

The Effect of Credit Risk, Liquidity Risk, And Market Risk on Financial Performance In Banking Companies Listed on The Indonesia Stock Exchange

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ABSTRACT

This study examines the effects of credit risk, liquidity risk, and market risk on the financial performance of banks listed on the Indonesia Stock Exchange (IDX). Credit risk is proxied by the Non-Performing Loan (NPL) ratio, liquidity risk by the Loan to Deposit Ratio (LDR), and market risk by the Net Interest Margin (NIM). Financial performance is measured using Return on Assets (ROA). A quantitative approach is employed using secondary data derived from the annual financial statements of selected banks. The sample is determined through purposive sampling based on predefined criteria. Data are analyzed using multiple linear regression with the support of statistical software. The findings indicate that credit risk (NPL) has a negative effect on financial performance, while liquidity risk (LDR) has a positive effect. In contrast, market risk (NIM) shows a negative effect on financial performance. Furthermore, the results reveal that credit risk, liquidity risk, and market risk simultaneously exert a significant influence on the financial performance of banks listed on the IDX.

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INTRODUCTION

The banking sector in Indonesia plays a pivotal role in supporting the national economy. As financial intermediaries, banks mobilize funds from the public and allocate them to the real sector, thereby facilitating investment, consumption, and overall economic growth. Consequently, the financial soundness and performance of banks are critical in maintaining the stability of the national financial system as well as sustaining public confidence. In performing this intermediation function, banks are exposed to various types of risks that may adversely affect their profitability, capital adequacy, and operational sustainability. These risks include credit risk, liquidity risk, and market risk. Credit risk arises from the inability of borrowers to meet their contractual obligations and is commonly measured using the Non-Performing Loan (NPL) ratio.

A higher Non-Performing Loan (NPL) ratio indicates an increased likelihood of potential losses, which may adversely affect a bank's profitability. Liquidity risk refers to the bank's ability to meet its short-term obligations and is commonly measured by the Loan to Deposit Ratio (LDR). An optimal LDR level may enhance interest income, thereby contributing positively to financial performance. Market risk arises from fluctuations in market conditions, particularly changes in interest rates and exchange rates. In this study, market risk is proxied by the Net Interest Margin (NIM). Variations in NIM may influence a bank's net interest income and, consequently, its overall financial performance. Based on this framework, the present study aims to comprehensively

examine the effects of credit risk (proxied by NPL), liquidity risk (proxied by LDR), and market risk (proxied by NIM) on financial performance (measured by Return on Assets/ROA) in banks listed on the Indonesia Stock Exchange.

LITERATURE REVIEW

Credit Risk

One of the primary risks faced by banking institutions is credit risk. This risk arises when a debtor or counterparty fails to fulfill their financial obligations to the institution. Credit risk has a significant impact on a bank's financial performance, as a higher level of such risk increases the likelihood of reduced profitability (Silitonga & Manda, 2022).

The level of credit risk is commonly measured using the Non-Performing Loan (NPL) ratio, which represents the proportion of non-performing loans to total loans disbursed. A high NPL ratio indicates ineffective credit management, thereby increasing the level of credit risk faced by the bank. Consequently, the potential losses arising from non-performing loans may significantly reduce the bank's profitability. Credit risk constitutes a form of risk associated with productive assets, which serve as a primary source of income and play a crucial role in determining a bank's overall performance.

Liquidity Risk

Liquidity risk refers to the potential for loss arising from sudden and substantial withdrawals of funds by customers, which may compel financial institutions to liquidate assets at prices below their market value. This risk occurs when a bank is unable to obtain sufficient cash to meet its obligations when due. According to the Indonesian Bankers Association (2017), liquidity risk may arise from a bank's inability to generate cash flows from its productive assets, liquidate assets promptly, raise funds from the public, or secure financing through interbank transactions and borrowings (Noor & Sparta, 2023).

Liquidity risk in the banking sector is commonly measured using the Loan to Deposit Ratio (LDR). This ratio, also referred to as the credit distribution ratio, reflects the proportion of total loans extended to total third-party funds (deposits) held by the bank. The LDR is utilized to evaluate a bank's liquidity capacity. A higher LDR value indicates a greater proportion of funds allocated to lending activities relative to the total funds collected from the public.

Market Risk

According to the Indonesian Bankers Association (2015), market risk refers to the risk arising from balance sheet positions as well as off-balance-sheet accounts due to changes in market prices, including both traded assets and leased assets. In other words, market risk reflects a condition in which banks face uncertainty as a result of market dynamics that are beyond their control. This type of risk is systematic in nature and may simultaneously affect all banking institutions.

In this study, market risk is proxied by the Net Interest Margin (NIM) ratio. This ratio serves as a key indicator of management's ability to efficiently and sustainably manage productive assets in generating net interest income. Essentially, the Net Interest Margin (NIM) measures the spread between interest income earned from lending and investment activities and interest expenses paid to depositors or other funding sources (Kasmir, 2018).

Banking Financial Performance

Financial performance represents the outcomes reflected in a company's financial statements over a specific period and is used to assess the company's cash flow condition. Firm size serves as an indicator of a company's overall condition and existence; larger firms generally possess greater potential to generate profits and distribute dividends, whereas smaller firms tend to exhibit the opposite tendency (Permana et al., 2022). Financial performance can also be understood as a form of financial analysis conducted to evaluate and enhance performance outcomes from previous periods through the application of various analytical methods, thereby providing a comprehensive understanding of the company's financial position and reflecting its actual condition (Yulianto et al., 2020). In the context of banking institutions, financial performance reflects the results of financial management over a given period, encompassing activities related to the mobilization and allocation of funds (Lalonsang & Karamoy, 2024).

RESEARCH METHOD

This study was conducted on banking companies listed on the Indonesia Stock Exchange (IDX) and was carried out over approximately one month in 2025. The research adopts a quantitative approach with an associative causal design. The quantitative approach is employed as the study focuses on the analysis of numerical data processed statistically to examine the effect of independent variables on the dependent variable.

Furthermore, the associative causal design aims to identify the cause-and-effect relationships among variables, specifically to assess the extent to which credit risk (X_1), liquidity risk (X_2), and market risk (X_3) influence banking financial performance (Y). The data utilized in this study are secondary data derived from the annual financial statements of banks listed on the Indonesia Stock Exchange for the period 2020–2024.

Population and Sample

According to Sugiyono (2019:80), a population is defined as a generalization area consisting of objects or subjects that possess specific characteristics determined by the researcher for the purpose of study and from which conclusions are drawn. Based on this definition, the population of this study comprises all commercial banks actively listed on the Indonesia Stock Exchange that have complete financial statements for five consecutive years (2020–2024).

A sample is defined as a subset of the population that possesses specific characteristics and represents the overall population (Sugiyono, 2018). In other words, a sample constitutes a portion of the population selected through a particular method or technique based on considerations relevant to the research objectives. In this study, the purposive sampling technique is employed, which involves the deliberate selection of samples based on predetermined criteria aligned with the research objectives. This technique is utilized to ensure that the selected samples are both relevant and representative of the variables under investigation. Based on the applied sampling method, the total number of observations in this study amounts to 25 data points, derived from five banks observed over five research periods.

Data Collection Techniques

The data collection technique employed in this study is the documentation method, which involves the collection and examination of relevant secondary data in accordance with the research objectives. This process is conducted by compiling, recording, and reviewing various sources of information derived from the annual financial statements of banking companies listed on the Indonesia Stock Exchange.

RESULT AND DISCUSSION

1. Classical Assumption Test

a. Normality Test

Table.1 Kolmogorov-Smirnov Normality Test

		Unstandardized Residual
N		5
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.31049331
Most Extreme Differences	Absolute	.267
	Positive	.267
	Negative	-.241
Kolmogorov-Smirnov Z		.597
Asymp. Sig. (2-tailed)		.868

Source: Processed Primary Data, 2026

Table 1 shows that the Asymp. Sig. (2-tailed) value (P-value) of 0.868 > 0.05, which means that in this study, the data of the variables in this study are normally distributed.

b. Multicollinearity Test

Table. 2 Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Credit risk	0,374	2,676
Liquidity risk	0,600	1,666
Market risk	0,434	2,303

Source: Processed Primary Data, 2026

Table 2 shows that the tolerance values of credit risk, liquidity risk, and market risk variables are each greater than 0.1 and the VIF values are less than 10, so it can be concluded that there is no multicollinearity among the variables.

c. Heteroskedasticity Test

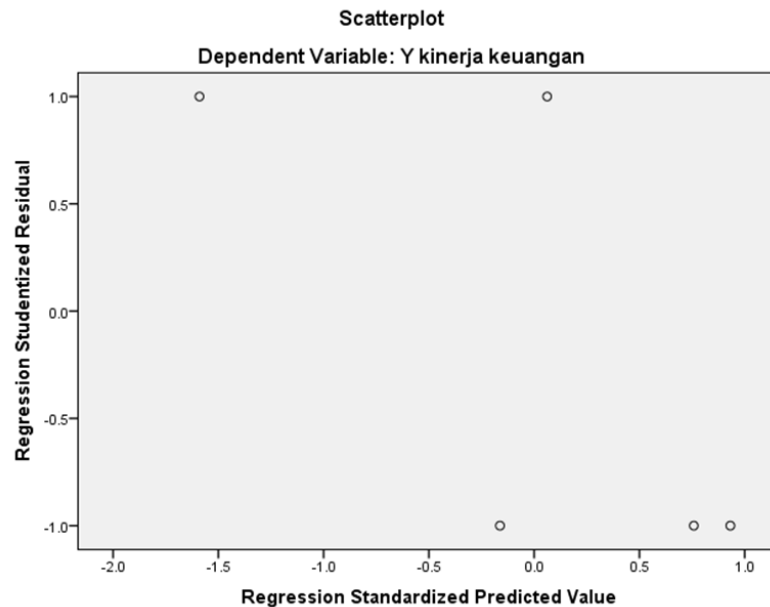


Figure. 1 Heteroskedasticity Test

Source : Processed Primary Data, 2026

Figure 1 above shows that the distribution of points in the plot does not indicate any particular pattern, so it can be said that the model is free from the assumption of heteroscedasticity.

d. Autocorrelation Test

Table. 3 Autocorrelation Test

	Unstandardized Residual
Test Value ^a	-.02136
Cases < Test Value	2
Cases >= Test Value	3
Total Cases	5
Number of Runs	5
Z	1.200
Asymp. Sig. (2-tailed)	.230

Source : Processed Primary Data, 2026

Based on the results from Table 3 above, it is known that the Asymp. Sig. (2-tailed) value is $0.230 > 0.05$. Therefore, it can be concluded that there are no symptoms or problems of autocorrelation.

2. Multiple Linear Regression

Table. 4 Multiple Linear Regression

Independent Variable	Regression Coefficient	t count	t table	Significance Level	Description
Constant	3,891				
Credit risk	-0,438	-5,214	-2,919	0,001	Significant
Liquidity risk	0,276	4,873	2,919	0,014	Significant
Market risk	-0,221	-4,102	-2,919	0,023	Significant

Source : Processed Primary Data, 2026

Based on Table 4, the regression model can be determined as follows:

$$Y = a + bX_1 + bX_2 + bX_3 + bX_4 + e$$

$$Y = 3,891 + (-0,438X_1) + 0,276X_2 + (-0,221X_3)$$

- The credit risk regression coefficient (X1) from the multiple linear calculation can be seen to be -0.438. This means that the lower the credit risk, the higher the financial performance. Credit risk and financial performance have a negative relationship. If credit risk increases, then financial performance will decrease.
- The liquidity risk regression coefficient (X2) from the multiple linear calculation can be seen as 0.276. This means that as liquidity risk increases, financial performance will also increase. Liquidity risk and financial performance have a positive relationship. If liquidity risk increases, then financial performance will also increase.
- The market risk regression coefficient (X3) from the multiple linear calculation can be seen at -0.221. This means that as market risk increases, financial performance will decrease. There is a negative relationship between market risk and financial performance. If market risk increases, financial performance will decrease.

t Test (Partial)

The test was conducted to determine the influence of each independent variable, namely credit risk (X1), liquidity risk (X2), and market risk (X3) on the dependent variable, which is financial performance (Y). This was done by comparing the calculated t value with the t table.

Table. 5 t-Test Results

Variabel Bebas	Koefisien Regresi	t hitung	t tabel	Taraf Signifikansi	Keterangan
Konstanta	3,891				
Risiko kredit	-0,438	-5,214	-2,919	0,001	Signifikan
Risiko likuiditas	0,276	4,873	2,919	0,014	Signifikan
Risiko pasar	-0,221	-4,102	-2,919	0,023	Signifikan

Source : Processed Primary Data, 2026

Table 5 of the t-test results shows that the credit risk variable (X1) obtained a t-count value of -5.214 and a t-table value of -2.919. Based on this data, since t-count > t-

table, the hypothesis H0 is rejected and H1 is accepted. Therefore, it can be stated that the credit risk variable (X1) has a negative partial effect on the financial performance variable (Y).

Table 5 of the t-test results shows that the liquidity risk variable (X2) obtained a t-count value of 4.873 and a t-table value of 2.919. Based on this data, $t\text{-count} > t\text{-table}$, so the hypothesis H0 is rejected and H2 is accepted. Thus, it can be stated that the liquidity risk variable (X2) has a significant partial effect on the financial performance variable (Y).

Table 5 of the t-test results shows that the market risk variable (X3) obtained a calculated t-value of -4.102 and a table t-value of -2.919. Based on this data, the calculated t-value $>$ table t-value, so the null hypothesis H0 is rejected and H3 is accepted. Therefore, it can be stated that the market risk variable (X3) has a negative partial effect on the financial performance variable (Y).

F Test (Simultaneous)

The test was conducted to determine the effect of all independent variables, namely credit risk (X1), liquidity risk (X2), and market risk (X3) on the dependent variable, which is financial performance (Y). This was done by comparing the calculated F value with the table F value.

Table. 6 Simultaneous Test Results

F Count	F table
226,833	216

Source : Processed Primary Data, 2026

Table 6 shows the results obtained with an Ftable value of 216 while Fhitung is 226.833. Based on these data, it is found that $F_{hitung} > F_{table}$, so H0 is rejected and H5 is accepted. This indicates that the independent variables have a significant simultaneous effect on the dependent variable (Y).

Following the presentation of the results, the next section discusses the implications of these findings in greater detail.

1. The Influence of Credit Risk on Financial Performance

The credit risk regression coefficient (X1) of -0.438 indicates a negative relationship between credit risk and financial performance. This means that the higher the credit risk, the lower the financial performance. The t-test results show a calculated t value of -5.214 which is greater than the table t of -2.919, so H0 is rejected and H1 is accepted. Thus, credit risk has a negative and significant effect on financial performance.

2. The Influence of Liquidity Risk on Financial Performance

The liquidity risk regression coefficient (X2) of 0.276 indicates a positive relationship between liquidity risk and financial performance. This means that as liquidity risk increases, financial performance also increases. The t-test results show a t-count value of 4.873, which is greater than the t-table value of 2.919, so H0 is rejected and H2 is accepted.

3. The Influence of Market Risk on Financial Performance

The market risk regression coefficient (X3) of -0.221 indicates a negative relationship between market risk and financial performance. This means that the

higher the market risk, the lower the financial performance. The t-test results show a calculated t value of -4.102, which is greater than the table t of -2.919, so H0 is rejected and H3 is accepted.

4. The Influence of Credit Risk, Liquidity Risk, and Market Risk Simultaneously on Financial Performance

The F-test results show that the calculated F value of 226.833 is greater than the F table value of 216, so H0 is rejected and H5 is accepted. This means that credit risk, liquidity risk, and market risk simultaneously have a significant effect on financial performance. According to the banking risk management theory proposed by Veithzal Rivai (2021), the success of a bank is largely determined by its ability to manage risks in an integrated manner. These three main risks are inherent risks in banking intermediation activities. These results also support the risk management regulatory framework implemented by the Financial Services Authority, which emphasizes the importance of comprehensive risk management implementation to maintain bank stability and performance.

CONCLUSION

The conclusions drawn from the research findings and discussion regarding the effects of credit risk, liquidity risk, and market risk on financial performance are as follows:

1. The results of testing H1 indicate that credit risk has a partial negative effect on financial performance, whereby an increase in credit risk leads to a decline in financial performance.
2. The results of testing H2 reveal that liquidity risk has a partial positive effect on financial performance, indicating that an increase in liquidity risk is associated with an improvement in financial performance.
3. The results of testing H3 demonstrate that market risk has a partial negative effect on financial performance, such that an increase in market risk results in a decrease in financial performance.
4. The results of hypothesis testing further indicate that credit risk, liquidity risk, and market risk simultaneously exert a significant effect on financial performance.

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