

# DETERMINANTS OF NON-PERFORMING FINANCING ON SHARIA BANKING IN INDONESIA

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## Abstract

*As an alternative economy, the development of Sharia banking assessed the more fast however of course no regardless of various problems risk financing. Non-performing financing is a used reference in measuring financing problems indicated by experiencing fluctuations in each period. This matter is caused by several factors, including CAR, FDR, BOPO, inflation, and BI rate. The research purpose this to know the influencing factors of Non-Performing Financing in banking Sharia in Indonesia. The research method used is multiple linear regression using time series data from 2008-2023. Research data was obtained from statistics banking Sharia, Bank Indonesia, and the Central Statistics Agency. Research results explain that in a way the CAR variable has an effect negative significance on NPF, while the BI rate has an effect positive significance against NPF. Meanwhile, FDR, BOPO, and inflation had no influential significance against NPF. As for simultaneously, all over variable study influential significance on banking NPF Sharia.*

**Key Words:** *Non-Performing Financing, Sharia Banking*

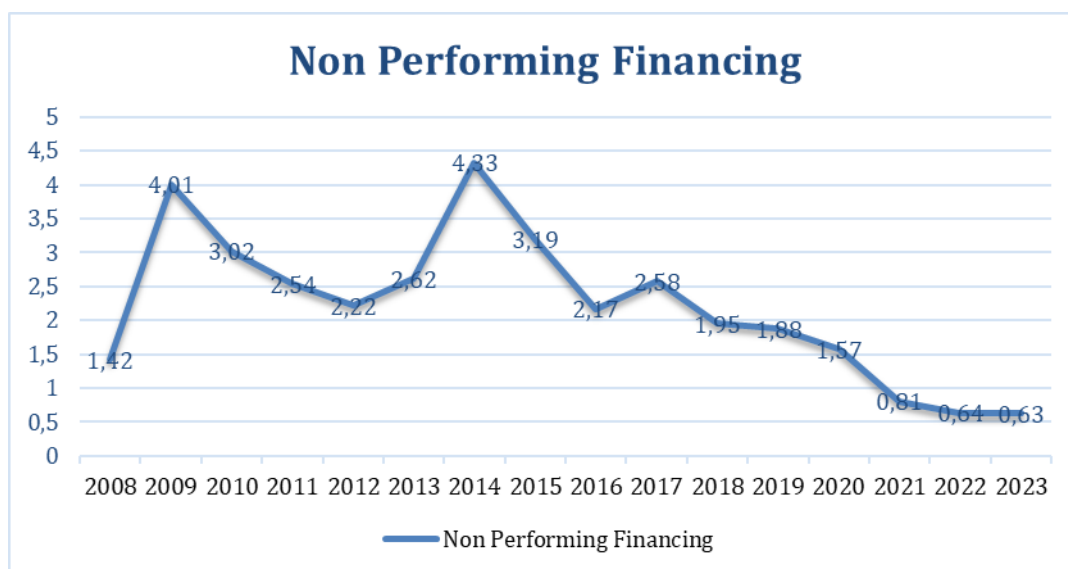
## INTRODUCTION

Islamic banks are institutions of financial activities operations based on principles of sharia so that no applied system interest rate. As institution finance, banks become the right alternative in the advanced sector economy. Until the moment this over-activity economy is supported by banking, good it's not a Sharia bank nor conventional. So the public intermediate to lower can endure in an uncertain economy because relies on institutions (Darmawanti & Suprayogi, 2020). Initially founded banking Sharia in Indonesia in 1992, which is when it's known by the term Bank Muamalat Indonesia. A bank with an Islamic system was established as a form of response from the government to aspiration people who want institutional finance with draft sharia (Hodi & Wardana, 2023).

In general Sharia banking, the same matter as conventional banks being intermediaries meet him party lack with an abundance of funds. Banks usually collect funds from the public in the form of savings and then channel returns to society in the form of credit or financing. In running activities, the distribution of funds becomes mandatory fundamental activities carried out by the institution. Because of income main source bank from credit or financing (Hernawati & Puspasari, 2018). The larger amount of financing distributed to the community indicated that the existence of Islamic banks of course needed. As for more and more increase ratio financing so impacts increasingly tall risks borne by the bank as a creditor (Nugrohowati & Bimo, 2019).

Risk financing is a frequent risk that consequence of customers not being capable of fulfilling mandatory obligations paid to the institution's finance (Supriani & Sudarsono, 2018). Simply put financing like this is often called credit congested or problematic. In banking Sharia, risk credit is mirrored with Non-Performing Financing (NPF) meanwhile in banking conventional is mirrored with Non-Performing Loans (NPL) (Pradana, 2018). Basically, credit congestion happens because the bank too easily agrees with the application financing proposed by customers. Banks distribute funds to customers because they remember that the level of ownership liquidity is still high. Apart from that, there are risks because banks aren't selective in evaluating the characteristics of customers (Darmawanti & Suprayogi, 2020).

Based on existing regulations decided by Bank Indonesia Number 15/2/PBI/2013, the amount ratio from risk Islamic bank financing nor conventional maximum is 5%. Although thereby whatever the ratio of course own impact separately. So institutional banking needs to notice magnitude ratio financing is problematic every period (Perdani et al., 2019). High and low the NPF ratio illustrates how performance banking in manage disbursed financing. This also shows Good and bad activity in Islamic bank financing NPF in Islamic banks needs very observant, because when financing problems are not observed and the ratio increases, then the effect on Sharia bank income (Nugrohowati & Bimo, 2019). Moreover, increasing the NPF ratio causes risk liquidity so I'm afraid the bank won't be able to refund the party's funds third or holder share (Hamzah, 2018). As for development Non-Performing Financing in Islamic banks is presented in the picture following.



**Figure 1.** Fluctuations Non-Performing Financing in Sharia Banking  
Source: Statistics Sharia Banking, (2024, data processed)

Figure 1. Shows the movement of Non-Performing Financing in Islamic banks from 2008 to 2023. It was seen that in 2008 the NPF ratio was 1.42, and experienced enhancement Enough drastically in 2009 to 4.01. In 2010 the NPF returned a decrease to 3.02, until in 2012 the ratio to 2.22. In 2013 the NPF ratio returned increase to 2.62 to its peak in 2014 at 4.33. This improvement this not last a long time, because a number of years afterward NPF ratio continued to decrease from 2018 to 2023, which was originally at 1.95 now to 0.63. Fluctuation shows quite a trend positive in the sector financing because the indicated amount of credit banking problems in Sharia decreased when compared to some years previously. From the phenomena, this can concluded that there are a number of possible factors that influence NPF movements in banking Sharia (Putri & Setiyowati, 2023).

According to Azima (2019), ratio financing is problematic and is not uncertain as well as a tall low amount of credit congested describe magnitude disbursed financing to customers. Credit-increasing traffic jams increase show that the implementation of 5C (character, collateral, capacity, capital, and conditions of economics) in operating activity financing is not under control as it should be (Sari et al., 2020). Frequent NPF ratio changes are caused by several internal factors that influence performance banking Sharia, among others such as CAR, FDR, and BOPO. Besides that Destiana (2018), adds that variable macroeconomics like inflation and BI rate, come along share in support of NPF fluctuations in banking Sharia.

Study about Determinants of Non-Performing Financing in banking Sharia has often carried out, among other things Firdaus (2015), Zannati & Hendryadi (2019), Destiana (2018), Indrajaya (2019), Fadhlurrahman, Tristiarto, & Fadila (2021), Fakhrunnas, Astuti, & Anto (2022), Putri & Setiyowati

(2023), Kuswahariani, Siregar, & Syarifuddin (2020), Surepno, Azmi, & Subchanifa (2023), and Wahyuni, Hadiani, Laksana, & Barnas (2023). Although a number of study carried out in 2023, in meaning is not yet so long. However, the data used in the research the not up to date, it uses data from 2022 even more than that. So that need done study return using the latest data.

Besides that, a number of studies previous show no results consistent, among other things Supriani & Sudarsono (2018) explain that CAR has an effect positively significant against NPF. Prastyo & Anwar (2021) explain that FDR was influential and positively significant against NPF. Laksono (2019) explains that BOPO has a effect positive on NPF. Whereas different with results study Perdani et. al., (2019), Darmawanti & Suprayogi (2020) explain that CAR and FDR have an influence negative significant against NPF, and Prastyo & Anwar (2021) explain that BOPO has an effect negative significant against NPF. Related to variable macroeconomics, Hamzah (2018), and Fahlevi (2022) explain that inflation and the BI rate have an influence positive significant against NPF. Whereas results study Lidyah (2016) explains that inflation is influential and negatively significant against NPF. Temporary Surepno et. al., (2023) explain that the BI rate has an effect negative significant against NPF.

Based on the background back above, done study carries on for consistency from the research to be done. This study aims to know the influencing factors of Non-Performing Financing in banking Sharia in Indonesia, independent variables involved in this study are CAR, FDR, BOPO, BI Rate and Inflation.

## LITERATURE REVIEW

### Agency Theory

The theory used in the study is agency theory. This theory was first put forward by Jensen and Meckling in 1976. Agency theory explains that there is a connection contractual between the principal and the agent. In terms of here, the principal can contact the agent and give the contract for work towards a goal the principal can achieve. As for reaching the objective the agent is given authority to make decisions by the principal so capable reach goals that have been determined (Amrulloh & Amalia, 2020). In context banking, agency theory is addressed to banking sharia Because becomes the owner of the funds who provides financing to customers as an agent who manages funds. Therefore as fund managers, customers need to manage existing funds given with maximum so can return financing from banking sharia (Septiatin et al., 2022).

### Non-Performing Financing (NPF)

Non-Performing Financing abbreviated with NPF is the ratio between financing problematic with the total financing disbursed by banks. NPF is used to measure financing problems. Financing problems often called credit traffic jams, are less smooth and doubtful. This risk happens because customers are not capable pay obligations to banking (Pradana, 2018). The higher NPF ratio illustrates that banking cannot manage distributed funds to customers, so this influential to performance institutions in the future. Following the formula used in measuring NPF (Septiatin et al., 2022)

$$NPF = \frac{\text{Financing Problems}}{\text{Total Financing}} \times 100\%$$

### Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio is the ratio adequacy of capital used by the bank for zoom-out credit congested in operate activity financing. In terms of this is CAR express code banking, where the more strong the ratio the more the bank's resilience is also good risk financing. Therefore That ratio needs to noticed because be governance main in developing the world of banking (SDF Putri & Setiyowati, 2023). CAR ratio can be known with the method share all capital with weighted assets according to risk. Following the formula used in measuring CAR (Fadhurrahman et al., 2021).

$$CAR = \frac{\text{Total Capital}}{\text{ATMR}} \times 100\%$$

### Financing to Deposit Ratio (FDR)

Financing to Deposit Ratio is a ratio used to know the amount disbursed financing to customers with the funds you have banking. FDR became a reference for evaluating is the bank capable return the funds collected. If the bank is able to return the funds that have been received and distributed in the form of financing then the bank can say liquid (Putri & Setiyowati, 2023) following the formula used in measuring FDR (Fatimah & Sholihah, 2023).

$$FDR = \frac{\text{Total Financing}}{\text{Third Party Funds}} \times 100\%$$

### Cost Operational Income Operational (BOPO)

Cost Operational Income Operational is a ratio used for knowing deep banking expertise close cost operational through income earned from activity operational (Lidyah, 2016). BOPO is a comparison between cost operations and income operations as long as the bank is running activity banking. A high or low BOPO ratio is very influential on Islamic bank performance. A low BOPO ratio indicates that the bank is capable manage the institution with a maximum so that the more a little source utilized power from the company (Fadhilah & Suprayogi, 2019). Following the formula used in measuring BOPO (Wahyudi, 2020)

$$BOPO = \frac{\text{Operational Expenses}}{\text{Operational Revenue}} +$$

### Inflation

Inflation is something circumstances increase the price of goods and services in a way general and on continuously. Inflation happens not only happen in One time but in period time and period certain (Fahlevi, 2022). The higher level of inflation indicated that the well-being public decreased. His presence in inflation creates silence in economics, this not only impacts the real sector but is influential to institution finance like banking Sharia. Following the formula used to measure inflation (Rosita & Musdholifah, 2018).

$$\text{Inflation} = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}} \times 100\%$$

Information:

CPI<sub>t</sub>: Consumer Price Index Period 1

CPI<sub>t-1</sub>: Consumer Price Index Period t-1

### BI Rate

BI Rate is an ethnic group flower reflective reference policy monetary policy set by Bank Indonesia (Septiatin et al., 2022). Interest rate is the magnitude mark from something loan. For institutions of banking, the tribal flower is interpreted as a reply to necessary services given by the bank to customers for the funds sacrificed. Interest rates are very influential to the economy public. High interest rates can also influence the performance of banking sharia (Financial Services Authority, 2024).

### Hypothesis study

A hypothesis study is the results answer temporary from something study. In research quantitative, the hypothesis usually needs to be explained Because becomes a reference in the study (Rahmadi, 2011). Following this, there is a hypothesis from a number of variable studies including CAR, FDR, BOPO, inflation, and BI rate on banking NPF Sharia.

### Capital Adequacy Ratio to Non-Performing Financing

Capital Adequacy Ratio is known as the ratio internal capital adequacy close financing problem. Increasing the ratio can zoom out the risk fail paid to the bank (Firdaus, 2015). CAR is one of the factors

that every bank needs to pay attention to. Increasing CAR is able to protect resilience from the financing aspect. Therefore, increase in CAR can have a negative impact on the NPF of sharia banking. This research is in line with Aryani et al., (2016) which states that CAR has a negative and significant effect on NPF. Because the CAR becomes a factor that is necessary noticed for every bank. So, an increase in CAR can have a negative impact on the NPF of sharia banking. Study this in line with Aryani et al., (2016) stated that CAR had an effect negative and significant against NPF. Referring results study the hypothesis first is:

H1: CAR has an effect negative on the NPF.

### **Financing to Deposit Ratio to Non-Performing Financing**

Financing to Deposit Ratio is a comparison between the amount disbursed financing with the funds you have banking. The taller the FDR ratio indicates the more disbursed financing so can become a factor in increasing financing banking problems in Sharia. This matter is supported by the results findings of Saputro & Mawardi (2015) state that FDR was influential positive and significant against NPF. Referring results study the hypothesis second is as:

H2: FDR has an effect positive on the NPF.

### **Cost Operational Income Operational to Non-Performing Financing**

Cost Operational Income Operational becomes a ratio comparison between cost operations and income earned by the bank during operating activity as institution finance. An increasing BOPO ratio increase indicated that the more big necessary costs covered banking consequences from financing problems. Of course matter sort of this no will deliver profits in banking sharia. Increasing BOPO increases the NPF ratio (Lemiyana & Litriani, 2016). So this study this in line with Darmawanti & Suprayogi (2020) states that BOPO has an effect positive and significant against NPF. Referring results study the hypothesis third is as:

H3: BOPO has an effect positive on the NPF.

### **Inflation to Non-Performing Financing**

Inflation reflects the increased price of goods and services in a way general and continuous. During inflation increase ability public to buy something the more decreases. His high inflation is not balanced with enhancement wages power work, so the economy public weak, income as well as profit public low this can impact on ability customers in pay installments. Inflation can result in customers having no consistent pay obligation to banking, so increased credit is congested or problematic. This matter is supported by research by Fahlevi (2022) that inflation is influential positive and significant against NPF. Referring results of the study the hypothesis so forth is:

H4: Inflation has an effect positive on the NPF.

### **BI Rate to Non-Performing Financing**

BI Rate is an ethnic group flower policy that has been determined by Bank Indonesia. When the BI rate increases rate financing will increase, resulting in cost-required installments paid to customers the more big. This matter makes customers at conventional banks switch to financing at Sharia banks that are not dependent on ethnic group interests, so incident this causes the ratio financing problematic increase along increasing amount of financing at Sharia banks (Aryani et al., 2016). This study in line with the findings of Hamzah (2018) states that the BI rate has a effect positive and signifikan on NPF. Referring results study the hypothesis is as:

H5: BI Rate has a effect positive on the NPF.

The framework thinking used in this study is as follows:

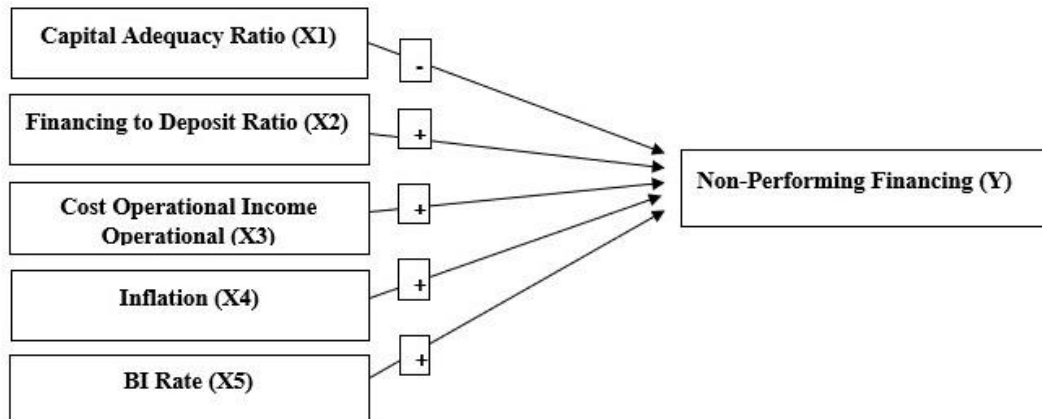


Figure 2. Framework think  
Source: author, 2024

## RESEARCH METHOD

This study uses method descriptive quantitative. The quantitative method is a method of study shaped by number or number. The research method type is method observations where the data used is something that can be measured (Rizal & Humaidi, 2019). The type of data used is secondary time series data in quarterly from. Data used in the study included NPF, CAR, FDR, BOPO, inflation, and BI rate from 2008 to 2023. NPF is the risk of default faced by the banking sector, in percentage units. CAR is the capital adequacy ratio in percent. FDR is the amount of financing of third-party funds disbursed by banks in percentage units. BOPO is operational costs to operational income in percent. Inflation is the change in the basic price level to the consumer price index in percent units, and the BI Rate is the policy interest rate determined by Bank Indonesia in percent units. The data was obtained through statistics banking Sharia, Bank Indonesia, and the Central Statistics Agency. As for other data such as supporter studies obtained through books, articles, and others as appropriate with the study.

The sample selection method used in this study is the saturated sample technique, a sample determination technique that uses all members of the population as samples or all members of the population as samples. The sample used is the Islamic banking industry, namely Islamic Commercial Banks in Indonesia which are found in Islamic banking statistics for the period 2008-2023. The reason for using the saturated sampling technique is because the population is relatively small, and the data available is only from 2008 to 2023 (Saputro & Mawardi, 2015).

The analysis model in the study used multiple linear regression and then helped with the device Eviews-10 software. This regression uses 6 variables all at once, one among them as variable dependent and five others as variable independent. Analysis model this previously developed by Septiatin et al., (2022). Using multiple linear regression models because based on the study previous ie Amrulloh & Amalia (2020), and Septiatin et al., (2022), the model is considered the most suitable for the study. Analysis this passes a number of stages, among others statistics descriptive, test assumptions classic, multiple linear regression, and hypothesis testing.

The regression equation model in this study is as follows.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Information:

- Y = Non-Performing Financing  
X1 = Capital Adequacy Ratio  
X2 = Financing to Deposit Ratio  
X3 = Cost Operational Income Operational  
X4 = Inflation  
X5 = BI Rate  
 $\alpha$  = Constant coefficient  
 $\beta$  = Regression coefficient  
e = Error

## RESULTS AND DISCUSSION

### Statistics Descriptive

Before performing multiple linear regression tests, steps normally start with a statistical test descriptive. Testing was done to explain research data (Suryadi et al., 2020) which consists of mark maximum, minimum, mean, median, standard deviation as well as amount observation.

**Table 1.** Statistical Descriptive Results

	NPF	CAR	FDR	BOPO	INF	BI RATE
Mean	2.774375	24.83193	127.1484	82.79370	4.677656	9.763021
Median	2.780000	16.20500	90.37500	82.21500	4,075000	6,000000
Maximum	5.720000	1413,000	7277,000	99.04000	12.14000	750,0000
Minimum	0.630000	10.59000	7.930000	0.790000	1.320000	3.500000
Std. Dev.	1.272180	100.7995	518.8400	9.713036	2.387954	53.71935
Observations	64	64	64	64	64	64

Source: Eviews-10 output (2024, data processed)

Table 1 explains that is the total of all data from each variable totaling 64, obtained from quarterly time series data times the observation periode (2008-2023). The explanation is as follows.

1. Non-Performing Financing own mark maximum 5.720000, and minimum 0.630000. The mean value is 2.774375 with a standard deviation of 0.474077. Is known that the mean value does not surpass the marked maximum or not enough from the minimum, so can be concluded NPF is not called outlier data.
2. Capital Adequacy Ratio own mark maximum 1413.000, and minimum 10.59000. The mean value is 24.83193 with a standard deviation of 100.7995. Is known that the mean value does not surpass the marked maximum or not enough from the minimum, so CAR concludes no called outlier data.
3. The Financing to Deposit Ratio has a maximum of 7277.000 and a minimum of 7.930000. The mean value is 127.1484 with a standard deviation of 518.8400. Is known that the mean value does not surpass the marked maximum or not enough from the minimum, so can concluded that FDR was not called outlier data.
4. Cost Operational Income Operational own mark maximum 99.04000 and minimum 0.790000. The mean value is 82.79370 with a standard deviation of 9.713036. Is known that the mean value does not surpass the marked maximum or not enough from the minimum, so can concluded that BOPO is not called outlier data.
5. Inflation own mark maximum of 12.14000 with a minimum of 1.320000. The mean value is 4.677656 with a standard deviation of 2.387954. Is known that the mean value does not surpass the marked maximum or not enough from the minimum, so can concluded that inflation is not called outlier data.

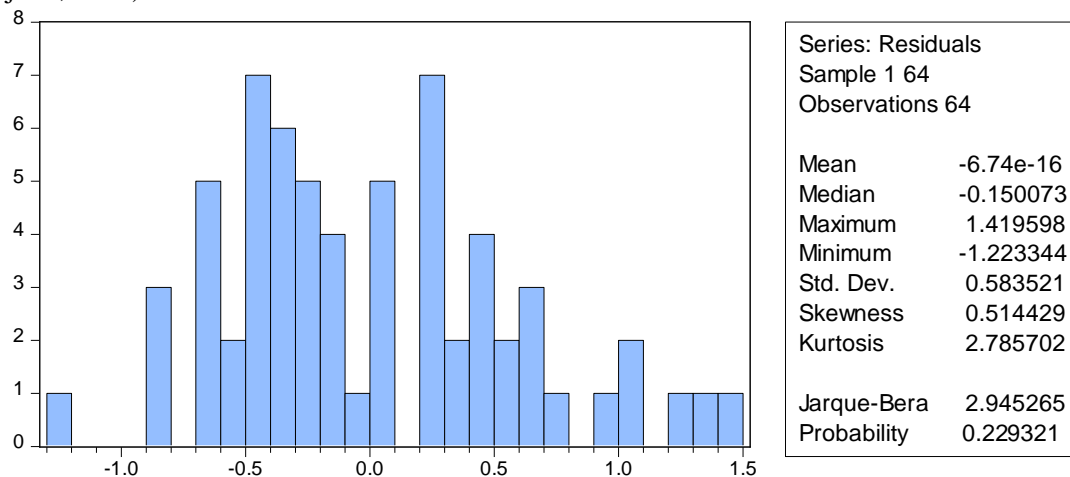
6. BI Rate has a marked maximum of 750.0000 and a minimum of 3.500000. The mean value is 9.763021 with a standard deviation of 53.71935. Is known that the mean value does not surpass the mark maximum or not enough from the minimum, so can concluded that the data is not called outlier data.

### Assumption Test Results Classic

To know the connection between variable dependent and independent, use analysis of multiple linear regression. Moreover, the test assumptions classic which is part of multiple linear regression apply the method separately in the test. Ordinary Least Squares (OLS) is a method used in the assumption test classic. As for the criteria from the OLS method, namely the data must be BLUE “Best Linear Unbiased Estimator”. Assumption classic includes normality, autocorrelation, multicollinearity, and heteroscedasticity tests (Widarjono, 2005)

### Normality test

The purpose of the normality test is to ensure that is residual value in the regression model is normally distributed or not. The approach used in this test is Kolmogorov-Smirnov. Research data stated good if normal and regular distribution. As for the criteria for knowing the data has been normal distribution is reviewed from probability output value Jarque-Bera bigger from significance in the study (Widarjono, 2005)



**Figure 3.** Normality Test Results

Source: Eviews-10 output (2024, data processed)

Based on normality test results were obtained with mark probability Jarque-Bera 0.229321 temporary mark significance research 0.05. Findings show that from the normality test mark probability Jarque-Bera more big from significance. So, the data used in the study was distributed normally.

### Autocorrelation Test

The autocorrelation test is for determining the connection between variables independent in study. The approach used in this test is LM (Lagrange Multiplier). Autocorrelation test conditions that no can happen autocorrelation in regression. This matter can be reviewed from acquisition mark probability, where the value must exceed significance in the study. With this, the data is declared to have passed autocorrelation (Widarjono, 2005).

**Table 2.** Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:			
Obs *R-squared	10.33260	Prob. Chi-Square	0.0663

Source: Eviews-10 output (2024, data processed)



Based on autocorrelation test results were obtained mark chi-square probability of 0.0663 which means bigger than the significance of 0.05. The matter this can concluded that the data passes the autocorrelation test.

### Multicollinearity Test

The purpose of the multicollinearity test is to determine whether there is no linear relationship between the regression model with the independent variable studied. The approach in this test using VIF. The criteria for making a decision in this test is results study from the VIF value should not be more than 10 (Septiatin et al., 2022).

**Table 3.** Multicollinearity Test Results

Variables	Coefficient Variance	Uncentered VIF	Centered VIF
C	3.190976	552.1759	NA
CAR	0.000734	40.94823	2.229660
FDR	4.93E-05	69.08286	1.846605
BOPO	0.000137	166.2819	1.473982
INFLATION	0.001868	8.973836	1.825072
BI_RATE	0.005805	37.00114	1.962761

Source: Eviews-10 output (2024, data processed)

Based on multicollinearity test results obtained VIF value is less than 10. Knowing the criteria in this test where the VIF value is not more than 10, then can conclude that the data passed the multicollinearity test.

### Heteroscedasticity Test

The purpose of the heteroscedasticity test is to know if there is no residual similarity between each variable. The selected approach in this test is white. Criteria in this test that is, the data is declared to have passed heteroscedasticity if the mark chi-square probability is more from the significant study (Widarjono, 2005).

**Table 4.** Heteroscedasticity Test Results

Obs *R-squared	28.58157	Prob. Chi-Square	0.0963
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Source: Eviews-10 output (2024, data processed)

Based on heteroscedasticity test results were obtained mark chi-square probability of 0.0963 which means more big from significance of 0.05. So matter this can concluded that the data passes the heteroscedasticity test.

### Analysis Multiple Linear Regression

If a researcher has a number of independent variables, then the multiple linear regression model is the most appropriate model used in the study. The purpose of this model is to analyze is the independent variable has an effect on the variable dependent. The statistical T, F, and R<sup>2</sup> tests are some tests that are a must-skip in determining the correct no-hypothesis study. Under this, there are multiple linear regression test findings where the findings the used as a regression model in the study.

**Table 5.** Multiple Linear Regression Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	6.191942	1.786330	3.466291	0.0010
CAR	-0.234000	0.027100	-8.634579	0.0000
FDR	-0.002826	0.007024	-0.402379	0.6889
BOPO	-0.001118	0.011724	-0.095327	0.9244
INFLATION	-0.022046	0.043215	-0.510132	0.6119
BI_RATE	0.195336	0.076187	2.563888	0.0130

Source: Eviews-10 output (2024, processed)

Based on the above findings, the regression model obtained is:

$$\text{NPF} = 6.191942 - 0.234000 \text{ CAR} - 0.002826 \text{ FDR} - 0.001118 \text{ BOPO} - 0.022046 \text{ INFLATION} + 0.195336 \text{ BI RATE} + e$$

The regression model obtained can be described as follows:

1. Is known mark constant is 6.191942, which means when the CAR, FDR, BOPO, inflation, and BI rate variables value is 0 then the NPF variable is 6.191942.
2. Is known mark coefficient CAR variable is 0.234000, and shows a coefficient negative. So, you can conclude if CAR experiences an increase of 1 percent, then the NPF will decrease by 0.234000.
3. Is known mark coefficient of the FDR variable is 0.002826, and shows the coefficient is negative. So, you can conclude if variable FDR experienced an increase of 1 percent, then the NPF will decrease by 0.002826.
4. Is known mark coefficient BOPO variable is 0.001118, and shows a coefficient negative. So, you can conclude if the BOPO variable experienced an increase of 1 percent, then the NPF will decrease by 0.001118.
5. As mark coefficient variable inflation is 0.022046, and shows a coefficient negative. So, you can conclude if variable inflation experiences a 1 percent increase, then the NPF variable will decrease by 0.022046.
6. Is known mark coefficient variable BI rate is 0.195336 and shows a coefficient positive. So, you can conclude if the variable BI rate experienced a 1 percent increase, then the NPF variable will be increased by 0.195336.

Once the known regression model equation is as well as the explanation of every variable, the step furthermore is to determine the correct no-hypothesis study. For the know truth hypothesis There are some tests that must be skipped including the statistical T test, F test, and R<sup>2</sup>. Below this, there are definitions and results of the findings described in the study.

### Statistical Test

#### T Test Statistic

In multiple linear regression, the T statistic test is a test carried out to know in a way partial is the data from the independent variable (X) has an effect significant to the variable dependent. Influence significant results can be known from mark probability where the value is more small from significance study (Widarjono, 2005)

**Table 6.** Statistical T-Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	6.191942	1.786330	3.466291	0.0010
CAR	-0.234000	0.027100	-8.634579	0.0000
FDR	-0.002826	0.007024	-0.402379	0.6889
BOPO	-0.001118	0.011724	-0.095327	0.9244
INFLATION	-0.022046	0.043215	-0.510132	0.6119
BI_RATE	0.195336	0.076187	2.563888	0.0130

Source: Eviews-10 output (2024, processed)

From the table above can withdraw the conclusion as follows.

1. The CAR variable has a mark t-statistic -8.634579 with a probability of 0.0000. In the t- t-statistic test, the value probability variable X must be compared to with significance study. Knowing that the mark significance study is 0.05, then can it was concluded that CAR had a effect negative on NPF.

2. The FDR variable has a mark t-statistic -0.402379 with probability 0.6889. In the t- t-statistic test, the value probability variable X must be compared to with significance study. Knowing that the mark significance is 0.05, then can concluded FDR did not have influential significance against NPF.
3. The BOPO variable has a mark t-statistic -0.095327 with a probability of 0.9244. In the t- t-statistic test, the value probability variable X must be compared to with significance study. Knowing that the mark significance is 0.05, then it was concluded that BOPO was not influential significant against NPF.
4. Variable inflation own mark t-statistic -0.510132 with probability 0.6119. In the t- t-statistic test, the value probability variable X must be compared to with significance study. Knowing that the mark significance is 0.05, then can be concluded inflation has no influential significance against NPF.
5. The variable BI rate has a mark t-statistic of 2.563888 with a probability of 0.0130. In the statistical t-test, the value probability variable X must be compared to with significance study. Knowing that the mark significance is 0.05, then can conclude bi-rate influential positive significance on NPF.

### F Test Statistic

In multiple linear regression, the F test is performed to know if all variables are independent and influential to variable dependent in a way simultaneous or simultaneously. Criteria for determining if the variable is independent in a way simultaneous influential significant to variable dependent, reviewed from mark probability F-statistic where is the value not enough from mark significance (Munir, 2018)

**Table 7.** F Test Statistical Results

F-statistic	43.11050
Prob(F-statistic)	0.000000

Source: Eviews-10 output (2024, processed)

Based on F statistical test results were obtained mark probability equal to 0.0000, where value the more ketch from the mark significance. So that can concluded that in a way simultaneous all-over variable independent start from CAR, FDR, BOPO, inflation, and BI rate affect NPF significantly.

### Coefficient of Determination Test

In multiple linear regression, the test of the coefficients determination ( $R^2$ ) aims to know how much strong independent variables influence the variable dependent in the study. In other words,  $R^2$  explains how many big potency variables X explains Y in the study. Meanwhile, to find out the potential, you can review the Adjusted R-squared value obtained in research (Widarjono, 2005).

**Table 8.** Coefficient of Determination Test Results

R-squared	0.787975
Adjusted R-squared	0.769697

Source: Eviews-10 output (2024, data processed)

Based on coefficient test results determination, obtained mark Adjusted R-squared 0.769697. So that can concluded that the ability of the independent variable to explain the variable is 76%. The remaining 24% was explained by other outside variables research, bank size, kurs, GDP, JUB, and SBIS.

## DISCUSSION

### Influence Capital Adequacy Ratio to Non-Performing Financing

Based on the results research, obtained mark coefficient -0.234000, t- statistic -8.634579, and probability 0.0000. In other words, at the time the CAR variable increased by 1 percent then the NPF will decrease as big as 0.234000. As for acquisition f-value statistics and probability can concluded that CAR has a effect negative on banking NPF sharia period 2008-2023. Research results this is supported by Wibowo & Saputra (2017), Perdani et al., (2019), and Darmawanti & Suprayogi (2020) state that CAR has a effect negative significant towards NPF. Compared to the backward with results study Firdaus

(2015), Rahayu et al., (2022), and Surepno et al., (2023) state CAR has an effect positively significant towards NPF.

Capital Adequacy Ratio (CAR) is an important factor that determines the performance of a bank. CAR is the capital adequacy ratio used to cover problematic financing in sharia banking. If the banking CAR value increases, this can affect the bank's ability to manage bad or problematic loans. Because CAR is identical to capital in banking, CAR is used as an object to cover any financing problems. So, increasing CAR can reduce financing ratio problems caused by customer negligence in paying installments. Therefore, increasing the CAR can have a negative and significant influence on the NPF of sharia banking (Aryani et al., 2016).

### **Influence Financing to Deposit Ratio to Non-Performing Financing**

Based on the results research, obtained mark coefficient -0.002826, t- statistic -0.402379, and probability 0.6889. As for acquisition f-value statistics and probability can concluded that FDR was not influential or significant against banking NPF sharia period 2008-2023. Research this is supported by Darmawanti & Suprayogi (2020) state that FDR was not influential towards NPF. While different from the results study Fatoni & Utami (2019) and Surepno et al., (2023) stated that FDR was influential positive significant towards NPF.

Financing to Deposit Ratio (FDR) is the ratio used to evaluate the amount of financing that is distributed compared to the funds available in banking. An increasingly tall FDR ratio means the amount of financing that is distributed to customers the more big where is this potential increase risk financing problem with banking sharia. However, the results study explain that high FDR is not influential to financing problems. Because FDR only describes how banks distribute the funds collected from the public through financing (Darmawanti & Suprayogi, 2020). This incident indicates that financing that is distributed banking is very healthy. The existence of healthy financing this is caused by the implementation of the 5 C principle (character, capacity, capital, collateral, and condition) applied to banking before agreeing on application financing. Implementation of the 5 C principle can weaken potential fail pay in banking. So, although the FDR ratio increases no influence against banking NPF sharia (Wibowo & Saputra, 2017).

### **Influence Cost Operational Income Operational against Non-Performing Financing**

Based on the results research, obtained mark coefficient -0.001118, t-statistic -0.095327, and probability 0.9244. As for acquisition t- t-value statistics and probability can concluded that BOPO does not influence significantly banking NPF sharia period 2008-2023. Research results supported by Firmansyah (2014), Destiana (2018), and Indrajaya (2019) declare BOPO is not influential towards NPF. While different from the results study Perdani et al., (2019), Safitri et al., (2020), and Laksono (2021) stated that BOPO has an effect positive significant towards NPF.

Cost Operational Income Operational (BOPO) is cost operational comparison with income-operational banking sharia. The BOPO ratio reflects the level of efficient banking sharia. The more BOPO level the can it is said that the bank does activity operational with good. BOPO is also used tool for measuring in evaluating the efficiency of Islamic banks, although thus matter this no then can minimize financing problematic. Financing is a problem external which is located outside of banking sharia where it is related directly to customers in pay installments. In the context of banking, BOPO or level efficiency no can made into reference management when the bank wants to determine policy in managing financing problematic. So BOPO is not influential against banking NPF sharia (Firmansyah, 2014).

### **Influence Inflation to Non-Performing Financing**

Based on the results research, obtained mark coefficient  $-0.022046$ ,  $t$ - statistic  $-0.510132$ , and probability  $0.6119$ . As for acquisition  $t$ -value statistics and probability can concluded that inflation has no influential significant on NPF for the period 2008-2023. Research results this is supported by Zannati & Hendryadi (2019), and Perdani et al., (2019). While results study Fahlevi (2022), and Septiatin et al., (2022) state inflation influential positive significance towards NPF.

Inflation is a condition increasing the price of goods and services in a way general and ongoing. Usually, inflation happens at a time when more money is big compared to with sector real, so the Power buys the public tends to decrease. When the power buy public decreases, thing this hints that the public no just focused on consumption. When they reduce the amount of consumption his ability to pay installments in the sector banking more maximum. So that height level inflation does not make customers careless then put aside payment mandatory installments they deposit to banking. This is what causes variable inflation with no influence against banking NPF sharia (Nugrohowati & Bimo, 2019).

### **Influence BI Rate against Non-Performing Financing**

Based on the results research, obtained a mark coefficient of  $0.195336$ ,  $t$ - statistic  $2.563888$ , and a probability of  $0.0130$ . In other words, at the time the variable BI rate increases by 1 percent, then NPF increases by  $0.195336$ . As for acquisition  $t$ -value statistics and probability can concluded that BI rate influential positive significance on NPF for the period 2008-2023. Research results supported by Hernawati & Puspasari, (2018), Hamzah (2018), and Fahlevi (2022) state BI rate has an effect positive significant against NPF. Different from the results research by Putri (2016) and Surepno et al., (2023) state BI rate has an effect negative significant towards NPF.

BI Rate is ethnic group flower policies that have been determined by Bank Indonesia. BI rate or ethnic group flower identical with flower savings and loans in banking. When the BI rate increases so flower conventional bank loans will increase, of course cost of installments to be paid paid customers is also increasing. Considering that Islamic banks do not apply system flower in the activity of their operations, conventional bank customers will switch to financing at Islamic banks that implement for results, because they think financing in banking sharia the burden that must be issued no so big compared to banking conventional. So that matters this cause ratio financing in banking sharia increase until finally can increase financing problem with banking sharia. (Aryani et al., 2016).

### **CONCLUSION**

Research results conclude that in a way the CAR variable has an effect significant against NPF. On the contrary BI rate has an effect positively significant against NPF. That means, with more and more tall CAR ratios the NPF will decrease, and vice versa the more tall ratio BI rate then the banking NPF sharia will increase. Temporary FDR, BOPO, and inflation variables have no influential significance on banking NPF sharia. Simultaneously, all variable studies start from CAR, FDR, BOPO, inflation, and BI rate influential significance on banking NPF Sharia.

### **SUGGESTION**

Remember that Still Lots lacks in studying this, so there are necessary suggestions noticed for researchers and banks in the future.

1. Research conducted on “Determinant Non-Performing Financing in Sharia Banking in Indonesia” the result assessed still not enough satisfying so that need done study return with using the latest data, period study longer, and well various variables, so that the results obtained maximum.

2. As institution finance, banking sharia needs to notice how bank performance in every period. This matter can done with a review of CAR, FDR, BOPO, and NPF ratio banking. With thereby fixed NPF ratio in reasonable conditions the bank can afford it increase profitability banking sharia.

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