

Effect of Bank and Macro-Economic Performance on Bank Capital Supporters in Indonesia

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ABSTRACT

This study was conducted to examine the effect of bank performance and macroeconomics on the capital buffer in banks listed on the Indonesia stock exchange in the 2014-2018 period. There are 26 banks that become the sample of this study after purposive sampling. The capital buffer used is the difference between the Capital Adequate Ratio and the minimum capital determined by the regulator. While the independent variables used to consist of bank performance, namely Return on Equity, Bank Size, Liquidity, Non-Performing Loans, Net Profit, Loan Growth, and Total Loans over Total Assets. Macroeconomic variables also become a factor that is analyzed on the effect of bank capital buffer. By using the Generalized Method of Moment (GMM) regression model, it can be seen that the bank's performance variables measured through Return on Equity, Liquidity, Net Profit, and Total Loan over Total Assets have a significant effect on banking capital buffer in Indonesia. In contrast, macroeconomic variables measured through GDP do not have a significant effect on banking capital buffer in Indonesia.

Keywords: Capital Adequate Ratio; capital buffer; bank performance; macro economics

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INTRODUCTION

The economic system in a country is very dependent on banking institutions. Banking has a central role as one of the crucial sectors in advancing the country's economy. Banks, according to Act Number 10 of 1998 concerning Banking, consist of 2 (two) types, namely Commercial Banks and Rural Credit Banks. The Bank, as a business entity has the main objective of collecting funds from the public in the form of deposits and channeling it to the people in the form of credit and or other forms to improve the lives of many people.

This definition can be seen that the central role of banks is collecting funds from parties who are excess funds (investors) and channeling loans to those who need funds. Banks in carrying out their main functions must necessarily require sufficient capital. This capital will be used by banks in carrying out bank operations. The capital needs of a bank are crucial, especially in the face of uncertain economic conditions (Raza, Tang, Khidmat, & Iqbal, 2019). So that capital adequacy requirements have become a topic of discussion of all bank regulators in the world (Adesina & Mwamba, 2017).

In Indonesia, there was a monetary crisis in 1998 that made customers withdraw their funds on a large scale so that as a result, banks in Indonesia experienced liquidity problems. It started in July 1997, namely the exchange rate volatility, and the government simultaneously tightened liquidity. Public confidence has also declined due to the revocation of 16 banks' business licenses. After the 1998 crisis, Indonesia also experienced a crisis in 2008. The global crisis that occurred in 2008 was caused by a subprime mortgage case in the United States. The worldwide crisis of 2008 had an impact on Indonesia, which was disruption of liquidity in the market, the rupiah depreciated from Rp 9,840.00 to Rp 12,100.00. Based on the importance of capital to banks, Basel Accord, I have determined that the minimum capital requirement of banks is at least 8% (eight percent) of Risk-Weighted Assets. In Indonesia, capital adequacy is usually called the Capital Adequacy Ratio (CAR). Capital Adequacy Ratio (CAR) shows the ability of banks to maintain capital adequacy, and bank management aids in identifying, measuring, monitoring, and controlling risks (Tasman, Fitra, Helmayunita, & Susanti, 2019).

In Indonesia, the minimum Capital Adequacy Ratio (CAR) is set at 8% (eight percent). This means that the higher the value of the Capital Adequacy Ratio (CAR), can

show the ability of banks that are able to manage the risks that will be faced in the future. In addition to the established Capital Adequacy Ratio (CAR), Bank Indonesia and the Financial Services Authority also set additional capital requirements above the minimum capital adequacy called capital buffer or Buffer Capital. Capital buffer is the difference between the Capital Adequacy Ratio (CAR) and the minimum capital adequacy set by the regulator. Banks that have a capital buffer are better able to deal with future risks that can disrupt bank operations (Noreen, Alamdar, & Tariq, 2016). Examples of measuring capital buffer are as follows, for example, a bank has a Capital Adequacy Ratio (CAR) of 20%, while minimum capital adequacy of 8%, then the bank has a capital buffer of 12% in anticipating future risks.

In this study, to measure what variables affect the capital buffer in Indonesian banks by using bank performance variables measured using Return on Equity, Bank Size, Liquidity, Non-Performing Loans, Net Profit, Loan Growth and Total Loan over Total Assets. As for macroeconomic variables measured using Gross Domestic Product. As for this study entitled "The Effect of Bank Performance and Macro Economy Against Bank Capital Buffer in Indonesia." The purpose of this study is to analyze the effect of Return on Equity, Bank Size, Liquidity, Non-Performing Loans, Net Profit, Loan Growth, Total Loans over Total Assets, and Gross Domestic Products on Buffer Capital.

LITERATURE REVIEW

Theoretical Basis

Banks in operating certainly rely heavily on capital because the capital is used as a distribution of loans to those in need. In maintaining capital, banks do not only focus on Capital Adequate Ratio but also must pay attention to Buffer Capital. Buffer Capital is defined as the difference between the Capital Adequate Ratio and the specified minimum capital (Shim, 2013). In this study, Buffer Capital is useful for absorbing risks that will disrupt the bank's operations.

Macroeconomic conditions are variables that must be considered by banks in managing Buffer Capital. One of the factors of the macroeconomy that can be used to manage Buffer Capital is Gross Domestic Product (GDP), which in Indonesia is called Gross Domestic Product (GDP). Gross Domestic Product (GDP) can be calculated based on the number of products in the form of goods and services produced by production

units within a country's borders for a year. According to Raza et al. (2019) Gross Domestic Product (GDP) has a positive influence on capital buffers in thirty public banks, private banks, and specialized banks in Pakistan. Meanwhile, according to Busun & Kasman (2015), through the results of research in Turkish banks, the Gross Domestic Product (GDP) has a negative effect on the capital buffer.

In addition to macroeconomic variables, bank financial performance also affects Buffer Capital. According to Nasir, Ahmed, & Barkat (2017) financial performance is an indicator of this company's success. Financial performance can be measured through profitability or returns from business activities. In terms of financial performance, according to Belem & Gartner (2015), capital buffer is also positively influenced by the bank's Return on Equity (ROE) value. The study was conducted in Brazilian banks using bank performance data from 2001 to 2011. According to Le (2015), the higher the profit retained by banks will increase its capital. This is inversely proportional to the results of research from Raza et al. (2019) in Pakistani banking, which states Return on Equity (ROE) has a negative and not significant effect on capital buffer. The negative impact of Return on Equity (ROE) is also in line with the results of his research that Net Profit has a negative and not significant effect on capital buffer in Pakistani banking. The size of the company also influences Buffer Capital. The size of the company used is total assets. According to Chu & Lonergan (2015) the full value of assets is the present value of the expected future cash flow. Banks that have more assets have better capabilities than banks that have less assets in facing future risks.

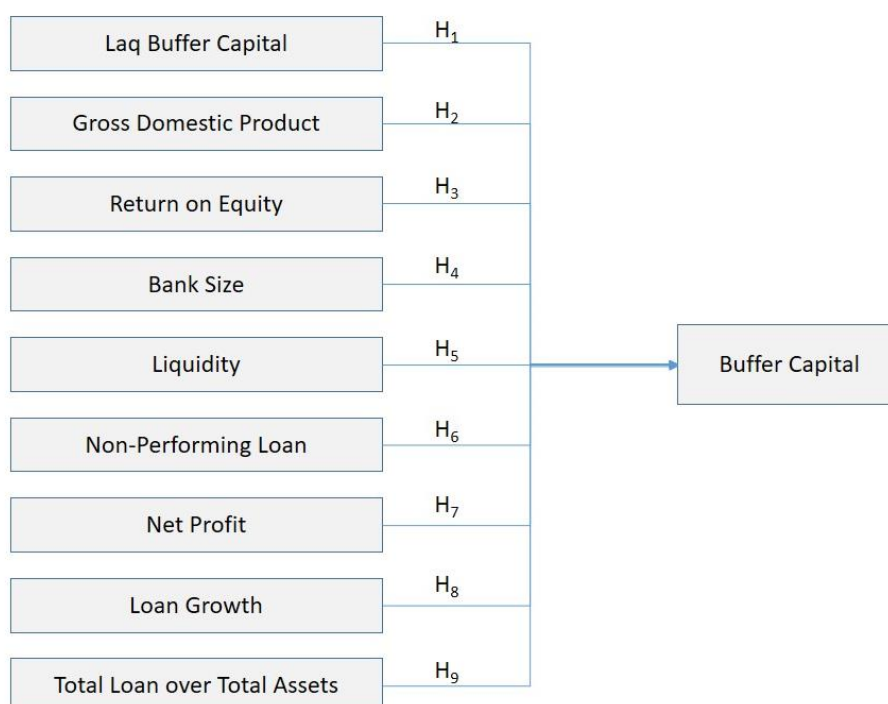
Banks that have more assets than debt (Total Loan over Total Assets) will be better equipped to deal with loan growth (Loan Growth), which has a positive influence on capital buffer in Pakistani banking (Raza et al., 2019). In developing banking assets, the bank must also pay attention to liquidity (liquidity) due to the existence of good liquidity able to meet bank obligations in the event of a risk of increased non-performing loans (Raza et al., 2019).

Conceptual Framework

Based on previous studies, the following is the conceptual framework of this study using one independent variable, Buffer Capital. Besides there are nine dependent variables namely Lag Buffer Capital due to significant based on research from Adesina & Mwamba (2017), Fonsesca et al (2015), and Raza et al (2019). Gross Domestic Product is

due to significant based on research from Adesina & Mwamba (2017), Belem & Gartner (2016), and Norren et al (2016). Return on Equity is due to significant based on research by Jokipii, Tehri, Milne, & Alistair. (2009), Belem & gartner (2015), Busun & Kasman (2015). Bank Size due to significant based on research Pereira, J.A.M. & Saito, R. (2015) & Adesina & Mwamba (2017). Liquidity is due to substantial based on research by Raza et al. (2019) & Pereira & Saito (2015). Non-Performing Loans are due to significant research based on Busun & Kasman (2015) and Mahakud & Dash (2013). Net Profit due to significant based on research by Riaz et al. (2015) & Noreen et al (2016). Loan Growth is due to significant based on research by Aticii & Gursoy (2013) & Fonsesca & Gonzales (2010). Total Loan over Total Assets due to significant based on research by Adesina & Mwamba (2017) & Fonsesca & Gonzales (2010). Following is the conceptual framework of this research:

Figure 1: Conceptual Framework



Hypothesis Development

According to four results of previous research studies by Adesina & Mwamba (2017) in African banking, Fonsesca et al (2015) in Colombian banking, Raza et al (2019) in Pakistani banking and Tazman et al (2019) in Indonesian banking show below Lag

value Buffer Capital has a positive and significant effect on Buffer Capital. Lag Buffer Capital has a positive impact because the increase in the value of Lag Buffer Capital in the previous year will increase the value of Buffer Capital this year. Banks that have high Lag Buffer Capital tend to have high capital adequacy (Durafe & Singh, 2015). Based on the explanation above, the hypothesis is formulated as follows:

H1: *There is a significant relationship between Lag Buffer Capital and Buffer Capital*

According to Adesina et al. (2017), the business cycle represented by Gross Domestic Product has a positive and significant impact on Buffer Capital in African banks. According to Belem & Gartner (2016), in his research study in Brazilian banking shows Gross Domestic Product has a positive influence on Buffer Capital. The research is also in line with the results of Norren et al. (2016) and Raza et al (2019) conducted in Pakistani banking shows that Gross Domestic Product has a positive and significant impact on Buffer Capital. This is because if there is an economic boom where there is an increase in Gross Domestic Product due to increased productivity of goods and services, including increased demand for loans, banks must increase Buffer Capital to be used as reserve capital that can be used if the number of loans increases. Based on the explanation above, the hypothesis is formulated as follows:

H2: *There is a significant relationship between GDP and Buffer Capital*

When viewed the bank's performance Return on Equity According to four results of previous research studies by Jokipii, Tehri, Milne & Alistair. (2009) Belem & Gartner (2015), Busun & Kasman (2015), and Mahakud, J. & Dash, S.R. (2013) shows that the Return on Equity value has a positive and significant effect on Buffer Capital. This is because the Return on Equity value can be assumed to be the cost of holding capital so that the higher return on capital can be used to increase the Bank's Buffer Capital. Meanwhile, according to research Raza et al (2019) in Pakistani banking, the value of Return on Equity has a negative effect because banks that are too large to maintain Buffer Capital will reduce bank profits so that the amount of Return on Equity will decrease. Based on the explanation above, the hypothesis is formulated as follows:

H3: *There is a significant relationship between ROE and Buffer Capital*

The value of assets also affects Buffer Capital. According to the results of four previous research studies by Pereira, J.A.M. & Saito, R. (2015), Adesina & Mwamba (2017), Busun & Kasman (2015) and Mahakud & Dash (2013) show that the value of Bank Size has a negative and significant effect on Buffer Capital. This is because larger banks will have a low Buffer Capital value because large banks expect an injection of Government capital if the banks face future risks and cause systemic effects economically. Large banks also tend to reduce Buffer Capital and focus more on getting profits. Meanwhile, according to research Raza et al (2019) in Pakistani banking the value of Bank Size has a positive and significant effect because large banks will more easily enter the capital market and have a good reputation so that the bank does not need to prepare a large Buffer Capital because it is better prepared in facing future risks. Based on the explanation above, the hypothesis is formulated as follows:

H4: *There is a significant relationship between Bank Size and Buffer Capital*

According to four results of previous research studies by Raza et al. (2019), Pereira & Saito (2015), Belem & Gartner (2016), and Zheng et al. (2012) show that the value of Liquidity has a positive and significant effect on Buffer Capital. This is because banks that have high liquidity, such as possessing cash assets, cash equivalents, receivables, and debt bills will have a better Buffer Capital compared to banks with low liquidity. With high liquidity, you will be better prepared to deal with unexpected operational conditions. According to Shim (2013) also states that high liquidity ratios can reduce risks to banks such as bad loans etc. Based on the explanation above, the hypothesis is formulated as follows:

H5: *There is a significant relationship between Liquidity and Buffer Capital*

According to four results of previous research studies by Raza et al. (2019), Zheng et al. (2012), Busun & Kasman (2015), and Mahakud & Dash (2013) show that the value of Non-Performing Loans has a positive and significant effect on Buffer Capital. This is because high non-performing loans can reduce bank profits, and consequently, banks must increase buffer capital to prepare for future risks. Non-Performing Loans are one measure of risk in banks, so one of the mitigations is that banks create capital reserves, namely Buffer Capital if Non-Performing Loans increase.

Meanwhile, according to Noreen et al. (2016) that Non-Performing Loans have a negative influence on Buffer Capital. This is because large banks have a smaller chance of getting a high Non-Performing Loan situation, and large banks usually have a little Buffer Capital. Based on the explanation above, the hypothesis is formulated as follows:

H6: *There is a significant relationship between Non-Performing Loans and Buffer Capital*

According to the results of five previous research studies by Atici & Gursoy (2013), Riaz et al. (2015), Noreen et al. (2016), Belem & Gartner (2016) and Le (2015) show that the Net Profit value has a positive and significant effect on Buffer Capital. Banks that have large incomes so as to generate a sizeable Net Profit will be a distinct advantage for banks. This is because the increased Net Profit will increase retained earnings so that the Bank's capital increases from Retained Earnings. Based on the explanation above, the hypothesis is formulated as follows:

H7: *There is a significant relationship between Net Profit and Buffer Capital*

According to five results of previous research studies by Adesina & Mwamba (2017) in banking in Africa, Novokmet (2014) in banking in Eastern Europe, Aticii & Gursoy (2013), Fonsesca & Gonzales (2010) and Garcia-Suaza et al (2012) shows that the value of Loan Growth has a negative and significant effect on Buffer Capital. This is because of the increasing capital needs of a bank; the bank will reduce the distribution of their loans. This is done by banks to focus on meeting the minimum capital adequacy regulations first. If the bank does not increase its capital adequacy, the regulator can impose sanctions on the bank, and also the bank may experience difficulties in facing future risks that could interfere with bank operations. Based on the explanation above, the hypothesis is formulated as follows:

H8: *There is a significant relationship between Loan Growth and Buffer Capital*

According to three results of previous research studies by Fonseca & Gonzales (2010) in banking in Colombia, Gosh (2016) in banking in India, Adesina & Mwamba (2017) in African banking shows that the value of Total Loan over Total Assets has a negative and significant effect on Buffer Capital. This is because Total Loan over Total Assets is one indicator of risk for a bank. If the Total Loan increases even if it exceeds the Total Assets, the Bank's capital will be reduced to cover losses to the bank so that the

bank can fulfill all its obligations. The higher the liabilities also have a negative influence on company profits, so that small company profits also make Retained Earning smaller (Sheikh & Wang, 2012). Meanwhile, according to Nikoo (2015) states that debt has a positive influence on company profits; this is because companies that have mortgage are more flexible in increasing business expansion so that the benefit received is more significant. Based on the explanation above, the hypothesis is formulated as follows:

H9: *There is a significant relationship between Total Loan over Total Assets and Buffer Capital*

RESEARCH METHODS

Sampling Method

The sampling method used in this research is purposive sampling, meaning that the sampling criteria have been determined following the objectives of the study (Apostolopoulos & Liargovas, 2016). The requirements are as follows:

1. All banks that have been listed on the Indonesia Stock Exchange from 2014 to 2018.
2. The banking system did not lose money from 2014 to 2018.
3. The bank released the Annual Report from 2014 to 2018.
4. Not a subsidiary of a bank listed on the Indonesia Stock Exchange

And here are the number of samples used in this study:

Table 1: Research Sample Criteria

Information	Total
Banking sector companies listed on the Indonesia Stock Exchange	45
Banking sector companies that are not listed on the Indonesia Stock Exchange in the 2014-2018 period	-6
Banking sector companies that suffer losses and have difficulty accessing annual report data	-11
Banking sector companies whose annual reports are consolidated with holding companies listed on the Indonesia Stock Exchange in the 2014-2018 period	-2
The amount of data that can be used as a sample	26

Variable Identification and Measurement

The identification of variables in this study is to determine the effect of bank performance (Return on Equity, Bank Size, Liquidity, Non Performing Loans, Net Profit, Loan Growth and Total Loan over Total Assets) and macroeconomic (Gross Domestic Product) on buffer capital (Buffer Capital), each of the measurement variables as follows:

Table 2: Variables and Measurements

Variable Type	Variable Name	Symbol	Definition of Operational Variables	Source
Independent Variable	<i>Lag Buffer Capital</i> _{i-t}	LAGBUFFCAP	The difference between this year's Buffer Capital and the previous year's Buffer Capital	Raza et al. (2019)
	<i>Gross Domestic Product</i>	GDP	Value of Gross Domestic Product	Raza et al (2019)
	<i>Return on Equity</i>	ROE	Profit after tax against Total Equity	Raza et al. (2019)
	<i>Bank Size</i>	BS	Natural Logarithm for Total Assets	Raza et al. (2019)
	<i>Liquidity</i>	LIQ	Cash and cash value of total assets	Raza et al. (2019)
	<i>Non-Performing Loan</i>	NPL	Non-performing Loans to Total Credit	Busun et al. (2015)
	<i>Net Profit</i>	NPROFT	Natural Logarithm of Current Year's Earnings	Raza et al. (2019)
	<i>Loan Growth</i>	LNGR	Lending this year against Lending in the previous year	Raza et al. (2019)
	<i>TLTA</i>	TLTA	Total Liabilities to Total Assets	Raza et al. (2019)
Dependent Variable	<i>Buffer Capital</i>	BUFFCAP	Capital Adequacy Ratio of the previous year - Minimum capital requirements	Noreen et al (2016)

Data Analysis Method

a) Statistical Test-F

F statistical test analysis testing is testing all independent variables, whether together influence the dependent variable. Statistical test F of the study is 0.00. Based on the results of the F statistical test, it shows that all independent variables have a significant effect on the dependent variable.

b) The goodness of Fit (R2) Test

Goodness of Fit (R2) test analysis testing, namely testing of all independent variables, can explain changes to the dependent variable. Goodness of Fit (R2) Test results are 0.71. Based on the Goodness of Fit (R2) test results table, it shows that all independent variables are able to explain variations of the dependent variable by 71.10% while the remaining 28.90% is explained by other independent variables not included in the modeling.

RESULTS AND DISCUSSION

Correlation Analysis

It is an analysis used to determine the strength of the relationship between the two variables, both each independent variable with each dependent variable and each independent variable with every other independent variable. Following are the results of processing the correlation through the Eviews 11.0 application:

Table 4: Correlation Results

	BUFFCAP	LAGBUFFCAP	GDP	ROE	BS	LIQ	NPL	NPROFT	LNGR	TLTA
BUFFCAP	1	0.034	0.143	0.188	-0.323	0.282	0.000	-0.271	0.151	-0.755
LAGBUFFCAP	0.034	1	-0.025	-0.047	0.109	-0.179	0.185	0.154	-0.499	-0.115
GDP	0.143	-0.025	1	0.027	0.056	-0.032	-0.106	0.038	-0.142	-0.153
ROE	0.188	-0.047	0.027	1	0.344	0.030	-0.037	0.402	0.047	-0.171
BS	-0.323	0.109	0.056	0.344	1	-0.412	-0.073	0.968	-0.181	0.121
LIQ	0.282	-0.179	-0.032	0.030	-0.412	1	-0.017	-0.405	0.152	0.104
NPL	0.000	0.185	-0.106	-0.037	-0.073	-0.017	1	-0.075	-0.005	-0.022
NPROFT	-0.271	0.154	0.038	0.402	0.968	-0.405	-0.075	1	-0.161	0.040
LNGR	0.151	-0.499	-0.142	0.047	-0.181	0.152	-0.005	-0.161	1	-0.101
TLTA	-0.755	-0.115	-0.153	-0.171	0.121	0.104	-0.022	0.040	-0.101	1

From these results, it can be seen that the variables that have a strong relationship with Buffer Capital sequentially are the Total Loan over Total Assets, Bank Size, Liquidity, Net

Profit, Return on Equity, Loan Growth, GDP and Lag Buffer Capital variables. For independent variables that have opposite directions to Buffer Capital are Bank Size, Net Profit, and Total Loan over Total Assets whereas the independent variables that have a direct relationship with Buffer Capital are Lag Buffer Capital, GDP, Return on Equity, Liquidity, Non Performing Loans, and Growth Loans.

Regression Analysis & Test Statistics-t

It is an analysis used to find out whether the independent variable can explain the cause and effect of the dependent variable. In the regression analysis, this study uses a Generalized Method of Moment (GMM) regression analysis because this analysis is usually used for research data samples that are panel data because the performance of this method is better than other methods. Following are the results of processing regression through the Eviews 11.0 application:

Table 5: Generalized Method of Moment (GMM) Regression Results

Variable	Coefisien	t- statistics	Prob	Information
Constanta	0.88	3.93	0.00	-
LAGBUFFCAP	0.08	1.21	0.22	Not Significant
GDP	2.86	0.77	0.43	Not Significant
ROE	0.09	2.40	0.01	Significant Positive
BS	0.01	1.30	0.19	Not Significant
LIQ	0.32	5.39	0.00	Significant Positive
NPL	-0.02	-0.59	0.55	Not Significant
NPROFT	-0.01	-2.09	0.03	Significant negative
LNGR	0.01	0.72	0.47	Not Significant
TLTA	-1.12	-14.1	0.00	Significant negative

Source: Data Output Eviews 11.0

Based on the results of the Generalized Method of Moment (GMM) regression, the following is the modeling generated based on the regression results.

$$\text{BUFFCAP} = 0.88 + 0.08 \text{LAGBUFFCAP} + 2.86 \text{GDP} + 0.09 \text{ROE} + 0.01\text{BS} + 0.32\text{LIQ} - 0.02 \text{NPL} - 0.01 \text{NPROFT} + 0.01 \text{LNGR} - 1.12 \text{TLTA}$$

Discussion of Research Results

Hypothesis 1

Based on statistical testing, it can be seen the probability value of the Lag Buffer Capital variable is 0.22 and more than 0.05, it can be concluded that hypothesis one is unacceptable and different from the results of research from Raza et al (2019). This can be interpreted as the difference between the Buffer Capital difference this year and the previous years, which did not affect the Buffer Capital of banks in Indonesia. This could be due to economic conditions that change each year. Banks that currently have a significant Buffer Capital, but in the event of a great economic turmoil could be the following year the Buffer Capital can change. Besides, a change in the bank's internal strategy can also change the Buffer Capital difference, for example, banks that are aggressive in channeling credit can take the risk of a smaller Buffer Capital value than the previous year.

Hypothesis 2

Based on statistical testing it can be seen the probability value of Gross Domestic Product variables 0.43 and more than 0.05, it can be concluded that hypothesis two is unacceptable and following the results of research from Raza et al. (2019). This can be interpreted as the macroeconomy represented by the Gross Domestic Product that does not affect the Buffer Capital of banks in Indonesia. This could be due to the fact that the value of the Gross Domestic Product has improved; people prefer to lend funds through non-bank institutions such as cooperatives and peer to peer lending services. In addition, there are many other measures that can be used in macroeconomics, such as inflation, unemployment, Gross National Product, which can have an effect on Buffer Capital.

Hypothesis 3

Based on statistical testing it can be seen the probability value of the Return on Equity variable is 0.017 and less than 0.05, it can be concluded that the hypothesis three is accepted at a 95% confidence level and different from the results of research from Raza et al. (2019). Based on the statistical test, it can also be seen that the coefficient value is 0.092, which can be interpreted every 1% increase from the bank's Return on Equity, increasing 9.22% the value of the bank's Buffer Capital. The results of this study are also consistent with previous studies belonging to Jokipii, Tehri, Milne, & Alistair.

(2009)Belem et al. (2015), Busun et al. (2015), and Mahakud, J. & Dash, S.R. (2013) show that the Return on Equity value has a significant effect on Buffer Capital. Banks that have a higher Return on Equity value have a greater chance of attracting investors to invest in the bank so that bank capital will increase by issuing new shares (rights issue) and issuing debt (bonds). Banks that have a higher Return on Equity value are also likely to be in the category of low-risk banks so that banks categorized as low risk will be more flexible in expanding their business because they are in accordance with existing regulations.

Hypothesis 4

Based on statistical testing, it can be seen the probability value of the Bank Size variable 0.19 and more than 0.05, and it can be concluded that hypothesis four is unacceptable and in accordance with the results of research from Raza et al. (2019). This can be interpreted as the financial performance of banks represented by Bank Size does not affect the Buffer Capital of banks in Indonesia. This could be due to the large or small size of the Bank Size measured in this study through total assets, but if the customer no longer uses banking services, it positively will not affect Buffer Capital. In the future, customers may be more interested in making loans based online, such as peer to peer lending, which is faster in the submission process.

Hypothesis 5

Based on statistical testing, it can be seen the probability value of Liquidity 0.0000 and less than 0.01; it can be concluded that the theory five are accepted at a 99% confidence level and is different from the results of research from Raza et al. (2019). Based on these statistical tests, it can also be seen that the coefficient value is 0.32, which can be interpreted every 1% increase from a Liquidity bank increases 32.04% the bank's Buffer Capital value. The results of this study are also consistent with previous studies by Raza et al. (2019), Pereira et al. (2015), Belem et al. (2016) and Zheng, C., Xu, T. & Liang, W. (2012) show below the value of Liquidity has a significant effect on Buffer Capital.

Banks that have high liquidity consisting of cash assets, cash equivalents, receivables, and debt bills will have a better Buffer Capital compared to banks with low liquidity. High liquidity can also assist banks in meeting all their obligations in the event of a risk of massive withdrawal of funds from customers.

Hypothesis 6

Based on statistical testing it can be seen the probability value of Non-Performing Loan variables of 0.55 and more than 0.05, it can be concluded that assumption six is unacceptable and in accordance with the results of research from Raza et al. (2019). This can be interpreted as a Non-Performing Loan that does not affect the Buffer Capital of banks in Indonesia. This could be due to the value of Non-Performing Loans in Indonesia is still low so that banks can even manage Buffer Capital. In addition, it could be due to the screening of prospective borrowers of funds by banks, the borrowers of these funds divert to online-based loans such as peer to peer lending, which is faster in the submission process.

Hypothesis 7

Based on statistical testing, it can be seen the probability value of the Net Profit variable is 0.038 and less than 0.05; it can be concluded that the seven hypotheses are accepted at a 95% confidence level and different from the results of research from Raza et al. (2019). Based on these statistical tests, it can also be seen that the coefficient value is -0.013, which can be interpreted every 1% increase from the bank's Net Profit, then decreases the 1.32% value of the bank's Buffer Capital. The results of this study are also consistent with previous studies by Atici et al (2013), Riaz, S., Liew, V.K. & Ab Rahim, R. (2015), Noreen et al (2016), Belem et al (2016) and Le et al (2015) show that the Net Profit value has a significant influence on Buffer Capital. This could be because a bank that has a sizeable Net Profit is used to pay dividends to shareholders instead of being retained earnings that can increase capital.

Hypothesis 8

Based on statistical testing it can be seen the probability value of Loan Growth variable is 0.47 and more than 0.05, it can be concluded that hypothesis eight is unacceptable and following the results of research from Raza et al. (2019). This can mean that Loan Growth has no effect on the Buffer Capital of banks in Indonesia. This could be due to the value of large or small Loan Growth does not mean that the bank must add Buffer Capital to face future risks. Banks in Indonesia have screened prospective borrowers of funds so that banks are confident in providing loans to these parties.

Hypothesis 9

Based on statistical testing it can be seen that the probability value of the Total Loan over Total Assets variable is 0.0000 and less than 0.01, so it can be concluded that the hypothesis nine is accepted at a 99% confidence level and in accordance with the results of research from Raza et al. (2019). Based on these statistical tests it can also be seen that the coefficient value is -1.12 which can be interpreted every 1% increase from the Total Loan over Total Assets of the bank, then reduce 112.95% the cost of the Buffer Capital of the bank. The results of this study are also consistent with previous studies by Fonseca and Gonzales (2010) in banking in Colombia, Gosh (2016) in banking in India, Adesina et al. (2017) in African banking shows that the value of Total Loan over Total Assets has an influence significant to Buffer Capital. The higher the amount of debt will make the bank's capital eroded to reduce losses to the bank so that the bank can fulfill all its obligations. The higher the value of debt also increases the risk at the bank. These risks must be anticipated by the bank so as to prevent the risk of bankruptcy at the bank.

CONCLUSION

Based on research conducted with the Generalized Method of Moment (GMM) regression method on a sample of twenty-six banks listed on the Indonesia Stock Exchange in the period 2014 to 2018, it can be seen that the variables that significantly influence Buffer Capital are Return on Equity, Liquidity, Net Profit and Total Loans over Total Assets while the insignificant variables are Lag Buffer Capital, Gross Domestic Product, Bank Size, Non-Performing Loans, and Growth Loans.

Implications

Based on research that has been done with the Generalized Method of Moment (GMM) regression method on a sample of 26 banks listed on the Indonesia Stock Exchange for the period 2014 to 2018 can be used for consideration:

1. Financial Manager (Issuer)

The business manager must maintain the value of Buffer Capital every year as a form of preparation of the Bank in dealing with future events that can interfere with the Bank's operational activities. Financial managers also need to devise strategies to increase the value of Return on Equity so as to attract investors to invest in the bank

due to a significant positive Return on Equity relationship. The financial manager also needs to make an analysis of the proportion of retained earnings and the distribution of dividends to shareholders from the received Net Profit due to a significant negative Net Profit relationship. The financial manager should also maintain the value of the bank's liquidity by spending liquid assets so that if there is a risk the bank can meet its obligations quickly due to a significant positive Liquidity relationship. The financial manager also needs to make internal policies and monitor all the value of the debt so that the debt does not erode capital because the relationship between Total Loan over Total Assets is significant negative. The debt must be appropriately managed for business expansion that can have a positive business impact on the banking system.

2. Investors

This research can also be used by investors in order to use financial services from the Bank. Investors are people or parties who provide capital to specific parties by expecting a return (return) in the future. The decision to invest certainly becomes a crucial decision for investors so that investors do not experience losses. Investors must pay attention to the bank's capital adequacy to ensure the bank is in good health. Investors can study bank financial performance such as high Return on Equity value due to significant positive Return on Equity relationship, adequacy of Liquidity from the bank due to significant positive Liquidity relationship, pay attention to Net Profit performance due to significant negative Net Profit relationship. Including the policy of dividend distribution and retained earnings and pay attention to the ratio between the value of debt to the amount of assets due to the significant negative relationship between Total Loan over Total Assets, lest investors choose a bank with a high debt value of assets because it has the potential to cause the bank to fail to meet its obligations.

3. Government (Policy Makers)

This research is expected to be an input for the government in conducting surveillance and making capital adequacy needs policies in banks in Indonesia. This is, of course, crucial to maintaining bank performance so as to prevent potential risks in the future, which can hamper bank operations, thereby reducing public confidence in banks in Indonesia. The variables that can be used by the government in making

policies and monitoring banks are Return on Equity performance due to significant positive Return on Equity relationships, Liquidity performance due to meaningful positive Liquidity relationships, Net Profit performance due to significant negative Net Profit relationships and Total Loan over performance Total Assets due to negative substantial Total Loan over Total Assets relationship.

Limitations And Suggestions

In this research, there are several limitations made by the author, including the independent variables used are Lag Buffer Capital, Gross Domestic Product, Return on Equity, Bank Size, Liquidity, Non Performing Loans, Net Profit, Growth Loans & Total Loans over Total Assets. Based on the conclusions obtained, suggestions are given that can be used in further research, namely:

1. Add the influence of the Risk variable that can be measured through the value of the bank's credit portfolio to Buffer Capital, according to research from Belem & Gartner (2016).
2. Adding the effect of the Return on Assets (ROA) variable that can be measured through the current year's earnings divided by total assets to Buffer Capital according to research from Busun & Kasman (2015).
3. Add the effect of the variable Deposit to Total Loans (DTL) that can be measured through the value of third party funds divided by total assets to Buffer Capital according to research from Durafe & Singh (2015).
4. It is hoped that further research will not only analyze banks listed on the Indonesia Stock Exchange but also for all banks registered in Indonesia.

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