

CREDIT RISK, LIQUIDITY, PROFITABILITY: A REVIEW OF INDONESIAN STATE-OWNED BANKS

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ABSTRAK

Tujuan penelitian ini adalah untuk mengkaji pengaruh risiko kredit dan tingkat likuiditas terhadap profitabilitas pada sektor perbankan BUMN di Indonesia. Risiko kredit diproksikan dengan Non-Performing Loan (NPL), likuiditas diproksikan dengan Loan to Deposit Ratio (LDR), sedangkan profitabilitas diukur dengan Return on Assets (ROA). Laporan keuangan tahunan perbankan BUMN yang terdaftar di Bursa Efek Indonesia pada periode penelitian menjadi sumber data dalam studi ini. 2019–2023. Metode analisis yang digunakan adalah regresi linier berganda dengan pendekatan kuantitatif. Hasil penelitian menunjukkan bahwa risiko kredit berpengaruh negatif signifikan terhadap profitabilitas, sedangkan likuiditas berpengaruh positif namun tidak signifikan. Temuan ini menegaskan bahwa pengelolaan kredit bermasalah menjadi faktor kunci dalam menjaga kinerja keuangan perbankan BUMN, sementara tingkat likuiditas tidak selalu berdampak langsung terhadap profitabilitas. Penelitian ini memberikan implikasi penting bagi manajemen perbankan dalam merumuskan kebijakan pengelolaan risiko dan strategi peningkatan profitabilitas.

Kata kunci: Risiko Kredit; Likuiditas; Profitabilitas; Perbankan BUMN.

ABSTRACT

The objective of this study is to examine the effect of credit risk and liquidity level on the profitability of state-owned banks in Indonesia. Credit risk is proxied by the Non-Performing Loan (NPL), liquidity is proxied by the Loan to Deposit Ratio (LDR), while profitability is measured by Return on Assets (ROA). The research data were obtained from the annual financial reports of state-owned banks listed on the Indonesia Stock Exchange (IDX) for the 2019–2023 period. The analytical method employed is multiple linear regression with a quantitative approach. The findings reveal that credit risk has a significant negative effect on profitability, whereas liquidity has a positive but insignificant effect. These results emphasize that the management of non-performing loans is a crucial factor in maintaining the financial performance of state-owned banks, while liquidity levels do not necessarily have a direct impact on profitability. This study provides important implications for banking management in formulating risk management policies and strategies to enhance profitability.

Keywords: Credit Risk; Liquidity; Profitability; State-Owned Banks.

A. INTRODUCTION

The national economy, especially in Indonesia. As a financial intermediation institution, banks play a role not only in collecting public funds, but also in reallocating these funds through credit distribution as one of their main functions to encourage economic growth (Lestari & Iman, 2022). Therefore, maintaining the health of banks is crucial so that the intermediation function can run optimally and public trust in banking institutions is maintained (Geriadi & Astawa, 2022).

A bank's financial performance is generally measured through profitability, which indicates a bank's ability to generate profits from its operational activities. Profitability also reflects the effectiveness of management in utilizing the resources it has (Yatna & Anugrah, 2019; Nirawati et al., 2022). One of the indicators that is often used is Return on Assets (ROA), which is the ratio of profit before tax to total assets, which describes the extent to which assets can be managed to generate profits (Ningsih & Ilhami, 2023).

Banking has an important role in supporting a country's economy, especially as an intermediary institution that collects public funds and redistributes them in the form of credit. For banks, the ability to distribute credit and manage funds efficiently will have a direct effect on the level of profitability. However, these intermediation activities always contain risks, including credit risk and liquidity risk which, if not managed properly, can reduce the bank's financial performance.

Nevertheless, the banking sector is faced with a number of challenges, one of which is credit risk reflected in Non-Performing Loans (NPLs). NPLs occur when the debtor fails to meet loan repayment obligations according to the agreement, resulting in non-performing loans. The high NPL ratio can reduce bank revenues and negatively impact profitability (Prihatinto, 2023). Based on the provisions of Bank Indonesia through PBI No. 06/10/PBI/2004, the healthy NPL rate is set at a maximum of 5%.

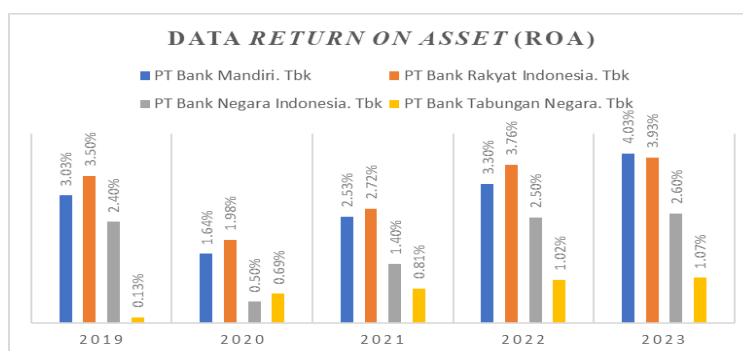
Credit risk is the risk of loss due to the customer's failure to fulfill credit payment obligations according to the agreement. A common indicator used to measure credit risk is *Non Performing Loan* (NPL). The high value of NPLs indicates an increase in non-performing loans that can reduce interest income and increase the reserve burden of impairment losses, thereby depressing the bank's profitability. Several studies, such as those conducted by Silitonga (2022), show that NPLs have a negative and significant effect on

profitability (ROA) in state-owned banks in Indonesia, which means that the higher the credit risk, the lower the level of profit obtained by banks.

In addition to credit risk, liquidity is also an important factor in assessing a bank's financial performance. Liquidity is often measured by the Loan to Deposit Ratio (LDR), which reflects the bank's ability to meet customer withdrawal obligations through credit disbursement. The results of Charisma's (2022) research show that LDR has a positive effect on ROA, this shows that increasing credit disbursement can increase profitability, as long as liquidity management is carried out efficiently. However, another study by Octavia (2022) found different results, where LDR actually has a negative effect on profitability because high credit disbursement increases the risk of default and reduces the bank's liquidity ability. So this ratio shows the extent to which third-party funds are used for financing as well as an indicator of the balance between credit distribution and bank liquidity (Gusti et al., 2021).

If you look at the context of the problem, this shows that the relationship between credit risk, liquidity, and profitability is not always consistent. In the case of Indonesian state-owned banks such as Bank Mandiri, BRI, BNI, and BTN, differences in risk management strategies, credit policies, and business characteristics cause the results of the influence of these variables to vary. According to Widnyana (2023), the difference in financial performance between state-owned banks is influenced by the level of efficiency in managing risks and their sources of liquidity. Therefore, it is necessary to conduct further studies on the relationship between credit risk, liquidity, and profitability in state-owned banks in Indonesia.

Table 1. Development Of The State-Owned Banking Roa Year 2019 – 2023



Source : processed by the author

If you look at Table 1. Over a five-year period, the Return on Assets (ROA) values of the four banks showed a fluctuating pattern that indicated that stable conditions at the

optimal ROA level had not been achieved. The phenomenon of fluctuations, both in Non-Performing Loans (NPLs), Loan to Deposit Ratio (LDR), and ROA, is inseparable from the influence of the Covid-19 pandemic which has a significant impact on the global economy. The crisis caused by the pandemic limited the ability of banks to distribute credit widely, as most individuals and business entities experienced a decrease in revenue.

Thus, banking profitability is greatly influenced by the quality of credit disbursement and liquidity conditions. High NPLs have the potential to suppress financial performance, while LDRs show the extent to which banks are able to manage third-party funds effectively. This is in accordance with previous research (Yanti & Jaelani, 2024) showing that NPL and LDR have a significant effect on dependent variables. These results are consistent with the findings of Utami et al. (2022) who stated that NPLs and LDRs have a significant effect on profitability (ROA), so any changes in NPLs and LDRs will affect ROA fluctuations. Therefore, it is important to examine the relationship between credit risk, liquidity, and profitability in the context of state-owned banking in Indonesia, given its dominant role in the national financial system.

B. LITERATURE REVIEW

1. Profitability

Profitability is one of the important indicators in assessing a company's financial performance, especially in describing the company's ability to generate profits at a reasonable level (Nirawati et al., 2022). A good level of profitability reflects the effectiveness of management in managing the resources it has to achieve the company's goals. One of the ratios commonly used to measure profitability is Return on Assets (ROA). ROA is used to assess the extent to which a company is able to generate profits from all assets it manages, so that it can provide an overview of the efficiency of asset use in creating profits (Ningsih & Ilhami, 2023). Thus, the higher the ROA value, the greater the company's ability to utilize assets to generate profits, which ultimately supports the sustainability of the company's financial performance in the next period (Hakim, 2024).

2. Loan to Deposit Ratio (LDR)

It is one of the liquidity ratios used to assess the bank's ability to meet customer withdrawal obligations by relying on loans that have been disbursed as the main source of liquidity (Fauji & Karniawati, 2021, Prihantino 2023). This ratio also reflects the extent to

which third-party funds raised by banks can be allocated in the form of credit. According to Kasmir (2018), LDR functions as an indicator of efficiency as well as liquidity, because the higher the value of LDR indicates the greater the proportion of public funds that have been successfully channeled in the form of credit. Thus, the LDR can be used as an important measure to evaluate the performance of banking intermediation as well as the stability of its liquidity function.

3. Non Performing Loan (NPL)

Non-Performing Loan (NPL) is a non-performing loan ratio that reflects the bank's management's ability to handle uncollectible loans. High NPLs indicate a decline in the quality of the credit portfolio and an increased risk of default (Hariyani, 2023). Based on PBI No. 6/10/PBI/2004, the healthy NPL limit is set at 5%, so the value above this provision indicates a weakening of the bank's health level. Increased NPLs have an impact on declining profitability, as bad loans reduce interest income, depress capital, and limit banks' ability to disburse credit in subsequent periods.

C. RESEARCH METHODS

This study applied a quantitative approach with a descriptive method. The data used is secondary data in the form of annual financial statements of state-owned banks listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 period. The variables analyzed included credit risk (NPL), liquidity (LDR), and profitability (ROA). The data processing technique is carried out through multiple linear regression with the help of statistical software to test the influence of independent variables on dependent variables.

The population in this study is state-owned banks listed on the Indonesia Stock Exchange (IDX) in the 2019–2023 period with a total of 4 banks. In addition, supporting data was obtained from official publications of the Financial Services Authority (OJK), Bank Indonesia, and relevant literature. The list of banks that are the object of the study can be seen in Table 1.1 below.

Table 2. List of State-Owned Banks Listed on the IDX Period 2019-2023

Yes	Code	Bank Name
1	(BMRI)	PT. Bank Mandiri.Tbk
2	(BBRI)	PT. Bank Rakyat Indonesia.Tbk
3	(BBNI)	PT. Bank Negara Indonesia.Tbk

4 (BBTN) PT. Bank Tabungan Negara.Tbk

Source: (Data processed by researchers)

D. RESULTS AND DISCUSSION

1. Partial Test Hypothesis Test (T)

The t-statistical test is used to measure the extent to which independent or individual variables influence the variation of related dependent variables. This test is carried out using the P value formula. To find out the magnitude of the t-value of the table based on the table t, it is determined with a significance level of 5% with the free degree $df = (n-k-1)$.

Table 3. Distribution of Values t table

DF = (N-3)	Test Significance Level One (t table)				
	0.05	0.025	0.01	0.005	0.0005
	Significance Level of Test Two (t table)				
	0.10	0.05	0.02	0.0010	0.001
13	1.77093	2.16037	2.65031	3.01228	3.85198
14	1.76131	2.14479	2.62449	2.97684	3.78739
15	1.75305	2.13145	2.60248	2.94671	3.73283
16	1.74588	2.11991	2.58349	2.92078	3.68615
17	1.73961	2.10982	2.56693	2.89823	3.64577
18	1.73406	2.10092	2.55238	2.87844	3.61048
19	1.72913	2.09302	2.53948	2.86093	3.57940
20	1.72472	2.08596	2.52798	2.84534	3.55181
21	1.72074	2.07961	2.51765	2.83136	3.52715

Source: Junaidi, <http://jurnaidichaniago.wordpress.com>

$$\begin{aligned} \text{Known: } df &= N - k - 1 \\ &= 20 - 2 - 1 \\ &= 17 \end{aligned}$$

The following are the research results from the Partial Test (t-test) which has been processed into the SPSS test version 27 as follows.

Table 4. Partial Test Results (T Test)

Model	Coefficients ^a					
		Unstandardized Coefficients	Standardized		t	Itself.
			B	Std. Error		
1	(Constant)	7,800	,940		8,299	<,001
	Non Performing Loan	-1,128	,101	-,873	-11,162	<,001

<i>Loan to Deposit Ratio</i>	,025	,012	,170	2,169	,045
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a. *Dependent Variable: Profitabilitas*

Source: Data processed by researchers

Known:

$$\begin{aligned} \text{Calculation } t_{\text{table}} &= t(a/2; n-k-1) \\ &= t(0.05/2; 20-2-1) \\ &= t(0.025; 17) \\ &= 2,10982 \end{aligned}$$

2. Simultaneous Test (F Test)

The F test is carried out to determine the influence of variables X1, X2, and Y simultaneously (together). If the value of the sig < 0.05 or Fcal > Ftable, then it affects the influence between variables X and Y simultaneously, but if Sig. > 0.05 or Fcal < Ftable, then there is no influence between variables X and Y simultaneously. The formula determines Ftable with a significance of 5% with the following table data

Table 5. Distribution Of F Values Table

df for denominator (N2)	df for counter (N1)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.51	2.48	2.45	2.42	2.40
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.46	2.42	2.40	2.37	2.35
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.46	2.41	2.38	2.35	2.33	2.31
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	2.31	2.29	2.27
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.34	2.31	2.28	2.26	2.23
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.31	2.28	2.25	2.22	2.20

Source : Junaidi (<http://jurnaidichaniago.wordpress.com>)

The following are the results of the simultaneous test research (F Test) that has been processed into the SPSS test version 27 as follows:

Table 6. Simultaneous Test Results (F Test)

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Itself.
1	<i>Regression</i>	25,674	2	12,837	90,662	<,001b
	<i>Residual</i>	2,407	17	,142		
	<i>Total</i>	28,081	19			

a. *Dependent Variable: Profitabilitas*

b. **Predictors: (Constant), Loan to Deposit Ratio, Non Performing Loan**

Source: (Data processed by researchers)

Known:

$$\begin{aligned} \text{Ftable Calculation} &= F(k; n-k) \\ &= F(2, 20-2) \\ &= F(2; 18) \\ &= 3.55 \end{aligned}$$

Information:

n = Number of samples

k = Number of variables X

3. Discussion Results

a. Implications of Credit Risk through NPLs on Bank Profitability Performance

The findings of the analysis confirm that Non-Performing Loans (NPLs) contribute negatively and significantly to profitability. (ROA) in state-owned banks for the 2019–2023 period, with a value of $\text{Sig. } 0.001 < 0.05$ and t calculated $-11.162 > t$ table 2.109. This means that the higher the level of non-performing loans, the lower the bank's profitability. This is in line with credit risk theory, where an increase in NPLs reduces asset quality and reduces revenue due to high loss reserve expenses. The difference in the effectiveness of risk management between banks also affects the magnitude of the impact of NPLs on ROA, for example, Bank Mandiri with low NPLs is able to maintain profitability more stable than Bank BTN which often records high NPLs.

b. Liquidity Efficiency through Loan to Deposit Ratio (LDR) and Its Impact on Profitability.

The results of the analysis show that the Loan to Deposit Ratio (LDR) has a positive and significant effect on profitability (ROA) in state-owned banks for the 2019–2023 period, with a Sig. value of $0.045 < 0.05$ and t calculated $2.169 > t$ table 2.109. This indicates that the higher the LDR, the greater the bank's ability to generate profits, as third-party funds can be optimally utilized in the form of credit. However, the high LDR only has a positive impact if it is balanced with good credit quality. For example, Bank BTN with high LDR but high NPLs also experienced limitations in increasing ROA, while Bank Mandiri with balanced LDR and low NPLs was able

to maintain more stable ROA growth.

c. The Interaction of Credit Risk and Liquidity in Affecting Bank Profitability

The results of the simultaneous analysis show that Non-Performing Loans (NPLs) and Loan to Deposit Ratio (LDR) have a significant effect on the profitability of state-owned banks for the 2019-2023 period, with a value of $\text{Sig. } 0.001 < 0.05$ and F calculated $90.662 > F$ table 3.55. A determination coefficient (R^2) test of 0.904 indicated that 90.4% of profitability variation was influenced by NPLs and LDRs, while the remaining 9.6% was influenced by other factors. This shows that the bank's profitability performance is greatly influenced by credit risk management and the effectiveness of fund disbursement. The interaction between NPLs and LDRs can be counterbalanced, where banks with high LDRs but controlled NPLs are more efficient in generating profits, while high LDRs accompanied by high NPLs actually suppress profitability. Therefore, banks need to maintain a balance between credit growth and credit risk control so that ROA remains optimal.

E. CONCLUSION

This study concludes that Non-Performing Loans (NPLs), when partially tested, have a negative and significant effect on Return on Assets (ROA). High NPLs reflect an increase in non-performing loans, so that interest income received by banks becomes delayed or even unobtainable, ultimately lowering the level of profitability. The findings further prove that the Loan to Deposit Ratio (LDR) has a positive and significant influence on ROA. This condition shows that the larger the LDR, the more efficient the distribution of third-party funds to productive credit, thereby increasing interest income and encouraging the growth of bank profitability. Banking profitability is greatly influenced by the balance between the effectiveness of credit disbursement and the quality of credit risk management. Therefore, banks need to maintain LDRs at a healthy level while controlling NPLs to stay below the limits of regulatory provisions. This study also provides implications for future studies to consider other variables, such as operational efficiency, management quality, and macroeconomic factors, which have the potential to affect banking profitability more broadly.

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