which banks in this category should be able to further improve their performance because they have wider opportunities than banks in the BUKU 1, BUKU 2, and BUKU 3 categories. In this case, the 5 banks showed a decline in performance in 2019, and there were only 2 banks that continued to experience an increase. Especially in the current conditions, the Indonesian economy is less stable.

Figure 2: Indonesia's Economic Growth for the 2017-2019 period
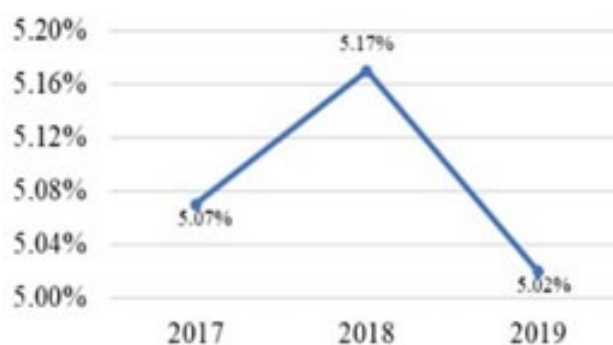**Source:** Bank Indonesia, 2020

	2017	2018	2019
Ekspor	8.90%	6.55%	-0.87%

Figure 3: Indonesia's Export Growth for the 2017-2019 period

Source: Bank Indonesia - 2020

Indonesia's economic growth in 2019 only obtained 5.02 percent and decreased from the growth rate in 2018 which had reached 5.17 percent, where this figure increased from the previous year's gain, namely 2017 which only obtained 5.07 percent. Indonesia's economic growth in 2019 was the smallest growth in the last 3 years. This is due to the influence of the industrial sector which

has decreased on foreign demand. From the data above, it can be seen that exports in 2019 contracted 0.87 percent, reversing the direction of performance in 2018 which grew to 6.55 percent. Which also decreased compared to 2017 which had reached 8.9 percent.
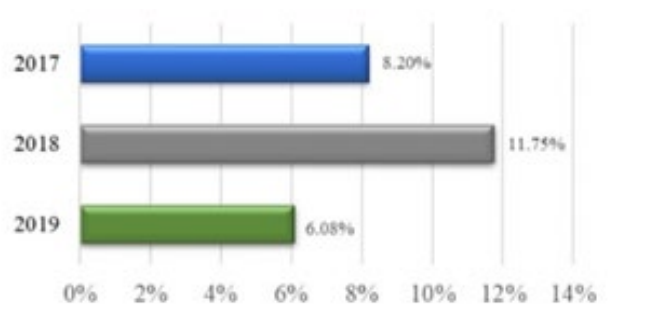

Figure 4: Banking Credit Growth in Indonesia for the 2017-2019 period
Source: Bank Indonesia, 2020

The decline that occurred in the export growth rate affected the growth of bank credit which was also in the spotlight. The growth of banking credit in 2019 was recorded at 6.08 percent, much lower than the 2018 growth of 11.75 percent. On the demand side, slow credit growth was influenced by the behavior of corporations withholding credit applications in line with declining export performance and non-construction investment activities. On the supply side, banks are more cautious in extending credit considering developments in global uncertainty that could affect the performance of domestic corporations.

This data can be one of the reasons why a bank that is included in the BUKU 4 category with this large core capital will experience financial instability. Therefore, further research is needed to determine the cause of the decline in the company's performance

and to determine the sustainability of the company by using the Financial Sustainability Ratio and other financial ratios such as: Return on Assets, Capital Adequacy Ratio, Loan to Deposit Ratio, and Non-Performing loan.

The use of quarterly financial data is the choice in this study on the basis of reports on Indonesia's economic developments such as the Report on Monetary Policy, Financial Economic Development and International Cooperation, Financial System Stability published by Bank Indonesia distributed quarterly. By following the mechanism using quarterly reports, banks in Indonesia can prepare themselves for the current state of the company in accordance with economic developments and applicable policies. Research gaps were found from various previous studies on Financial Sustainability Ratios, including

Independent Variable	Results		Study
	Take effect		**No effect**
Return on Assets(ROA)	Rianasari & Pangestuti (2016); Notoatmojo & Rahmawaty (2016);Wahyuni & Fakhrudin (2014)		Saputri (2019)
CAR	Wahyuni & Fakhrudin (2014); Saputri (2019)		Notoatmojo & Rahmawaty (2016)
LDR	Almilia et al (2009)		Rianasari & Pangestuti (2016)
NPL	Rianasari & Pangestuti (2016); Idoliany & Wiryono (2014)		Rianasari & Pangestuti (2016)

Table 2. Research Gap on Factors Influence of Financial Sustainability Ratio

The purpose of this research is to analyze and provide empirical evidence whether there is an effect of Return on Assets, Capital Adequacy Ratio, Loan to Deposit Ratio and Non-Performing Loan Ratio on Financial Sustainability Ratio in BUKU 4 commercial banks.

2. Literature Review and Hypothesis Development
2.1. Return on Assets (ROA)
Return on Assets (ROA) is the comparison value between profits

and company assets listed in the financial statements for a certain period. ROA is used to measure the effectiveness of the company in generating profits by utilizing its assets, so that it can show the development of the company's ability to generate profits from each period [1]. Thus, the company's management and potential investors can see the company's development with very lucrative potential if the comparison value between profit and total assets produces high numbers. This means that the higher of return on assets, the net profit generated also shows a high number. On the

other hand, if the rate of return on assets is low, the net profit generated is also low. This shows the company's condition is deteriorating or losing.

Return on Assets (ROA) is a measurement of the ratio to profit, where the higher the percentage obtained in the calculation of this ratio, the better of the financial condition. The result of the acquisition, Return on Assets have an influence on the financial sustainability of the company or so-called Financial Sustainability Ratio which is seen from the amount of company profits in the financial statements. Increasing profits will improve and stabilize the company's finances, where a stable financial condition will have an effect on the smooth operation of operations because of the ability to handle financing properly. In other words, showing the company's ability to follow up on operational activities will be better and extend the company's life cycle. StudyRianasari & Pangestuti (2016)andNotoatmojo & Rahmawaty (2016)that ROA has a positive and significant effect on the Financial Sustainability Ratio (FSR). H1: Return on Assets (ROA) has an effect onFinancial Sustainability Ratio(FSR)

2.2. Capital Adequacy Ratio (CAR)
Capital Adequacy Ratio or CAR is very important for banks to carry out their operational activities or to develop the company. Aaron (2016), Capital Adequacy Ratio is a capital that shows the bank's ability to provide funds for business development purposes and accommodate the risk of loss of funds caused by bank operations. In this case the bank must believe that the capital owned is sufficient in quantity and quality.(Cashmere, 2014), this ratio can describe how the bank develops its business and also manages losses that may arise as a result of self-banking operations. The capital adequacy of a company is one of the core factors that must be considered. A capital must be balanced with the risks to be faced. Where the higher the risk of the bank, the greater the capital that must be provided to absorb the risk. The amount of Risk Weighted Assets (RWA) can be determined by calculating the nominal multiplication of assets with the risk weight of each asset in accordance with the level of risk contained in each element of the asset itself, or the weight of loan risk and the nature of the loan item. Bank Indonesia Decree No. 15/12/PBI/2013 concerning the Minimum Capital Adequacy Requirement for Commercial Banks stipulates that the minimum capital adequacy requirement for commercial banks is adjusted and determined in accordance with the risk profile calculated using the Minimum Capital Adequacy Ratio (CAR), which has been determined as follows: 1) 8% (eight percent) of Risk Weighted Assets (RWA) for Banks with a risk profile rating of 1 (one); 2) 9% (nine percent) of Risk Weighted Assets (RWA) for Banks with a risk profile rating of 2 (two); 3) 10% (ten percent) of Risk Weighted Assets (RWA) for Banks with a risk profile rating of 3 (three); or 4) 11% (eleven percent) of Risk Weighted Assets (RWA) for Banks with a risk profile rating of 4 (four).

The results of the calculation of this ratio indicate the adequacy of capital owned by the bank. The bank's ability to regulate capital adequacy becomes an assessment of the bank's health. The increase in the gain from the calculation of this ratio shows the ability of banks to manage and regulate capital adequacy to support assets that contain risks. Increased ability to regulate capital adequacy will help improve bank growth because it has sufficient costs to continue to grow. Improved bank development will increase opportunities for additional capital through profits. With increasing capital and followed by better management capabilities, it will affect the bank's financial ability to meet operational needs and other costs in a short period of time. So that the bank will be guaranteed to maintain its safe position which is measured in financial sustainability. Under these circumstances, sustainable financial capability orFinancial Sustainability Ratiocan be achieved in accordance with the targets that have been set. StudySaputri (2019)shows a positive influence on the Financial Sustainability Ratio (FSR) by the Capital Adequacy Ratio (CAR). H2: Capital Adequacy Ratio (CAR) has an effect on Financial Sustainability Ratio (FSR).

2.3. Loan to Deposit Ratio (LDR)
Loan to Deposit Ratio (LDR) is a ratio used to measure the composition of the amount of credit granted and then compared with the amount of public funds and own capital used(Cashmere, 2014). The Loan to Deposit Ratio (LDR) is used to measure the increase or decrease in a bank's ability to repay withdrawals made by depositors by relying on loans provided as a source of liquidity between this year and the previous year. The ideal size of the value of the LDR calculation according to Bank Indonesia is in the range of 75% to 80%. This figure is considered sufficient to encourage economic growth while at the same time meeting the risk needs in the health of banks. However, some banking practitioners have agreed that the safe limit for obtaining the Loan to Deposit Ratio value at a bank is around 85%. In the government's own regulations, the maximum safe limit for LDR is 110%.

Loan to Deposit Ratio (LDR) is used to assess the level of liquidity of a bank through credit and third party funds. The ideal size of this ratio in Indonesia is 75 percent to 80 percent, where the high LDR obtained indicates the risk of bank liquidity conditions. On the other hand, the lower the percentage of this ratio indicates the bank's lack of effectiveness in channeling its credit, causing the bank to lose the opportunity to earn a profit. The increase in LDR indicates the lower liquidity capacity of the bank concerned. The lower the company's ability to handle liquidity conditions will affect the bank's ability to continue its operational activities due to hampered money circulation which means worsening the percentage of financial sustainability ratio or FFinancial Sustainability Ratiothe bank so that the financial performance of a bank is also considered to be experiencing a decline. Situations like this if not handled will result in a more serious situation, namely bankruptcy.StudyAlmilia et.al (2009) regarding the Loan to Deposit Ratio (LDR) shows a positive and significant effect by LDR on FSR.
H3: Loan to Deposit Ratio (LDR) has an effect on Financial Sustainability Ratio (FSR)

2.4. Non-Performing Loan (NPL)
Non-Performing Loan (NPL) is a description of non-performing loans caused by the customer's inability to pay the principal

and interest loan installments charged in accordance with the agreement. It is said that non-performing loans or bad loans are when there is a credit that has an obstacle caused by two elements, namely from the banking side in analyzing and from the customer who intentionally or unintentionally carries out his obligations by not making payments.(Cashmere, 2014). In other words, Non-Performing Loan (NPL) is a comparison of the number of non-performing loans consisting of loans with the status of Substandard, Doubtful and Loss to the total loans issued by the Bank. A Bank with a high Non-Performing Loan (NPL) will cause cost overruns, namely the cost of reserves for productive assets and other costs. So that a bank with a higher percentage of Non-Performing Loans indicates that the bank is not in a healthy condition. In Bank Indonesia Regulation Number 17/11/PBI/2015 concerning Amendments to Bank Indonesia Regulation Number 15/15/PBI/2013 23 concerning Statutory Reserves for Commercial Banks in Rupiah and Foreign Exchange for Conventional Commercial Banks, it has been stated that the Credit NPL Ratio is less than 5%.

Non-performing Loanis the ratio used to measure the ability of a bank to take into account the risk of failure to return by customers. This ratio shows how big the risk of non-performing loans in a bank. The smaller the valueNon-performing LoanThe result shows the smaller the risk borne by the bank. The amount of credit risk will affect the level of bank performance, where the smaller the value of NPL generated, the obstacles to bank growth will be smaller. So that the bank's financial survival ability will be better, this is shown in the FSR calculation. On the other hand, the higher the NPL value, the smaller the probability of the company's survival. The flow of money that is hampered will affect operational activities that are disrupted, resulting in a weakening of the company's financial ability to continue operations as shown in the declining calculation results.StudyRianasari & Pangestuti (2016)andIdoliany & Wiryono (2014)stated that NPL has an effect on FSR H4: Non-performing Loan (NPL) has an effect on Financial Sustainability Ratio (FSR).

2.5. Financial Sustainability Ratio (FSR)

Financial Sustainabilityor financial sustainability is the ability of a company to continue operations for the survival of the company which is assessed from the ability to cover operational costs, financial costs, and administration [2]. Financial sustainability ratio or FSR is a ratio used to measure the sustainability of a company in terms of its long-term financial ability to cover the company's operational costs and other costs by using a comparison between financial income and financial expenses. Financial Sustainability Ratio (FSR) can be used to measure the performance of a company by looking at financial developments and predicting the length of defense time to meet the company's operational activities. Financial Sustainability Ratio (FSR) also functions to predict faster if there is a problem that arises in the company and how big the problem is so that decisions can be made quickly to handle it so as not to have an impact on worse conditions. Poor and unstable financial conditions will have an impact on the possibility of bankruptcy. Therefore, it is very important for companies to analyze the condition of the company early.

3. Research Methods
3.1. Research Variable
In this study the independent variables, namely: Return on Assets (ROA), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non-Performing Loan (NPL) and the dependent variable is Financial Sustainability Ratio.

4. Population and Sample
The population used is banking companies that are included in the BUKU 4 category according to the amount of capital. This population is 7 companies according to the latest data in December 2019, namely PT Bank Rakyat Indonesia Tbk, PT Bank Mandiri Tbk, PT Bank Central Asia Tbk, PT Bank Negara Indonesia Tbk, PT Bank CIMB Niaga Tbk, PT Bank Panin Tbk, and PT Bank Danamon Indonesia Tbk. The sampling technique of this research is purposive sampling, namely with a model of consideration or certain criteria.

No.	Criteria	Accumulation
1	Commercial banks that are included in the BUKU 4 category up to 2019	7
2	Commercial banks listed on the Indonesia Stock Exchange but not yet listed in the BUKU 4 category in 2017	(2)
3	Commercial banks in the BUKU 4 category that did not report complete recorded financial data published successively during 2017-2019	(0)
4	Number of sample companies	5
Source: Secondary data processed, 2020		

Table 3. Determination of Research Sample

Table 3 shows that there are 7 banking companies that are included in the BUKU 4 category because they have met the capital standards that have been set until 2019 and reported their finances on the Indonesia Stock Exchange from 2017 to 2019 regularly in financial reports and annual reports. However, there are only 5 companies that have been registered in BUKU 4 since 2017. Therefore, it was determined that the companies that were the research sample were 5 banks, namely: BNI Bank, BRI Bank, Mandiri Bank, CIMB NIAGA Bank and BCA Bank.Then it is taken from financial statement data from the 5 companies for 3 years, from the first quarter of 2017 to the fourth quarter of 2019, so that the total sample data is 60.

5. Data Analysis Method

The analysis in this study are includes: descriptive analysis, normality test (using Kolmogorof-Smirnov), test-multicollinearity, auto correlation test (Durbin-Watson test / DW test), multiple regression analysis, F-test (model feasibility test), t-test (regression coefficient test) and coefficient of determination test (R2).

6. Results and Discussion
6.1. Descriptive Statistical Analysis

Descriptive Statistics					
	N	Minimum	Maximum	mean	Std. Deviation
ROA	60	1.44	4.02	2.9125	.70434
CAR	60	17.46	24.49	20.9093	1.81763
LDR	60	74.49	101.69	89.7987	6.58042
NPL	60	1.34	3.95	2.5093	.77506
FSR	60	111.62	148.00	127.8235	9.46817
Valid N (listwise)	60				
Source: Secondary Data processed 2020					

Table 4. Descriptive Statistical Results

7. Financial Sustainability Ratio

Descriptive statistics show that the minimum value of 111.62 by Bank CIMB in the first quarter of 2017 on the FSR variable, the maximum value of 148.00 obtained by Bank BCA in the fourth quarter of 2017. The mean value is 127.8235 and the standard deviation of the FSR is 9.46817. The standard deviation is lower than the mean value, meaning that the data deviation in the FSR is relatively good.

8. Return on Assets

The lowest ratio in the ROA value of 1.44 occurred at Bank CIMB Niaga in the first quarter of 2017 and for the maximum value of 4.02 by Bank BCA in the fourth quarter of 2019. Then the mean value was 2.9125 and the standard deviation was 0, 70434. The standard deviation value on ROA shows a lower value than the average value, which means that the data deviation on ROA can be said to be relatively good.

9. Capital Adequacy Ratio

The descriptive statistics above show that the minimum value for CAR was obtained by Bank BNI in the second quarter of 2018 which was 17.46 and the maximum value of 24.49 was obtained by Bank BCA in the first quarter of 2019. Then for the mean value or average value of 20.9093 and the standard deviation value is 1.81763. The size of the standard deviation which is lower than the average value indicates that the deviation of the data on the CAR is relatively good.

10. Loan to Deposit Ratio

The minimum value in the LDR from the results of this descriptive statistical calculation is owned by Bank BCA in the second quarter of 2017 of 74.49 and the maximum value of 101.69, namely Bank CIMB in the second quarter of 2017. For the mean, the number is 89.7987 and the standard deviation is 6.58042. These results indicate that the standard deviation is lower than the average value, meaning that the data deviation in the LDR is relatively good.

11. Non-Performing Loan

The calculation of NPL in this descriptive analysis gets a minimum value of 1.34 obtained by Bank BCA in the fourth quarter of 2019 and a maximum value of 3.95 obtained by Bank CIMB in the third quarter of 2017. Then for the mean or average value of 2, 5093 and a standard deviation of 0.77506. The standard deviation value which is lower than the average value indicates that the data deviation of the NPL is relatively good.

12. Normality test

Unstandardized Residual		
N		60
Normal Parameters, b	mean	.0000000
	Std. Deviation	2.23578131
Most Extreme Differences	Absolute	.070
	Positive	.070
	negative	-.064
Test Statistics	.070	
asymp. Sig. (2-tailed)	,200c,d	
Source: Secondary Data processed 2020		

Table 5. Normality Test Result

The results of the normality test (Kolmogorov-Smirnov value) are 0.200 > (0.05), meaning that the regression model can be used because it meets the criteria for normal assumptions.

13. Multicollinearity Test

Coefficientsa			
Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	ROA	.301	3.320
	CAR	.463	2.162
	LDR	.453	2.206
	NPL	.406	2,460
a. Dependent Variable: FSR			
Source: Secondary Data processed 2020			

Table 6. Multicollinearity Test

The results of the multicollinearity test showed that ROA, CAR, LDR and NPL resulted in tolerance of more than 0.1 and VIF < 10, so there was no correlation in each independent variable, which means that this regression is not symptomatic of multicollinearity.

Autocorrelation Test

Model Summaryb					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	,971a	.943	.939	2.33430	1,737
Source: Secondary Data processed 2020					

Table 7. Durbin Watson . Autocorrelation Test Results

The Durbin-Watson figure is 1,737. This value when compared with the Durbin-Watson table value using a confidence level of 0.05 with a sample size of 60, the dL value is 1.4443 and the dU value is 1.7274. So, the value of 4 – dU is 2.2726 mwill generate position dU < d < 4 – dU, which is 1.7274 < 1.737 < 2.2726, which means that there is no autocorrelation.

Multiple Linear Regression

Coefficientsa				
Model		**Unstandardized Coefficients**		**Standardized Coefficients**
		B	Std. Error	Beta
1	(Constant)	151.271	8,571	
	ROA	6.661	.786	.496
	CAR	.247	.246	.047
	LDR	-.453	.069	-.315
	NPL	-2,931	.615	-.240
a. Dependent Variable: FSR				
Source: Secondary Data processed, 2020				

Table 8. Multiple Linear Test Results

The results of the multiple linear regression test can be formulated as follows:
FSR = 151,271 + 6,661 ROA + 0.247 CAR – 0.453 LDR – 2,931 NPL
• The constant value of 151,271 indicates that if the dependent variable is declared constant, then the average percentage of FSR at the bank is 151,271.
• The ROA coefficient value is 6.661 and is positive, where for every 1 increase in the ROA percentage, the FSR percentage will increase by 6.661.
• The CAR coefficient value is 0.247 and is positive, meaning that for every 1 increase in CAR, the FSR value will increase by 0.247.

• The LDR coefficient value is -0.453 and is negative, where for every 1 increase in the LDR percentage, the FSR percentage will decrease by 0.453.
• The coefficient value on the NPL is -2,931, where for every 1 increase in the NPL percentage, the FSR percentage will decrease by 2,931.

16. F-Test

ANOVAa						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	4989,437	4	1247,359	228,917	,000b
	Residual	299,692	55	5.449		
	Total	5289.129	59			
Source: Secondary Data processed 2020						

Table 9. F-Test Results

Table-9 shows F-value of 228.917 with a significance of 0.000 while F-table is 2.77, then F-value > F-table and Sig < 0.05 means that this regression model is feasible to use.

T-Test (Regression Coefficient Test)

Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	151.271	8,571		17,649	.000
	ROA	6.661	.786	.496	8,472	.000
	CAR	.247	.246	.047	1.004	.320
	LDR	-.453	.069	-.315	-6,600	.000
	NPL	-2,931	.615	-.240	-4.766	.000
Source: Secondary Data processed, 2020						

Table 10. t-test results

• **Return on Assets (ROA) has an effect on Financial Sustainability Ratio (FSR)**
The t-test produces a tcount of 8.472 with a significance of 0.000, while the value of ttable is 1.67303, thus tcount > ttable and the significance value is <0.05. This shows that Return on Assets (ROA) has a positive effect on the Financial Sustainability Ratio (FSR).
• **Capital Adequacy Ratio (CAR) has an effect on Financial Sustainability Ratio (FSR)**
The test resulted in tcount of 1.004 with a significance of 0.320 and a t-table value of 1.67303, tcount < ttable and a significance value of 0.337> 0.05. This means that CAR has no significant effect on FSR.
• **Loan to Deposit Ratio (LDR) has an effect on Financial Sustainability Ratio (FSR)**
The value of tcount is -6,600 with a significance of 0.000, while the value of ttable of 1.67303. The significance value is 0.027 < 0.05, then there is a negative and significant influence by the Loan to Deposit Ratio on the Financial Sustainability Ratio.
•**Non-performing Loan (NPL) has an effect on Financial Sustainability Ratio (FSR)**
The test results show the number -4.766 for tcount which exceeds the value of t table is 1.67303 with a negative direction with a significance value of 0.000 <0.05, the result is Non-performing Loan has a significant negative effect on the Financial Sustainability Ratio.

18. Coefficient of Determination

Model Summaryb						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	17,649	.000
1	,971a	.943	.939	2.33430	8,472	.000
Source: Secondary Data processed 2020						

Table 11: Results of the Coefficient of Determination

The coefficient of determination of the R square value of 0.939 means that 93.9% of the variation in FSR can be explained by variations in the ROA, CAR, LDR and NPL variables while the remaining 6.1% is explained by other variables.

• Effect of Return on Assets (ROA) on Financial Sustainability Ratio (FSR)

The results showed that ROA had a positive and significant effect on FSR with the results of tcount > ttable, namely 8.472 > 1.67303 and a significance value of 0.000 <0.05 so that the first hypothesis was accepted. An increase in ROA explains an increase in profits and income, so that it will have an impact on an increase in the FSR ratio, which means the company shows an improving value. The results of this study are in accordance with Rianasari & Pangestuti and Notoatmojo & Rahmawaty which states thatReturn on Assets(ROA) has a positive and significant effect onFinancial Sustainability Ratio(FSR). Meanwhile, research Saputri (2019) shows that ROA has a negative and significant effect [1,3].

• Effect of Capital Adequacy Ratio (CAR) on Financial Sustainability Ratio (FSR)

The results showed that CAR had a positive but not significant effect on FSR with tcount < ttable i.e. 1.004 < 1.67303 and a significance value of 0.320 > 0.05, so H0 is accepted, meaning that any increase in CAR will not affect the FSR results. With this, the second hypothesis is rejected. This shows that the amount of CAR is not able to fully influence the development of the company because the calculation of CAR is also influenced by assets that contain risks.

The increase in the CAR ratio is usually followed by an increase in the company's profit so that revenue will also increase automatically. However, the increase in the CAR ratio does not always have a good impact on the company. Banks must maintain the increase in the CAR ratio in order to remain stable, because a drastic increase will actually cause problems. Where the CAR figure is too high, it indicates that there are idle funds, so that the bank is considered unfavorable or is in trouble with the distribution of funds. From this explanation, it can be said that the effect of CAR is not significant on FSR. The results of this study are in accordance with Notoatmojo that CAR has no effect on FSR. However, this result is different from Wahyuni & Fakhrudin; Saputri which shows that there is a positive effect of the Capital Adequacy Ratio (CAR) on the Financial Sustainability Ratio (FSR) [3,4,5].

• Effect of Loan to Deposit Ratio (LDR) on Financial Sustainability Ratio (FSR)

The results showed that LDR had a negative and significant effect on FSRnamely obtaining a value of -6,600 with a significance level of 0.000 <0.05, meaning that every increase in LDR will cause a decrease in FSR. Thus, hypothesis 3 is rejected. The rejection occurred because a high increase in LDR was even more avoided because banks would have difficulty anticipating if at any time customers made large withdrawals of funds so that this would trigger problems within the company because it would damage the financial structure. Bank Indonesia stipulates that a healthy LDR ratio is between 78 percent to 92 percent, but in reality the LDR ratio at BUKU 4 commercial banks for the 2017-2019 period exceeds the safe limit with the highest figure reaching 101.69 percent, namely at Bank CIMB Niaga in the second quarter of 2017. The results of this study support Almilia et.al thatLDRpositive and significant effect on FSR. However, the results of this study contradict Rianasari & Pangestuti which shows that there is no effect betweenLDRagainst FSR [1,6].

• Effect of Non-Performing Loan (NPL) on Financial Sustainability Ratio (FSR)

The results show that NPL has a negative effect on FSR, this is evidenced by a significance level of 0.000 <0.05 and a t-value of -4.766, so hypothesis 4 which states that NPL has a negative effect on FSR of BUKU 4 commercial banks for the 2017-2019 period is accepted. The NPL ratio reflects bank credit risk, the smaller the NPL value, the smaller the credit risk borne by the bank. Improved performance will occur because the circulation of funds is getting smoother and resulting in an increase in income which leads to an increase in the FSR ratio. Rianasari & Pangestuti and Idoliany & Wiryono (2014) which states that NPL has an effect on FSR. However, contrary to Nurhikmah & Rahim which shows that NPL has no effect on FSR [1,7].

19. Conclusion

The results showed that ROA and CAR had a positive effect on FSR. LDR and NPL have a negative and significant effect on FSR. The R square value of 93.9 percent of the FSR variation can be explained by variations in the ROA, CAR, LDR and NPL variables while the remaining 6.1 percent is explained by other causes.

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