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ANALYSIS OF THE INFLUENCE OF MACROECONOMIC VARIABLES ON CREDIT RISK IN SYARIAH BANKS IN INDONESIA

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ABSTRACT

This study aims to analyze the influence of macroeconomic factors, such as the inflation rate, Bank Indonesia interest rate (BI Rate), and economic growth (GDP), on credit risk, which is measured through Non-Performing Financing (NPF) in Islamic Commercial Banks in Indonesia during the 2020–2024 period. The approach used in this study is quantitative, utilizing secondary data obtained from the financial reports of Islamic banks registered with the Financial Services Authority (OJK), with a sample size of 220 data points. The analysis is conducted using panel data regression with the Random Effect Model (REM), selected through the Chow test, Hausman test, and Lagrange Multiplier test. The results show that inflation, BI Rate, and economic growth have a negative and significant effect on NPF. Therefore, increases in these macroeconomic variables tend to reduce the level of problematic financing in Islamic banking. These findings have important implications for regulators and Islamic banks in formulating risk management policies to maintain financial system stability.

INTRODUCTION

The banking sector plays a vital role in facilitating the economic progress of a nation. Acting as financial intermediaries, banks have the ability to raise capital from the public and allocate it as a source of financing for various stakeholders, including companies, consumers, and government entities. According to Law No. 21 of 2008 on Islamic Banking, sharia-compliant banks are classified two different categories: Sharia

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Commercial Banks (BUS) and Sharia People's Financing Banks (BPRS) (Masruron & Safitri, 2021). Shariah-compliant recognized banks function in harmony with shariah principles and embrace Islamic values. Similar to other financial entities and companies, Islamic banks aim to achieve profitability in their operational endeavors (returns), which is always associated with the presence of associated risks.

Banking regulations govern the financing system of Islamic Banks because banks have an important role in managing liquidity. The success of financing management has a direct impact on achieving liquidity targets, which in turn can improve bank health (Fauzukhaq et al., 2021). Banks in a country must remain in a consistently healthy condition, both in the short term and in the long term (A. E. Purnamasari & Musdholifah, 2018). A healthy bank is able to manage finances efficiently, thereby reducing the possibility of unwanted risks.

The evaluation of risk profiles in the banking sector includes several dimensions, one of which includes financing risk stemming from the failure of debtors to fulfill their financial responsibilities to the bank in accordance with the agreed terms. The method to assess the debtor's capacity to fulfill these obligations is through the application of the Non-Performing Financing Ratio (NPF) indicator (Sri Herianingrum, 2020). NPF, or Non-Performing Financing, serves as a ratio that describes the relationship between the amount of non-performing financing and the total financing extended by Islamic banks. This metric plays an important role in measuring the proportion of financing that experiences payment difficulties or defaults relative to the comprehensive financing issued by the institution (Sudarsono, 2018). In the Islamic banking paradigm, NPF is a significant macroeconomic indicator that reflects the internal dynamics of banking from both a short-term and long-term perspective. An increase in the NPF value can hamper the ability of banks to fulfill financing commitments to their clients and adversely affect the profitability of banks. As a result, the Financial Services Authority (FSA), as the regulatory body, plays a crucial role in supervising and regulating the operations of Islamic Banks. The FSA seeks to ensure that NPF values remain within acceptable limits, not exceeding the set thresholdof 5%. To realize this goal, the FSA has implemented a series of measures, including the fortification of risk management practices, enhanced supervision of credit operations, and initiation of corrective actions related to non-performing financing (Prastyo & Anwar, 2021).

Non-current financing can impact the bank, consumers, the country's economy, and the financial system. A bank's financial situation may deteriorate, the likelihood of bankruptcy increases, and its reputation may be damaged due to non-performing loans. However, consumers who have non-performing financing may experience credit rating downgrades, have difficulty completing payments on time, or even face bankruptcy. A financial crisis may result from loans from a macroeconomic perspective, especially if it affects multiple institutions. This condition has the potential to reduce public confidence in the banking sector and jeopardize the stability of the national economy as a whole. Banks must use good risk management techniques and be careful when providing financing to reduce the possibility of non-performing financing (Firmansyah & Andrianto, 2019).

According to the Financial Services Authority (OJK), it shows that during the time span from 2020-2024 in the type of Islamic Commercial Bank (BUS) banking there has

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been a consecutive decline over the last 5 years. NFP data in 2020, namely with a value of 1.57% to 0.81% in 2021, then in 2022 it fell back to 0.64% and in 2023 it rose to 0.77%, and in 2024 it showed a decrease of 0.64%. This indicates an improvement in the quality of Islamic banking financing and shows that the level of Non-Performing Financing (NPF) at Islamic Commercial Banks (BUS) continues to increase. Nevertheless, the value is still below the 5% threshold, which is used as a benchmark for banking health.

The ratio of non-performing financing (NPF) is one of the important indicators in identifying a banking crisis. Therefore, it is important to analyze the factors that influence the level of non-performing financing in order to maintain financial stability and bank management (Sudarsono, 2018). NPF shows the poor quality of bank financing, and the higher the NPF ratio, the greater the losses experienced by Islamic banks (Destiana, 2020). Some of the factors that affect NPF are the inflation rate, bank indonesia interest rates, and also economic growth (GDP) these factors are external factors that affect NPF (Harahap et al., 2019). In addition, research on the factors that cause the impact of NPF is important as a preventive measure for financial institutions, especially Islamic banking, to manage the risk of non-performing financing by considering macroeconomic conditions (Dwi Poetry & D Sanrego, 2011). Therefore, Islamic banks must carry out effective financing risk management to minimize the risk of non-performing loans and to ensure that the risk of non-performing loans is minimized sustainability of its operations (Alvira ‘Aina A’yun, 2020).

Banks with high NPF values will have difficulty in meeting their customers' loan commitments, which can have a negative impact on bank profits, Thus, one of the main tasks of the Financial Services Authority (OJK) is as a regulator in monitoring and controlling the performance of Islamic banks. They take various steps to ensure that the NPF value remains stable and does not exceed the 5% limit (Fitriyanti & Arfiansyah, 2023). by improving risk management and strengthening credit supervision, as well as implementing recovery actions is one of the ways that can be done in dealing with non-performing loans (Prastyo & Anwar, 2021).

In the framework of monetary policy, the role of banks is crucial in the context of the economy, especially in Indonesia. Banks have broad responsibilities in managing the financial sector as a whole, which includes asset ownership, fund collection, and fund distribution (Muljaningsih & Wulandari, 2019). In the macroeconomic framework, various factors such as inflation, Bank Indonesia (BI) interest rates, and economic growth as measured by Gross Domestic Product (GDP) have an influence on fluctuations in public deposits and lending (RIKA, 2016).

Banks always pay attention to the inflation rate as an economic condition that attracts their investments. Since inflation lowers the exchange rate of currency against certain goods, it can also be classified as a monetary event (Dahlan, 2015). If the inflation rate reaches a high level and is difficult to control, banks' efforts to raise funds from the public can be hampered, causing lending activities to stagnate (Adi & M. Anwar Rifa’i, 2023). In addition to the impact on relative price increases, the decline in the rupiah exchange rate will also cause people's purchasing power to decline. Financing such as profit-sharing ratio will increase as a result of an increase in the BI rate, which will further reduce the value of Islamic bank financing expenditures. High BI interest rates can also affect people's desire to borrow and save money (Mada & Arfianto, 2015).

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One of the reasons why there is an increase in non-performing financing or NPF in banks is the decline in GDP. when GDP decreases national income and people's purchasing power will also decrease, which ultimately impacts the ability of debtors to pay their credit obligations (Ahmed et al., 2021). In fact, many companies and customers face problems in managing their operations, which makes it more difficult for them to fulfill their loan repayment obligations to banks. In addition, a falling GDP can lead to an increase in poverty levels and a decrease in people's purchasing power, which can then lead to an even greater decline in GDP (Ahmad & Widodo, 2018).

According to Indonesia's Central Bureau of Statistics (BPS) in 2020, Indonesia experienced a contraction in economic growth to -2.07% due to the COVID-19 pandemic which suppressed economic activity and people's purchasing power. However, as the economy recovered, GDP growth returned positively to 3.69% in 2021 and increased again to 5.31% in 2022. Until 2023, GDP growth was recorded at 5.04% (year-on-year), indicating the stability of the economic recovery post-pandemic. Low or stagnant economic growth also has a similar impact, limiting people's purchasing power and bank lending activities. Thus, banks not only function as financial intermediaries but also as major players involved in economic dynamics, intertwined with Macroeconomic variables that create an environment that affects banking activities as a whole (Destiana, 2020).

The issues identified from this context relate to external variables stemming from macroeconomic conditions, including inflation, interest rates set by Bank Indonesia (BI), and economic growth rates (GDP). These three variables exhibit a volatile nature and have the potential to affect economic stability. Fluctuations in these parameters can trigger problematic financing, where funds allocated to the community are not repaid in accordance with the established agreement (Muljaningsih & Wulandari, 2019). The greater the amount of financing channeled by Islamic Banks to the community, the higher the risks faced, including the possibility of default or non-performing financing (Fitri & Sriyana, 2023). This study aims to analyze whether external factors, such as inflation, BI interest rates, and economic growth (GDP), have an impact on credit risk in Islamic banks, especially in the form of Non-Performing Financing (NPF).

LITERATURE REVIEW

Non-Performing Financing

NPF in the context of Islamic banking refers to financing that is not paid on time by customers, which reflects financing risk and has a negative impact on bank profitability. NPF is caused by various internal and external factors such as customers' financial incapacity, macroeconomic conditions, and changes in government policies. Islamic banks must implement strict risk management and regular financing supervision to control NPF. A high NPF ratio indicates poor financing quality, so it is important for Islamic banks to keep this ratio at a healthy level so that profitability is maintained and stable (Almunawwaroh & Marliana, 2018).

Infltion

Inflation is a general and continuous increase in the prices of goods and services over a period of time that can reduce people's purchasing power and hamper economic growth. Causes of inflation include increased demand, production costs, exchange rate fluctuations, and fiscal

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and monetary policies. High and uncontrolled inflation risks reducing people's welfare and increasing economic pressure (Adi & M. Anwar Rifa'i, 2023). Therefore, Bank Indonesia's role in maintaining inflation stability through monetary policy is crucial to support sustainable economic growth, as measured by indicators such as the Consumer Price Index (CPI) (Prayogi, 2022).

BI Rate

Bank Indonesia's benchmark interest rate (BI Rate) is a monetary policy instrument that has a major influence on economic activity, including Islamic banking which, although it does not implement an interest system, is still affected. An increase in the BI Rate leads to an increase in lending rates at conventional banks, which may cause customers to shift to Islamic banks. However, high demand for financing without proper risk analysis can actually increase the potential for NPF. Therefore, Islamic banks need to balance competitiveness with accurate and efficient risk management (Damayanti & Indah, 2022).

Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is a leading indicator that reflects the total value of goods and services produced in a country during a certain period and is used to measure the level of economic growth. An increase in GDP indicates economic expansion which can strengthen the ability of debtors to meet financial obligations, thereby reducing the risk of NPF. Conversely, a decrease in GDP may lead to an increase in NPF due to economic pressures. Inflation and government policies also affect this relationship, making stable economic growth an important prerequisite in maintaining the quality of financing in the banking sector (Febrianti & Ashar, 2016).

METHODS

This study aims to analyze the effect of inflation, Bank Indonesia interest rate (BI Rate), and economic growth (GDP) on credit risk as measured by non-performing financing ratio (NPF) in Islamic commercial banks in Indonesia. Based on the literature review and macroeconomic theory, this study proposes the following hypothesis :

1. H1: Inflation has a negative effect on Non-Performing Financing (NPF) in Islamic Banks.
2. H2: BI interest rate has a positive effect on Non-Performing Financing (NPF) in Islamic Banks.
3. H3: Economic growth (GDP) has a positive effect on Non-Performing Financing (NPF) in Islamic Banks.

To evaluate the proposed hypotheses, this study employs a quantitative methodology using panel data regression analysis. The data used consists of secondary information sourced from various authoritative entities, specifically:

1. Non-Performing Financing (NPF) data is obtained from the quarterly financial disclosures of Islamic commercial banks registered with the Financial Services Authority (OJK), which can be accessed through the official websites of their respective Islamic banking institutions
2. Inflation statistics are sourced from the Central Statistics Agency (BPS) through its

official website (www.bps.go.id), using the Consumer Price Index (CPI) as the basic indicator to calculate annual and quarterly inflation rates.

3. Bank Indonesia interest rate data (BI Rate) is taken from the official portal of Bank Indonesia (www.bi.go.id), by taking BI 7-Day Reverse Repo Rate data as a reference for monetary policy interest rates.
4. Economic growth data (GDP) is obtained from the official BPS report available at (www.bps.go.id), using Gross Domestic Product (GDP) data as an indicator of national economic growth.

Data collection is done by downloading official reports in PDF or Excel from each website, then data processing is carried out to ensure the suitability of the format before being analyzed. The purpose sampling technique is used to determine the sample, as explained by Sugiyono (2017) and supported by (A. E. K. A. Purnamasari & Musdholifah, 2016) The sample used in this investigation consists of 11 Islamic Commercial Banks that meet the established research criteria, resulting in a total of 220 observations over the period 2020 to 2024.

Data analysis was conducted by applying a panel data regression model, where optimal model selection was done through the application of the Chow test, Hausman test, and Lagrange Multiplier test. Furthermore, classical assumption tests were run to validate the integrity of the model, and hypothesis testing was conducted using t-test and F-test to assess the effect of each independent variable on the dependent variable.

RESEARCH RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistical analysis was conducted to explain or clarify the variables under investigation, which include Inflation (X1), BI Interest Rate (X2), Economic Growth (GDP) (X3), and NPF (Non-Performing Financing) (Y). Descriptive statistics, such as mean value, minimum value, maximum value, and standard deviation, are used in this analysis. A detailed description will be provided for each of the variables examined in this study to enhance clarity and facilitate understanding of the findings.

	Y	X1	X2	X3
Mean	1.430000	2.757000	4.737500	3.636000
Median	0.810000	2.485000	4.585000	4.255000
Maximum	4.980000	5.550000	6.250000	8.700000
Minimum	0.000000	1.420000	3.500000	-5.320000
Std. Dev.	1.460788	1.301569	1.090433	3.384260
Skewness	0.926083	0.936015	0.103945	-1.321501
Kurtosis	2.644644	2.693175	1.264715	4.288715

(Source: Data processed, 2025)

1. Inflation

Inflation variable X1 shows an average value of 2.757000, the highest value is 5.550000 which is classified as inflation data in 2022 quarter 1, it can be concluded that inflation data in 2022 quarter I, has the highest value compared to previous years. then the lowest value is 1.420000 which is classified as inflation data in 2020 quarter III, with a standard deviation of 1.301569, which is smaller than the average value

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(mean), indicating that the inflation variable is homogeneous or has a low level of data variation.

2. BI Rate

The BI interest rate variable shows an average value of 4.737500, the highest value is 6.250000 which is owned by the BI interest rate data in 2024 Quarter I, it can be concluded that the BI interest rate data in 2024 Quarter I has the highest value compared to other years, then the lowest value is 6.250000. 3.500000 owned by the BI interest rate in 2021 Quarter II, Quarter III, Quarter IV, and 2020 Quarter I, Quarter II. With the acquisition of a standard deviation value of 1.090433, which shows that the standard deviation value is smaller than the mean, it shows that the BI interest rate variable is homogeneous or the data shows less variation.

3. Gross Domestic Product (GDP)

The GDP variable has an average value of 3,636000, with the highest value of 8,700000, which was recorded in the first quarter of 2021. This shows that in that period, GDP reached the highest number compared to other years. Meanwhile, the lowest value of -5.320000 occurred in the second quarter of 2020. With a standard deviation of 3.384260, which is greater than the average, it can be concluded that the economic growth variable (GDP) is heterogeneous, or has a fairly high data variation.

4. NPF (Non-Performing Financing)

In the NPF variable, an average value of 1.430000 is obtained, with the highest value of 4.980000 recorded in Bank Muamalat's NPF data in the 2020 Quarter I. This shows that in that period, NPF had the highest value compared to other years. Meanwhile, the lowest value is recorded at 0.000000, which is owned by NPF data at BCA Syariah Bank, Victoria Bank, and BTPN Syariah Bank. With a standard deviation of 1.460788, which is higher than the mean, this indicates that the NPF variable is heterogeneous, with considerable variation in the data.

Stages of Panel Data Regression Model Selection

Chow Test

Common Effect Model (CEM) dipilih (Prob > 0,05)

Fixed Effect Model (FEM) dipilih (Prob < 0,05)

Effects Test	Statistic	d.f.	Prob.
Cross-section F	48.829162	(10,206)	0.0000
Cross-section Chi-square	267.303498	10	0.0000

(Source: Data processed, 2025)

The analysis yielded a chi-square probability value of 0.0000, which is below the 0.05 threshold. In line with this decision-making guideline, the model adopted is the Fixed Effects Model (FEM). Given that the Chow test supports the Fixed Effects Model (FEM), the next procedure is to administer the Hausman Test to evaluate whether the more suitable model is the Fixed Effects Model (FEM) or the Random Effects Model (REM).

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Hausman Test

Random Effect Model (REM) dipilih (Prob>0,05)

Fixed Effect Model (FEM) dipilih (Prob<0,05)

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	3	1.0000

(Source: Data processed, 2025)

Findings from the analysis revealed that the chi-square test yielded a probability of 1.0000, surpassing the significance threshold of 0.05. In accordance with the decision-making framework established in this model, the Random Effect Model (REM) was used. Furthermore, since the Hausman test also indicated a preference for the Random Effect Model (REM), it is imperative to conduct an additional assessment through the Lagrange Multiplier Test to ascertain whether the more appropriate model could be the Common Effect Model (CEM) or the Fixed Random Effect Model (REM).

***Lagrange Multiplier* (LM) Test**

Common Effect Model (CEM) dipilih (Prob > 0,05)

Fixed Effect Model (FEM) dipilih (Prob < 0,05)

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	988.3650	3.746484	992.1115
	(0.0000)	(0.0529)	(0.0000)

(Source: Data processed, 2025)

Findings from the analysis revealed a chi-square probability value of 0.0000, which is substantially less than the 0.05 threshold. Given this dSecision-making criterion,

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the model used was identified as a Fixed Effects Model (FEM). Given that the Chow test had supported the Fixed Effects Model (FEM), the next phase involved conducting a Hausman Test to ascertain whether the Fixed Effects Model (FEM) or the Random Effects Model (REM) was a more suitable analytical framework.

Uji Hipotesis

Uji F

R-squared	0.183434
Adjusted R-squared	0.172093
S.E. of regression	0.793175
F-statistic	16.17411
Prob(F-statistic)	0.000000

(Source: Data processed, 2025)

Based on the table presented, the calculated F value is 16.17411 with an F- statistic probability of 0.000000, which is smaller than 0.05. The next step is to compare the calculated F value with the F table. If the calculated F value is greater than the F table, it can be concluded that the independent variables simultaneously have a significant effect on the dependent variable.

In this study, the significance level used is α= 0.05. The first degree of freedom (df1) is calculated as the number of variables X - 1, namely 3 - 1= 2, while the second degree of freedom (df2) is calculated as n - k, namely 220 - 3 = 217 (with n as the amount of data and k as the number of independent variables). Based on these calculations, the F table value obtained is 3.04.

With a calculated F value of 16.17411 and the critical F value from the table of 3.04, it is clear that the calculated F exceeds the tabulated F (16.17411 > 3.04). This observation implies that the independent variables examined in this study, namely Inflation, BI interest rate, and Economic Growth (GDP), exert a significant simultaneous influence on the dependent variable.

Coeficient Of Determination Test (R2)

According to the findings obtained from the examination of the coefficient of determination, the R-value of squared 0.183434, equivalent to 18.34%, is established. This implies that the independent variables, specifically Inflation, BI Interest Rate, and Economic Growth (GDP), account for 18.34% of the observed variance in the dependent variable, namely Non-Performing Financing (NPF). The remaining variation is attributed to additional factors that are not included in the scope of this study. Furthermore, the Adjusted R- Square value of 17.21% indicates that, after accounting for the number of variables in the model, Inflation, BI Interest Rate, and Economic Growth (GDP) continue to provide significant insight into the NPF variable. The F-statistic value of 16.14411,

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along with the Prob (F-statistic) of 0.000000, signifies that this model has statistical significance, indicating that the collective influence of the independent variables affects the dependent variable.

R-squared	0.183434	Mean dependent var	0.204643
Adjusted R-squared	0.172093	S.D. dependent var	0.871723
S.E. of regression	0.793175	Sum squared resid	135.8915
F-statistic	16.17411	Durbin-Watson stat	0.546785
Prob(F-statistic)	0.000000		

(Source: Data processed, 2025)

Panel Data Regression Test

Estimation Equation:

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Y = C(1) + C(2)*X1 + C(3)*X2 + C(4)*X3 + [CX=R]

Substituted Coefficients:

==========

Y = 2.94264176568 - 0.143438957027*X1 - 0.195806690158*X2 - 0.0521304638445*X3 + [CX=R]

Based on the panel data regression equation above, the interpretation of the results is as follows:

1. The constant value of 2.9426 indicates that Non-Performing Financing (NPF) will increase by 2.9426 if there is no influence from variables such as Inflation, BI Interest Rates, and Economic Growth.
2. The coefficient of variable X1 (inflation) is -0.1434, which indicates that if other variables remain constant, every 1 unit increase in inflation will reduce NPF by 0.1434. Conversely, if inflation falls by 1 unit, NPF will increase by 0.1434.
3. According to the coefficient of variable X2 (BI Interest Rate) of -0.1958, each time the BI Interest Rate increases by 1 unit with the assumption that the other variables remain constant, NPF will decrease by 0.1958. Conversely, every time the BI Interest Rate decreases by 1 unit, the NPF will increase by 0.1958.
4. Based on the coefficient of variable X3 (economic growth/GDP) of -0.0521, any increase in GDP by 1 unit will result in a decrease in NPF by 0.0521, while a decrease in GDP by 1 unit will result in an increase in NPF by 0.0521.

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T Test

Hypothesis testing is conducted to answer research questions and evaluate previous hypotheses. To evaluate the effect of each variable partially, the t-test was used. This is done by comparing the calculated t value with the t table or confirm whether the significance value (sig) is less than 0.05. If the sig value is less than 0.05, then the regression model is considered to explain the partial effect of the independent variable on the dependent variable. The results of hypothesis testing are as follows:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.942642	0.447436	6.576671	0.0000
X1	-0.143439	0.043358	-3.308248	0.0011
X2	-0.195807	0.051271	-3.819063	0.0002
X3	-0.052130	0.016062	-3.245655	0.0014

(Source: Data processed, 2025)

1. The Effect of Inflation on NPF in Islamic Banks

The probability value of 0.0011, which is lower than the 0.05 threshold, indicates that the inflation variable has an influence on Non-Performing Financing (NPF). The coefficient of -0.143439 indicates a negative correlation between the inflation variable and NPF. As a result, it can be concluded that inflation has a substantive negative impact on Non-Performing Financing (NPF). This negative relationship can be explained by the mechanism where an increase in inflation is often accompanied by an increase in the prices of goods and services, which can increase the nominal income of debtors and their ability to pay credit, thus reducing the risk of default.

The results of this study are in line with (Purwaningtyas & Hartono, 2020), (Prastyo & Anwar, 2021), (Alvira 'Aina A'yun, 2020) and (Sri Herianingrum, 2020) revealed that inflation has a significant negative impact on the level of Non-Performing Financing (NPF); in other words, the level of Non-Performing Financing (NPF) will decrease when inflation increases, which makes it more difficult for debtors to meet their payment obligations.

2. The Effect of BI Interest Rate on NPF in Islamic Banks

The probability value of 0.0002, which is less than 0.05, indicates that the Bank Indonesia (BI) interest rate variable has a visible effect on NPF. The coefficient of -0.195807 reveals a negative relationship between the BI rate and the NPF rate variable, it can be concluded that the BI interest rate has a significant adverse effect on Non-Performing Financing (NPF).

This negative relationship may occur because Islamic banks are not directly dependent on conventional interest rates, so changes in the BI rate may have a greater impact on conventional banks than Islamic banks. In addition, an increase in the BI rate is often associated with tighter monetary policy, which can increase economic stability and market confidence, thereby reducing the risk of non-performing loans for Islamic banks. The findings of this study are the same as previous research conducted by (Fauzukhaq et al., 2021), (Linda et al., 2015), and (Dewi & Suryanawa, 2015). which

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explain that the increase in the BI Rate encourages Islamic banks to change their ratio levels according to their returns. This phenomenon is caused by the fact that the increase in BI Rate is indirectly utilized as a reference point by Islamic banks. When profit-sharing margins increase to maintain competitiveness, the risks associated with non-performing financing also tend to increase, given that the obligations imposed on mudharib become heavier. This is consistent with the theoretical framework regarding profit margins and profit-sharing ratios in Islamic banking financing. In this context, conventional banking interest rates, including the BI Rate, are often used as a benchmark by the Asset Liability Committee (ALCO) in Islamic banks.

3. The effect of GDP economic growth on NPF in Islamic Banks

The probability value of 0.0014, which is less than 0.05, indicates that the GDP economic growth variable affects NPF. The coefficient value of -0.052130 reveals a negative relationship between the GDP economic growth variable and NPF. Thus, it can be concluded that inflation has a negative and significant impact on Non-Performing Financing (NPF).

This is in line with economic theory which states that under good economic growth conditions, people's income increases, business profitability improves, and the ability of debtors to fulfill their financial obligations becomes higher, thus reducing the level of non-performing loans (NPF). Conversely, when economic growth weakens, the risk of non-performing loans tends to increase due to declining purchasing power and business performance.

The results of this study are in line with research conducted by,(Alfian Akbar, 2016) and (Prastyo & Anwar, 2021). Revealing that when macroeconomic conditions improve, economic activity also increases. This condition contributes to an increase in people's income, which in turn strengthens the debtor's ability to repay their loans. As the debtors' capacity to fulfill their obligations increases, the level of Non-Performing Financing (NPF) tends to decrease. The better the debtors' ability to make payments, the higher their chances of repaying their loans on time. This has an impact on reducing the risk of non-performing financing and maintaining the stability of bank profitability.

CONCLUSIONS

This study investigates the influence of macroeconomic factors such as inflation, Bank Indonesia interest rate (BI Rate), and economic growth (GDP) on credit risk. These factors are operationalized through unqualified financing (NPF) in Indonesia from 2020 to 2024. After conducting a panel data regression analysis using the Random Effect Model (REM), some important results have been found, as follows: This study investigates the influence of macroeconomic factors such as inflation, Bank Indonesia interest rate (BI Rate), and economic growth (GDP) on credit risk. These factors are operationalized through unqualified financing (NPF) in Indonesia from 2020 to 2024. After conducting a panel data regression analysis using the Random Effect Model (REM), some important results have been found, as follows:

1. Inflation has a negative and significant influence on the NPF rate. This means that when inflation increases, the NPF ratio tends to fall. An increase in inflation

can increase the nominal income of debtors, which in turn improves their ability to meet financing obligations, thereby lowering the risk of non-performing loans.

2. The BI Rate also shows a negative and significant impact on NPF. Although Islamic banks do not use an interest rate framework, fluctuations in the BI rate still affect the competitive landscape of Islamic banks relative to conventional banks. An increase in the BI rate may reflect tighter monetary policy, which in turn may improve economic stability and reduce the risk of NPF in Islamic banking.
3. Economic growth (GDP) has a negative and significant effect on NPF. The higher the economic growth, the lower the NPF rate. This is due to the increase in people's income and business profitability which strengthens the debtors' capacity to repay their financing obligations. Conversely, when economic growth weakens, the risk of NPF tends to increase due to decreased purchasing power and economic instability.

The results of this study indicate that macroeconomic factors play a significant role in determining the level of credit risk that Islamic banking companies have. Therefore, it is imperative for Islamic banks to utilize their risk management methodologies to stay on top of changes in inflation, BI interest rates, and economic growth. In addition, regulatory agencies such as the Financial Services Authority should ensure that the policies set are appropriate to maintain the stability of Islamic banking and reduce future financing risks.

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