

The Influence of ROE, NPF, FDR, BOPO and Bank Size on Capital Buffer in Sharia Commercial Banks for the 2016-2022 Period

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ABSTRACT

This research aims to examine the influence of ROE, NPF, FDR, BOPO and Bank Size on Capital Buffer in Islamic commercial banks for the 2016-2022 period. The population in this study consisted of 14 banks. The sampling technique used purposive sampling to obtain 7 banking samples with 49 observations. This research is quantitative research using secondary data used in this research which comes from the annual financial reports of each bank via the official banking website which is analyzed using panel data regression analysis. The results of this research show that the Return on Equity (ROE) variable has a positive and insignificant effect on the Capital Buffer, the Non Performing Finance (NPF) variable has a negative and significant effect on the Capital Buffer, the Financing to Deposit Ratio (FDR) variable has a positive and insignificant effect on the Capital Buffer, the Operational Costs Operational Income (BOPO) variable has a positive and insignificant effect on the Capital Buffer, the Bank Size variable has a positive and insignificant effect on the Capital Buffer.

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INTRODUCTION

Developments in a country's economic sector cannot be separated from the role of existing financial institutions, one of which is the banking sector. The success or failure of the banking sector will influence the progress or decline of a country's economic sector (Hadi, 2020). In general, the function of banking is to collect funds and distribute funds to the public for various purposes. Apart from functioning to meet the requirements of banking regulators, capital also functions as a buffer against various risks and shocks in the future. Considering the importance of capital for banks, the Financial Services Authority (OJK) as the banking regulator has issued regulations relating to the minimum capital requirements that sharia commercial banks must fulfill through Financial Services Authority Regulation (POJK) Number 11/POJK.03/2016 (OJK, 2016). This reflects that banks in carrying out capital management must pay attention to the minimum capital of 8% owned.

In order to carry out its functions well, banks must have sufficient capital, good asset quality, good management based on the principle of prudence, and generate profits. OJK as the regulator

needs to regulate and supervise financial services activities in the banking sector. Because banks play an important role in the economy. One indicator that a bank can be said to be healthy can be assessed from the adequacy of capital it has.

Capital buffer is an important reserve fund provided which functions as a buffer in the event of a loss during a crisis period or a difference between the bank's capital ratio and the predetermined minimum capital adequacy ratio (8%). The reason for the need to have a capital buffer is usually because the minimum capital requirements set by the government may not be able to cover losses that the bank may experience. This phenomenon refers to the amount of capital required to ensure stability and protect against the risk of bankruptcy that might arise in banking.

One indicator that a bank can be said to be healthy can be assessed from the adequacy of capital it has. Bank Indonesia, in implementing the precautionary principle, determines the minimum capital requirement that banks must have. This aims to strengthen the banking system and act as a buffer against potential losses. There are various methods to determine indicators in the Capital buffer, including Return On Equity, Non-Performing Financing, Financing to Deposit Ratio, Operational Costs and Operational Income, and Bank Size.

In this research, the variable used is Return On Equity (ROE), which is a ratio that represents the profitability of a bank. If the ROE value is higher, the higher the level of profitability obtained by the company. ROE (Return On Equity) is used as a variable in this research because Return On Equity is an important metric for shareholders and potential investors that measures a bank's ability to generate net profits from dividend financing. An increase in Return on Equity shows better company prospects because the company has the opportunity to increase profits.

Another variable used is Non-Performing Finance (NPF). NPF according to (Kurnianingsih, 2021) is the ratio of total non-performing financing to total loans paid by the bank. The higher the NPF level, the greater the financing risk borne by the bank. The phenomenon that occurs when the NPF decreases but is followed by an increase in the capital buffer value is not in accordance with the theory above, that the higher the NPF value, the higher the capital buffer level of a company.

The next variable is Financing to Deposit Ratio (FDR). According to (Somantri & Sukmana, 2019), this ratio shows the health of a bank in carrying out its financing. The higher the FDR of a bank, it means that the bank places more emphasis on its finances in terms of distributing financing. So the greater the financing provided by the bank to customers, the greater the bank's profits will be. The phenomenon that occurs when the FDR decreases but is followed by an increase in the capital buffer value is not in accordance with the theory above, that if the FDR value decreases, the capital buffer value of a company also decreases.

The next variable is Operational Costs Operational Income (BOPO). According to (Gunawan, 2017) BOPO has a big influence in measuring the level of efficiency and ability of banks carry out operational activities. If the BOPO risk in one year decreases compared to the previous year, then the bank's operations will become more efficient. (Hamdani et al. 2018). This phenomenon occurs when BOPO increases but is followed by an increase in the capital buffer value. This is not in accordance with the theory that the higher the BOPO value, the capital buffer level of a company will decrease.

Bank Size is the size of the company. Large companies tend to require large amounts of funds and the larger the company, the greater the funds spent. The Too Big To Fail theory was expressed by (Juliani, 2022) who explains the Too Big To Fail view or what is known as too big to fail, stating that the failure of a large bank will result in risks that have a big impact on the financial system and will likely have an impact on the economic order. and social aspects of the country (Agustuty et al., 2020). The Too Big To Fail characteristic is related to the size of a bank, where the capital buffer is closely related to the size of the bank.

Therefore, researchers want to carry out a deeper analysis regarding whether the factors used in this research influence the value of the Capital buffer. Because there is still little research regarding capital buffers in Indonesia. And also the lack of consistency in the results of previous research, causes the need to carry out research and discuss further the factors that influence capital buffers.

THEORETICAL BASIS

Pecking order theory

Pecking order theory in (Hidayati et al., 2021) is a policy adopted by a company to seek additional funds by selling the assets it owns. Such as selling buildings, land, equipment owned and other assets. Including issuing and selling shares on the capital market and funds originating from retained earnings. In the Pecking order theory policy, it means that the company carries out a policy by reducing its asset ownership because it carries out a sales policy. The further impact is that the company will experience a shortage of assets because they are used to finance planned corporate activities, both current and future.

Too Big To Fail

(Agustuty & Ruslan, 2019) in their research explains that Too Big To Fail (too big to fail) is a view that a business has become so big and so entrenched in the economy, that the government will provide assistance to prevent its failure (bankruptcy). Too Big To Fail reflects the belief that if a large company fails, it will have a catastrophic ripple effect on the entire economy.

Capital Buffers

Capital Adequacy Ratio (CAR) is also used as a benchmark for assessing the health level of a bank, meaning that if the CAR is below 8% then the bank's capital deposit can be categorized as an unhealthy bank. The previous period's Capital Adequacy Ratio was also a trigger for high and low capital buffers. If the Capital Adequacy Ratio for the previous period was low, the bank must try to increase the capital buffer.

Return On Equity (ROE)

According to (Wijaya, 2019) ROE is a ratio used to measure the ability of a bank's paid-in capital to generate profits or measure the performance of bank management in managing available capital to generate profits after tax. ROE is a comparison between net profit and the average capital or investment of share owners. ROE is a ratio used to measure bank management's ability to manage existing capital to obtain income. So Return On Equity is a very important indicator for share owners and potential investors to measure a bank's ability to obtain net profits associated with dividend payments (Fauzi, 2018).

Non Performing Financing (NPF)

Non Performing Financing is a ratio that measures the level of financing problems faced by Islamic banks. The higher this ratio, the worse the quality of sharia bank financing is (Suryantok, 2017). Sharia banks with a high Non-Performing Financing ratio will increase the costs of both productive asset reserves and other costs, resulting in potential bank losses.

Financing to Deposit Ratio (FDR)

FDR is a ratio that measures the comparison of the amount of financing provided by the bank with the funds received by the bank which describes the bank's ability to repay funds withdrawn by depositors by relying on the financing provided as a source of liquidity (Andriyanto & Prastika, 2018). An important objective of FDR calculations is to find out and assess to what extent the bank has a healthy condition in carrying out its operations or business activities.

Operational Costs to Operating Income (BOPO)

BOPO is a ratio used to measure the level of efficiency of a bank in carrying out its operational activities in the company. The lower the BOPO value indicates the more efficient the operating costs incurred by the bank concerned (Khamisah et al., 2020). The greater the BOPO, the greater the operating costs tend to decrease the bank's profitability level. BOPO can be used to measure whether a bank management has used all its production factors effectively and efficiently (Nurrohimi, 2021).

Bank Size

Bank Size is the scale of business owned by a company which is assessed by the number of company assets. If you look at the size of the company, large companies tend to require large amounts of funds, this is because of the large amount of wealth owned by large companies. Therefore, large banking companies have the possibility of large funds which can influence the financing that will be provided by the company. Because bank size is represented by total assets (alktiva) in rupiah form, it needs to be transformed into logarithm form. The aim is for bank size data to be in the same units as other variable data to narrow diversity.

RESEARCH METHOD

Quantitative methods were used in this research. The research object is a Sharia Commercial Bank which publishes financial reports in 2016-2022. The variables in this research consist of a dependent variable and an independent variable. The dependent variable taken is Capital Buffer, while the independent variables taken are ROE, NPF, FDR, BOPO and BANK SIZE.

The data used in this research comes from the annual financial reports of each bank obtained from the official websites of the sample banks. 14 Sharia Commercial Banks registered with the Financial Services Authority which is the total population in this research. Based on the purposive sampling technique with the criteria that have been decided, the research sample was obtained from 7 Sharia Commercial Banks as follows:

NO	SHARIA COMMERCIAL BANK
1	PT. Bank Muamalat Indonesia
2	PT. Bank Victoria Syariah
3	PT. BCA Syariah
4	PT. Bukopin Syariah
5	PT. Aladin Syariah
6	PT. Panin Dubai Syariah
7	PT. Sharia National Pension Savings Bank

Data analysis method

This research uses panel data analysis. Panel data regression is a regression that uses a combination of time series data and cross section data. This research uses data analysis using quantitative methods, namely testing a theory consisting of variables, measured by numbers and analyzed using statistical procedures. The analytical method in this research uses panel data regression analysis carried out with the help of E-views 12.

Descriptive Statistical Analysis

Descriptive statistics are statistics that are used to analyze data by defining or describing the data that has been collected as it is without the intention of making general conclusions or generalizations. Characteristics of the results of data analysis include mean value, standard division, maximum value and minimum value.

Panel Data Regression Analysis

Regression analysis is an analytical test model used to measure the strength of the relationship between the dependent variable and the independent variable. As for the panel data equation which is a combination of cross section and time series data where the cross section units are measured at different times, the equation model is written as follows:

$$Y = \alpha + \beta_1 X_1 it + \beta_2 X_2 it + \beta_3 X_3 it + \beta_4$$

Panel Data Regression Model Selection Method

Panel data is a combination of cross section data and time series data (Alamsyah et al., 2022) There are several ways to estimate model parameters in panel data regression analysis, namely: common effect model, fixed effect model and random effect model. With the variables used to obtain the form of the model that will be developed

Regression Model Selection Test

There are three tools that can be used to select the appropriate panel data regression model, namely: Chow test, Huasman test, and Lagrange multiplier (LM) test. So the selected model will determine the best estimation method.

Classic assumption test

Classic assumptions are used using the Ordinary Least Squared (OLS) approach including testing for normality, multicollinearity, autocorrelation and heteroscedasticity. Not all best models need to be tested for classical assumptions. If the best model is the Common Effect model and the Fixed Effect model, it is necessary to check the classical assumptions. However, if the Randon Effect is chosen, classical assumptions are not made. However, classical assumptions are better for knowing whether the model meets the requirements of BLUE (Best Linear Unbias Estimator) or best linear unbiased estimation.

Hypothesis test

Testing this hypothesis uses the t-statistical test to find out whether the independent variable has a significant effect on the related variable or not. This t-statistical test is carried out by looking at the probability column for each t-statistic and using the coefficient of determination. In other words, the coefficient of determination shows the total magnitude of the influence of the independent variables used on the dependent variable. If the R2 value is close to 1, then the accuracy is more accurate. The weakness of the coefficient of determination (R2) is that it can affect the number of independent variables included in the regression model.

RESULTS AND DISCUSSION

Quantitative methods were used in this research. The research object is a Sharia Commercial Bank which publishes financial reports in 2016-2022. The variables in this research consist of a dependent variable and an independent variable. The dependent variable taken is Capital Buffer, while the independent variables taken are ROE, NPF, FDR, BOPO and BANK SIZE.

The data used in this research comes from the annual financial reports of each bank obtained from the official websites of the sample banks. 14 Sharia Commercial Banks registered with the Financial Services Authority which is the total population in this research. Based on a purposive sampling technique with predetermined criteria, a sample of 7 Sharia Commercial Banks was obtained for this research

Descriptive statistical analysis

Descriptive analysis aims to explain the picture of all research variables over a certain period of time.

Descriptive Statistical Analysis Test Results

	ROE	NPF	FDR	BOPO	BANK_SIZE	CAPITAL_B...
Mean	0.005808	0.019096	190.9473	1.148320	5097872.	0.469500
Median	0.014500	0.014000	0.901000	0.977300	2173162.	0.166000
Maximum	0.365000	0.049500	5066.000	4.284000	21161976	3.825000
Minimum	-0.940100	0.000000	0.000000	0.561600	4995.600	0.035100
Std. Dev.	0.194688	0.018397	934.6770	0.691190	5737287.	0.793218

Source: eviews output 12

Based on the data from the descriptive statistical processing that has been carried out, there are 49 observational data obtained from financial reports.

Test regression model selection

There are three internal estimation methods determine the regression analysis model, namely the Chow test, Hausman test, and LM test. These three methods have their respective advantages and disadvantages. The following are the results of the panel data regression selection test :

a) Test chow

The decision making criteria is if the value of Prob. cross-section F has a value > 0.05 then the common effect model is selected and vice versa if the value of Prob. cross-section F < 0.05 then the fixed effect model is selected. The following are the results of chow testing in this research:

Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.682054	(6,37)	0.0057
Cross-section Chi-square	22.940972	6	0.0008

Source: eviews output 12

In the table above you can see the Prob value. cross-section F is 0.0008 which is less than the significance value of 0.05. So it can be concluded that the estimation model used is a fixed effect model. Based on the Chow Test results, the data testing continues with the Hausman Test.

b) Huasman test

The criteria for decision making are if the value of Prob. random cross-section < 0.05 then the selected estimation model is the fixed effect model, but if the value of Prob. random cross-section > 0.05 , then the model chosen is the random effect model. The following are the results of the Hausman test that has been carried out, namely:

Huasman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	21.928439	5	0.0005

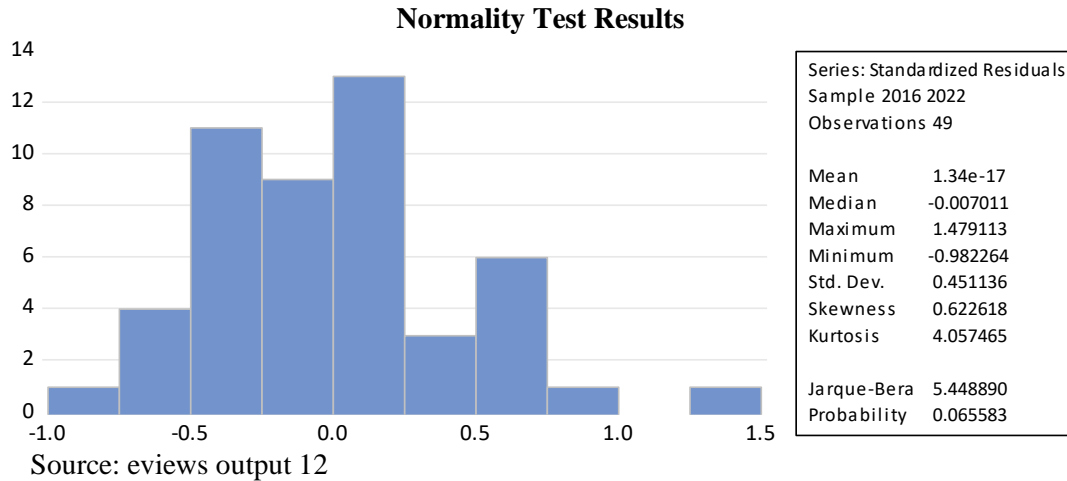
Source: eviews output 12

In the table above it can be seen that the value of Prob. random cross-section is 0.0005, which has a value < 0.05 . Thus it can be concluded that the appropriate model to use is the fixed effect model. Because the two test results show that the fixed effect model is more appropriate to use in analyzing this data, the LM test does not need to be carried out.

Classic assumption test

a) Normality test

Normality testing in this study uses probability values, if the probability value is > 0.05 , it means it is normally distributed, whereas if the probability value is < 0.05 , it means it is not normally distributed.



Based on the table above, it can be seen that Jarque-Bera is 5.448890 and the probability value is 0.65583. So it can be concluded that the ROE, NPF, FDR, BOPO and Bank Size data on the capital buffer are normally distributed, because the probability value is greater than the significance of 0.05.

b) Heteroscedasticity Test

The heteroscedasticity test is useful to find out whether the model built has a constant variance or not. Glejser was used in this study. If Prob. < 0.05 then the regression equation contains heteroscedasticity and vice versa if Prob. > 0.05 then it does not contain heteroscedasticity.

Heteroscedasticity Test Results

Heteroskedasticity Test: Glejser

Null hypothesis: Homoskedasticity

F-statistic	0.314959	Prob. F(5,30)	0.9001
Obs*R-squared	1.795505	Prob. Chi-Square(5)	0.8767
Scaled explained SS	3.200152	Prob. Chi-Square(5)	0.6692

Source: eviews output 12

Based on the processing results above, the results show that the value of prob. Chi- square (0,5) is 0.8767 > 0.05 , which means it does not contain heteroscedasticity, so this research is free from heteroscedasticity and is worthy of research.

c) Autocorrelation Test

Some of the statistical tests most often used to determine whether autocorrelation occurs are the Durbin–Watson test and the Run Test. In this study, researchers used the Durbin–Watson test to determine symptoms of autocorrelation in the data.

Autocorrelation Test Results

R-squared	0.721646	Mean dependent var	0.469500
Adjusted R-squared	0.638892	S.D. dependent var	0.793218
S.E. of regression	0.476663	Akaike info criterion	1.564878
Sum squared resid	8.406670	Schwarz criterion	2.028181
Log likelihood	-26.33951	Hannan-Quinn criter.	1.740655
F-statistic	8.720383	Durbin-Watson stat	1.171503
Prob(F-statistic)	0.000000		

Source: eviews output 12

So it can be concluded that the Durbin-Watson value is 1.1715. du value (1.7777) > Durbin-watson (1.1715) < 4-du (2.2223) which means it is in an area where there is no autocorrelation so this research is worth continuing.

d) Multicollinearity Test

The multicollinearity test is used to determine whether or not there are independent variables that are similar to other independent variables in one model. A good regression model is that there is no correlation between the independent variables. If the value exceeds 0.90 then H₀ which states that there is no multicollinearity in the model is rejected. This means that the regression model contains multicollinearity problems.

Multicollinearity Test Results

	ROE	NPF	FDR	BOPO	BANK_SIZE
ROE	1.000000	-0.481791	0.024635	-0.537148	0.195321
NPF	-0.481791	1.000000	-0.215398	0.015174	-0.042942
FDR	0.024635	-0.215398	1.000000	0.067430	-0.159356
BOPO	-0.537148	0.015174	0.067430	1.000000	-0.129801
BANK_...	0.195321	-0.042942	-0.159356	-0.129801	1.000000

Source: eviews output 12

Based on the table above, it shows that there is no independent variable that has a high correlation exceeding 0.90 with other independent variables. Therefore, it can be concluded that H₀ which states that multicollinearity occurs in the model is rejected, so it can be stated that there is no multicollinearity in the model.

Panel Data Regression Equation Analysis

The panel data regression equation is presented as follows:

$$Y = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4$$

$$Y = 0.533296564358 + 0.446862783701(\text{ROE}) - 17.8023065542(\text{NPF}) + 4.64319011197\text{e-}06(\text{FDR}) + 0.236417333258(\text{BOPO}) + 2.33415622886\text{e-}10(\text{Bank Size})$$

Hypothesis test**a) T-statistical test****T-statistical test results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.533297	0.338666	1.574699	0.1238
ROE	0.446863	0.607929	0.735058	0.4669
NPF	-17.80231	7.701414	-2.311563	0.0265
FDR	4.64E-06	9.25E-05	0.050171	0.9603
BOPO	0.236417	0.163274	1.447977	0.1560
BANK_SIZE	2.33E-10	3.38E-08	0.006907	0.9945

Source: evIEWS output 12

Based on the table above, it can be concluded that:

- 1) Influence of ROE on Capital Buffer
From the processed data, t-statistic values are obtained, namely t-statistic < t-table ($0.735058 < 2.01669$) and Prob. ($0.4669 > 0.05$), meaning it is rejected. It was concluded that ROE had an insignificant effect on capital buffer
- 2) Influence of NPF on Capital Buffer
From the processed data, t-statistic values are obtained, namely t-statistic < t-table ($-2.311563 < 2.01669$) and Prob. ($0.0265 < 0.05$), meaning it is accepted. It is concluded that NPF has a significant influence on capital buffers
- 3) The Influence of FDR on the Capital Buffer
From the processed data, t-statistic values are obtained, namely t-statistic > t-table ($0.050171 < 2.01669$) and Prob. ($0.9603 > 0.05$), meaning it is rejected. It is concluded that FDR has no significant impact on capital buffer
- 4) Effect of BOPO on Capital Buffer
From the processed data, t-statistic values are obtained, namely t-statistic < t-table ($1.447977 < 2.01669$) and Prob. ($0.1560 > 0.05$), meaning it is rejected. It was concluded that BOPO had an insignificant effect on capital buffer.
- 5) The Influence of BANK SIZE on Capital Buffer
From the processed data, t-statistic values are obtained, namely t-statistic < t-table ($0.006907 < 2.01669$) and Prob. ($0.9945 > 0.05$), meaning it is rejected. It is concluded that Bank Size has an insignificant influence on capital buffer.

b) Coefficient of Determination (R^2)**Coefficient of Determination Test Results**

R-squared	0.721646	Mean dependent var	0.469500
Adjusted R-squared	0.638892	S.D. dependent var	0.793218
S.E. of regression	0.476663	Akaike info criterion	1.564878
Sum squared resid	8.406670	Schwarz criterion	2.028181
Log likelihood	-26.33951	Hannan-Quinn criter.	1.740655
F-statistic	8.720383	Durbin-Watson stat	1.171503
Prob(F-statistic)	0.000000		

Source: evIEWS output 12

Based on the fixed effect regression model above, the adjusted R-squared value is 0.638 or 63.8 %. This shows that the Capital Buffer of Islamic banks can be explained by Return on Equity, Non Performing Finance, Financing to Deposit Ratio, Operational Costs Operational Income and Bank Size while the remaining 36.2% is explained by other variables not included in this research.

Discussion

The Influence of ROE on Capital Buffer

The regression results on the ROE (X1) variable on the capital buffer show a value of 0.4669 and a t-statistic value of 0.735058. This means $t\text{-statistic} < t\text{-table}$ ($0.735058 < 2.01669$) and Prob. ($0.4669 > 0.05$). It can be concluded that ROE (x1) has no effect on the Capital Buffer. This means that the higher the level of ROE obtained by a bank, the higher the level of capital buffer that the bank has, but the influence of ROE on the capital buffer is weak. Because the research results show that ROE is not significant. The decrease in capital buffer is a result of reduced long-term debt which is paid off with increasing profits. The large ROE value also does not guarantee an increase in the amount of retained earnings which will become a capital buffer.

The results of this research are in accordance with research (Kurnianingsih, 2021) which shows that Return On Equity has no significant effect on Capital Buffer. ROE which has no effect on the capital buffer could be because the increase in ROE that occurred during the research period was not too high. This is because ROE is also the excess of the remuneration demanded by share owners which will later be used to pay dividends.

The results of this research are in accordance with the theory regarding capital structure, namely pecking order theory. This theory states that companies with internal funding are in the form of retained earnings. In this research, Return On Equity is described as the profitability obtained by the bank. The high level of profit obtained by the bank is used by the bank as a Capital Buffer which will be beneficial for the bank if shocks occur in the future.

The Effect of NPF on Capital Buffer

Based on the research that has been carried out, the regression results obtained on the NPF variable (X2) show that Prob. NPF (X2) is 0.0265 and the t-statistic is -2.311563. This means $t\text{-statistic} < t\text{-table}$ ($-2.311563 < 2.01669$) and Prob. ($0.0265 < 0.05$). It can be concluded that NPF (X2) has an effect on the Capital Buffer. This means that if Non-Performing Financing increases, the Capital Buffer decreases. This is because banks do not apply the principle of prudence in the distribution of financing, causing the level of Non-Performing Financing to increase. The high level of Non-Performing Financing indicates high realized risks, forcing banks to reduce the Capital Buffer to cover these risks.

The results of this research are in accordance with research (Yokoyama & Mahardika, 2019) which shows that NPF has a significant effect on Capital Buffer. This is because banks tend to carry out high financing but debtors are unable to fulfill their obligations. The lack of selectivity of sharia commercial banks in providing financing to customers is one of the main factors. For this reason, banking NPF is high.

The existence of pecking order theory is able to provide information about selecting funding and providing funding for company capital adequacy. The level of bank business continuity is closely related to the financing it has, therefore bank management is guided to always be able to monitor and analyze the financing it has.

The Influence of FDR on the Capital Buffer

The FDR variable is a ratio used to measure the comparison of the amount of financing provided by banks with the aim of assessing how healthy the bank is in running its business. Based on the research that has been carried out, the results of the t test show that Prob. FDR (X3) is 0.9603 and the t-statistic is 0.050171. This means $t\text{-statistic} < t\text{-table}$ ($0.050171 < 2.01669$) and Prob. ($0.9603 > 0.05$). It can be concluded that FDR (X3) has no effect on the Capital Buffer. This is because in meeting financing needs, banks do not only rely on public funds obtained through third party funds (DPK) but also rely on the capital they have including capital reserves (Capital Buffer) so that the higher the financing provided, the smaller the Capital Buffer reserves will be.

The results of this research are in accordance with research (Cakhyaneu & Apriyani, 2022) which shows that FDR has no significant effect on Capital Buffer. The greater the financing provided by the bank, the greater the desire to get a high return. This influences investors' judgment when making investment decisions that affect demand and supply at the same time.

In accordance with the pecking order theory, it is a policy adopted by a company to seek additional funds by selling the assets it owns. In the pecking order theory policy, it means that the company carries out a policy by reducing its asset ownership because it carries out a sales policy.

The Effect of BOPO on Capital Buffer

BOPO measures the efficiency and capacity of a company's operational activities. Based on the research that has been carried out, the results of the t test regression show that Prob. BOPO (x4) is worth 0.1560 and the t-statistic is 1.447977. This means $t\text{-statistic} < t\text{-table}$ ($1.447977 < 2.01669$) and Prob. ($0.1560 > 0.05$). It can be concluded that BOPO has no effect on the Capital Buffer.

The results of this research are in accordance with research (Haryanto, 2015) which shows that BOPO has no significant effect on Capital Buffer. This means that there is a negative influence from BOPO on the Capital Buffer, so that the smaller the BOPO, the Capital Buffer will get bigger. The increase in BOPO followed by an increase in Capital Buffer shows that the level of operational risk faced by banks is also high. This happens because the operational costs borne are more significant than the operational profits generated.

The results of this research are in accordance with the theory regarding capital structure, namely pecking order theory. This theory states that companies with internal funding are in the form of retained earnings. In this research BOPO is described as the profitability obtained by the bank, the high level of profit obtained by the bank is used by the bank as a Capital Buffer which will be beneficial for the bank if shocks occur in the future.

The Influence of Bank Size on Capital Buffer

Based on the research that has been carried out, the results of the t test show that Prob. Bank Size (x5) is 0.9945 and the t-statistic is 0.006907. This means $t\text{-statistic} < t\text{-table}$ ($0.006907 < 2.01669$) and Prob. ($0.9945 > 0.05$). It can be concluded that Bank Size has no effect on Capital Buffer. This means that the larger the bank size, the higher the Capital Buffer. Large companies are considered more experienced in dealing with risks and managing investments provided by stockholders to increase prosperity. So that large companies promise better performance.

The results of this research are in accordance with research (Cakhyaneu & Apriyani, 2022) which shows that Bank Size has no significant effect on Capital Buffer. where banks with large asset sizes tend to be paid more attention or saved by regulators when they experience capital problems because it will impact broad economic shocks so that every increase in bank size (total assets) will reduce the Capital Buffer.

In other words, if the Bank Size increases, the Capital Buffer will increase will decrease. This research agrees with the Too Big To Fail theory which states that large banks prefer to keep their Capital Buffers lower. This is because large banks have lower risk compared to small banks. Large banks will also tend to carry out activities with lower risk so that the resulting Capital Buffer will also be lower. Apart from that, large banks also believe that banks will receive assistance in the form of additional capital from regulators if they have difficulties.

CONCLUSION

Based on the analysis and discussion of research results regarding the factors that influence capital buffers in Islamic commercial banks in Indonesia, it can be concluded as follows:

1. Return on Equity (ROE) has a positive and insignificant effect on the Capital Buffer in Sharia Commercial Banks for the 2016-2022 period.
2. Non Performing Finance (NPF) has a negative and significant effect on the Capital Buffer in Sharia Commercial Banks for the 2016-2022 period.
3. Financing to Deposit Ratio (FDR) has a positive and insignificant effect on Capital Buffer in Sharia Commercial Banks for the 2016-2022 period.
4. Operational Costs Operational Income (BOPO) has a positive and insignificant effect on the Capital Buffer in Sharia Commercial Banks for the 2016-2022 period.

5. Bank Size has a positive and insignificant effect on Capital Buffer in Sharia Commercial Banks for the 2016-2022 period.

REFERENCES

- [1] Agustuty, L., Laba, AR, Ali, M., & Sobarsyah, M. (2020). Determinants of Liquidity Risk in Banks in the Too Big To Fail Category in Indonesia. 5 (2), 152–168.
- [2] Agustuty, L., & Ruslan, A. (2019). Determinants of Capital Buffer in the Banking Industry in Indonesia. 1 (2), 164–175.
- [3] Alamsyah, IF, Esra, R., Awalia, S., & Nohe, DA (2022). Panel Data Regression Analysis to Find Out Factors that Influence the Number of Poor People. 254–266.
- [4] Andriyanto, I., & Prastika, AI (2018). The Influence of Bank Health Ratios on the Volume of Sharia Commercial Bank Financing in Indonesia. 2 (1), 1–16.
- [5] Cakhyaneu, A., & Apriyani, R. (2022). Capital Buffers Determination of Islamic Banks in Indonesia. 9 (5), 760–771. <https://doi.org/10.240473/vol9iss20225pp760-771>
- [6] Fauzi, A. (2018). The Role of Ratio Profits as the Improvement of Realization of KPR BTN Credit on PT. Bank Savings Country (Persero) Tbk. 31–38.
- [7] Gunawan, DW and R. (2017). The Influence of Efficiency Level (BOPO) and Liquidity Capability (LDR) in Assessing the Performance (ROA) of Banks Listed on the IDX. III (03), 420–431.
- [8] Hadi, tika ayumi. (2020). Factors That Influence Capital Buffers in Sharia Commercial Banks in Indonesia (Period 2016-2018).
- [9] Haryanto, S. (2015). Determinants of Capital Buffer: Empirical Study. 108–123.
- [10] Hidayati, A., Lakoni, I., & Seventeen, WL (2021). Analysis of Capital Structure Relationships Based on Trade Off Theory and Pecking Order Theory in the Banking Sector Listed on the LQ Index 45 Analysis of Capital Structure Relationships Based on Trade Off Theory and Pecking Order Theory in the Banking Sec. 8 (October), 1–15.
- [11] Juliani, M. (2022). Analysis of Bank Specific Factors on Non-Performing Loans in Conventional Commercial Banks Listed on the Indonesian Stock Exchange. 6, 43–55.
- [12] Khamisah, N., Nani, DA, & Ashsifa, I. (2020). The Influence of Non-Performing Loans (NPL), BOPO and Company Size on Return on Assets (ROA) of Banking Companies Listed on the Indonesian Stock Exchange (BEI). 3 (2), 18–23.
- [13] Kurnianingsih, DE (2021). Analysis of Determinants of Capital Buffer in Islamic Commercial Banks in Indonesia for the 2015-2020 Period Analysis of determinants of in Islamic bank capital buffer in Indonesia for the period 2015-. 2 (1), 99–111. <https://doi.org/10.35313/jaief.v2i1.2965>
- [14] Nurrohim, H. (2021). The Influence of Profitability, Fixed Asset Ratio, Ownership Control and Asset Structure on Capital Structure in Manufacturing Companies in Indonesia. 10 No. 1, 11–18.
- [15] FSA. (2016). Republic of Indonesia financial services authority.
- [16] Somantri, YF, & Sukmana, W. (2019). Analysis of Factors that Influence the Financing to Deposit Ratio (FDR) in Sharia Commercial Banks in Indonesia. 04 (02), 61–71.
- [17] Suryantok, ANY (2017). The influence of FDR, CAR, and NPF on BPRS profitability in the DIY province for the 2012-2016 period. 1, 1–16.
- [18] Wijaya, R. (2019). Analysis of the Development of Return on Assets (ROA) and Return on Equity (ROE) to Measure Financial Performance. 40–51.
- [19] Yokoyama, EP, & Mahardika, DPK (2019). THE INFLUENCE OF NON PERFORMING FINANCING (NPF), RETURN ON ASSET (ROA), AND FINANCING TO DEPOSIT RATIO (FDR) ON CAPITAL ADEQUACY RATIO (CAR) (Case Study of Sharia Commercial Banks in Indonesia Registered with the Financial Services Authority in the 2013–2017 Period). 3 (2). <https://doi.org/10.31955/mea.vol3.iss2.pp>