# Determinants of Bank Mu'amalat Indonesia's Non-Performing Financing: Internal and External Reviews

by Binti Nur Asiyah

Submission date: 03-Apr-2023 10:02AM (UTC+0700) Submission ID: 2054107082 File name: B\_Determinant\_NPF.pdf (360.04K) Word count: 7756 Character count: 39122 Elqish : Journal Islamic of Economics 2(2) 2022, 97-112

### Determinants of Bank Mu'amalat Indonesia's Non-Performing Financing: Internal and External Reviews

Binti Nur Asiyah<sup>1\*</sup>, Ayuk Septiana<sup>2</sup>, Amin Wahyudi<sup>3</sup>

<sup>1.2</sup> Islamic Economic and Business Faculty, UIN Sayyid Ali Rahmatullah Tulungagung, Indonesia <sup>3</sup> Islamic Economic and Business Faculty at IAIN Ponorogo, Indonesia \*corresponding author e-mail : binti.nur.asiyah@ uinsatu.ac.id

Article Info	Abstract
<i>Keywords:</i> Non Performing Financing; Islamic Banking; Internal and External Reviews.	Non-Performing Financing (NPF) in the management of Islamic Banks Financing needs to be controlled, although it is difficult to avoid it. This review can be observed from various internal and external variables of Islamic banks. This paper intends to analysis the determinants of Bank Muamalat's NPF, in terms of internal variables, namely Capital Adequacy Ratio (CAR), Operational Income to Operating Costs (BOPO), and Financing to Deposit Ratio (FDR),
<b>DOI</b> : 10.33830/elqish.v2i2.4157.2022	while external reviews include inflation and the Rupiah Exchange Rate. Writing method with a quantitative approach, the type of associative research. The population is taken from the financial statements of PT. Bank Muamalat Indonesia for the 2013-2021 period as many as 35 data. The sampling technique used is saturated sampling. The analysis uses multiple linear regression through normality test, classic assumption test, t test, F test and coefficient of determination test. Findings showed that CAR had a significant negative effect on NPF, BOPO had a significant positive effect on NPF, FDR had no significant effect on NPF, Inflation had no significant effect on NPF, Rupiah exchange rate had no significant effect on NPF, while CAR, BOPO, FDR, inflation, and The Rupiah exchange rate simultaneously has a significant effect on the NPF of 41%, while the rest is influenced by other indicators. Internally, CAR and BOPO have a significant effect while external reviews have no significant effect. The practical implication of this paper is that Islamic banks need to pay attention to internal conditions so that NPF can be controlled.

### 1. Introduction

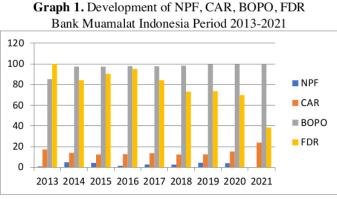
Financing is needed in the economy in society (Imran and Hendrawan, 2017). Distribution of financing is not free from financing risk. Financing risks include the risk of default from financing customers, especially the conditions of the Covid 19 Pandemic in 2020 and 2021. Financing collectability financing until it finally crashes, collectability is doubtful so that it has the potential to crash affecting bank operations (Fahmi, 2011).

The ratio for measuring the amount of NPF is the ratio of NPF. The size of the NPF shows the risk of the financing provided, the higher the NPF, the higher the financing risk that will be borne by Islamic banking. According to Bank Indonesia Regulations, the ratio of NPL (conventional banking) or NPF (Islamic Banking) may only be less than 5%. If it exceeds 5%, it will have an effect on assessing the soundness of Islamic banks. A high NPF is a device of a Islamic bank's omission in operational managing and results in liquidity, solvency and profitability.

An increase in NPF results in smaller profits obtained compared to the capital issued. As for depositors, it can reduce profits on deposits or savings, even if bankruptcy occurs, all of their assets

El-Qish: Journal of Islamic Economics 2(2) 2022, 97-112

will be lost. NPF can have an impact on all economic actors and if left unchecked it will cause an economic crisis.



Source: BMI report

The ups and downs of NPF PT. Bank Muamalat Indonesia is of concern and is being followed up in the framework of a more comprehensive banking risk management. Efforts to identify the causes of NPF in terms of Islamic bank operations. This study can be seen from the internal variables of Islamic banks, and external variables which include the economy. Internal variables include CAR, BOPO, and FDR. External variables include inflation and exchanging currency.

CAR at Bank Muamalat tends to increase, this means have the ability of Muamalat bank when facing risks, according to BI provisions a bank is included in the healthy category if it has a CAR of at least 8%. In 2018 Bank Muamalat was faced with a low CAR due to the increasing NPF level (cnbc Indonesia.com). CAR shows the ratio of bank performance in ensuring the adequacy of bank capital, so that assets that contain risks are protected. The higher the CAR, the Islamic banking will be able to minimize losses incurred as a result of providing financing so that the bank is able to cover financing risks that occur with large reserve funds. Car is needed as a buffer for assets that experience losses. Paper (Wood and Skinner, 2018) makes CAR a determinant of Non-Performing Loans in channeling bank funds.

Operating Expenses to Operating Income (BOPO) appear to tend to rise above 90%, this means that bank Muamalat can be categorized as less efficient in carrying out its operations because according to the figures set by BI, BOPO has a good performance if it is below 90%. The better the BOPO size shows that the better the level of efficiency in managing operational costs carried out by a bank, so that it can generate a high level of profit. This increase in profit reflects an increase in the appearence financing, in that a decrease of NPF ratio. Conversely, if the value of the BOPO ratio is above 90%, it will cause an increase in NPF.

The FDR shows that the average bank liquidity fluctuates per year, tends to be stable at 80% -110%, but in 2018-2021 the FDR value is below 80%. Even though according to BI regulatory standards, FDR must be in the range of 80% -110%. The level of the FDR ratio that does not comply with BI regulatory standards will also make a high contribution to Non-Performing Financing (NPF). When FDR increases without being supported by optimal supervision, it will result in higher NPF levels.

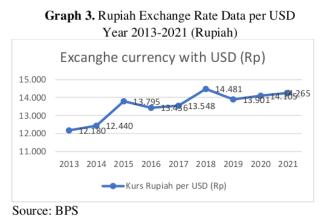
Then besides the three internal variables above, there are external variables used by the author, namely inflation and the Rupiah exchange rate per USD. In general, inflation will have an unfavorable effect on economic activity, the presence of inflation will cause difficulties for debtors

in paying their loan installments. Strengthening currency values, which means that the value of the Rupiah weakens, will have an impact on rising prices for domestic capital goods. A weakened currency value, where more rupiahs have to be spent to get foreign currency, indicates a bad economy and inflation. So, the inflation inflation is on top of a country, the more problematic financing it will be. The following is data on developments in inflation and the rupiah (usd) exchange rate in 2013-2021:



Source: BPS

Inflation in Indonesia, as shown in graph 2, has fluctuated and tends to decrease. Of course, this has an effect on the business that is run by financing customers which causes pressure on customer performance or vice versa, which has an impact on the ability to pay installments for financing made at Islamic banks.



Based on some of the descriptions above, all independent variables are related to the dependent variable. Non-Performing Financing (NPF) is influenced by internal factors and external factors. The high NPF will make a major contribution to the poor banking performance so that the authors feel the need to examine these variables, which variable has more influence on Bank Muamalat's NPF because it will affect bank Muamalat's capital. In addition, this needs to be done so that the bank can plan and prepare ways to minimize financing risks and reduce the high level of NPF.

### Non Performing Financing

The risk on Islamic bank financing is represented by the NPF condition. The agreement in the contract that is not fulfilled by the customer, the customer does not repay on time, then that's where the NPF occurs (Ismail, 2013). The description confirms that NPF occurs when financing is provided to third parties or customers, then in making installments the customer experiences difficulties which can have an impact on profits and operational activities of Islamic banks (Usanti and Shomad, 2013). The following is the formula for calculating troubled financing:

 $NPF = \frac{Pembiayaan Bermasalah}{Total Pembiayaan} X 100\%$ 

### Capital Adequacy Ratio

Banks have an obligation to meet minimum capital requirements. In terms of capital factor, all banks are required to meet an adequate level of capital adequacy to maintain liquidity. To calculate the CAR ratio, you must first know the value of the RWA. Risk Weighted Assets (RWA) is the total value of each bank's assets after being multiplied by each type of asset risk. Quantitative assessment of capital factors is carried out using the Capital Adequacy Ratio (CAR). According to Tarmidzi Achmas, the higher the CAR, the better the condition of a bank (Umam, 2013). To find the ratio of Capital Adequacy Ratio (CAR) can be formulated as follows:

$$CAR = \frac{Modal Bank}{ATMR} \times 100\%$$

### Operational Cost to Operating Income (BOPO)

Operating Expenses to Operating Income/BOPO is the ratio of operational costs used to measure the level of efficiency and apility of a bank to carry out its operational activities (Pinasti and Mustikawati, 2018). The ratio of Operating Expenses to Operating Income (BOPO) shows the efficiency of banks in running their main business, especially credit, where until now the income of banks in Indonesia is still dominated by interest income from loans. The smaller the Operational Cost to Operating Income (BOPO) indicates the more efficient the bank is in running its business assets. Based on BI Circular Letter Number 13/30/DPNP dated 16 December 2011 the BOPO calculation can be obtained as follows:

$$BOPO = \frac{Operating Expense}{Operating Income} \times 100\%$$

### Finang to Deposit Ratio/FDR

The Financing to Deposit Ratio (FDR) is defined as the ratio between the financing provided by the bank and third party funds successfully mobilized by the bank (Muhammad, 2005). FDR is a ratio used to measure whether a bank has a healthy in carrying out the operations of its business. FDR is a comparison between financing provided by banks and third party funds that Islamic banking has managed to collect (Taswan, 2006).

From the explanation above, it can be concluded that the Financing to Deposit Ratio is an indicator in the distribution of financing used by the bank in increasing profits. This ratio is formulated according to (SE BI No. 6/23/DPNP/2004) by (Asiyah, 2014) as follows:

$$FDR = \frac{Financing Total}{DPK Total} X 100\%$$

### Inflation

Inflation is the tendency for prices to rise in general and continuously. According to Soebagia, before inflation in terms of financing, debtors were still able to pay their financing installments. However, after inflation occurs when prices increase, it becomes possible that the debtor's ability to pay installments will weaken, because most or all of his income has been used to meet household needs as a result of rising prices. Therefore, it can be concluded that the higher the inflation, the higher the chance of problematic financing.

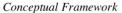
From the explanation above, it can be concluded that inflation is a change in the increase in the price of goods, not just one or two goods, but the overall price of goods continuously over a long period of time. Inflation can also have an impact on the level of changes in people's purchasing power to decrease. Increases in the price of goods can be measured by the Consumer Price Index (CPI), besides that inflation can have an impact on the real banking sector, for example in financing problems with declining public incomes, of course people have difficulty paying difficulties in paying financing installments because people's income is more used for their needs. his household.

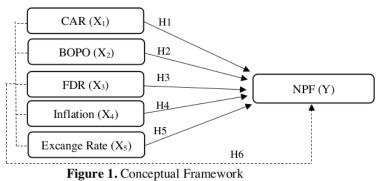
In the macroeconomic concept, inflation is defined as a general and continuous increase in the price of goods and services. In this context, there are two important meanings which are the keys to understanding inflation, namely price increases in general and continuously. Only price increases that occur in general can be called inflation. Price increases for certain commodities that occur due to seasonal factors, for example ahead of holidays or due to temporary supply disruptions and have no further effect, are not called inflation.(Utari, Cristina S, and Pambudi 2015)

### Rupiah Exchange Rate

The exchange rate, or what is more popularly known as the currency exchange rate, is a record of the market price of a foreign currency in terms of the price of the domestic currency. Exchange rate is defined as the amount of domestic money needed to obtain one unit of foreign currency. The exchange rate will differ from the currency of a country. The exchange rate (exchange rate) shows the price or value of a country's currency expressed in the value of another country's currency. (Sukirno, 2011, p. 397)

As a soft currency, the Indonesian Rupiah is still heavily influenced by stronger currencies, especially the US Dollar. The fluctuation in the exchange rate of the Rupiah against the US Dollar had a significant impact on Indonesia's economic activities on the world market. As stated by Kaminsky and Reinhart, an unexpected depreciation (decrease) in the domestic currency exchange rate threatens bank profitability and NPF performance.





El-Qish: Journal of Islamic Economics 2(2) 2022, 97-112

```
Hipotesis
```

- H1: partially suspected, it is stated that the Capital Adequacy Ratio (CAR) has a significant negative effect on Non-Performing Financing (NPF) of Bank Muamalat Indonesia.
- H2: partially suspected, it is stated that Operational Costs and Operating Income (BOPO) have a significant positive effect on Non-Performing Financing (NPF) of Bank Muamalat Indonesia
- H3: partially suspected, it is stated that the Financing to Deposit Ratio (FDR) has a significant effect on Non-Performing Financing (NPF) of Bank Muamalat Indonesia.
- H4: partially suspected, it is stated that inflation has no significant effect on Non-Performing Financing (NPF) of Bank Muamalat Indonesia.
- H5: partially suspected, it is stated that the Rupiah exchange rate has no significant effect on Bank Muamalat Indonesia's Non-Performing Financing (NPF).
- H6: It is suspected that there is a significant influence simultaneously between CAR, BOPO, FDR, inflation and the Rupiah exchange rate per USD on NPF at Bank Muamalat in 2013-2021.

Based on the problems above, this study intends to examine further under the title "Determinants of Bank Mu'amalat Indonesia's Non-Performing Financing: Internal and External Reviews".

### 2. Research Method

This research uses a quantitative approach, with the type of associative research. Data collection techniques using indirect observation. In this study using indirect observation where researchers collected quarterly financial report data obtained from the PT Muamalat website at https://www.bankmuamalat.co.id/ and the official website of Bank Indonesia at www.bi.go.id.

The population in this study is the entire object under study, namely the Quarterly Financial Statements from PT Bank Muamalat with a total of 35 data. Starting from the first quarter of 2013 to the fourth quarter of 2021 which can be accessed from the official website https://www.bankmuamalat.co.id/relations-investor/report-annual. The technique used in selecting the sample is purposive sampling. There are six types of techniques included in non-probability sampling, namely systematic sampling, incidental sampling, purposive sampling, quota sampling, saturated sampling, and snowball sampling. In this study, the sampling technique used is saturated sampling technique. Saturated sampling is a sampling technique when all members of the population are used as samples. The feature of this sampling is that all populations are used as samples, namely data published by BI (inflation and the rupiah exchange rate) and Bank Muamalat quarterly financial report data for 2013-2021.

The data analysis technique used in this study was to use multiple linear regression analysis. This test was carried out using the SPSS IBM 25 application. In carrying out multiple linear regression analysis, several methods are needed which include the classic assumption test consisting of a normality test, multicollinearity test, heteroscedasticity test and autocorrelation test. Test multiple linear regression analysis, test the hypothesis which includes the t test, and f test and test the coefficient of determination (R2).

### 3. Results and Discussions

### Normality test

The normality test aims to see if the residual values are normally distributed or not.

	I. Normality Test I e Kolmogorov-Sn	
		Unstandardized Residual
Ν	36	
Normal Parameters <sup>a</sup>	Mean	.0000000.
	Std. Deviation	.96284693
Most Extreme	Absolute	.144
Differences	Positive	.099
	Negative	144
Kolmogorov	.867	
Asymp. Sig	.440	
a. Test distribut	tion is Normal.	

Based on the results of table 1, the normality test shows that the asymptosig (2-tailed) of 0.440 is more than the significant level of 0.05. So, it can be concluded from the results of the analysis that the residual values are normally distributed because the sig. exceed the significant level.

### **Multicollinearity Test**

The multicollinearity test aims to see whether there is a high correlation between the independent variables in a multiple linear regression model in the multicollinearity test.

		ulticollinearity T ficients <sup>a</sup>				
Collinearity Statistics						
Mod	lel	Tolerance	VIF			
1	(Constant	)				
	CAR	.683	1.464			
	BOPO	.434	2.303			
	FDR	.343	2.918			
	Inflation	.298	3.356			
	Excange Rate	.489	2.045			

Based on the results of table 2 from the multicollinearity test, the tolerance value for each variable is > 0.1 and the VIF value for each variable is < 10. So, it can be stated that the data is free from multicollinearity. Thus, it can be said that the variables X are mutually independent or independent.

El-Qish: Journal of Islamic Economics 2(2) 2022, 97-112

### Heteroscedasticity Test

The heterodoxity test is a test tool for testing the regression model to find out the variance of the residuals from one observation to another.

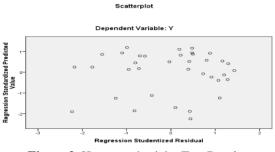


Figure 2. Heteroscedasticity Test Result

Based on the results of the Heteroscedasticity test, it shows that the dots are spread out, do not form a clear pattern, and do not collect only above or below. So it can be concluded that there is no heteroscedasticity problem.

### Autocorrelation Test

The autocorrelation test aims to find out whether in a linear regression model there is a correlation between the confounding errors in period t and the errors in period t-1 (previously).

			Model Sun	ımary <sup>b</sup>	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.703 <sup>a</sup>	.495	.410	1.03999	.770

a. Predictors: (Constant), Kurs, CAR, FDR, BOPO, Inflasi

b. Dependent Variable: NPF

Based on the results of table 3, the results of the autocorrelation test showed that the Durbin-Watson autocorrelation test result was 0.770. So the results of the Durbin-Watson autocorrelation test are between  $-2 \le DW \le +2$ . So it can be concluded that there is no autocorrelation.

### Multiple Linear Regression

Multiple linear regression analysis aims to determine the effect between the independent variables and the dependent variable has a positive or negative effect.

Table 4. Multiple Linear Regression Results						
		Unstand Coeffi		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-8.555	6.009		-1.424	.165
	CAR	263	.088	469	-2.989	.006
	воро	.166	.050	.658	3.339	.002
	FDR	016	.020	175	790	.436

Inflation	.223	.150	.352	1.479	.150
Excange Rate	.011	.029	.074	.397	.694
a. Dependent Variable	: NPF			-	

The multiple linear regression equation is obtained as follows:

Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + e

NPF = -8,555 - 0,263 (CAR) + 0,166 (BOPO) -0,016 (FDR) + 0,223 (Inflation) + 0,011 (Excange Rate)

### Partial Hypothesis Test (t test)

The t test has the objective of testing separately the contributions generated from each independent variable to the dependent variable. Partial or each variable, does it have a significant influence on the dependent variable (Y).

Table 5. T Test Results (Partial) Coefficients <sup>a</sup>							
Unstandardized Standardized Coefficients Coefficients							
Model		В	Std. Error	Beta	Т	Sig.	
1	(Constant)	-8.555	6.009		-1.424	.165	
	CAR	263	.088	469	-2.989	.006	
	ВОРО	.166	.050	.658	3.339	.002	
	FDR	016	.020	175	790	.436	
	Inflation	.223	.150	.352	1.479	.150	
	Excange Rate	.011	.029	.074	.397	.694	

Hypothesis:

1. Effect of CAR on NPF

- H0: It is suspected that there is no significant CAR effect on NPF at Bank Muamalat in 2013-2021.
- H1: It is suspected that there is a significant effect of CAR on NPF at Bank Muamalat in 2013-2021.

Method 1 from the table above it is known that the value of Sig. is 0.006, so 0.006 <0.05 so that H0 is rejected, namely CAR has a significant negative effect on NPF. Method 2 ttable(30;0.025)= 2.042. So, from the table above it is obtained that tcount > ttable = 2.989 > 2.042, so that H0 is rejected, namely CAR has a significant negative effect on NPF.

### 2. Effect of BOPO on NPF

- H0: It is suspected that there is no significant effect of BOPO on NPF at Bank Muamalat in 2013-2021.
- H2: It is suspected that there is a significant effect of BOPO on NPF at Bank Muamalat in 2013-2021.

Method 1 from the table above it is known that the value of Sig. is 0.002, so 0.002 < 0.05 so H0 is rejected, namely BOPO has a significant positive effect on NPF. Method 2 ttable(30;0.025)=

2.042. So from the table above it is obtained that tcount > ttable = 3.339 > 2.042, so that H0 is rejected, namely BOPO has a significant positive effect on NPF.

3. Effect of FDR on NPF

- H0: It is suspected that there is no significant effect of FDR on NPF at Bank Muamalat in 2013-2021.
- H3: It is suspected that there is a significant effect of FDR on NPF at Bank Muamalat in 2013-2021.

Method 1 from the table above it is known that the value of Sig. is 0.436, so 0.436 > 0.05 so that H0 is accepted, namely FDR has no significant effect on NPF. Method 2 ttable(30;0.025)= 2.042. So from the table above it is obtained that tcount < ttable = 0.790 < 2.042, so that H0 is accepted, namely FDR has no significant effect on NPF.

4. Effect of Inflation on NPF

- H0: It is suspected that there is no significant inflation effect on NPF at Bank Muamalat in 2013-2021.
- H4: It is suspected that there is a significant effect of inflation on the NPF at Bank Muamalat in 2013-2021.

Method 1 from the table above it is known that the value of Sig. is 0.150, so 0.150 > 0.05 so that H0 is accepted, namely inflation has no significant effect on NPF. Method 2 ttable(30;0.025)= 2.042. So from the table above it is obtained that tcount < ttable = 1.479 < 2.042, so that H0 is accepted, namely inflation has no significant effect on NPF.

5. Effect of the Rupiah exchange rate per USD on NPF

- H0: It is suspected that there is no significant effect of the Rupiah exchange rate per USD on NPF at Bank Muamalat in 2013-2021.
- H5: It is suspected that there is a significant effect of the Rupiah exchange rate per USD on NPF at Bank Muamalat in 2013-2021.

Method 1 from the table above it is known that the value of Sig. is 0.694, so 0.694 > 0.05 so that H0 is accepted, namely the exchange rate has no significant effect on NPF. Method 2 ttable(30;0.025)= 2.042. So from the table above it is obtained that tcount < ttable = 0.397 < 2.045, so that H0 is accepted, namely the exchange rate has no significant effect on NPF.

### Simultaneous Hypothesis Test (Test F)

The F test aims to determine the effect of the independent variables jointly (simultaneously) on the dependent variable.

	Table 6. F Test Results (Simultaneous) ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	31.762	5	6.352	5.873	.001ª	
	Residual	32.448	30	1.082			
	Total	64.210	35				
a. Predic	ctors: (Constant)	, Excange Rate, CAR	, FDR, BO	OPO, Inflation			
b. Deper	ndent Variable:	NPF					

**Based on the results of** table 6 from the F test, the Fcount value is 5.873 and the Ftable value is 2.534 (significant level 0.05 and df1 = k-1 = 5, df2 = n-k = 30), so 5.873 > 2.534 (Fcount >

Ftable). While the value of Sig. of 0.001 which means 0.001 <0.05. So it can be concluded that H0 is rejected so that CAR, BOPO, FDR, inflation, and the Rupiah exchange rate simultaneously have a significant effect on NPF.

### **Determination Coefficient Test**

The coefficient of determination test is used to find out how much the percentage of independent variables influences simultaneously with the dependent variable.

	Table 7. Determination Coefficient Test Results					
Model Summary <sup>b</sup>						
Model	R	<b>R</b> Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.703 <sup>a</sup>	.495	.410	1.03999	.770	
a. Predi	ctors: (	(Constant), l	Kurs, CAR, FDR, BO	PO, Inflasi		
h. Dene	ndent '	Variable: N	PF			

b. Dependent Variable: NPF

Based on the results of table 7. The Coefficient of Determination Test obtained the value of Adjusted R Square is 0.410 or 41%. So this shows that all independent variables (CAR, BOPO, FDR, inflation, Ruppah exchange rate) have a 41% effect on the dependent variable (NPF), while the remaining 59% is influenced by other variables that are outside and not in the study. this.

### Effect of Capital Adequacy Ratio (CAR) on Non Performing Financing (NPF)

Based on the results of research on hypothesis testing partially, it shows that the Capital Adequacy Ratio (CAR) has a significant negative effect on Bank Muamalat Indonesit's Non Performing Financing (NPF). This means that if the CAR value decreases, the NPF value obtained by the bank will increase, and vice versa if the CAR value increases, the NPF value obtained by the bank will decrease. This can be seen from the development of CAR and NPF values. As with 2020 data, CAR in the first quarter was 12.12%, increasing to 12.13% in the second quarter, while the NPF in the first quarter was 4.98%, decreasing to 4.97% in the second quarter. The CAR for the second quarter was 4.97%, decreasing to 4.95% in the third quarter. Then CAR in the third quarter was 12.48%, increasing to 15.21% in the fourth quarter, while the NPF in the third quarter was 4.95%, decreasing to 3.95% in the fourth quarter.

This research is in accordance with Kuncoro's theory which explains that the greater the CAR, the greater the bank's profits. In other words, the smaller the risk of a bank, the greater the profit the bank will get. As it is known that CAR is also commonly referred to as the capital adequacy ratio, which means that the higher the CAR, the better the ability of the bank to bear the risk of losses that may arise from any credit or investment of risky assets and finance all fixed assets and inventory. This means that if CAR increases, problem financing will decrease, and vice versa if CAR decreases, problem financing will also increase.(Kuncoro & Suhardjono, 2011, p. 529)

Research on this variable is in accordance with research conducted by Amelia which states that CAR has a negative and significant effect on NPF. The higher the CAR, the better the bank's ability to bear the risk of any risky credit or productive assets.(Amelia, 2019, p. 12)

## Effect of Operational Costs to Operating Expenses (BOPO) on Non Performing Financing (NPF)

Based on the results of research on hypothesis testing partially, it shows that Operational Costs and Operating Expenses (BOPO) have a significant positive effect on Bank Muamalat Indonesia's

fon Performing Financing (NPF). This means that if the BOPO value increases, the NPF value obtained by the bank will increase, and vice versa if the BOPO value decreases, the NPF value obtained by the bank will also decrease. This can be seen from the development of BOPO and NPF values. As with the 2018 data, BOPO in the first quarter was 98.03%, down to 92.78% in the second quarter, as well as the first quarter's NPF of 3.45%, down to 0.88% in the second quarter. For BOPO in the second quarter, it was 92.78%, increasing to 94.38% in the third quarter, as well as the NPF in the second quarter, which was 0.88%, rising to 2.50% in the third quarter. Then the BOPO in the third quarter was 94.38%, rising to 98.24% in the fourth quarter, as well as the third quarter's NPF of 2.50%, rising to 2.58% in the fourth quarter.

This research is supported by the theory of efficiency, Bank Operational Efficiency refers to the opinion of Anthanassopaulus et.al that the main objective of the bank is as a front office to reach the market by selling banking financial products to new customers/debtors and simultaneously providing services to existing customers/debtors. exist by using existing resources optimally, just like a small BOPO ratio will reduce the NPF value, which means Islamic banks have used existing resources optimally.

Research on this variable is in accordance with research conducted by Adhiyasa and Syaichu which states that BOPO has a significant positive effect on NPF. The test results show a beta value of 1.608. A positive beta value indicates that there is a positive effect of the BOPO variable on NPF. The BOPO significance value is 0.000 which indicates the significance level of the BOPO variable is less than 0.05. So it can be said that BOPO has a positive and significant effect on the NPF variable. (Putra et al., 2021)

### Effect of Financing to Deposit Ratio (FDR) on Non Performing Financing (NPF)

Based on the results of the research on partial hypothesis testing, it shows that the Financing to Deposit Ratio (FDR) has no significant effect on Bank Muamalat Indonesia's Non Performing Financing (NPF). This means that an increase in the FDR value is not necessarily accompanied by an increase in NPF, and vice versa, a decrease in the FDR value is not necessarily accompanied by a decrease in NPF. This can be seen from the development of the FDR and NPF values. As with data for 2021, the FDR in the first quarter was 66.72%, increasing to 74.81% in the second quarter, while the NPF in the first quarter was 4.18%, decreasing to 3.97% in the second quarter. The FDR for the second quarter was 3.97% and remained at 3.97% in the third quarter. Then the FDR in the third quarter was 63.26%, decreasing to 38.33% in the fourth quarter, while the NPF in the third quarter was 3.97%, decreasing to 0.08% in the fourth quarter. This is different from research (Solihatun 2014) that FDR has a significant positive effect on NPF in Islamic Commercial Banks.

Research on this variable is in accordance with research conducted by Wibowo and Saputra which states that FDR has no effect on NPF. FDR only describes how well the bank can make the best use of funds collected from the public in the form of channeling financing in order to make a profit, which then becomes the bank's short-term obligation to return it back to customers who take the funds back at any time (Wibowo et al., 2017).

### Effect of Inflation on Non Performing Financing (NPF)

Based on the results of research on partial hypothesis testing, it shows that inflation has no significant effect on Non-Performing Financing (NPF) of Bank Muamalat Indonesia. This means that an increase in the value of inflation is not necessarily accompanied by an increase in the NPF, and vice versa, a decrease in the value of inflation is not necessarily accompanied by a decrease in the NPF. This can be seen from the development of inflation and NPF values. As with 2014 data,

inflation in the first quarter was 7.32%, down to 6.70% in the second quarter, while the NPF in the first quarter was 1.56%, rising to 3.18% in the second quarter. In the second quarter, inflation was 6.70%, down to 4.53% in the third quarter, while the second quarter's NPF rose to 3.18% to 4.74% in the third quarter. Then inflation in the third quarter of 4.53% rose to 8.36% in the fourth quarter, while the NPF in the fourth quarter, while the NPF in the third quarter rose to 4.74% to 4.76% in the fourth quarter.

In the macroeconomic concept according to Utari, inflation is defined as an increase in the price of goods and services in general and continuously. In this context, there are two important meanings which are the keys to understanding inflation, namely price increases in general and continuously. Only price increases that occur in general can be called inflation (Utari et al., 2015).

The high rate of inflation will affect the performance of a bank, so that Bank Indonesia must set appropriate interest rates so that banks can control the expected liquidity and profits. The reason for the no effect of inflation on NPF is because nominally the value of financing and nonperforming loans at Islamic commercial banks is still relatively small when compared to conventional banks so that the impact of inflation is not significant on NPF. Installment payments by customers do not increase if inflation increases but remain the same as the initial contract and also because changes in the increasing inflation rate do not directly dampen people's desire to keep up with developments in needs or reduce consumption, the impact of financing risks can still be controlled. This is what causes the results of the inflation analysis to have no significant effect on Non-Performing Financing at bank Muamalat.

Research on this variable is in accordance with research conducted by Lidyah which states that inflation has no effect on NPF. This is because Islamic banks have stronger resilience compared to conventional banks. In its activities, Islamic banks have product schemes that refer to two categories of economic activity, namely production (profit sharing) and distribution (buying and selling and leasing). So that the activities of Islamic banks are categorized as investment banking and merchant/commercial banking. In addition, in carrying out its operations, it replaces the interest system with a profit sharing system, thereby reducing the impact of inflation (Lidyah, 2016).

### Effect of the Rupiah Exchange Rate on Non Performing Financing (NPF)

Based on the results of research on hypothesis testing partially, it shows that inflation has no significant effect on Bank Muamalat Indonesia's Non Performing Financing (NPF). This means that an increase in exchange rate is not necessarily accompanied by an increase in NPF, and vice versa, a decrease in exchange rate is not necessarily accompanied by a decrease in NPF. This can be seen from the development of exchange rates and NPF. As with the 2019 data, the first quarter exchange rate was IDR 14,244.00, which fell to IDR 14,141.00 in the second quarter, while the first quarter's NPF was 3.35%, increasing to 4.53% in the second quarter. The exchange rate for the second quarter was IDR 14,141.00, increasing to IDR 14,174.00 in the third quarter, while the NPF for the second quarter was 4.53%, rising to 4.64% in the third quarter. Then the third quarter exchange rate of IDR 14,174.00 fell to IDR. 13,901.00 in the fourth quarter, while the third quarter's NPF was 4.64%, dropping to 4.30% in the fourth quarter.

Sukirno explained that the exchange rate or currency exchange rate has increased, the value is below the value of foreign exchange, this then has an impact on companies that in their operational activities use imported materials whose value is cheaper and will benefit the company. So that in making a return on financing it will be easy and the risk of financing can be reduced. Based on the results of the research, it can be said that this research is not in line with the macroeconomic theory proposed by Sadono Sukirno regarding the relationship between the exchange rate and

NPF.(Sukirno, 2011) The results of this study are in line with (Indrajaya, 2019) that inflation no significant effect on BUS NPF.

Research on this variable is consistent with research conducted by Harahap et al., which stated that the level of Non-Performing Financing has a negative impact on the health of Islamic banking. Therefore, it is necessary to maintain its value so that it remains within the permissible conditions. The findings from this study state that the exchange rate has no significant effect on non-performing financing with a regression coefficient of 0.000 and a significance of 0.064 (Harahap et al., 2019).

# Effect of Capital Adequacy Ratio (CAR), Operational Costs to Operating Expenses (BOPO) (BOPO), Financing to Deposit Ratio (FDR), Inflation and Rupiah Exchange Rate to Non Performing Financing (NPF)

Based on the research results of testing the hypothesis simultaneously shows that the variables CAR(X1), BOPO(X2), FDR(X3), inflation (X4) and the Rupiah exchange rate or exchange rate (X5), have a significant effect on NPF at Bank Muamalat in 2013-2021. Based on the coefficient of determination test, the Adjusted R-Square value is 0.410 or 41%. So this shows that all independent variables (CAR, BOPO, FDR, inflation, Rupiah exchange rate) have a 41% effect on the dependent variable (NPF), while the remaining 59% is influenced by other variables that are outside and not in the study. this. Other variables that might affect NPF, for example Gross Domestic Product, SBIS, Bank Size, BI Rate, Financing to Asset Ratio (FAR), and others. Internally, NPF in Islamic banks also needs to consider asymmetric information at the level of profit sharing in order to minimize problem financing (Rodoni et al., 2018). NPL can be minimized internally by taking into account the character of honest customers and capital that customers can afford, as well as the rate of return specified services (Sakti et al., 2017) so that it will minimize the costs incurred.

Bank Muamalat must manage all variables in a balanced way in order to be able to minimize financing risk and reduce the high level of NPF. This is because a high level of NPF will have a substantial impact on financial stability and bank management. The higher this ratio, the worse the quality of bank credit, which causes the number of non-performing loans to increase, the greater the probability that a bank is in a problematic condition. This research is in line with research conducted by Rika Lidyah which states that the variables Inflation, BI Rate, CAR, and BOPO simultaneously affect NPF (Lidyah, 2016). Paper Effendi et al. (2017) that inflation, CAR have a negative effect on NPF while BOPO has a significant positive effect on NPF of Islamic Commercial Banks. In line with the opinion Mazzù et al. (2018) to reduce NPLs, it is necessary to consider the evolution of external problems and internally pay attention to proper procedures.

### 4. Conclucions

Capital Adequacy Ratio (CAR) has a significant negative effect on Non Performing Financing (NPF) of Bank Muamalat Indonesia. Thus, RWA shows the value of risky assets requiring sufficient capital anticipation. This is because the greater the amount of capital owned by a bank, the smaller the chance of problematic financing. Operating Costs to Operating Income (BOPO) have a significant positive effect on Non Performing Financing (NPF) of Bank Muamalat Indonesia. BOPO's relationship with NPF lies in operating income which is channeled in the form of financing. The higher the bank's income, the more financing is disbursed so that it can also have an impact on increasing the NPF ratio, as a result of non-current financing where the debtor does not meet the promised requirements. This shows that any increase in BOPO will result in an

increase in the NPF ratio. Conversely, if there is a decrease in the value of BOPO (Operating Costs to Operating Income) it will also result in a decrease in the NPF ratio.

Financing to Deposit Ratio (FDR) has no significant effect on Non Performing Financing (NPF) of Bank Muamalat Indonesia. This is because FDR only describes how well banks can utilize funds collected from the public in the form of channeling financing to make a profit. Each bank also has different criteria and requirements in providing financing. Inflation has no significant effect on Non Performing Financing (NPF) of Bank Muamalat Indonesia. This is because the nominal value of financing and non-performing loans in Islamic commercial banks is still relatively small when compared to conventional banks so that they do not experience pressure when inflation occurs.

The Rupiah exchange rate has no significant effect on Bank Muamalat Indonesia's Non Performing Financing (NPF). This is because the exchange rates that occur when changes in relative value are considered short-term, so that these conditions have not had much impact on customers in paying installments for financing.Simultaneously, CAR(X1), BOPO(X2), FDR(X3), inflation (X4) and the Rupiah exchange rate (X5), have a significant effect on NPF at Bank Muamalat. It can be seen from the test of the coefficient of determination that the Adjusted R-Square value is 0.410 or 41%. So, to increase NPF at Bank Muamalat it is necessary to have five dependent variables namely CAR, BOPO, FDR, inflation, Rupiah exchange rate.

### References

- Amelia, Elsa Ayu. 2019. "Pengaruh Capital Adequacy Ratio (CAR), Inflasi Dan Financing to Deposit Ratio (FDR) Terhadap Non Performing Financing (NPF) Pada Bank Umum Syariah Periode 2015-2017." Jurnal Intelektualita : Keislaman, Sosial Dan Sains 8(1):11–18.
- Effendi, Jaenal, Usy Thiarany, and Tita Nursyamsiah. 2017. "Factors Influencing Non-Performing Financing (NPF) at Sharia Banking." Walisongo: Jurnal Penelitian Sosial Keagamaan 25(1):109. doi: 10.21580/ws.25.1.1540.

Fahmi, Irham. 2011. Manajemen Risiko Teori, Kasus Dan Solusi. Bandung: CV Alfabeta.

- Harahap, Muhammad Arfan, Anjur Perkasa Alam, and Muspita Pradila. 2019. "Pengaruh Nilai Tukar (Kurs) Dan Inflasi Terhadap Tingkat Non Performing Financing (NPF) Pada Bank Syariah." El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam 2(2):214–24. doi: 10.47467/elmal.v2i2.548.
- Imran, Imran, and Bambang Hendrawan. 2017. "Pengaruh Persepsi Masyarakat Batam Tentang Bank Syariah Terhadap Minat Menggunakan Produk Bank Syariah." Journal of Applied Business Administration 1(2):209–18. doi: 10.30871/jaba.v1i2.621.
- Indrajaya, Indrajaya. 2019. "Determinan Non-Performing Financing Pada Bank Umum Syariah Di Indonesia." Jurnal Ekonomi Dan Bisnis Islam (Journal of Islamic Economics and Business) 5(1):68. doi: 10.20473/jebis.v5i1.13180.

Ismail. 2013. Manajemen Perbankan: Dari Teori Menuju Praktik. Jakarta: Kencana.

- Kuncoro, Mudrajad, and Suhardjono Suhardjono. 2011. Manajemen Perbankan: Teori Dan Praktek. Yogyakarta: BPFE.
- Lidyah, Rika. 2016. "Dampak Inflasi, Bi Rate, Capital Adequacy Ratio (CAR), Biaya Operasional Pendapatan Operasional (BOPO)Terhadap Non Performing Financing (NPF) Pada Bank Umum Syariah Di Indonesia." I-Finance: A Research Journal on Islamic Finance 2(1):1–19. doi: https://doi.org/10.19109/ifinance.v2i1.1006.
- Mazzù, Sebastiano, and Francesco Muriana. 2018. "A Strategic Approach to Non-Performing Loans Treatment in Banking: Options and Rules for Decision-Making." International Research Journal of Finance and Economics (166):34–53.
- Muhammad. 2005. Bank Syariah:Problem Dan Prospek Perkembangan Di Indonesia. Cetakan 1. Yogyakarta: Graha Ilmu.

- Pinasti, Wildan Farhat, and RR. Indah Mustikawati. 2018. "Pengaruh CAR, BOPO, NPL, NIM Dan LDR Terhadap Profitabilitas Bank Umum Periode 2011-2015." Jurnal Nominal, Barometer Riset Akuntansi Dan Manajemen 7(1). doi: 10.21831/nominal.v7i1.19365.
- Putra, Adhyasa, and Muhamad Syaichu. 2021. "Analisis Pengaruh Bank Size, BOPO, FDR, CAR, Dan ROA Terhadap Non-Performing Financing (Studi Kasus Pada Perusahaan Perbankan Syariah Yang Terdaftar Di Bursa Efek Indonesia (BEI) Tahun 2016 – 2019)." Diponegoro Journal of Management 10(2):1–13.
- Rodoni, Ahmad, and Bahrul Yaman. 2018. "Asymmetric Information and Non-Performing Financing: Study in The Indonesian Islamic Banking Industry." Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah 10(2):403–16. doi: 10.15408/aiq.v10i2.7392.
- Sakti, Andik Dwi, and Indah Anisykurlillah. 2017. "Analysis of Factors Affecting Non Performing Loan on Cooperation." Accounting Analysis Journal 6(3):432–44.
- Solihatun, Solihatun. 2014. "Analisis Non Performing Financing (NPF) Bank Umum Syariah Di Indonesia Tahun 2007 - 2012." Jurnal Ekonomi Pembangunan 12(1):1–47.
- Sukirno, Sadono. 2011. Sadono Sukirno, Makro Ekonomi Teori Pengantar Edisi Ketiga, (Jakarta: Rajawali Pers, 2011. Jakarta: Rajawali Pers.
- Taswan. 2006. Manajemen Perbankan. Yogyakarta: UPP STIM YKPN.
- Umam, Khaerul. 2013. Manajemen Perbankan Syariah. Bandung: CV Pustaka Setia.
- Usanti, Trisadiri P., and Abd. Shomad. 2013. Transaksi Bank Syariah. Cetakan 1. Jakarta: Bumi Aksara.
- Utari, G. A. Diah, Retni Cristina S, and Sudiro Pambudi. 2015. "Inflasi Di Indonesia: Karakteristik Dan Pengendaliannya." Bank Indonesia Institute 23(23):1–64.
- Wibowo, Sigit Arie, and Wahyu Saputra. 2017. "Pengaruh Variabel Makro Dan Mikro Ekonomi Terhadap Pembiayaan Bermasalah Pada Bank Syariah Di Indonesia." Jurnal Ilmiah Akuntansi 2(1):96–112. doi: 10.23887/jia.v2i1.10040.
- Wood, Anthony, and Nakita Skinner. 2018. "Determinants of Non-Performing Loans: Evidence from Commercial Banks in Barbados." The Business and Management Review 9(3):44–64.

# Determinants of Bank Mu'amalat Indonesia's Non-Performing Financing: Internal and External Reviews

**ORIGINALITY REPORT** 



Exclude quotes	On	Exclude matches	< 1%
Exclude bibliography	On		