

MACROECONOMIC IMPACT ON THE RISK PROFILE OF ISLAMIC COMMERCIAL BANKS IN INDONESIA

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Abstract

As a member of the G20, Indonesia has demonstrated economic stability with an average growth of 5.05% by 2024. Islamic commercial banks play an important role in supporting the national economy through Sharia-based financing, which is more stable than traditional banks. However, macroeconomic fluctuations such as inflation, GDP, BI rate and exchange rates can impact Non-Performing Financing (NPF) as an indicator of credit risk. High NPF can affect the profitability and operational sustainability of Islamic commercial banks. Therefore, a deep understanding is required to maintain the stability of this sector. The aim of this study is to analyze the impact of macroeconomic factors on the NPF of Islamic commercial banks in Indonesia. With a quantitative approach using secondary data from quarterly reports for the period 2021-2023 and analyzed using multiple linear regression with panel data on nine Islamic commercial banks that meet the criteria, namely Bank Aladin Syariah, Bank Victoria Syariah, Bank Jabar Banten Syariah, Bank Panin Dubai Syariah, Bank Mega Syariah, Bank BCA Syariah, Bank BTPN Syariah, Bank Syariah Indonesia, and Bank Muamalah Indonesia. The findings indicated that inflation exerts a substantial impact on Non-Performing Financing (NPF). Conversely, Gross Domestic Product (GDP), Bank Indonesia (BI) rate, and exchange rate do not exhibit any influence on NPF. Nevertheless, concurrently, inflation, GDP, BI rate, and exchange rate collectively demonstrate a significant effect on NPF. This suggests that these variables interact with one another and play a role in altering the quality of financing extended by Islamic commercial banks.

Keywords : *Islamic Commercial Banks, Non-Performing Financing, Macroeconomics, Credit Risk, Economic Stability*

1. INTRODUCTION

As a member of the Association of Southeast Asian Nations and the Group of Twenty (G20), Indonesia has good prospects for its economy going forward, with an average economic growth of 5.05% in 2024 (BPS, 2024). Financial institutions have played a significant role in this success, particularly in financing, which propels the national economy (Tribudhi, D. A., & Soekapdjo,

2019). The two banking systems that are used by Indonesian financing institutions are conventional and sharia.

Indonesia's Islamic banking industry will serve as a yardstick for the Islamic economic system's prosperity. The 1998 financial crisis, which led to the closure of traditional banks, serves as an example of how conventional banks failed in the interest-based system. Islamic financial institutions will use their advantages in operating under sharia principles to gather and disburse funds in order to contribute to the community's needs (Dirgantari et al., 2022)

Despite operating in accordance with Islamic law, Islamic banks perform similar functions to those of conventional banks. Nonetheless, the way that banking supports and advances the Indonesian economy has a significant influence on the nation's economic activity (Putera, 2019). 1. According to Ismanto, banks act as intermediary organizations, transferring money from ultimate lenders, or distributors, to ultimate borrowed lenders, or borrowers. This is an effort to raise the standard of living in the community (Ismanto, H., Widiastuti, 2019).

As an intermediary institution, the bank's operations demonstrate how heavily the banking sector depends on public trust. Since banks are entrusted with collecting public funds, they will face difficulties if not trusted by the public (Putera, 2019). A number of actions must be taken, one of which is to keep banks healthy, in order to preserve public confidence in banking institutions (Umam, K., & Antoni, 2018).

Based on Regulation No. of Bank Indonesia. The health of a bank is determined by its performance and risk management (13/PBI/201). The Risk Profile, Good Corporate Governance, Earnings, and Capital (RGEC) method is employed as a means of evaluating the health of banks in compliance with these Bank Indonesia regulations.

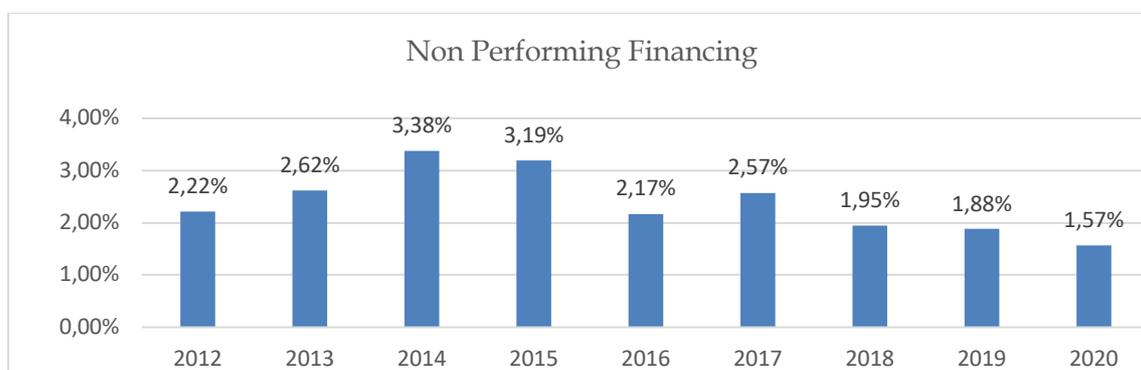


Figure1. Non-Performing Financing
 (Islamic Commercial Bank) 2012-2020

The aforementioned Figure indicates that the NPF peaked in 2014 at 3 point 38 percent, and that it began a steady decline in 2015 that lasted until 2016. 2017 saw another increase in the NPF, reaching 2.57. Despite the fact that it started to fall in 2018, the NPF may still rise in the years to come, even though it reached its lowest point in 2020 at 1.77%. The NPF must therefore be taken into account because, if it keeps rising like it did last year, Islamic banks will lose money and

have less money, which is a major issue that will impact Islamic banking's profitability and ultimately result in the closure of banking operations (Tsania et al., 2022).

In their survey, Coopers, (2018) found that the largest risk facing the banking industry was macroeconomic conditions. According to their findings, credit risk ranks as the fourth biggest risk in the banking industry. The purpose of this study was to determine whether Islamic commercial banks, which function differently from conventional banks, are more resilient to macroeconomic conditions, especially with regard to credit risk, or if they can be impacted by them.

First, Risk Profile In accordance with Bank Indonesia Circular No. The risk profile, as defined by 13/24/DPNP, evaluates the degree of inherent risk and the effectiveness of risk management practices in banking operations. Although the risk profile assessment includes eight risks, credit risk is utilized in this study as a stand-in for the risk profile indicator. The Non Performing Financing (NPF) ratio is used in Islamic banking to refer to credit risk as non-performing financing. According to traditional banking terminology, an NPF loan is one whose quality is outdated, questionable, and possibly subpar. NPF is known as non-performing financing because it is utilized in Islamic banking to do away with the idea of credit (Wangsawidjaja, 2012).

Second, Inflation. The state of continuously rising commodity prices is known as inflation. This reduces the community's purchasing power. Indonesia's inflation situation is still normal for 2022–2024, with the government establishing a 6 percent inflation cap. The rate of inflation in September 2022 was 5 percent, the highest level in the previous three years. By September 2023, the inflation rate had dropped by 3 points to 67 percent to 2 points to 28 percent. In September 2024, inflation was at its lowest point, at 1.08 percent, which was 0.84% lower than in 2023. ((Badan Pusat Statistik, 2024).

Third, GDP and economic growth have a close relationship. Griffin, R. W., & Ebert, (2017) defined GDP as the total output at which a nation's economy grows. The GDP of Indonesia has grown at varying rates over the last three years. The GDP of Indonesia grew by 5.31 percent in 2022, which was 0.27 percent more than the GDP growth of 5.04 percent in 2023. The Central Bureau of Statistics (2024) reports that GDP growth in 2024 was 5.05%, which is 0.01% higher than in 2023 (Badan Pusat Statistik, 2024).

Fourth, BI Rate, According to Djohari (2011), the BI rate is a measure used to determine financing and lending interest rates as well as a sign for monetary policy. Indonesian interest rates are always fluctuating; in 2022, they were 3 percent. In 2022, they went up by 2 percent to 2 percent. In 2023, they went up by 0 percent to 6 percent. As of August 2024, the interest rate was 6 percent. a zero to twenty-five percent increase over 2023. (Badan Pusat Statistik, 2024).

Fifth, Exchange Rate (KURS). KURS, as defined by Syarifuddin (2016), is the relative price of one country's currency relative to another. The variable Rupiah to US dollar exchange rate will be used in this study. According to the Rupiah's exchange rate against the US dollar, the currency strengthened in 2021 and reached 14,269 in that year. But the Rupiah declined once more in 2022, this time to 15,731 in exchange rates. In 2023, however, the Rupiah saw a minor increase, rising to 15,416. and the Rupiah experienced another decline in value, reaching 15,732 in October 2024. (Badan Pusat Statistik, 2024).

This study will look at how much Indonesian Islamic banks NPF is impacted by macroeconomic factors that change every year. The impact of macroeconomic factors including GDP, inflation, BI rate, and exchange rate (KURS) on the Non-Performing Financing (NPF) ratio in Islamic commercial banks is also better understood thanks to this study. This study supports

the findings of earlier research, which frequently provide contradictory findings, by utilizing the most recent data (2021–2023).

The findings of this study can help Islamic Commercial Bank management and regulators (OJK) create more efficient credit risk management procedures. The stability and sustainability of Islamic bank operations can be preserved by taking preventive measures after learning how macroeconomic changes affect NPF.

2. LITERATURE REVIEW

First, Non-Performing Financing (NPF). NPF is classified as loss, doubtful, or bad credit. Credit risk occurs when creditors or customers are unable to carry out their responsibilities in line with the agreement, either on time or not at all, claims Naibaho (2018). This argument leads to the conclusion that NPL and NPF are ratios that are used to gauge how well banks are able to offer credit or funding (Naibaho, 2018).

According to Financial Services Authority (OJK) Regulation Number 15/PJOK.03/2017, a credit risk or non-performing financing level of less than 5% is deemed healthy. One important consideration when evaluating banking performance is credit risk (Fianto et al., 2019). To avoid future defaults, a thorough assessment of the soundness of credit risk is necessary. The bank's financial situation improves as the percentage of non-performing loans decreases.

Second, Inflation in economics refers to the steady rise in prices of goods and services in a region at a specific point in time (Rahman, 2020). Because inflation is unpredictable, economic players will be hesitant to make decisions, which lowers people's real income. When macroeconomic indicators in a region show a high rate of inflation, the region is considered to be afflicted by inflation (Rahman, 2020).

Simply put, inflation is defined as a widespread and persistent increase in the level of prices for goods and services over time. Economic instability may be a result of this occurrence. While a low rate of inflation may indicate steady economic expansion, a high rate might reduce people's purchasing power and cause uncertainty in their day-to-day lives (Rizani et al., 2023).

Third, Gross domestic product (GDP). According to Nordhaus (2004) states that a nation's GDP is a measurement of the overall worth of its output over a specific time period, usually a year. These scholars generally concur that a nation's GDP is a measure of the total value of the goods and services it produces during a specific time period, often one year.

According to Mankiw (2007) The Gross Domestic Product quantifies something that many people care about and serves as a summary of economic activity during a given time period in a specific monetary value. Similar to this, an economy that produces a lot of goods and services is better able to satisfy the needs of businesses, governments, and households.

Fourth, BI Rate according to Boediono (2018) The cost of loanable funds (investment funds) is known as interest. This hypothesis was created in the 19th century by classical economics. The interest rate influences a person's choice between investing and saving. More money is offered when the interest rate is greater.

Fifth, Exchange Rates (KURS) The price of one currency expressed or measured in another is known as the exchange rate. According to Sukirno (2015) the price of one currency relative to other currencies is known as the exchange rate. Given its significant impact on the current account balance and other macroeconomic factors, the exchange rate is among the most significant prices in an open economy.

Krugman (2000) states that there are two types of exchange rate fluctuations: depreciation and appreciation. A decline in the value of the home currency relative to other currencies is known as depreciation, whereas an increase in the value of the home currency relative to other currencies is known as appreciation.

The aforementioned macroeconomic variables demonstrate that the rates of development of each variable vary. based on the findings of studies carried out by Isnaini et al., (2021) Nisa Arinda (2022) & Wahyuni (2023) demonstrates that NPF is positively impacted by inflation, whereas according to Biasmara & Iradianty (2021) Fitriya et al., (2022) & Rahmah et al., (2021) They concluded in their study that NPF is unaffected by inflation.

According to Yulianti (2022) His study found that GDP has a positive impact on NPF, which is contrary to the findings of other studies Biasmara & Iradianty (2021) According to his research, GDP has no bearing on NPF.

According to Biasmara & Iradianty (2021), Nisa Arinda (2022) & Wahyuni (2023) claims that there is no relationship between the BI rate and NPF, while the research conducted by Rahmah et al., (2021) indicates that NPF is negatively impacted by the BI rate, which is inversely proportional to the research Yulianti (2022) According to his research, the BI rate positively affects NPF.

The research conducted by Biasmara & Iradianty (2021) & Fitriya et al., (2022) which addresses the exchange rate (KURS), demonstrates that the exchange rate has no effect on NPF, both partially and simultaneously, contrary to the findings of research by Fahlevi (2022) It demonstrates that non-performing financing (NPF) is significantly positively impacted by the exchange rate.

3. RESEARCH METHOD

The research methodology employed in this study is a quantitative strategy, specifically one in which an application program for statistical data testing will be used to handle the data. One kind of study whose requirements have been methodically prepared so that they are evident from the start of the research procedure to the end results is quantitative research.

The study's population is based on information from the Financial Services Authority's Banking Licensing and Information Department's (2020) Islamic banking statistics report, which lists 14 Islamic Commercial Banks in Indonesia. To choose which sample to use, researchers employed the purposive sampling technique. According to (Sugiyono, 2017) Using the sampling technique known as "purposeful sampling," researchers choose samples according to certain factors that are pertinent to the study. The sample in this study was chosen based on a number of precise criteria, that is:

First, The sampled Islamic banks must be classified as commercial banks. *Second*, Islamic commercial banks that are either State-Owned Bank (SOE) subsidiaries, listed on the Indonesia Stock Exchange, or both. *Third*, Banks that have regularly released financial reports for the past five years, specifically from 2021 to 2023.

Nine Islamic Commercial Banks meet the predefined requirements to be included in the study's sample. The nine banks are Bank Aladin Syariah, Bank Victoria Syariah, Bank Jabar

Banten Syariah, Bank Panin Dubai Syariah, Bank Mega Syariah, Bank BCA Syariah, Bank BTPN Syariah, Bank Syariah Indonesia, and Bank Muamalah Indonesia.

Secondary. In research, secondary data can be defined as information that has been gained indirectly through an intermediary medium or as records that have been obtained from other parties but are still related (Sugiyono, 2017). The quarterly reports of inflation, GDP, BI rate, exchange rate, and NPF from Islamic Commercial Banks in 2021–2023 provided the secondary data for this study.

This time, researchers employed secondary data collection methods, using Images from quarterly reports from the Central Statistics Agency (BPS) and the Financial Services Authority (OJK) on the variables of inflation, BI rate, exchange rate, GDP, and NPF of Islamic Commercial Banks for the years 2021–2023.

Then in analyzing the data, researchers used the panel data Multiple Linear Regression Analysis model using the help of the eviews 12 computer program (software), that is:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Description:

Y = Non Performing Financing (NPF)

a = konstanta

β_1 = Regression coefficient X1

β_2 = Regression coefficient X2

β_3 = Regression coefficient X3

β_4 = Regression coefficient X4

X1 = Inflation

X2 = GDP

X3 = BI Rate

X4 = Exchange Rates (KURS)

In addition, to get the best results in this study, researchers also conducted a classic assumption test on the data used, including normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. Then to test the hypothesis, the researcher chose to use the coefficient of determination (R Square) test model, T test (partially), and F test (simultaneously).

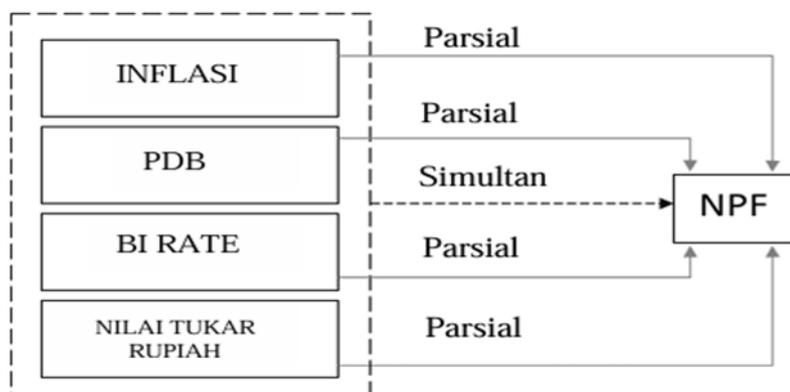


Figure 2. Research framework model

4. RESULTS AND DISCUSSION

a. Estimation Model Selection

The test results to identify the best model are presented first in this study's discussion. The three models that need to be examined are the Random Effect Model, Fixed Effect Model, and Common Effect Model (Panel Least Square).

First, Chow Test

Table 1. Result of Chow Test

<i>Effects Test</i>	<i>Statistic</i>	<i>d.f</i>	<i>Prob</i>
<i>Cross-section F</i>	14.972583	(8,95)	0.000
<i>Cross-section Chi-square</i>	88.099968	8	0.000

Table 1 displays the results of testing using the Chow Test. According to the test results, the cross-section F probability value is 0.0000. Because the cross-section F probability value is less than alpha 0.05, this result suggests that H_0 should be rejected. Consequently, the Fixed Effect Model is the best model selected for the Chow Test.

Second, Hausman Test

Table 2 Results of Husman Test

<i>Effects Test</i>	<i>Chi-Sq. Statistic</i>	<i>Chi-Sq d.f.</i>	<i>Prob</i>
<i>Cross-section random</i>	0.000000	4	1.0000

The results of the Husman Test indicate that the cross-section probability is 1.0000, as shown in Table 2. Given that the cross-section probability is higher than alpha 0.05, this number suggests that H_0 is accepted. Thus, the Random Effect Model is the best model chosen according to the Hausman Test.

The third test, the Lagrange Multiplier Test, which evaluates the Common Effect and Random Effect, does not need to be performed because the Common Effect and Fixed Effect models have been removed. Thus, REM is the ideal model to choose so that classical assumption testing is not needed (Wahyuni, 2023).

b. Hypothesis Test

Table 3. Results of Multiple Linear Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.040040	4.430691	-0.009037	0.9928
IFLS	-0.126135	0.062759	-2.009837	00471
PDB	0.001431	0.064875	0.022055	0.9824
BR	-0.211864	0.128662	-1.646678	0.1027
KURS	-0.000164	0.000333	0.491189	0.6243
R-squared	0.127894	Mean dependent var		0.271596
Adjusted R-squared	0.094025	S.D dependent var		0.821940
S.E of Regression	0.782345	Sum squared resid		63.04253
F-statistic	3.776214	Durbin-watson stat		0.598169
Prob (F-statistic)	0.006597			

First, Adjusted (R²). The adjusted R² value in this study was obtained from the adjusted R-square in Figure 5, which is 0.127 or 12%, meaning that the variation in NPF as the dependent variable can be explained by inflation, GDP, BI Rate, and exchange rate by 12%, while the remaining 12% is explained by other factors that were not studied.

Second, Partialt Test (t) Based on the test results shown in the Table 3 explanation of the hypothesis is as follows:

H1: Inflation has an impact on NPF.

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Prob (F-statistic)	0.006597			

Based on Figure 6, a t-Statistic probability value of -2.009 (where $-2.009 < 0.05$) is obtained, which shows that the probability value is less than 0.05, which has a significant influence between inflation and NPF partially. Research supports the results of the study Isnaini et al., (2021) Nisa

Arinda (2022) & Wahyuni (2023) which states that the inflation ban has an influence on NPF. This is because inflation causes an increase in the price of goods and services, which ultimately reduces people's purchasing power. As a result, the ability of customers to meet their credit or financing payment obligations is also reduced.

H2: GDP has no influence on NPF

According to the analysis presented in Figure 6, the computed t-Statistic probability value is 0.9824 (where $0.9824 > 0.05$), indicating the absence of a statistically significant impact between GDP and NPF when examined in isolation. This finding is corroborated by the research conducted by Biasmara & Iradianty (2021) which concludes that GDP exerts no influence on NPF. The fluctuations in GDP levels, whether in an upward or downward direction, do not result in a corresponding alteration in NPF within Islamic Commercial Banks.

H3: BI Rate has no influence on NPF.

According to Figure 6, the t-Statistic probability associated with the BI Rate is 0.1027 (wherein 0.1027 exceeds the threshold of 0.05), and similarly for GDP, the empirical findings reveal that the probability value surpasses 0.05, thereby suggesting that there exists no statistically significant relationship between the BI Rate and NPF when analyzed in isolation. In a comparable fashion, the findings from the research conducted by Biasmara & Iradianty (2021) & Wahyuni (2023) indicate that the BI Rate does not exert any influence on the fluctuations in NPF.

H4: KURS has no influence on NPF.

Based on Figure 6, a t-Statistic probability value of 0.49 (where $0.49 > 0.05$) is obtained, which shows that the probability value is greater than 0.05, which means that there is no significant influence between KURS and NPF partially. These results reinforce previous research Biasmara & Iradianty (2021) & Fitriya et al., (2022) stating that KURS has no influence on NPF, based on the results of this study, exchange rate fluctuations do play a role in the economy, especially in international trade and businesses involving foreign currency transactions. However, in general, for financing disbursed by Islamic banks, most transactions and obligations are carried out in local currency, so exchange rate fluctuations do not directly affect the debtor's ability to pay its obligations.

Fourth, Simultaneous Test (f). The Table 3 above shows a probability value of F of 0.006, which is smaller than alpha 0.05, indicating that H_0 is accepted. This indicates that simultaneously, the tested variables have a significant effect on the dependent variable. In other words, it can be concluded that inflation, GDP, BI Rate, and exchange rates collectively have a significant impact on NPF. This decision indicates that these factors influence each other and contribute to changes in the quality of financing provided by Islamic Commercial Banks.

5. CONCLUSION

Based on the findings derived from the conducted data analysis, it can be inferred that inflation serves as the principal determinant influencing the Risk Profile as evidenced by Non-Performing Financing (NPF). In a partial sense, inflation exerts a substantial impact on NPF. This phenomenon can be attributed to the fact that inflation influences individuals' purchasing capabilities and amplifies the obligations faced by customers, consequently deteriorating the

quality of financing, which ultimately results in an escalation of NPF. Conversely, GDP, the BI Rate, and KURS do not exhibit a significant impact on NPF.

The results are evident in the simultaneous testing, where all independent variables collectively have a significant impact on NPF. Therefore, it can be concluded that Islamic Commercial Banks must pay attention to macroeconomic factors in financing policies and risk management. An increase in inflation, a decrease in GDP, changes in the BI Rate, or exchange rate fluctuations can elevate the risk of problematic financing (NPF). Consequently, banks need to prepare better risk mitigation strategies by considering these variables to effectively manage NPF risk. Additionally, enhanced monitoring and evaluation of economic conditions are also necessary to anticipate potential increases in NPF in the future.

Based on the results of this research, there are several recommendations that can be considered for future research. Future studies may take into account other variables that may have a greater impact on NPF, such as the unemployment rate, monetary policy, or specific sectors within the economy. Future research may also expand the time frame or data sample to obtain more representative results and reduce potential bias in the analysis. Furthermore, although the Random Effect Model was chosen as the best model in this study, future research could utilize other models such as Vector Autoregression (VAR) or Structural Equation Modeling (SEM) to provide deeper insights into the interactions between economic variables and the banking sector.

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