SUSTAINABILITY BANKING PRACTICES AND INFLATION ON CREDIT RISK

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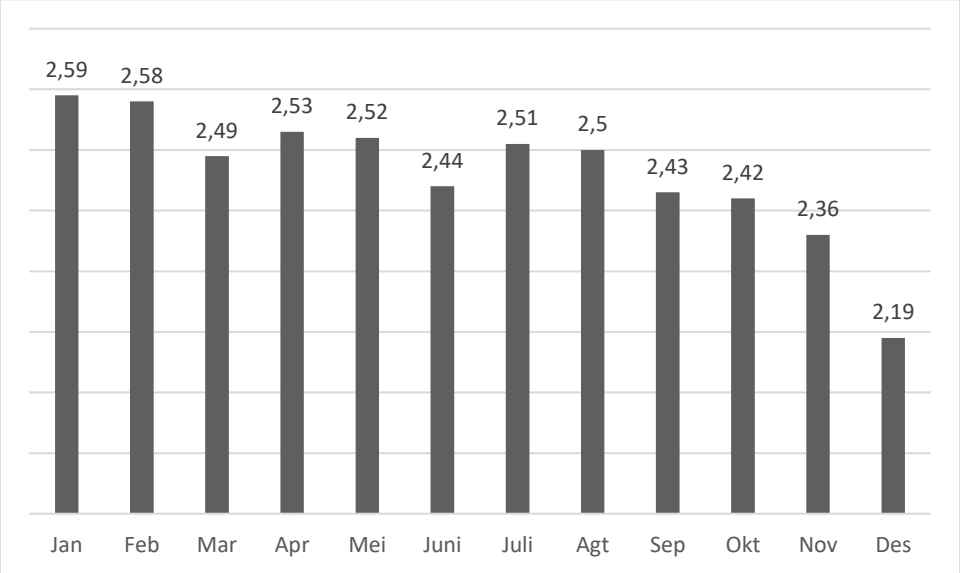
Abstract
Purpose: This study aims to examine the effect of capital, liquidity, green lending, and inflation on credit risk.
Methodology/approach: This quantitative study uses 46 commercial banks listed on the Indonesia Stock Exchange (IDX) as samples from 2018 to 2023. The method uses a saturated sample, while data analysis uses a random effect model assisted by the Stata program.
Results/findings: The results showed that capital, and liquidity variables had no effect on credit risk, but green lending and inflation variables had an effect on credit risk.
Limitations: This study is limited to the period of bank data which may be influenced by the economic conditions and policies in place during the study. In addition, there are few previous studies internationally that contain detailed explanations of similar topics.
Contribution: The results of this study can be used as a reference source for future researchers, and make an important contribution in understanding the factors that influence credit risk, especially in the banking sector.
Novelty: This study offers novelty by exploring the influence of capital, liquidity, green lending, and inflation rate on credit risk in the banking industry in developing countries such as Indonesia.

Keywords: *Capital, Liquidity, Green Lending, Inflation, Credit Risk*

1. Introduction

The important role of the banking industry in the country's economy cannot be ignored. The existence of banks functions in raising capital from the public and channeling credit to individuals, businesses, and other economic sectors so that all levels of society benefit greatly from this. In addition, banks act as intermediaries in the financial system by managing resources from surplus units and financing deficit units that have an impact on the country's overall financial system. Banks play an important role for the country by facilitating financial turnover that has an impact on national economic growth (Fahrial, 2018). However, in this era of globalization and technological advances, financial institutions face various challenges, especially after the COVID-19 pandemic. The COVID-19 pandemic has left a deep impact on the global economy, so that the post-pandemic recovery phase many financial institutions are faced with new challenges, one of which is managing credit risk. Many companies have experienced a decline in revenue during the pandemic, increasing the risk of default. According to Kemenkeu (2020) uneven economic recovery across sectors creates significant uncertainty, making credit risk management more critical than ever. This risk arises when borrowers are unable to fulfill their obligations. This results in losses for the bank or lending institution. Banks usually have to comply with regulations that require them to maintain financial health by considering various risks (Ismanto et al., 2023). The level of credit risk can be measured by looking at a bank's non-performing loan (NPL) ratio, which shows how well the bank manages the risks associated with loan repayment by borrowers.



Picture 1. NPL graph in 2023
Source: OJK (2023)

Based on Bank Indonesia regulations, if the NPL rate exceeds 5%, it will have an impact on the evaluation of the bank's overall financial condition, where the bank's ability to manage credit is inversely proportional to its NPL rate. This indicates the high risk associated with lending to banks due to high NPLs. Smaoui et al. (2020) concluded that the existence of high credit risk does not always have an impact on increasing the risk of bankruptcy, but low risk taking by banks can increase their credit risk. Based on observations in 2023 in the figure, the Non-Performing Loan (NPL) ratio in financial institutions shows interesting dynamics and reflects success in credit risk management. At the beginning of the year, NPLs stood at 2.59% and declined to 2.19% in December. This indicates the success of financial institutions' long-term strategies and the positive influence of economic conditions.

To reduce the high NPLs that occur due to credit risk post covid-19 is to strengthen capital. Bank capital is an important factor in determining the financial stability and ability of banks to face various risks, including credit risk (Irawan & Syarif, 2019). Adequate capital allows banks to absorb losses arising from bad debts without significantly disrupting bank operations. Adequate capital also provides strong financial guidelines for banks, so as to maintain the trust of customers and stakeholders.

In addition to capital, liquidity is one of the factors in evaluating the bank's success in carrying out its functions. According to Yuniari & Badjra (2019) Loan to Deposit Ratio is an indicator to measure the proportion between loans granted and funds received from customers. The more credit provided by the bank, the greater the risk faced by the bank itself. Loan to Deposit Ratio (LDR) reflects the bank's ability to return funds withdrawn by customers using credit as a source of liquidity. A high LDR indicates greater potential credit risk. In other words, the higher the liquidity of a bank, the greater the possibility of non-performing loans. The increase in credit will be directly proportional to the increase in risk that must be managed by the bank.

In the current development, financial institutions contribute to Green Lending. The green lending policy requires banks to provide special financing for projects that aim to protect the environment, reduce emissions, and save energy (Nugrahaeni & Muharam, 2023). In addition, this policy also limits lending to industries that have high pollution and emission effects, as well as excessive production capacity. This policy is made to minimize the negative impact on the environment. Green lending is a growing concept in the banking industry that emphasizes the importance of lending to projects that are environmentally friendly or contribute to environmental sustainability. The practice of green lending is part of an effort to reduce the negative impact of banking activities on the environment and society. Banks that implement green lending will pay more attention to the environmental impact of the projects they finance such as reducing carbon emissions, energy efficiency, or developing green technology (Ali et al., 2023). In addition, green lending can also help banks manage credit risk. Projects

that support the environment tend to have lower risk in the long run, as they often have stable and reliable income (Xu & Li, 2020). By focusing on lending to more sustainable sectors, banks can minimize the risk of NPLs caused by environmental or social factors.

One of the key factors to maintain the financial stability of banks in the post-COVID-19 period is inflation. When inflation increases, it reduces consumer purchasing power, which can have a negative impact on debtors' ability to meet loan repayments (Sinaga et al., 2020). In addition, inflation is often accompanied by an increase in interest rates, so borrowers face a higher interest payment burden. This situation increases credit risk for banks, as more borrowers may struggle to meet their financial obligations. Thus, inflation is one of the macroeconomic factors that increase credit risk in the banking sector (Yurdakul, 2014).

Ghosh (2016) in his research that capital has an influence on credit risk. Then Mumtaz, D. M. & Smith (2019) examined the effect of Green Lending on credit risk in Pakistan. Therefore, credit risk remains an interesting variable for further research by adding inflation as a macroeconomic factor in this study. In research Astawa et al. (2019) found that strong capital can help banks manage credit risk, which means changes in the capital adequacy ratio will cause changes in credit risk in the banking industry, in contrast to research Irawan & Syarif (2019) which states that capital represented by CAR shows no effect on Non Performing Loans (NPL). Then Astrini et al (2018) stated that LDR has a significant effect on non-performing loans, although this study shows a significant effect, this result is different from other studies Wulandari et al. (2021) which state that LDR has no significant effect on non-performing loans. The results of previous studies show that green lending has a positive effect on reducing credit risk, namely Cui et al. (2018) and Mumtaz, D. M., & Smith (2019) where a positive correlation was found between borrower environmental performance and credit risk. Banks with green portfolios have better financial performance, including lower NPL rates, signaling the positive impact of green lending on credit risk management. Furthermore, research Yurdakul (2014) shows that high inflation rates are associated with increased credit risk where this study underlines the negative impact of high inflation on reducing the borrower's ability to repay loans can trigger bad debts.

This study explores how capital, liquidity, green lending, and inflation rate affect credit risk in banks. Although this topic has strong relevance for researchers, most of the research is concentrated on developed countries, so there is a gap in comprehensive research in developing countries, such as Indonesia. To address this gap, this study focuses on the banking industry in developing countries, specifically on banking sector companies listed on the Indonesia Stock Exchange (IDX). The banking sector was chosen due to its promising future prospects and its significant contribution to national income. In addition, banking plays an important role in people's daily lives, so this research can be a valuable reference for future studies.

2. Literature review and hypothesis/es development

Signaling Theory

Signaling theory is a theory that presents how the company should provide signals in the form of information to users of financial statements used in decision making (Rochman & Andayani, 2023). This theory explains that companies must convey transparent and accurate information to users of financial statements so that they can make the right decisions. The existence of information asymmetry between lenders and potential debtors causes uncertainty and increases the perception of credit risk. To overcome this, potential borrowers can send signals that reflect their financial condition and ability to repay loans such as audited financial statements, good credit track record, assets as collateral, business experience, and commitment to good governance. Lenders then evaluate these signals to assess credit risk. Strong and credible signals reduce uncertainty and increase confidence that the borrower is able to repay the loan. Based on the evaluation of the signals, the lender determines the interest rate and credit terms, where borrowers with strong signals tend to get lower interest rates and more favorable terms. Strong signals also increase lenders' confidence, lower credit risk, and build positive long-term relationships, easing debtors' access to additional sources of financing in the future (Edward et al., 2023). By sending the right signals, potential borrowers help lenders reduce credit risk and enable more informed decisions.

Risk Theory

Credit risk is one of the main forms of risk faced by financial institutions, especially banks (Muliana & Karmila G, 2019). This risk is very important for financial institutions because the potential loss can threaten financial stability so it requires careful management. In risk theory, risk is defined as a form of uncertainty about future situations, where decisions are made based on various considerations that exist today (Magdalena & Vannie, 2019). In addition, Sari et al. (2020) define credit risk as the risk stemming from the failure of customers or counterparties to fulfill their obligations to the bank as agreed. The application of risk theory in managing credit risk aims to reduce the possibility of large losses due to customer default and support the development of more effective credit policies.

Capital's Influence on Credit Risk

Capital is defined as the funds used to support a company's operational activities (Fitriyani & Munandar, 2020). Capital influences credit risk as it serves as a reserve that protects banks from losses when borrowers fail to repay their loans (Ervina et al., 2021). The larger the capital a bank holds, the stronger its position in absorbing losses without disrupting its operations. Thus, banks with strong capital tend to be more stable and better able to bear risks, allowing them to continue operating even in the event of a certain level of default (Anggela & Susanti, 2023). However, having excessively large capital reserves can have negative effects as it may limit the bank's ability to extend credit, which can slow down overall economic growth (Tandeas & Setyawan, 2024). Moreover, while having strong capital is important for bank stability, it is also crucial to strike a balance between maintaining adequate capital reserves and extending credit that supports economic growth. Studies conducted by Astawa et al. (2019) and Dinah Purnamasari & Fatchan Achyani (2022) found that capital adequacy influences credit risk, meaning changes in the capital adequacy ratio will lead to changes in credit risk in the banking industry.

H1: Capital has a positive influence on credit risk

Liquidity's Influence on Credit Risk

Liquidity is the ability of a bank to carry out short-term obligations on time (Waoma, 2023). Liquidity has an influence on credit risk because liquidity describes the bank's ability to meet short-term financial obligations without having to sell assets at a discount (Aji & Manda, 2021). Banks with high liquidity have sufficient cash reserves or liquid assets to deal with sudden withdrawals of funds or payment of other short-term obligations. In cases where customers withdraw funds simultaneously or when there is an urgent payment of liabilities, good liquidity allows the bank to cope with the situation without facing significant losses. While liquidity is very important it should be noted that excessive attention to it may negatively impact the profitability of the bank. Highly liquid assets, such as cash and short-term securities usually provide lower returns compared to less liquid assets such as long-term loans. If banks focus too much on liquidity, the bank's profit potential can decrease which in turn can increase credit risk (Ritonga, 2023). Research by Cofitalan (2022) and Ginting & Haryanto (2016) shows that the Loan to Deposit Ratio (LDR), which is an indicator of liquidity, has a significant positive effect on Non-Performing Loans (NPL).

H2: Liquidity has a positive influence on credit risk

Green Lending's Influence on Credit Risk

Green lending is a type of loan aimed at supporting sustainable and environmentally friendly projects or activities (Li et al., 2022). Green lending for sustainable and environmentally friendly projects affects credit risk because the types of projects funded tend to have different risk profiles compared to conventional loans (Furqan & Sutrisno, 2024). Green projects such as renewable energy or sustainable infrastructure often require large initial investments and have longer payback periods. Such lending is considered safer in the long run and has a growing demand in a global market that is increasingly aware of environmental issues. However, there are concerns that green projects often involve new and unproven technologies, which may add to the risk of uncertainty regarding the success of the project. In addition, green lending may require more complex risk evaluation and specialized knowledge, which if not managed properly, may increase credit risk. Previous research that indicates a positive correlation between green lending practices and reduced credit risk supports this hypothesis. Previous research in Cui et al. (2018) and Mumtaz, D. M., & Smith (2019) found a positive correlation

between green lending and credit risk. They showed that banks with green loan portfolios tend to have better financial performance, including lower NPL rates. This indicates the positive impact of green lending on bank credit risk management.

H3: Green lending has a positive influence on credit risk

Inflation's Influence on Credit Risk

Inflation is defined as a condition in which the prices of goods and services tend to increase continuously over a period of time (Rizani et al., 2023). High inflation has a significant impact on credit risk as it can reduce consumer purchasing power and increase firms' operating costs (Amri, 2023). When inflation increases, individuals and businesses will face difficulties in meeting their credit obligations, which in turn can increase the risk of default. Under these conditions, people's purchasing power decreases so that consumers may not be able to buy goods and services as before. This can result in a decrease in revenue for companies, which in turn affects their ability to repay debt.

In addition, inflation often causes interest rates to rise. This rise in interest rates can increase the cost of credit and thus worsen credit risk, especially for borrowers with fixed income levels or who already owe large amounts of money (Wati & Aziz, 2024). Therefore, individuals and firms that are already in a vulnerable financial position will find it increasingly difficult to meet their loan repayment obligations when borrowing costs increase. The view that moderate and controlled inflation is not necessarily bad can even be anticipated by banks through adjustments in lending rates. However, on the other hand, high and uncontrolled inflation is considered a serious threat to economic instability. The uncertainty generated by such inflation is difficult to predict and manage, thus increasing overall credit risk. Research by Priyadi et al. (2021) and Singh et al. (2021) show that high inflation rates are associated with increased credit risk.

H4: Inflation has a positive influence on credit risk

3. Methodology

This research focuses on commercial banks listed on the Indonesia Stock Exchange (IDX) as a population. Data was collected through the documentation method, which includes analyzing documents from 46 banking companies that have been listed on the IDX during the period 2018-2023. This technique involves collecting written data published by relevant institutions to ensure relevant and informative samples in accordance with the research objectives. Quantitative data sourced from secondary data was used in this study. The sample selection technique used a saturated sample. The statistical model used in this study is panel data regression with Random Effect Model, namely:

$$\mathbf{NPL_{it} = \alpha + \beta_1\ CAR_{it} + \beta_2\ LDR_{it} + \beta_3\ GL_{it} + \beta_4\ INF_t + \varepsilon}$$

Where used to predict the NPL of a company at a certain time (it). NPL as the dependent variable is explained as a function of several factors, namely CAR, LDR, Green Lending, and Inflation and includes random errors (ε). CAR, LDR, Green Lending, and Inflation as independent variables each have regression coefficients (β1, β2, β3, β4) which show how much influence they have on NPL, and (α) is a constant.

Table 1. Operational Definition of Variables

No	Variable	Definition	Indicator	Reference
1.	Credit Risk (NPL)	Comparison of total non-performing loans to total loans outstanding	$\text{NPL} = \frac{\text{Non-performing loans}}{\text{Total loans}}$ x 100%	(Astrini et al., 2018)
2.	Capital (CAR)	Ratio of capital to the bank's total assets	$\text{CAR} = \frac{\text{Capital}}{\text{Asset risk}}$	(Jiang et al., 2023)
3.	Liquidity (LDR)	Bank loan-to-deposit ratio	$\text{LDR} = \frac{\text{Loan}}{\text{Deposit}}$	(Jiang et al., 2023)
4.	Green Lending (GL)	Total amount of green loans issued by the bank	Σ Green loans provided to customers	(Cui et al., 2018)
5.	Inflation (INF)	Annual inflation rate	$\text{Inflasi rate} = \frac{IHKt - IHK(t-1)}{IHK(t-1)}\ x\ 100$	(Yenusi et al., 2020)

4. Results and discussion

Descriptive Statistics

Table 2. Descriptive statistics table

Variable	Obs	Mean	Std. dev.	Min	Max
NPL	276	3.458115	3.428549	0	33.62
CAR	276	49.30942	183.3404	9.01	2990
LDR	276	87.82463	37.68593	0	373.61
GL	276	12.51265	5.479685	0	20.64915
INF	276	3.718333	2.651822	-2.07	5.31

Based on table 2 above, it can be concluded that the descriptive statistics with a total sample of 46 companies. The dependent variable NPL has an average of 3.45 with a standard deviation of 3.42 showing the variation in the level of credit risk among the banks observed, with the lowest value of 0 and the highest of 33.62. The CAR variable has an average of 49.3 with a standard deviation of 183.34 showing the smallest bank capital of 9.01 and the highest of 2990. The LDR variable has an average of 87.82 with a standard deviation of 37.68 showing the smallest bank liquidity of 0 and the highest of 373.61. The Green Lending variable has an average of 12.51 with a standard deviation of 5.47 showing some banks channeling the smallest green financing of 0 and the largest of 20.64. The Inflation variable has an average of 3.71 with a standard deviation of 2.65 showing the inflation rate at the lowest bank is -2.07 and the highest is 5.31.

Determination Of Panel Data Regression Estimation Model

Table 3. Determination of panel data regression estimation model table

Estimation Model	Result
Chow test	*Prob > F = 0.0000*
Hausman test	*Prob > chi2 = 0.3040*
Lagrange Multiplier test	*Prob > chibar2 = 0.0000*

The Chow test is conducted to identify the most suitable panel data regression model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). With test results showing a Prob > F value of 0.0000, where the p-value is less than 0.05, the results indicate that the Fixed Effect Model

(FEM) is more appropriate. Next, the Hausman test is used to determine the optimal model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). The Hausman test results show a Prob > chi² value of 0.3040, where the p-value is greater than 0.05, suggesting that the Random Effect Model (REM) is more suitable. Additionally, the Lagrange Multiplier test assesses whether the Random Effect Model (REM) outperforms the Common Effect Model (CEM). With test results showing a Prob > chibar² of 0.0000 and a p-value less than 0.05, the Random Effect Model (REM) is found to be the most appropriate. Based on both the Hausman and Lagrange Multiplier test results, the recommended model is the Random Effect Model (REM).

Correlation Test

Table 4. Correlation test table

	NPL	CAR	LDR	GL	INF
NPL	10000				
CAR	-0,0407	10000			
LDR	0,0307	0,1351	10000		
GL	-0,1423	0,0142	0,1005	10000	
INF	-0,1798	0,0303	0,0581	-0,1417	10000

The correlation test coefficient in table 4 of -0.0407 indicates a very weak negative relationship between NPL and CAR which means that an increase in CAR has little effect on increasing NPL. The correlation coefficient of 0.0307 indicates a very weak positive relationship between NPL and LDR. The correlation coefficient of -0.1423 indicates a very weak negative relationship between NPL and GL. The correlation coefficient of -0.1798 indicates a very weak negative relationship between NPL and INF. The test explains the level of movement between different research variables to determine the value of the correlation matrix. The test results show that there is no very high correlation value, which means there is no significant multicollinearity problem between the variables. Since the correlation values are low, the variables can be tested together in the regression model without a high risk of multicollinearity. The value of each variable indicates that the variables have no correlation.

Hypothesis Test

Table 5. Hypothesis test table

NPL	Coefficient	Std. err.	z	P>IzI
CAR	-.0001565	.0010421	-0.15	0.881
LDR	.0079046	.0058669	1.35	0.178
GL	-.0929305	.0374341	-2.48	0.013
INF	-.2659379	.0685949	-3.88	0.000
_cons	4.923269	.7629525	6.45	0.000

In Table 5, the constant coefficient is valued at 4.923269. This positive value implies that, in the absence of CAR, LDR, Green Lending, and Inflation variables, the NPL variable would rise by 4.923269%. The beta coefficient for CAR is -0.0001565, meaning that if all other variables remain constant, a 1% increase in CAR would result in a 0.01565% decrease in NPL. Conversely, a 1% decrease in CAR would cause the NPL variable to increase by 0.01565%. The LDR variable's beta coefficient is 0.0079046, indicating that with other variables held constant, a 1% rise in LDR would lead to a 0.79056% decrease in NPL, while a 1% reduction in LDR would increase NPL by 0.79056%. The beta coefficient for Green Lending is -0.0929305, suggesting that a 1% increase in Green Lending would reduce NPL by 9.29305% if other variables remain constant, while a 1% decrease would raise NPL by 9.29305%. The Inflation beta coefficient is -0.2659379, meaning that a 1% increase in inflation would decrease NPL by 2.659379%, whereas a 1% drop in inflation would lead to a 2.659379% increase in NPL.

The calculated T value for CAR is -0.15 and the p value for CAR is 0.881. The negative T value indicates that the relationship between CAR and NPL is negative. However, the high p value (0.881) indicates that there is insufficient evidence to reject the null hypothesis. This means that CAR has no significant effect on NPL. In other words, changes in CAR have no significant impact on NPL, and there is no statistically significant relationship between CAR and NPL at the 5% significance level. The calculated T value for LDR is 1.35 and the p value for LDR is 0.178. The positive t value indicates that the relationship between LDR and NPL is positive. However, the high p value (0.178) indicates that the null hypothesis cannot be rejected. This means that LDR has no significant effect on NPL. Changes in LDR do not show a statistically significant effect on NPL at the 5% significance level. The calculated T value for Green Lending is -2.48 and the p value for green lending is 0.013. The negative t value and p value (0.013) indicate that the null hypothesis can be rejected at the 5% significance level. This means that green lending has a significant negative effect on NPLs. This means that an increase in green lending can significantly reduce the level of NPLs. The calculated T value for Inflation is -3.88 and the p value for Inflation is 0.000. The negative t value and p value (0.000) indicate that the null hypothesis can be rejected with a high level of significance. Inflation has a negative significant effect on NPL. This means that an increase in inflation can significantly reduce NPLs.

Discussion

The Influence of Capital on Credit Risk

Based on the research results listed in Table 5, Capital represented by the Capital Adequacy Ratio (CAR) serves as an important indicator in assessing the bank's capacity to reduce the risk of loss. Capital reflects how well the bank is able to absorb losses that may arise from loans or other risky assets. Although a high CAR value indicates that the bank has a stronger ability to deal with the risk of loss, this does not necessarily guarantee that the NPL rate will be low. However, statistical analysis shows that capital has no significant effect on credit risk.

One of the reasons the relationship between capital and credit risk does not hold is because the quality of the borrower and external economic conditions also affect the borrower's ability to fulfill payment obligations. In many cases, a bank's capital level does not guarantee that borrowers will be able to repay their loans, especially if the borrower experiences financial difficulties or if overall economic conditions deteriorate. In addition, factors beyond the bank's control such as borrower creditworthiness, industry trends, as well as macroeconomic conditions.

Moreover, capital serves as a buffer to cover potential losses due to bad loans but not as a risk reducer in itself. In other words, even if a bank has sufficient capital to absorb losses, this does not reduce the probability of default. Capital can only reduce the impact of losses that have already occurred, not prevent them. Therefore, a bank's capital level is not a sufficient condition to mitigate credit risk. The findings of this study are not in line with those of Astawa et al. (2019) and Dinah Purnamasari & Fatchan Achyani (2022), but are consistent with the research conducted by (Mustafa & Mumtaz, 2022) that capital has no significant impact on credit risk.

The Influence of Liquidity on Credit Risk

Based on the research results listed in Table 5, Liquidity represented by the Loan to Deposit Ratio (LDR) serves as an important indicator to reflect the bank's activity in providing credit compared to the amount of funds it has. An increase in the amount of credit allocated by financial institutions does not always have an impact on the increase in NPLs or non-performing loans, provided that the credit granting process is carried out carefully. In order to maintain credit quality and minimize credit risk, each loan application needs to be evaluated based on five main criteria, namely character, capacity, capital, collateral, and condition. In addition to the 5C principle, there is also the 7P principle which is equally important in determining the eligibility of prospective borrowers including personality, purpose, party, payment, prospect, profitability, and protection. A thorough evaluation process ensures that only borrowers with good financial capacity and positive prospects get credit, so that even though the LDR is high the number of non-performing loans (NPLs) can be reduced. Thus, liquidity does not significantly affect credit risk. The findings of this study are not in line with research conducted by

Cofitalan (2022) and Ginting & Haryanto (2016) but align with the studies by (Puspita et al., 2022; Wulandari et al., 2021) that liquidity has no significant impact on credit risk.

The Influence of Green Lending on Credit Risk

Based on the research results listed in Table 5, Green Lending is the total amount of loans provided by banks for environmentally friendly and sustainable projects. The higher level of green lending indicates that banks are focusing on financing that supports environmental sustainability. This not only contributes to environmental protection but can also reduce credit risk, as sustainable projects are often implemented with a more planned approach, utilize more efficient technologies, and have more stable financial prospects. This reduces the likelihood of bad debts, as borrowers involved in these projects usually have better management and the potential to generate more consistent income. In addition, the high level of green lending reflects the bank's commitment to social and environmental responsibility. In an era that is increasingly aware of environmental issues, banks that are active in green lending not only contribute to sustainability but also strengthen their reputation in the eyes of the public. This commitment can attract investors and customers who care about sustainability, as well as increase customer loyalty. Customers who see that their bank invests in projects that support the environment tend to be more loyal and feel proud to be part of an institution that has a clear social vision. The relationship between green lending and NPL has an effect, indicating that an increase in green lending has clear evidence of a decrease in credit risk. This finding is in line with the research of Cui et al. (2018) and Mumtaz, D. M., & Smith (2019) which shows that banks that enhance their green lending activities tend to experience a significant reduction in NPL levels. This suggests that green lending practices not only benefit the environment but also directly contribute to the financial health of banks.

The Influence of Inflation on Credit Risk

Based on the research results listed in Table 5, Inflation is defined as a condition in which the price of goods continues to increase, which has a direct impact on the decline in people's purchasing power. When the prices of goods and services increase, people cannot buy as much as before. This has an impact on the income of producers who also experience a decline, as demand for their products decreases. This decline in income creates challenges for individuals and companies who find it difficult to meet their bank loan repayment obligations on time. When inflation hits, people's purchasing power decreases, and this becomes a big challenge for those who have loan installments. However, the results show that inflation has a significant negative effect on credit risk.

In situations where borrowers own assets that increase in value with inflation such as property, they may be better able to repay their debts. This is because the increased value of the asset can be used as additional collateral or even sold to pay off the debt. In addition, people affected by inflation tend to prioritize fulfilling their obligations to banks as debtors so that this condition can contribute to a decrease in credit risk. This finding is in line with the research of Priyadi et al. (2021) and Singh et al. (2021) that the inflation rate has a significant influence on credit risk.

5. Conclusion

5.1. Conclusion

Capital shows no relationship with credit risk. Although capital is considered an important indicator of a bank's financial health and indicates how well the bank is equipped to bear losses. In this case, changes in CAR did not directly affect the level of NPLs. This may indicate that capital adequacy is not directly related to loan quality in the period tested. This implies that while the bank may have sufficient capital to absorb losses, it does not directly guarantee that the quality of loans will be maintained.

Liquidity also showed no relationship with credit risk. Although liquidity is an important factor that affects a bank's capacity to lend. The analysis shows that liquidity variation does not significantly affect credit risk. This means that even though banks have high liquidity, it does not guarantee that the loans they disburse will be of good quality or free from default risk.

Green lending has a significant negative relationship with credit risk. This suggests that green lending practices, which involve investing in environmentally friendly and sustainable projects, can have a positive impact on loan quality. Banks that focus more on green lending tend to show better NPL

rates implying that their loans are less likely to experience repayment problems. This may be due to the fact that green projects are often more stable and sustainable, as well as stronger support from government policies and public awareness of environmental issues. Thus, banks that integrate sustainability principles in their financing strategies not only contribute to environmental protection, but also strengthen the credit portfolio by reducing the risk of default.

Inflation also shows a significant negative relationship with credit risk. This means that high inflation rates may affect the ability of borrowers to fulfill their loan repayment obligations. An increase in inflation may increase the cost of living and financial burden, but as borrowers will tend to prioritize meeting their obligations to the bank, this may contribute to a decrease in inflation.

5.2. Limitation

This study is limited to the bank data period which may be influenced by the economic conditions and policies in place during the study. In addition, there are few previous studies that contain detailed explanations on similar topics.

5.3. Suggestion

It is recommended that further research be carried out by increasing the sample by extending the research period. In addition, the addition of variables such as profitability, financial performance, good corporate governance (GCG) can also be done to enrich the analysis related to credit risk factors.

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