JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

The Impact Of Non-Performing Loans, Credit Interest Rates And Total Public Savings On Commercial Bank Loan Distribution

Kartini[1]*, Sulistya Rini Pratiwi[2], Rizky Agusriyanti Irna[3], Meylin Rahmawati[4], Yohanna Thresia Nainggolan[5]
[1,2,3,4,5]Borneo Tarakan University, Indonesia
*Correspondence Email: Kartini96@borneo.ac.id

Abstract—This study aims to analyse the effect of non-performing loans (NPLs), lending rates, and public savings on lending by commercial banks in North Kalimantan Province. The method used is a quantitative approach with secondary data from Bank Indonesia (BI) and the Financial Services Authority (OJK) in the form of monthly data for the period 2017–2022. The analysis was conducted using multiple linear regression with the assistance of Stata software. The results of the study indicate that NPLs do not have a significant effect on credit disbursement, either for working capital loans or investment loans. Credit interest rates do not affect working capital loans, but have a significant effect on investment loans. Meanwhile, public savings have a significant effect on credit disbursement for both types of loans. Simultaneously, all three variables have a significant impact on credit disbursement. These findings indicate that public savings are the primary factor in increasing credit disbursement, while NPLs are not the main obstacle. Additionally, interest rates have a greater impact on investment loans compared to working capital loans. These results can serve as a reference for banks in formulating credit disbursement strategies and for regulators in developing more effective banking policies.

Keywords: *non-performing loan; credit interest rates; total public savings; loan distribution*

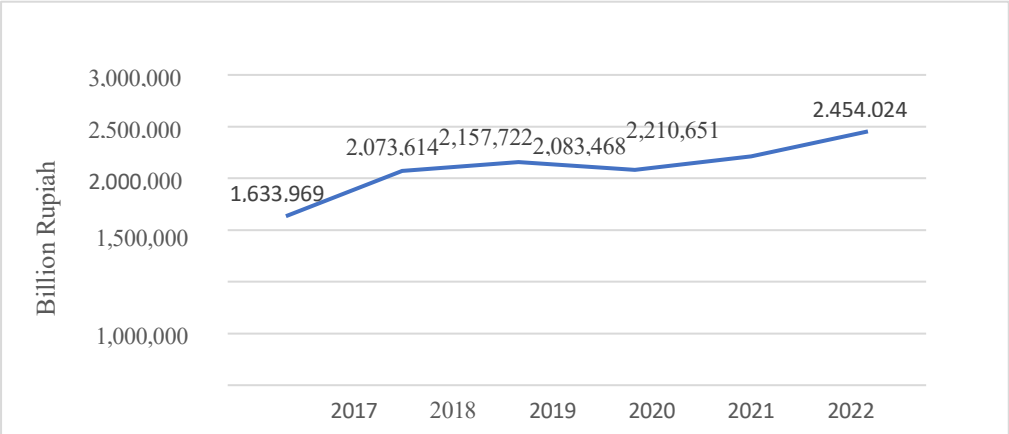
INTRODUCTION

The banking sector has a significant impact on a country's economic activities. Economic activities in the monetary and real sectors are interconnected and influence each other. The real sector cannot perform well if the monetary sector does not function effectively. Banking activities, such as fund collection and distribution, are essential for the smooth operation of the real sector. These activities enable society to engage in investment, distribution, and consumption of goods and services. According to Law No. 10 of 1998 on Banking, a bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit and other financial instruments to improve the standard of living of the people (Kasmir, 2008).

Credit is a part of capital formation provided by financial institutions, in this case, banks, to the public with the aim of promoting business efficiency. It serves as a means to enhance the productivity of the real sector, whether conducted by individuals or groups (Eswanto & Rita Andini, 2016).There are several objectives for granting credit. The first is for the creditor (bank) to gain profit from the interest charged to the debtor (customer) as compensation. This interest revenue serves as a fund to support the bank's operations. The second objective is to assist customers' businesses in the form of working capital. The credit provided by the creditor to the debtor is expected to support business development and expansion. Commercial banks, in their operations, offer various types of credit models to the public based on their needs, one of which is investment credit.

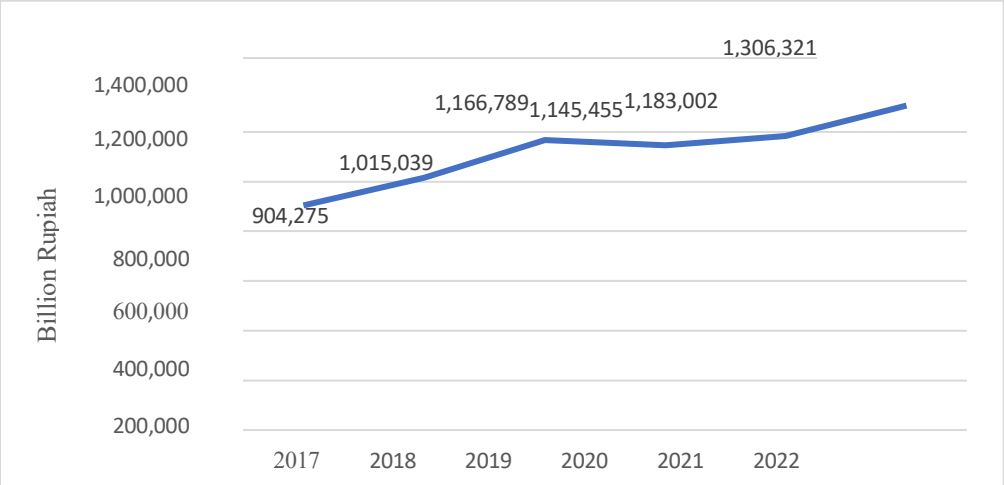
Based on Figure 1, the trend shows a positive growth, indicating an increase in the amount of credit disbursed by banks, particularly commercial banks, to individuals and business entities. In 2021, credit distribution grew significantly, reaching 243,373 in 2022, compared to the previous year's lower figure of 127,183. The improvement in credit performance aligns with Bank Indonesia's policy, which provides incentives to banks that allocate credit to 30 priority sectors. The distribution of working capital loans is presented in Figure 1 as follows:

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118



Source: Bank Indonesia 2017-2023

Figure 1. Development of Working Capital Loan Distribution in Commercial Banks



Source: Bank Indonesia 2017-2023

Figure 2. Development of Investment Loan Distribution in Commercial Banks

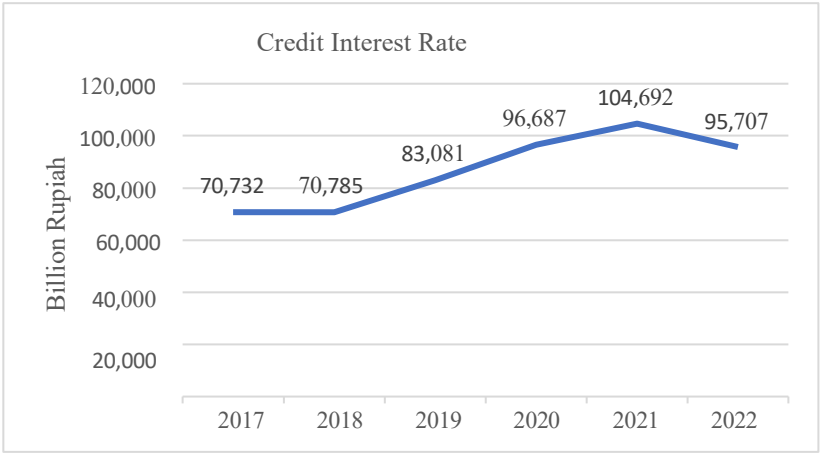
Based on Figure 2, the distribution of investment loans in commercial banks in Indonesia has shown an increase over time. However, in 2020, investment loan distribution experienced a decline due to the COVID-19 pandemic, which caused a significant drop in all types of expenditures, particularly consumption and investment. This decline was driven by weakened demand and reduced business production activities. Investment in the construction sector and non-building sectors (such as capital goods and raw materials) also saw a decline.

Non-Performing Loans (NPL) are one of the key variables influencing the distribution of working capital loans. The greatest credit risk faced by banks is NPL. The banking management's competency in resolving problematic loans is reflected in the NPL ratio. A higher NPL ratio increases the credit risk faced by banks (Buchory, 2014). One of the major challenges for banks in disbursing loans is the high NPL levels, which create obstacles in extending credit to businesses and individuals.

Based on Figure 3, in 2018 and 2019, Non-Performing Loans (NPL) increased by 12,296. This data presents an interesting phenomenon, as it contradicts the theoretical expectation that when NPL rises, loan distribution should decrease. However, the data shows that credit distribution

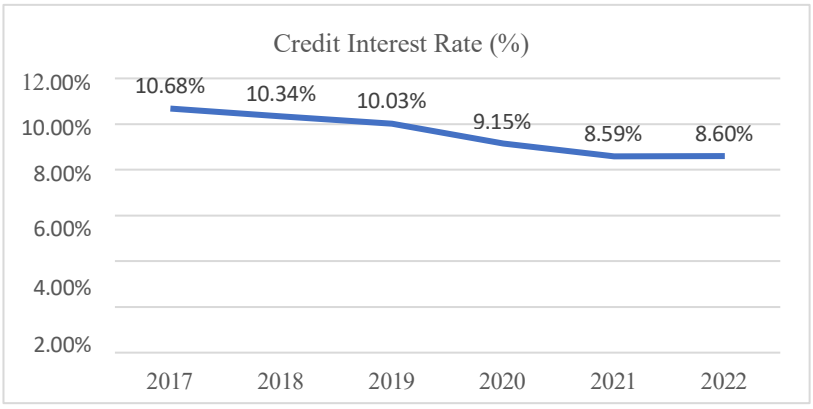
JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

increased in 2018 and 2019, despite the rising NPL. Problematic loans (NPLs) are measured based on collectability, which refers to the percentage of non-performing loans (categorized as current, substandard, doubtful, and bad loans) relative to the total credit issued by banks.



Source: otoritas jasa keuangan.go.id
Figure 3. Development of Non-Performing Loans (NPL) on Commercial Bank Loan Distribution

A high NPL rate can make banks hesitant to distribute loans, as they need to allocate larger reserves for potential losses, thereby reducing the amount of credit disbursed. To mitigate risks, banks must adopt a cautious approach in loan distribution to prevent excessively high NPL levels. Another key factor influencing loan distribution is the credit interest rate, which represents the cost of borrowing imposed on borrowers. The cost of credit loans serves as a premium charged to borrowers or the price that borrowers must pay to the bank.

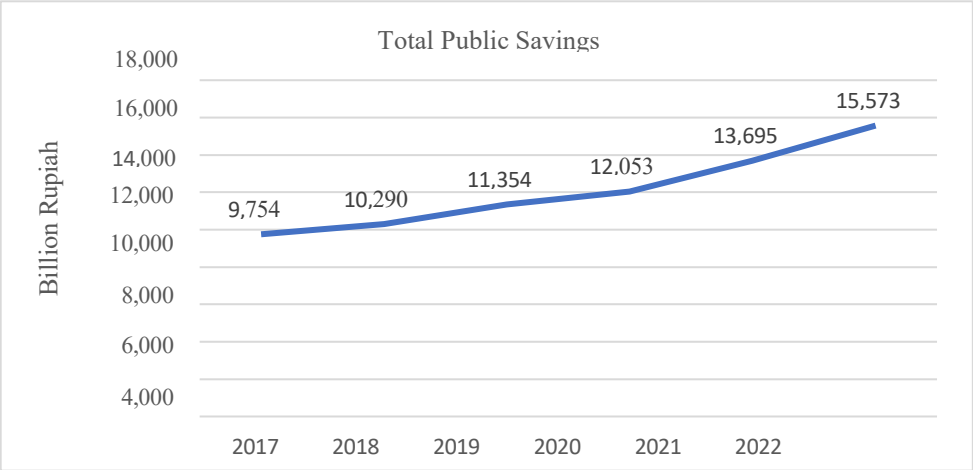


Source: Bank Indonesia, 2017-2022
Figure 4. Development of Credit Interest Rates on Commercial Bank Loan Distribution

Based on Figure 4, the decline in credit interest rates aligns with improved risk perception. In 2021, new credit interest rates decreased by 45 basis points (bps), reflecting the continuous improvement in banking risk perception. This decline in new credit interest rates occurred across all bank groups during that period. The primary source of bank revenue comes from the loans disbursed. With high expansion, the government addresses the increasing money supply by raising the benchmark interest rate (BI Rate), which impacts the rise in deposit interest rates, followed by loan interest rates. Higher deposit interest income offers an incentive for people to store their assets in banks, allowing for more credit to be distributed. Meanwhile, the high initial financing costs that do not contribute significantly to benefits also lead to a decline in credit distribution.

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

Based on Figure 5, a positive trend can be observed, indicating a continuous increase in public savings each year. In the fourth quarter of 2021, public savings grew by 14.70%, which was significantly higher than the growth in the previous quarter, which stood at 3.24%. In terms of savings types, savings accounts remain the most preferred option, accounting for 54.61% of total savings, followed by time deposits at 27.45% and demand deposits at 17.94%. The growth of Third-Party Funds in the fourth quarter of 2021 was mainly driven by the significant increase in demand deposits, which grew by 45.25%. To support the bank's functional role in fund distribution, banks must secure adequate financial resources. One of the primary sources is public savings, which constitute a major portion of the bank's collected assets in daily business operations (Kuncoro, 2011). These assets allow banks to generate profits, particularly by allocating credit as a key asset derived from public savings.



Source: Bank Indonesia 2017-2022
Figure 5. Development of Total Public Savings in Commercial Banks.

LITERATURE REVIEW

Credit

According to Kasmir (2008), based on Banking Law No. 10 of 1998, credit is the provision of money or equivalent claims, granted based on a loan agreement between a bank and another party, requiring repayment within a specified period along with interest. The word "credit" originates from the Latin term *credere*, which later became *crido*, meaning "I believe" or "to give confidence." In the concept of credit, there is an element of deferred payment over a future period. Thus, credit can be defined as the right to use money for a certain period based on specific considerations. Working capital credit is a short-term credit facility provided in both Indonesian Rupiah and foreign currencies. This type of credit is granted to finance needs such as working capital, which is used up within one year. It is available for individuals or business entities to increase capital for business expansion. The business must have been operating for at least one year and possess the necessary business permits.

According to Siswanto (2007), investment credit is a business loan provided by banks to assist investors in financing the development of new projects or expanding existing ones. Examples of investment credit include building factories or purchasing machinery intended for long-term use (Febrianto, 2021). Investment credit is a part of the overall funding sources for project development and operation. Triandaru, S., and Budisantoso (2006) state that "investment credit is a loan used to finance long-term capital goods to support the business operations of borrowers."

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

Non-Performing Loan

According to Darmawi (2011) Non-Performing Loans (NPL) represent an estimate of a bank's business risk proportion, indicating the extent of non-performing loan advances caused by unpredictable loan installments and unpaid interest. These problematic loans can directly reduce the bank's performance by affecting its asset quality and decreasing profitability. A high NPL ratio reflects an increased volume of bad loans, which not only disrupts the bank's cash flow but also raises concerns about the institution's ability to manage credit risk effectively.

From a financial perspective, rising NPLs may result in higher loan loss provisions, which in turn reduce the bank's net income. This condition may also lead to tighter lending policies, as banks become more cautious in approving new credit. In the long run, if not managed properly, excessive NPLs can erode investor confidence, decrease stock value, and even pose a threat to the bank's survival. Moreover, a deteriorating loan portfolio may affect the bank's capital adequacy ratio, forcing it to raise additional capital or reduce its lending exposure.

On a macroeconomic scale, high levels of NPLs across the banking sector can have a ripple effect on national economic stability. When banks are burdened with bad debts, they tend to reduce lending to businesses and individuals, which can hamper economic activities such as investment, production, and consumption. For developing countries like Indonesia, where credit plays a crucial role in supporting economic growth, controlling NPLs is vital. Hence, regulators such as Bank Indonesia closely monitor the NPL ratio and implement policies that encourage prudent lending practices and early detection of credit risk.

Credit Interest Rate

According to Simanjuntak (2019) ank interest refers to the compensation provided by banks, following conventional financial principles, to customers involved in the buying or selling of banking products. This interest serves as a form of reward or cost, depending on the customer's position, either as a saver or a borrower. More specifically, the interest rate can be viewed as the "price" paid by the bank to depositors (customers with savings), and simultaneously as the "cost" charged to borrowers who receive loans from the bank.

Furthermore, Suhaedi (2000) emphasizes that credit funding costs are considered an additional financial burden, not merely a result of the basic interplay between supply and demand. This suggests that various other factors, such as risk assessment, operational costs, and macroeconomic conditions, also influence the determination of interest rates. Therefore, the interest rate functions not only as a market-driven price mechanism but also as a strategic financial tool used by banks in managing liquidity and profitability.

In a broader economic context, interest rates play a crucial role in influencing investment decisions, consumer spending, and overall economic growth. High interest rates tend to discourage borrowing and reduce consumer demand, while low interest rates encourage businesses and individuals to take loans, thus stimulating economic activity. Banks must carefully set interest rates to balance between attracting depositors and managing the risk of lending. Moreover, central banks, such as Bank Indonesia, use interest rate adjustments as a key instrument in monetary policy to control inflation, stabilize the currency, and promote financial system stability

Public Savings

Public savings refer to funds collected by banks from individuals and business entities through various savings instruments provided by financial institutions (Kuncoro, Mudrajad, 2011). These savings represent the primary source of financial capital for banks, consistent with their intermediary role in mobilizing idle funds from the public. Through this mechanism, banks can transform surplus units in the economy that save into funding sources for deficit units that need loans or capital.

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

According to Kasmir (2008) The public funds collected by banks take the form of several financial products, including savings accounts, demand deposits (giro), and time deposits (deposito berjangka). Each instrument offers different features in terms of liquidity, interest rates, and maturity. These products are designed to attract various segments of the public, ensuring that banks can maintain sufficient liquidity to support their operational and lending activities. The accumulation of these public savings allows banks to expand their credit portfolios and support productive sectors of the economy. Furthermore, Ismail (2018) emphasizes that public savings, which originate from the community's reserve funds, are primarily distributed back into the economy through local lending. This cycle strengthens regional economic development and financial inclusion, particularly when banks actively channel credit toward micro, small, and medium enterprises (MSMEs). As such, the efficient mobilization and management of public savings not only support bank profitability but also contribute significantly to national economic growth.

METHODOLOGY

The study employs a quantitative research method to assess and estimate the impact of non-performing loans, loan interest rates, and public savings on credit distribution. This research uses secondary data from the Bank Indonesia website and the Financial Services Authority in the Indonesian Banking Statistics, covering time-series data from 2017 to 2022. In this study, the author uses a six-year sample period, from 2017 to 2022, with monthly data. Several stages are carried out in data processing.

Classical Assumption Test

The classical assumption test assesses the validity of the regression model used. This test ensures that the regression model does not exhibit multicollinearity or heteroscedasticity and that the resulting data follows a normal distribution (Priyatno, 2022). The classical assumption tests applied in this study include the following:

a. Normality Test

The residual normality test is used to determine whether the residual values generated from the regression are normally distributed. A good regression model should have residuals that are normally distributed. Several methods can be used for the normality test, such as analyzing the data distribution along the diagonal line in the Normal P-P Plot of Regression Standardized Residual or using the One-Sample Kolmogorov-Smirnov test**.**

b. Multicollinearity Test

Multicollinearity is a condition where there is a perfect or near-perfect linear relationship between independent variables in a regression model. A regression model is said to experience multicollinearity if there is a perfect linear function among some or all independent variables, making it difficult to determine the true effect of each independent variable on the dependent variable. To detect the presence of multicollinearity, the Variance Inflation Factor (VIF) can be used. If the VIF value is less than 10, it indicates that multicollinearity is not a problem in the model.

c. Heteroscedasticity Test

The Heteroscedasticity Test is used to determine whether a disturbance variable has a non-constant variance. If the disturbance variable does not have a mean of zero, it does not affect the slope but will influence the intercept. To detect the presence of heteroscedasticity, particularly using graphical methods, one approach is to examine the distribution of data in a scatterplot.

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

d. Autocorrelation Test

Autocorrelation occurs when the disturbance variable in a certain period is correlated with the variable in another period. In other words, the issue of autocorrelation is more likely to arise in time series data because current data is influenced by previous data. To detect the presence of autocorrelation, the Durbin-Watson test (DW test) can be used to determine whether autocorrelation exists in the regression model.

.

Multiplier Linear Regression Analysis

Multiple regression analysis is used to examine the effect of Non-Performing Loans (NPL), credit interest rates, and public savings on credit distribution. The extent to which independent variables influence the dependent variable is calculated using the following multiple regression equation:

$$Working\ Capitan\ Loan = \alpha + \beta_1 NPL + \beta_2 Interest\ Rate + \beta_3 Public\ Savings + e \quad (1)$$

$$Investment\ Loan = \alpha + \beta_1 NPL + \beta_2 Interest\ Rate + \beta_3 Public\ Savings + e \quad (2)$$

From the equation above, several tests are conducted, including:

a. Partial Test (T-Test)
   Also known as the partial test, this test determines the extent to which an independent variable influences the dependent variable. Simply put, the t-statistical test shows how an individual independent variable explains the dependent variable.
b. Simultaneous Test (F-Test)

The calculated F-value is used to test the accuracy of the model (goodness of fit). This F-test is also commonly referred to as the simultaneous test, which examines whether the independent variables used in the model can explain changes in the dependent variable or not.

RESULT

Classical Assumption Test

Normality Test

The normality test examines the results of the One-Sample Kolmogorov-Smirnov Test as follows:

Table 1. Normality Test Results

	Working Capital Loan Distribution (Y1)	Investment Loan Distribution (Y2)
Kolmogorov-Smirnov Z	.096	.096
Asymp. Sig. (2-tailed)	.097	.097

Source: Authors

Based on the table above, the results of the One-Sample Kolmogorov-Smirnov Test show a significant value of 0.97 > 0.05. Therefore, it can be concluded that the residual values are normally distributed. In addition to the results above, this study also presents the normality test using a P-Plot, with the following results:

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

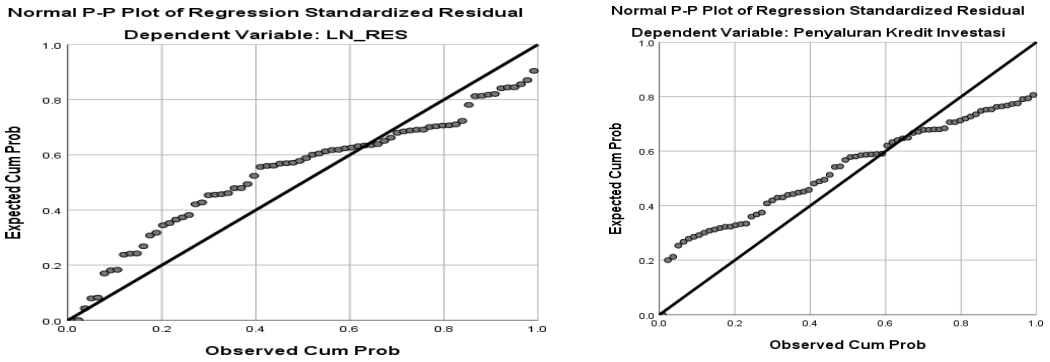


Figure 6. Normality Test P-P Plot of Regression Standardized Residual for Working Capital Loan Distribution (Y1) and Investment Loan Distribution (Y2)

Based on the results of the Normal P-P Plot of Regression Standardized Residual in Figure 6, it can be observed that the points consistently follow and closely align with the diagonal line. Therefore, it can be concluded that the residual values are normally distributed.

Multicollinearity Test

Table 2. Multicollinearity Test Results

Model	Working Capital Loan Distribution (Y1)		Investment Loan Distribution (Y2)	
	Collinearity Tolerance	Statistics VIF	Collinearity Tolerance	Statistics VIF
Non-Performing Loan	.429	2.330	.429	2.334
Loan Interest Rate	.293	2.411	.353	2.835
Public Savings	.193	5.192	.219	4.569

Source: Authors

Based on Table 2, it can be seen that the Tolerance values of the independent variables are greater than 0.10, and the VIF values are less than 10. Therefore, it can be concluded that there is no multicollinearity.

Heteroscedasticity Test

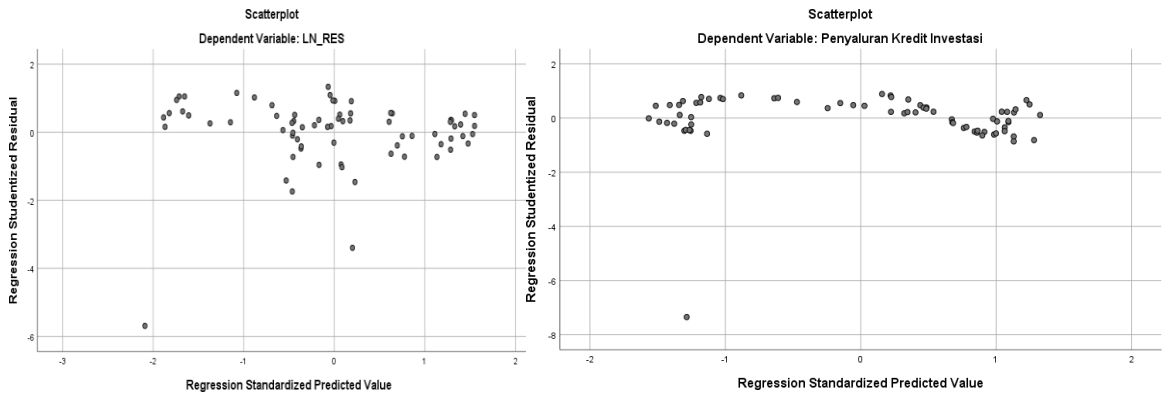


Figure 7. Heteroscedasticity Test Results Using Scatterplot for Working Capital Loan Distribution (Y1) and Investment Loan Distribution (Y2)

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

Based on the heteroscedasticity test results above, it can be observed that the points are scattered above and below zero on the Y-axis, with most points dispersed randomly without forming a specific pattern. Therefore, it can be concluded that heteroscedasticity does not occur in the regression model.

Autocorrelation Test

Table 3. Autocorrelation Test Results

Model	Working Capital Loan Distribution (Y1)	Investment Loan Distribution (Y2)
	Durbin-Watson	Durbin-Watson
	.267	1.462

Source: Authors

Based on the autocorrelation test results in Table 3, the Durbin-Watson (DW) statistic is 0.267. From the DW table, the upper bound (du) is 1.705, and the lower bound (dl) is 1.532, with a sample size of 72 and three independent variables at $\alpha = 5\%$. The result falls within the category du < DW < 4-du or 1.705 < 0.267 < 2.295. Therefore, it can be concluded that there is no autocorrelation.

Furthermore, in terms of investment loan distribution, the Durbin-Watson (DW) statistic is 1.462. From the DW table, the upper bound (du) is 1.705, and the lower bound (dl) is 1.532, with a sample size of 72 and three independent variables at $\alpha = 5\%$. The result falls within the category du < DW < 4-du or 1.705 < 1.462 < 2.295. Therefore, it can be concluded that there is no autocorrelation.

Multiple Linear Regression Analysis

T-Test (Partial Test)

Table 4. Multiple Linear Regression Test Results for Working Capital Loan Distribution (Y1)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
[a](Constant)	10.004	630		15.869	.000
Non-Performing Loan	-.033	.017	-.145	-1.932	.058
Loan Interest Rate	-.017	.012	-.136	-1.495	.140
Public Savings	.534	.066	.900	.8.051	.000

Dependent Variable: Working Capital Loan Distribution
Source: Authors

Based on the results above, the regression equation can be formulated as follows:

$$LnY = 10.004 - 0{,}033X1 - 0{,}017X2 + 0{,}534X3$$

Based on the partial test results in Table 4, the calculated t-value for Non-Performing Loan is -1.932, for Loan Interest Rate is -1.495, and for Public Savings is 8.051. Meanwhile, the t-table value is 1.668 (df = n-k - 1 = 72; $\alpha/2 = 0.05/2 = 0.025$), where df refers to the degree of freedom, n is the number of observations, and k is the number of independent variables. Based on these

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

results, conclusions can be drawn regarding the significance of each independent variable in influencing the dependent variable.

Based on the partial test results, the calculated t-value for Non-Performing Loan is greater than the t-table value (1.932 > 1.668) with a significance level of 0.058 > 0.05. This indicates that, partially, Non-Performing Loan does not have a significant effect on Working Capital Loan Distribution. Furthermore, the calculated t-value for Loan Interest Rate is smaller than the t-table value (1.495 < 1.668) with a significance level of 0.140 > 0.05, meaning that, partially, Loan Interest Rate also does not have a significant effect on Working Capital Loan Distribution. On the other hand, the calculated t-value for Public Savings is greater than the t-table value (8.051 > 1.668) with a significance level of 0.000 < 0.05, indicating that, partially, Public Savings has a significant effect on Working Capital Loan Distribution.

Based on the partial test results in Table 5, the calculated t-value for Non-Performing Loan is -1.298, for Loan Interest Rate is 3.717, and for Public Savings is -4.326. Meanwhile, the t-table value is 1.668 (df = n-k - 1 = 72; α/2 = 0.05/2 = 0.025), where df refers to the degree of freedom, n is the number of observations, and k is the number of independent variables.

From these results, the following conclusions can be drawn:

1. The calculated t-value for Non-Performing Loan is smaller than the t-table value (-1.298 < 1.668) with a significance level of 0.199 > 0.05. This indicates that, partially, Non-Performing Loan does not affect Investment Loan Distribution.
2. The calculated t-value for Loan Interest Rate is greater than the t-table value (3.717 > 1.668) with a significance level of 0.000 < 0.05. This means that, partially, the Loan Interest Rate has a significant effect on Investment Loan Distribution.
3. The calculated t-value for Public Savings is smaller than the t-table value (-4.326 < -1.668) with a significance level of 0.000 < 0.05. This indicates that, partially, Public Savings has a significant effect on Investment Loan Distribution. In addition, another result provided is its effect on investment loan distribution. The test results produce the following findings:

$$LnY = 10.836 - 0{,}043X_1 + 0{,}457X_2 + 0{,}086X_3$$

The equation above is derived based on the following test results:

Table 5. Multiple Linear Regression Test Results for Investment Loan Distribution (Y2)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
[α](Constant)	10.836	1.126		9.625	.000
Non-Performing Loan	-.043	.033	-.128	-1.298	.199
Loan Interest Rate	.457	.123	.511	3.717	.000
Public Savings	.086	.020	-.469	-.4.326	.000

Dependent Variable: Investment Loan Distribution
Source: Authors

F-Test (Simultaneous Test)

The testing was conducted using the F-test with a significance level of α = 5% and a degree of freedom (df). Based on the research results, the F-test results are as follows:

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

Table 5. F-Test Results for Working Capital Loan Distribution (Y1)

Model	F	Sig.
Regression Residual Total	115.723	.000[b]

a. Dependent Variable: Working Capital Loan Distribution
b. Predictors: (Constant), Public Savings, Non-Performing Loan, Loan Interest Rate
Source: Authors

Based on the simultaneous test results in Table 5, the calculated F-value is 115.723 with a significance level of 0.000, while the F-table value at α = 5% **is** 2.74. Since the calculated F-value is greater than the F-table value **(**115.723 > 2.74**)** and the significance level is 0.000 < 0.05, it can be concluded that Non-Performing Loan, Loan Interest Rate, and Public Savings simultaneously have a significant effect on Working Capital Loan Distribution.

The results of this study are also consistent with the use of the dependent variable in the form of investment loan distribution, as explained in Table 6 below:

Table 6. F-Test Results for Investment Loan Distribution (Y2)

Model	F	Sig.
Regression Residual Total	57.728	.000[b]

a. Dependent Variable: Investment Loan Distribution
b. Predictors: (Constant), Public Savings, Non-Performing Loan, Loan Interest Rate
Source: Authors (2025)

Based on the simultaneous test results in Table 6, the calculated F-value is 57.728 with a significance level of 0.000, while the F-table value at α = 5% **is** 2.74. Since the calculated F-value is greater than the F-table value (57.728 > 2.74**)** and the significance level is 0.000 < 0.05, it can be concluded that Non-Performing Loan, Loan Interest Rate, and Public Savings simultaneously have a significant effect on Investment Loan Distribution.

DISCUSSION

The Effect of Non-Performing Loans on Working Capital and Investment Loan Distribution

The results of this study indicate that Non-Performing Loans (NPLs) do not have a significant effect on the distribution of working capital and investment loans in commercial banks in North Kalimantan Province. This finding is based on hypothesis test results that show no statistical significance between NPLs and loan distribution. However, in practical terms, an increase in NPLs often makes banks more cautious in distributing loans due to the higher credit risk involved. Banks may implement stricter credit evaluations or delay disbursements, prioritizing cost-efficiency and portfolio quality over aggressive lending strategies.

To mitigate rising NPLs, commercial banks adopt several strategies, such as extending loan terms, reducing interest rates, providing additional credit facilities, restructuring outstanding arrears (both principal and interest), and even converting certain loans into temporary equity participation. These proactive approaches are part of the bank's risk management framework aimed at maintaining liquidity and avoiding potential defaults. The results of this study align with previous research by (Hermuningsih et al., 2020; Riwayati, 2019), which revealed that NPLs tend to have a significantly negative influence on loan distribution. A higher NPL ratio signals a

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

growing volume of problem loans, which undermines banks' financial stability and reduces income from loan repayments and interest revenues.

These findings underscore the importance of prudent credit risk management in maintaining sustainable lending. Although NPLs in this study did not statistically affect loan distribution, the underlying risk remains critical in shaping internal lending policies. Commercial banks must consistently monitor credit quality and implement responsive strategies to preserve the health of their loan portfolios while still supporting productive sectors, especially in regions like North Kalimantan that are striving for economic growth through financial intermediation.

The Effect of Loan Interest Rates on the Distribution of Working Capital and Investment Loans

The results of this study indicate that loan interest rates do not have a significant effect on the distribution of working capital loans but do have a significant effect on the distribution of investment loans in commercial banks in North Kalimantan Province. This is evidenced by the hypothesis test results, which show a significance for both working capital and investment loan interest rates. This means that an increase in loan interest rates leads to a decline in the distribution of both working capital and investment loans. Loan interest rates do not significantly affect working capital loans because the nature of working capital involves a cycle where funds obtained from bank loans are used to purchase goods or raw materials, which are then processed into finished goods and sold either in cash or on credit, eventually returning to cash. To ensure smooth business operations, companies require sufficient funds to maintain their activities. Working capital loans aim to support production growth, both quantitatively and qualitatively. A higher loan interest rate encourages more people to save money but discourages borrowers from taking working capital loans. When interest rates are high, people are less inclined to take loans due to the increased financial burden, making it difficult for them to obtain working capital loans. High interest rates remain a barrier to loan distribution, as confirmed by a banking credit survey conducted by Bank Indonesia.

According to classical economic theory, savings are a function of interest rates; the higher the interest rate, the greater the public's desire to save. Conversely, investment tends to decline when interest rates increase, as higher borrowing costs can reduce entrepreneurs' interest in investing. Interest rates reach equilibrium when the public's willingness to save matches the entrepreneurs' willingness to invest. In the banking context, interest rates play a crucial role in credit distribution. Banks use interest rates to attract borrowers and influence depositors' decisions. Loan interest rates are a key consideration for individuals and investors when borrowing from banks. Theoretically, an increase in loan interest rates will reduce credit demand, while a decrease in interest rates will increase credit demand.

Recent research supports this view. A study by Arianti, R. N., & Abdullah, (2021) found that interest rates had a significantly negative effect on banking credit demand in Indonesia during the 2009-2019 period. Similarly, research by Siwi et al., (2019) showed that interest rates had a significant negative effect on credit demand in commercial banks in Indonesia during the 2011-2017 period. Additionally, a study by Fahrika & Abdi (2021) indicated that banking interest rates negatively impacted investment realization in Indonesia during the 2011-2020 period, although the effect was not significant. Several international studies support these findings. For example, one study found that loan interest rates do not have a significant impact on the demand for working capital loans. This suggests that despite rising interest rates, the demand for working capital loans remains stable because businesses continue to require funds for their operations (Janampa et al., 2022). Additionally, another study found that working capital loan interest rates do not significantly affect the distribution of working capital credit. This indicates that other factors, such as operational needs and business cycles, may play a more significant role in influencing the demand for working capital loans (Rama, 2021).

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

Banking strategies in setting loan interest rates are crucial for attracting borrowers, as credit plays a significant role in economic growth. Interest rates on working capital and investment loans represent the cost that individuals or businesses must pay to banks for utilizing credit facilities. Classical theory states that an increase in interest rates encourages people to save more, while higher interest rates can reduce investment interest. Investors or entrepreneurs will increase their investment if their expected returns exceed the interest costs they must pay.

The Effect of Public Savings on the Distribution of Working Capital and Investment Loans

From this research, it is evident that public savings have a significant impact on the distribution of working capital and investment loans in commercial banks in Indonesia. This study confirms that public savings significantly influence the demand for investment loans. An increase in public savings positively affects the distribution of working capital and investment loans. This occurs because, in reality, public savings stored in banks have not been fully allocated to various economic sectors requiring bank funding. This is further supported by the fact that the loan-to-deposit ratio in banking remains low. One possible explanation for this situation is that the public savings collected by banks have long maturities, making them riskier to convert into loans. Given the short maturity period, banks tend to prefer investing in Bank Indonesia Certificates (SBI), which offer short maturities, high liquidity, and low risk.

The fear of bad loans resulting from financial crises makes banks more cautious in implementing lending policies. Consequently, a significant portion of bank funds remains in the form of SBI holdings. The findings of this study align with those of (Khotimah, 2017), who stated that public savings significantly impact credit distribution. However, despite the increase in public savings in banks, a considerable portion of these funds is still being allocated to SBI certificates. Even though Bank Indonesia has made efforts to lower SBI interest rates, these rates remain attractive incentives for banks to place their funds in SBI rather than channel them into business sector loans. As a result, credit allocation to the business sector does not necessarily align with the increase in public savings (DPK) in banks. The results of this study are also supported by several international studies, including (Basso, H. S., & Costain, 2019; Cole, S., & Moshkovitz, 2017; Eberl, J., & Weber, 2021; Koulischer & Struyven, 2014; Van Der Kwaak, 2024), which found that an increase in banks' holdings of government bonds correlates with a decline in credit growth to the private sector. This indicates a preference among banks for safer investments over riskier lending.

CONCLUSION

Based on the results of the research and the discussion presented above, several key conclusions can be drawn regarding the factors influencing loan distribution. First, it was found that Non-Performing Loans (NPL) do not have a significant effect on the distribution of loans, both in the form of working capital loans and investment loans. This indicates that despite fluctuations in NPL levels, banks may continue distributing loans without being heavily influenced by the quality of their non-performing assets.

Second, interest rates were found to have differing impacts depending on the type of loan. While interest rates do not significantly affect the distribution of working capital loans—possibly due to the short-term nature and urgent need for such financing—they do have a significant and positive effect on the distribution of investment loans. This suggests that when interest rates are favorable, businesses are more inclined to apply for long-term investment financing, reflecting a higher sensitivity of investment decisions to interest rate movements.

Lastly, public savings were observed to have a positive influence on the distribution of working capital loans, indicating that higher levels of savings enhance banks' liquidity and capacity to provide short-term financing. However, the study also found that public savings have

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

a negative effect on investment loan distribution. This may imply that during periods of increased public savings, consumer and business spending might be restrained, potentially lowering the demand for long-term credit or prompting banks to adopt more conservative investment lending strategies.

LIMITATION AND IMPLEMENTATIONS

Based on the analysis results, several policy and practice implications can be implemented by financial institutions and policymakers:

1. Optimization of Interest Rate Policy

Considering that loan interest rates have a positive effect on investment loan distribution, banks can consider interest rate adjustment strategies to remain competitive without reducing investment loan demand. Banks can also offer more flexible interest rate schemes to support business sectors that are more sensitive to interest rates, such as small and medium enterprises (SMEs).

2. Increasing the Role of Public Savings for Working Capital

Since public savings positively affect the distribution of working capital loans, banks can encourage public savings programs, such as promoting savings products with attractive interest rates or offering special incentives for customers with a certain savings balance. Increasing community involvement in savings-based schemes or cooperatives can also help boost the available capital for working capital loans.

3. Improving the Efficiency of Investment Loan Distribution

With the discovery of a negative relationship between public savings and investment loan distribution, banks and the government need to develop policies that can redirect public savings into productive sectors. For example, through savings-based investment programs, retail bonds, or other financial instruments that encourage funds to flow into the investment sector without reducing the public's saving habits.

REFERENCES

Arianti, R. N., & Abdullah, M. F. (2021). Analisis Pengaruh Suku Bunga, Inflasi dan PDB terhadap Jumlah Permintaan Kredit Perbankan di Indonesia Tahun 2009-2019. *Jurnal Ilmu Ekonomi JIE*, *5*(1), 103–117.

Basso, H. S., & Costain, J. S. (2019). Banks' Holdings of Government Securities and Credit to the Private Sector in Emerging Market and Developing Economies. In *IMF Working Paper WP/19/216*.

Buchory, H. A. (2014). Analysis of the Influence of Capital, Credit Risk, and Profitability on the Implementation of Banking Intermediation Function (Study on Regional Development Bank All Over Indonesia Year 2012). *International Journal of Business, Economics and Law*, *5*(1), 11–17.

Cole, S., & Moshkovitz, S. (2017). Electoral Cycles in Savings Bank Lending. *Journal of the European Economic Association*, *15*(2), 296–337.

Darmawi. (2011). *Manajemen Perbankan*. Jakarta: Bumi Aksara.

Eberl, J., & Weber, C. (2021). The Design and Transmission of Central Bank Liquidity Provisions. *Journal of Banking & Finance*, *127*, 106–123.

Eswanto, Rita Andini, dan A. O. (2016). Pengaruh Tingkat Suku Bunga Pinjaman, Non Performing Loan, Dana Pihak Ketiga, Inflasi dan Produk Domestik Regional Bruto Terhadap Permintaan Kredit Bank Umum di Jawa Tengah Periode 2009-2013. *Journal Of Accounting*, *2*(2).

Fahrika, A. I., & Abdi, M. (2021). Pengaruh Tingkat Suku Bunga Perbankan terhadap Realisasi

JURNAL ILMU MANAJEMEN (JIM)
Vol 22, No 2, Desember 2025, Page 161-175
p-ISSN: 1683-7910 | e-ISSN: 2549-0206
DOI : 10.21831/jim.v22i2.84118

Investasi di Indonesia (Periode 2011-2020). *IBF Journal*, *1*(2), 142–153.

Febrianto, R. (2021). Analisis Pengaruh Suku Bunga terhadap Permintaan Kredit Investasi di Indonesia. *Jurnal Ekonomi Dan Bisnis*, *15*(2), 123–135.

Hermuningsih, S., Sari, P. P., & Rahmawati, A. D. (2020). the Influence of Third-Party Funds, Non-Performing Loans (Npl) on Credit Distribution With Profitability As Intervening Variable in Commercial Banks. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, *4*(02), 40–50. https://doi.org/10.29040/ijebar.v4i02.988

Ismail, M. (2018). Pengaruh Dana Pihak Ketiga terhadap Penyaluran Kredit pada Bank Umum di Indonesia. *Jurnal Ekonomi Dan Perbankan*, *23*(1), 15–27.

Janampa, A., Kumaat, R. J., Mandeij, D., Sam, U., & Manado, R. (2022). Pengaruh Tingkat Suku Bunga Kredit Terhadap Permintaan Kredit Modal Kerja Pada PT BANK NEGARA INDONESIA PERSERO Tbk Kantor Cabang Manado Di Kota Manado. *Jurnal Berkala Ilmiah Efisiensi*, *22*(3), 98–107.

Kasmir. (2008). *Manajemen Perbankan*. Jakarta: PT Raja Grafindo Persada.

Khotimah, F. K. (2017). Pengaruh Tabungan Masyarakat terhadap Penyaluran Kredit di Indonesia. *Jurnal Ekonomi Dan Perbankan*, *21*(3), 345–360.

Koulischer, F., & Struyven, D. (2014). Central bank liquidity provision and collateral quality. *Journal of Banking and Finance*, *49*(September), 113–130. https://doi.org/10.1016/j.jbankfin.2014.08.022

Kuncoro, Mudrajad, dan S. (2011). *Manajemen Perbankan Teori dan Aplikasi*. BPFE, Yogyakarta.

Priyatno, D. (2022). *Olah Data Sendiri Analisis Regresi Linier dengan SPSS dan Analisis Regresi Data Panel dengan Eviews*. Yogyakarta: Cahaya Harapan.

Rama. (2021). Pengaruh Suku Bunga Kredit Modal Kerja dan Jumlah Dana Pihak Ketiga terhadap Jumlah Penyaluran Kredit Modal Kerja di Indonesia. *Universitas Sriwijaya*.

Riwayati, H. E. (2019). Pengaruh Non-Performing Loan terhadap Penyaluran Kredit pada Bank Umum di Indonesia. *Jurnal Ekonomi Dan Perbankan*, *23*(1), 45–58.

Simanjuntak, R. J. P. (2019). Pengaruh Suku Bunga terhadap Penyaluran Kredit Perbankan di Indonesia. *Jurnal Ekonomi Dan Perbankan*, *23*(1), 15–27.

Siswanto. (2007). *Manajemen Lembaga Keuangan*. Jakarta: Ghalia Indonesia.

Siwi, J. A., Rumate, V. A., & Niode, A. O. (2019). Analisis Pengaruh Tingkat Suku Bunga Terhadap Permintaan Kredit Pada Bank Umum Di Indonesia Tahun 2011-2017. *Jurnal Berkala Ilmiah Efisiensi*, *19*(01), 1–9.

Suhaedi, C. (2000). Analisis Biaya Dana dan Pengaruhnya terhadap Profitabilitas Bank. *Jurnal Keuangan Dan Perbankan*, *4*(2), 105–112.

Triandaru, S., & Budisantoso, T. (2006). *Bank dan Lembaga Keuangan Lain* (Edisi Kedu). Jakarta: Salemba Empat.

Van Der Kwaak, C. (2024). Unintended Consequences of Central Bank Lending in Financial Crises. *Economic Journal*, *134*(658), 728–765. https://doi.org/10.1093/ej/uead078