THE INFLUENCE OF BI RATE, EXCHANGE RATE, AND GROSS DOMESTIC PRODUCT ON NON-PERFORMING LOANS AT BANK MUAMALAT FROM 2016-2024

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ABSTRAK

Pembiayaan bermasalah dilihat berdasarkan kolektibilitas *Non Performing Financing* yang menunjukkan adanya tingkat pembiayaan bermasalah. Menurut teori pembiayaan bermasalah salah satunya disebabkan oleh faktor eksternal yaitu makro ekonomi meliputi BI *Rate*, *Kurs* dan Produk Domestik Bruto yang meningkatkan pembiayaan bermasalah. Namun pada Bank Muamalat sendiri, pembiayaan bermasalah masih tergolong fluktuatif dan tinggi dibandingkan dengan bank syariah lainnya. Hal ini diikuti dengan fenomena BI *Rate, Kurs* dan PDB yang juga fluktuatif. Tujuan utama penelitian ini adalah mencoba menjawab latar belakang serta membuktikan pengaruh BI *Rate,* Nilai Tukar (*Kurs)* dan Produk Domestik Bruto terhadap pembiayaan bermasalah. Hasil penelitian ini dapat menjadi acuan Bank Muamalat untuk melihat bagaimana perkembangan dari BI *Rate*, Nilai Tukar dan Produk Domestik Bruto yang dapat mempengaruhi naik turunnya pembiayaan bermasalah. Penelitian ini menggunakan pendekatan kuantitatif dengan teknik analisis data regresi linier berganda. Penelitian ini menggunakan data time series dengan pengambilan sampel yaitu laporan keuangan triwulan Bank Muamalat dilihat dari rasio NPF, data BI *Rate, Kurs* dan data Produk Domestik Bruto tahun 2016 hingga 2024. Berdasarkan penelitian yang dilakukan, peneliti memperoleh hasil BI *Rate* secara parsial periode 2016-2024 tidak berpengaruh positif signifikan terhadap pembiayaan bermasalah. Nilai Tukar (*Kurs*) secara parsial berpengaruh positif signifikan terhadap pembiayaan bermasalah. Produk Domestik Bruto secara parsial berpengaruh negatif signifikan terhadap pembiayaan bermasalah.

Kata Kunci: Pembiayaan Bermasalah; BI *Rate*; Nilai Tukar *(Kurs)* dan Produk Domestik Bruto.

ABSTRACT

Non-performing financing is seen based on the collectibility of Non Performing Financing which shows the level of non-performing financing. According to the theory of non-performing financing, one of them is caused by external factors, namely macroeconomics including BI Rate, Exchange Rate and Gross Domestic Product which increase non-performing financing. However, at Bank Muamalat itself, non-performing financing is still relatively fluctuating and high compared to other Islamic banks. This is followed by the phenomenon of BI Rate, Exchange Rate and GDP which also fluctuates. The main purpose of this study is to try to answer the

background and prove the effect of BI Rate, Exchange Rate (Exchange Rate) and Gross Domestic Product on non-performing financing. The results of this study can be a reference for Bank Mumalat to see how the development of BI Rate, Exchange Rate and Gross Domestic Product can affect the rise and fall of non-performing financing. This research uses a quantitative approach with multiple linear regression data analysis techniques. This study uses time series data by sampling the quarterly financial statements of Bank Muamalat seen from the NPF ratio, BI Rate data, Exchange Rates and Gross Domestic Product data from 2016 to 2024. Based on the research conducted, the researcher obtained the results of the BI Rate partially in the 2016-2024 period did not have a significant positive effect on non-performing financing. Exchange Rate (Kurs) partially has a significant positive effect on non-performing financing.

Keywords: *Non Performing Financing; BI Rate; Exchange Rate and Gross Domestic Product.*

A. INTRODUCTION

Problem financing in Islamic banks is defined as financing where the borrower experiences difficulty or failure to repay the funds provided by the bank. Non-Performing Financing (NPF) in Islamic banking is categorized based on the quality of its financing (Khairunisa & Musrifah, 2020). With the increased funding provided by Islamic banks, there is a possibility that their progress will be threatened if their management is not handled well (Sudanto, 2023). Therefore, the impact is that the evaluation of financing is inaccurate in analyzing the potential risks of financing (Anggraini & Sari Lubis, 2023). Therefore, there will be a high risk of problem financing. The collectibility of non-performing financing (NPF) indicates the presence of problem financing. Where the higher the NPF, the more problem financing increases. Furthermore, the lower the bank's health level when problem financing increases (Awintasari & Maulida Nurhidayati, 2021).

Non-Performing Financing, commonly referred to as problematic financing, can be influenced by two factors: internal and external. Internal indicators can be found or analyzed thru the performance reports of the bank's finances. Meanwhile, according to Mahmoedin, external factors such as exchange rate fluctuations, economic globalization including GDP, business failures, and natural disasters contribute to the increase in problematic financing at banks. (Mahmoedin, 2002). Meanwhile, the level of interest rates or the BI Rate can also have a significant impact on the increase in non-performing loans. (Maika et al., 2019). Ryandono explained that high interest rates will cause debtors to earn low profits or even lose money. However, debtors are still required to pay high interest. (Ryandono & Wahyudi,

2021). Therefore, this will influence customers to switch to Islamic banks. Therefore, based on that theory, there is a relationship between macroeconomics and non-performing loans.

The object of this research is Bank Muamalat. The reason for choosing Bank Muamalat as the research object is that Bank Muamalat is still operating today, even tho it was once rumored to be closing due to declining financing at the bank. At Bank Muamalat, non-performing loans are still considered volatile, with increases and decreases occurring every year. And so it was with the following years. Then news was found that in 2019 and 2022, non-performing financing or bad loans at muamalat banks increased by 0.86%. (Mediatama, 2024). There are two Islamic banks that frequently experience problematic financing: Bank Mandiri Syariah and Bank Muamalat. According to the Financial Services Authority (OJK), the limit for problematic financing percentage in Islamic banks is no more than 5%. However, according to financial reports, Bank Muamalat's problematic financing exceeds 5%. Based on the news about Bank Muamalat, the researcher wants to know if macroeconomic factors can influence the increase in non-performing loans. (POJK, 2025).

Nisa Arinda et al. conducted research with the result that the BI Rate variable did not significantly affect NPF. (Arinda et al., 2022). According to research conducted by M. Fadlillah Fauzukhaq et al., the exchange rate variable affects NPF at Bank Syariah Mandiri. However, Bank Syariah Mandiri's NPF is not significantly influenced by the BI Rate (Fauzukhaq et al., 2020). Based on research conducted by Aimma Zuha Musnida, exchange rates have a positive effect on non-performing financing (Musnida, 2022). Based on research by Framesa Januari Rahmah et al. that GDP affects NPF, investment and consumption in Islamic banks will increase due to the rise in real income for companies and the public. Thus, the amount of financing provided to the public can also increase. The Non-Performing Financing (NPF) ratio will increase as a result of the increase in financing. (Rahmah et al., 2021).

Based on the explanation of the problem and the literature, this research is worthy of being conducted because it attempts to address the background and prove whether variable X can influence variable Y. On the other hand, the findings were inconsistent, so retesting is necessary. This research is also relevant to Indonesia's current situation because the dollar is rising and is accompanied by other economic issues. The results of this study can serve as a reference for Bank Muamalat to see how the development of Gross Domestic Product, Exchange Rates, and the BI Rate can affect the fluctuations in non-performing financing.

Because it is important to monitor the emergence of potential financing risks from the funds provided to customers. According to the assumptions of this study, macroeconomic components such as the BI rate, GDP, and exchange rates can influence non-performing loans.

B.   THEORETICAL FRAMEWORK

1.   Problem Loans

Problem financing or NPF is the activity of returning funds or repaying funds that have been borrowed from the bank but are experiencing difficulties due to certain factors from either the customer or the bank, resulting in losses for the company. According to the Islamic Banking Directorate of Bank Indonesia, non-performing loans are generally problematic financing, ranging from less-than-current to non-current. Problem loans will reduce bank income and increase provisioning costs. Additionally, the contribution of non-performing loans to the country's economic growth will also decrease. Because of the increasing amount of non-performing loans, the bank's capacity to increase revenue from financing will be further reduced. For Third Party Funds (DPK), there will be an impact because the profit sharing obtained will decrease, making it highly likely that they will potentially move to invest in other banks. (Djamil, 2022).

In problematic financing, Islamic banks have 5 categories for the quality of financing. Business prospects, customer performance, and the customer's ability to pay financing installments are some of the factors that determine the quality of financing. Based on these factors, the quality of financing is categorized into 5 groups: current (Group I), special mention (Group II), substandard (Group III), doubtful (Group IV), and loss (Group V). Based on these five categories of financing quality, it can be said that problem loans fall into Groups III to V. (Wangsawidjaja, 2013).

Problem financing is caused by both internal and external factors. Internal factors related to bank management and operations can lead to an increase in the problem financing ratio for banks. In this case, it can be seen thru the financial performance of Islamic banks, which serves as an indicator to assess their health and predict their profitability. (Siregar, 2013). Meanwhile, external factors are caused by macroeconomic behavior, such as exchange rate fluctuations, economic globalization including GDP, business failures, and natural disasters, which are all factors that contribute to the increase in non-performing loans

in banks. (Mahmoedin, 2002). Meanwhile, the interest rate (BI Rate) can also have a significant impact on the increase in non-performing loans. Ryandono explained that high interest rates will cause debtors to earn low profits or even lose money. However, debtors are still required to pay high interest. (Ryandono & Wahyudi, 2021).

2. **BI Rate**

The BI interest rate is the benchmark for Islamic banks, meaning that non-performing financing will increase when profit-sharing margins rise. The BI Rate is used as a reference by the Asset Liabilities Committee (ALCO) in setting margins and ratios. Although Islamic banks do not use the term interest rate, it is still used as a reference for calculating profit-sharing margins, which can affect the quality of financing. One of the components considered when determining the bank's management share of the profits is the BI Rate. Rising interest rates will cause a decrease in third-party funds (DPK) in Islamic banking. This increase is due to the influence of interest rates, which will affect the increase in conventional bank interest.l (Supriani, 2018).

Customers of conventional banks are required to continue paying high interest regardless of their income decreasing. When the economy worsens, debtors will benefit little.l (Ryandono & Wahyudi, 2021). Because Islamic bank financing is cheaper than conventional banks that are experiencing rising interest rates, Islamic bank financing will increase as a result of those rising interest rates. Therefore, customers are switching from conventional banks to Islamic banks. If interest rates rise, the increase in Islamic bank financing will increase, raising the risk of non-performing loans. According to Suryanawa's research, the BI Rate has an influence on the increase in non-performing loans. (Fauzukhaq et al., 2020).

3. **Excange Kurs**

The exchange rate is the price of foreign currency compared to Indonesian currency. The exchange rate used is the Bank Indonesia mid-rate, which shows the average buying and selling rates at a specific time. The exchange rate significantly affects problematic Islamic bank financing. (Fauzukhaq et al., 2020). Nilai tukar presenting the exchange rate between one currency and another used in various transactions such as international trade, international investment, and short-term money flows between countries (A. Karim, 2020).

Changes in foreign exchange rates have a significant impact on the smooth operation of customers' businesses. This is because the value of the rupiah is lower compared to the

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dollar. When a customer's business uses raw or semi-finished materials imported from abroad, the customer's business will be disrupted. However, this is actually beneficial for exporters. Conversely, when the value of the rupiah strengthens compared to the dollar, customers in the export sector will see a decrease in their sales volume. Therefore, when the exchange rate strengthens, customers will have difficulty repaying their financing. (Mahmoedin, 2002).

4.   Product Domestik Bruto

Gross Domestic Product (GDP) is a measure of the rate of economic growth that represents the total amount of goods and services produced in a country's economy. GDP is used to measure per capita income. The value of goods and services produced by all factors of production in Indonesia, whether owned by Indonesians or foreigners, is called Gross Domestic Product (GDP). Then, this GDP is divided by the number of people living in Indonesia during a specific period of time. This is what determines the per capita income figure. (Idris, 2018). Keynes stated that aggregate spending determines the level of economic activity and the government regulations necessary to manage the economy in promoting economic growth, maintaining the stability of the international sector, controlling prices, and preventing inflation. This theory explains the relationship between NPF and GDP. The higher the GDP, the lower the non-performing financing. (Purwaningtyas & Hartono, 2020).

GDP is one of the indicators of the macroeconomy. Changes in GDP reflect changes in aggregate demand, production, and income. When economic globalization occurs, it leads to competition between countries. This means foreign goods can freely enter and compete with domestic production. If foreign entrepreneurs work with a high level of efficiency, domestic products will definitely be uncompetitive. Therefore, a country's macroeconomic conditions must be stable and growing to provide a conducive environment for debtors to generate income and repay their obligations. In this way, when GDP grows well, economic activity will increase. Consequently, employment tends to rise and public income generally increases. This makes it much easier for individuals or companies to meet their debt payment or financing obligations. (Mahmoedin, 2002).

C.   RESEARCH METHODS

This research is quantitative research, where quantitative research aims to prove and test existing theories. This data will be in the form of a series of numbers. Data collection in

this study used secondary data in the form of documentation gathered from various previous sources. The population in this study is Bank Muamalat Indonesia. Sampling in this study used saturated sampling. Saturated sampling means that the entire population is used as the research sample. (Nilamsari et al., 2024). The sample studied consisted of 36 data points, including the financial statements of Bank Muamalat Indonesia, to examine the NPF ratio, BI Rate data, exchange rate data, and GDP levels for the years 2016-2024. The data collection technique used in this study was documentation obtained from the archives of Bank Muamalat's financial statements, BI Rate data from the Central Bureau of Statistics (BPS), exchange rate data from the exchange rates website, and GDP data from the Ministry of Trade website.

The data analysis used in this study is multiple linear regression using the Eviews 9 application. Multiple linear regression analysis is used to determine the direction of the relationship between independent and dependent variables, estimate whether the relationship between each independent variable is positive or negative, and estimate whether the value of the dependent variable will increase or decrease. (Kusumaningtyas et al., 2022). This analysis is used to analyze the influence of the BI Rate, Exchange Rate, and Gross Domestic Product on non-performing loans at Bank Muamalat. The multiple linear regression equation in this study is:

$$Y = a + b1\ X1 + b2\ X2 + b3\ X3$$

Dimana:

Y   : Variabel NPF

X1   : Variabel BI *Rate*

X2   : Variabel Variabel Exchange Rate (*Kurs)*

X3   : Variabel Produk Domestik Bruto

a   : Konstanta

b1b2b3 : Koefisien Regresi

D.   RESULTS AND DISCUSSION

1.   Classical Assumption Test

a.   Normality Test

Normality tests assess the distribution of data for groups or variables. If there is no significant difference from the standard normal, the data is considered normally

distributed. In this study, the test used was the Kolmogorov-Smirnov test in SPSS. If the significance value of the variable is greater than or equal to 0.05, then the variable is considered normally distributed. (Kusumaningtyas et al., 2022).

One-Sample Kolmogorov-Smirnov Test

		VAR00001
N		36
Normal Parameters[a,b]	Mean	-,0556
	Std. Deviation	861660,8953
Most Extreme Differences	Absolute	,092
	Positive	,076
	Negative	-,092
Test Statistic		,092
Asymp. Sig. (2-tailed)		,200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Figure 1. Normality Test Results

Based on Figure 1, it is known that the Kolmogorov-Smirnov test statistic value is 0.92 with a significance of 0.2 > 0.05, so it can be concluded that the residuals are normally distributed.

b.   Multicollinearity Test

The multicollinearity test aims to determine the relationship between independent variables. When forming a model or equation, it is not recommended to look for strong correlations between independent variables because this will affect the accuracy of parameter estimation, especially regression coefficients, when estimating the true values. Multicollinearity is a term that refers to a strong correlation between these independent variables. (Kusumaningtyas et al., 2022). Here are the results of the multicollinearity test.

Table 1. Multicollinearity Test Results

Variabel	Centered VIF
C	NA
LN_BIRATE	1.102850
LN_KURS	4.109964
LN_PDB	4.309691

Based on Table 1, it is known that the Centered VIF value for the BI Rate is 1.102850, the Centered VIF for the exchange rate is 4.109964, and the Centered VIF

for GDP is 4.309691, which is less than 10. Therefore, we reject H0, and it can be concluded that there is no multicollinearity and the test is met.

c.   Heteroskedasticity Test

In linear regression, homoscedasticity or constant residual variance is one of the important assumptions. If heteroskedasticity occurs, this assumption is violated. The estimated regression coefficients become inefficient and biased, making the statistical conclusions drawn invalid. Heteroskedasticity tests ensure that the regression model used produces accurate and reliable estimates. The probability value for a regression model without heteroscedasticity must be greater than $\alpha = 5\%$ or 0.05. A good regression model exhibits homoscedasticity or the absence of heteroscedasticity. The assessment method uses the Glejser test. (Kusumaningtyas et al., 2022)

Table 2. Heteroskedasticity Test Results

Heteroscedasticity Test : Glejser	Obs*R-Squared	Prob. Chi-Square(3)
		0,0597

Based on Table 2, the Prob (Obs*Rsquare) value of 0.0597 is greater than 0.05, so H0 is accepted and it can be concluded that the variance is homogeneous or there is no heteroskedasticity problem.

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d.   Autocorrelation Test

In the linear regression model, the autocorrelation test aims to determine whether there is a relationship between the disturbance errors (residuals) in period t and the disturbance errors in period t-1. There are two methods for testing autocorrelation: the Durbin Watson method and the Langrange Multiplier (LM) method, also known as the Breusch-Godfrey test, which can be used to determine whether or not there is an autocorrelation problem. (Kusumaningtyas et al., 2022).

Table 3. Autocorrelation Test Results

Breusch-Godfrey Correlation LM Test:	Obs*R-Squared	Prob. Chi-Square(2)
	7.148018	0.0280

Based on Table 3, it is found that the value of Obs*R-square (Prob. Chi-Square) is 0.0280 < 0.05, therefore H0 is rejected and it is concluded that autocorrelation exists, thus autocorrelation is not met. Therefore, it is necessary to perform

autocorrelation correction to prove that there are no issues with autocorrelation by correcting the standard error. In this case, the method used is called HAC (Heteroscedasticity and autocorrelation-consistent), which is a development of the Newey-West method. The results of the Durbin-Watson test will indicate whether the data contains autocorrelation problems or not. (Ghozali & Ratmono, 2017).

Table 4. Model Estimation

Variable	t-Statistic	Prob.
C	2.221358	0.0335
LN_BIRATE	1.520658	0.1382
LN_KURS	2.520658	0.0924
LN_PDB	-3.549306	0.0012
Durbin-Watson Stat		1.205772

Table 5. HAC Model Estimation

Variable	t-Statistic	Prob.
C	4.178893	0.0002
LN_BIRATE	1.088698	0.2844
LN_KURS	1.332830	0.0424
LN_PDB	-3.900297	0.0005
Durbin-Watson Stat		1.205772

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Based on Table 5, the value of dw is 1.205772, n is 36, k is 3, dL is 1.2953, and dU is 1.6539. Meanwhile, the value of 4-dU is 2.3461. Therefore, since the data obtained is 1.6539 > 1.205772 (dU > dw), there is autocorrelation in the regression analysis. Therefore, the HAC method was used for autocorrelation correction, resulting in 1.6539 > 1.205772 (dU > dw), which means the Durbin-Watson result is the same as before. However, the values of the standard error, t-statistic, and Prob differ, indicating that adjustments have been made. Therefore, it can be concluded that autocorrelation is present.

2. **Regression Equation**

Multiple linear regression analysis aims to determine the direction of the relationship between independent and dependent variables, to estimate whether the relationship between each independent variable is positive or negative, and to estimate whether the value of the dependent variable will increase or decrease. The following is the multiple linear regression equation: (Kusumaningtyas et al., 2022).

Table 6. Regression Equations and Models

Variabel	Coefficient	t-Statistic	Prob.
C	19.02010	4.178893	0.0002
LN_BIRATE	0.523897	1.088698	0.2844
LN_KURS	1.083470	1.332830	0.0424
LN_PDB	-1.901051	-3.900297	0.0005

Based on Table 6, it can be seen that the multiple linear regression model equation obtained is:

Y= 19,0201+ 0,523*LN_BI RATE + 1,083 * LN_KURS – 3,900 * LN_PDB + e

Based on the equation above, it shows that the constant is positive for variables X1 and X2, and negative for X3. This means that if the value of variable X1 (BI Rate) increases by 1%, then Y (Non-Performing Financing) increases by 1%. Similarly, when the value of variable X2 (Exchange Rate) increases by 1 rupiah, then Y (Non-Performing Financing) increases by 1%. However, when the value of variable X3 (GDP) increases by 1 billion, then Y (Non-Performing Financing) decreases by 1%.

Based on Table 6, it is also obtained that the interpretation of the multiple linear regression model is that the constant of 19.0201% indicates that when the values of BI Rate, Exchange Rate, and GDP are constant or fixed, the average non-performing financing is 19.0201%. The regression coefficient for the Exchange Rate is 1.083, indicating that when the Exchange Rate increases by 1 billion dollars, Non-Performing Financing decreases by 1.083%, assuming other variables remain unchanged or fixed. The regression coefficient for GDP is -1.901, indicating that when GDP increases by 1 billion dollars, Non-Performing Financing decreases by 1.901%, assuming other variables remain unchanged or fixed.

3. **T-test**

The partial regression coefficient test, called the t-test, aims to determine the partial influence of each independent variable on the dependent variable. There is a possibility that there is a significant influence between the independent and dependent variables if the probability value of the t-statistic is less than 0.05. Conversely, if the probability value of the t-statistic is greater than 0.05, then the result is that there is no significant influence between the independent and dependent variables. (Baidowi et al., 2024).

Tabel 7. Hasil Uji t

Variabel Independen	t-Statistic	Probabilitas

LN_BIRATE	1.088698	0.2844
LN_KURS	1.332830	0.0424
LN_PDB	-3.900297	0.0005

Based on Table 7, it is known that from the t-Statistic value of 1.088698, a probability value of 0.2844 is obtained. Since the prob value of 0.2844 > 0.05, H0 is accepted and it is concluded that the BI Rate does not significantly affect non-performing financing. Furthermore, based on the results from Table 7 above, it is known that from the t-Statistic value of 1.332830, a probability value of 0.0424 is obtained. Since the prob value of 0.0424 < 0.05, H0 is rejected and it is concluded that the exchange rate significantly affects non-performing financing. Similarly, for GDP, based on the results from Table 7 above, it is known that from the t-Statistic value of -3.900297, the probability value is 0.0005. Since the prob value of 0.0005 < 0.05, we reject H0 and conclude that GDP significantly affects non-performing financing.

4. **F-test**

This test determines whether the independent variables collectively influence the dependent variable. According to the decision-making criteria, H0 is accepted if the F probability is greater than 0.05, indicating no effect, and H0 is rejected if the F probability is less than 0.05, indicating an effect. (Kusumaningtyas et al., 2022).

Table 8. F-Test Results

Nilai	F-Statistic	Prob (F-Statistic)
	6.425500	0.001569

Thus, it can be concluded from Table 8 that the BI rate, exchange rate, and GDP have a significant impact on non-performing loans simultaneously, as indicated by the Prob F-Statistic value of 0.001 < 0.05, which shows a rejection of H0..

5. **Coefficient of Determination (R Square)**

The model's ability to explain variations in the dependent variable is measured by the coefficient of determination. A coefficient value of zero and one indicates that the independent variables provide almost all the information needed to predict variations in the dependent variable. (Siagian, 2000).

Table 9. Coefficient of Determination

R-Square	Adjusted R-Square
0.375932	0.317426

Based on Table 9, the results of the regression determination test show that the BI rate, exchange rate, and GDP can explain 31.7% of the variation in the NPF variable (0.317 * 100), with an Adjusted R-Squared value of 0.317. The remaining 68.3% of the variation is explained by other variables not included in the model.

6. Discussion

a. The Influence of BI Rate on Non-Performing Loans

The t-test results show that the BI Rate variable has a probability value of 0.2844 (>0.05), which means it does not significantly affect non-performing financing. This result indicates that changes in Bank Indonesia's benchmark interest rate did not directly affect the non-performing financing ratio at Islamic financial institutions during the study period.

This finding aligns with the research by Nasution and Permata (2020), which states that interest rates do not always have a significant impact on non-performing financing (NPF) in Islamic banking because the Islamic banking system places more emphasis on profit-sharing principles and real activities. Additionally, Islamic banking has financing contract characteristics that tend to be long-term, so changes in the benchmark interest rate do not immediately affect the quality of financing.

However, this result differs from the study by Sukmana & Febriyati (2021), which found that an increase in the benchmark interest rate tends to increase the risk of non-performing loans because it drives up funding costs and puts pressure on customers' ability to pay. This difference can be attributed to the characteristics of the data and the financing structure of the financial institutions that are the subject of the research.

b. The Influence of Exchange Rates on Non-Performing Loans

The exchange rate variable shows a positive and significant influence on non-performing financing with a probability value of 0.0424 (<0.05). This means that when the rupiah's exchange rate against the dollar depreciates, non-performing loans tend to increase. This condition indicates that exchange rate fluctuations can put

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pressure on customers' ability to pay, especially for businesses that rely on imports or foreign currency financing. The results of this study are consistent with the findings of Widyaningrum and Mulyono (2022) and Irawan et al. (2023), which show that the depreciation of the rupiah has a positive effect on the increase in NPF because production costs increase and purchasing power decreases.

Similar findings are also supported by international studies such as Beck, Jakubik, & Piloiu (2015), who found that exchange rate volatility and inflation are major macroeconomic factors that worsen the quality of banking assets in developing countries. Thus, exchange rate stability becomes an important factor in maintaining the quality of banking financing.

c.   The Influence of Gross Domestic Product (GDP) on Non-Performing Loans

The research results indicate that GDP has a negative and significant effect on non-performing loans with a probability value of 0.0005 (<0.05). This means that when economic growth increases, the ratio of non-performing loans tends to decrease. This is logical because increased economic activity drives up household and business incomes, which ultimately improves the ability to repay financial obligations.

This finding is consistent with the research by Ahmad & Bashir (2022), which showed that national economic growth has a negative relationship with NPF at Islamic banks in Southeast Asia. A similar study by Adebola, Yusoff, & Dahalan (2020) also found that GDP significantly affects the asset quality of Islamic banks in Malaysia, where increased economic growth reduces the level of non-performing financing.

d.   Simultaneous Influence of Macroeconomic Variables

The F-test results show a probability value of 0.001 (<0.05), which means that BI Rate, Exchange Rate, and GDP simultaneously have a significant effect on non-performing loans. This indicates that macroeconomic variables collectively contribute to the stability of Islamic banking financing. This finding aligns with Hidayati & Rochmanika (2023), who emphasize that a combination of macroeconomic indicators can influence bank financing performance thru the mechanisms of monetary policy transmission and exchange rate stability.

e.   The Model's Ability to Explain Variations in Problem Financing

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The adjusted R-squared value of 0.317 indicates that the variation in the independent variables is able to explain 31.7% of the variation in non-performing financing, while the remaining 68.3% is influenced by other factors outside the model, such as inflation, the unemployment rate, the financing-to-deposit ratio (FDR), or the quality of the bank's internal risk management. This value reflects that the model is reasonably representative, although there is still room for further research by including other relevant macro and micro variables.

Theoretically, the results of this study support the concept that macroeconomic stability has a direct relationship with the quality of financial institution financing. Practically speaking, this result signals to monetary authorities and Islamic financial institutions to pay attention to exchange rate movements and economic growth in managing financing risks. Islamic banking needs to strengthen its risk management system, especially in the face of global economic fluctuations that can impact asset quality.

E. CONCLUSION

The research results indicate that partially, the BI Rate does not have a significant effect on non-performing financing at Bank Muamalat Indonesia. A probability value of 0.2844 (>0.05) indicates that changes in Bank Indonesia's benchmark interest rate do not have a significant impact on the increase or decrease in non-performing loans. Although the regression coefficient is positive (0.523), the relationship is not significant. This condition is caused by the characteristics of the Islamic banking system, which uses the profit-sharing principle, so changes in interest rates do not immediately affect the level of non-performing financing. Additionally, the profit-sharing ratio does not adjust when conventional interest rates rise, as it depends on the performance of the customer's business. The exchange rate variable has a significant positive effect on non-performing financing with a probability value of 0.0424 (<0.05) and a coefficient of 1.083. This means that the depreciation of the rupiah exchange rate will increase the risk of non-performing loans. The weakening of the rupiah's value increases import and production costs for companies that rely on foreign raw materials, thus putting pressure on revenue and the ability to repay obligations to banks. Consequently, exchange rate fluctuations become one of the important external factors that Islamic banking needs to anticipate. Meanwhile, Gross Domestic Product (GDP) has a

significantly negative impact on non-performing financing with a probability value of 0.0005 (<0.05) and a coefficient of -1.901. This means that an increase in GDP reflects good economic growth, which impacts the increased ability of the public and business actors to repay their financing obligations.

Simultaneously, the BI Rate, exchange rate, and GDP significantly influence non-performing loans. The Adjusted R-Squared value of 0.317 indicates that the three variables are able to explain 31.7% of the variation in non-performing financing, while the remaining 68.3% is influenced by factors outside the model, such as the bank's internal conditions, the quality of the debtors, and risk management policies.

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