Analysis of Factors Affecting Liquidity in Conventional State-Owned Enterprise Banks

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ABSTRACT: This study aims to determine the factors that affect liquidity in state-owned banks. The liquidity factor is an important factor in assessing the performance or soundness of a bank so that it will affect the reputation of the bank concerned. Liquidity risk is a risk that arises because banks are unable to fulfill short-term obligations to the public when needed due to a lack of liquidity. The liquidity factors used in this study are Non-Performing Loans (NPL), Net Working Capital (NWC), Return on Assets (ROA), Capital Adequacy Ratio (CAR), and Size
The type of research used in this research is descriptive research, namely research that describes the object or subject under study in accordance with what it is and as complete as possible regarding the social phenomenon. The type of data used in this research is secondary data. The type of data used is secondary data, namely time series data in the form of financial reports. This study uses multiple regression analysis method to examine the effect of each independent variable on the dependent variable.
KEYWORDS: Non-Performing Loans (NPL), Net Working Capital (NWC), Return On Assets (ROA), Capital Adequacy Ratio (CAR), and Bank Size.

I. INTRODUCTION

One of the risks faced by banks is liquidity risk. Liquidity risk is a risk that arises because banks are unable to fulfill short-term obligations to the public when needed due to a lack of liquidity. The existence of these risks can affect the performance of the bank and the reputation of the bank concerned. Liquidity is also an indicator in assessing the soundness of a bank. For this reason, it is a must for banks to maintain the stability of the health of their liquidity. The level of liquidity is determined by the comparison between current liabilities and current assets. Many banks compete to get the maximum profit by managing the company as well as possible. Banking management must be careful in terms of lending policies because it will create credit risk for banks, so they must pay attention to liquidity so that it remains liquid and the trust of creditors is maintained.

Good liquidity management is very important in the current era of the banking industry. This is because liquidity management for banks is a description of a bank's ability to fulfill all of its short-term obligations. Liquidity is the first benchmark to determine public trust in a bank. Banking operations without the support of sufficient financial strength may not be able to survive in today's modern era. Adequate liquidity depends on the bank's ability to meet expected and unforeseen cash flows and guaranteed needs without harming the day-to-day operational activities and the bank's financial condition. Excess liquidity has a negative impact on banks because it does not contribute to the income received by banks. Besides that, the lack of liquidity also affects transactions that occur every day because it can result in losses which can ultimately affect bankruptcy. To overcome these risks, banks must have liquidity risk management policies and practices, the purpose of which is to identify, measure, monitor and control liquidity risk so as to minimize its impact at a tolerable level.

The condition of banking performance cannot be separated from external factors. One of these external factors is inflation. Inflation is a monetary economic event that can also affect the level of liquidity in the banking sector. Inflation conditions describe rising prices of goods and

means that there will be a decrease in the value of currency so that people reduce their desire to save their funds in banks. This resulted in a decrease in real assets at the bank, thus enabling the bank to be unable to return funds to its customers. The assessment of liquidity in a bank in this study can be seen by using the ratio of Non-Performing Loans (NPL), Net Working Capital (NWC), Return On Assets (ROA), Capital Adequacy Ratio (CAR), and Size. These ratios are independent variables. While the dependent variable used is banking liquidity. Liquidity can be measured using the ratio of capital to total assets.

Based on the background described above, the formulation of the problem taken in this study is whether NPL, NWC, ROA, CAR and bank size are factors that affect liquidity in state-owned banks.

II. METHODS

This type of research is descriptive with a quantitative approach. This research seeks to describe the object or subject under study in accordance with what it is and as complete as possible regarding this social phenomenon. Descriptive research will capture the characteristics of an object and/or subject, or an event at the time the data is collected, these characteristics may change over time. The type of data used in this study is secondary data in the form of time series data in the form of financial reports. The reason for using secondary data is with the consideration that data is easy to obtain and has a wider time and has data validity that can be accounted for. The data needed in this research is an annual report issued by Bank Indonesia for the 2019-2023 period.

The variables used in this study consisted of two variables, namely the dependent variable (Y) and the independent variable (X). Dependent Variable (Y) That is the variable that is affected by the independent variable. In this study, the dependent variable used is: (Y) bank liquidity. The independent variables used are five variables including: (X1) Non-Performing Loan (NPL), (X2) Net Working Capital (NWC), (X3) Return on Assets (ROA), (X4) Capital Adequacy Ratio (CAR), (X5) Size.

This study uses multiple regression analysis method to examine the effect of each independent variable on the dependent variable.

In testing each hypothesis used t test. The t test is used to test the effect of each independent variable used in this study on the dependent variable partially. In addition, the F test is used to test the effect of the independent variables as a whole on the dependent variable and a test on the

coefficient of determination R^2 which measures how far the ability of the model is to explain dependent variation or in other words to test the goodness-fit of the regression model. The regression equation used is as follows:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 551 + \varepsilon$$

Banking Liquidity (Y)

The dependent variable used in this study is bank liquidity. Banking liquidity is an institution's ability in this case is a banking institution, especially commercial banks in fulfilling all obligations that are due soon and being able to fulfil credit requests from bank customers without any delay. One way to calculate the level of banking liquidity is to know its liquidity risk. How to calculate liquidity risk as used in Ahmed's research, Naveed et al. (2011) are:

$$\text{Liquidity risk} = \frac{\text{total capital}}{\text{total asset}}$$

Non-Performing Loans (X1)

Non-Performing Loans (NPL) is the ratio of the number of non-performing loans (with the criteria of substandard, doubtful and loss) to the total loans disbursed. NPL reflects credit risk, the smaller the NPL, the smaller the credit risk borne by the bank. For that NPL must be kept as low as possible. NPL according to Bank Indonesia Circular Letter Number 3/30/DPNP dated 14 December 2001 and according to previous studies can be formulated as follows:

$$\text{NPL} = \frac{\text{non performing loans}}{\text{total loan}}$$

Net Working Capital (X2)

Net working capital (net working capital) is the difference between current assets and current liabilities. Net Working Capital is measured by the ratio of the difference between current assets and current liabilities divided by total assets. How to calculate Net Working Capital as used in the research of Akhtar et al. (2011) are as follows:

$$\text{NWC} = \frac{\text{current assets} - \text{current liability}}{\text{total assets}}$$

Return on Assets (X3)

This ratio is used to measure bank management in obtaining overall profit (profit). The greater the ROA, the greater the level of profit achieved by the bank and the better the position of the bank in terms of asset use. ROA according to

Bank Indonesia Circular Letter Number 3/30/DPNP dated 14 December 2001 and according to previous studies can be formulated as follows:

$$ROA = \frac{\text{earning before tax}}{\text{total assets}}$$

Capital Adequacy Ratio (X4)

The Capital Adequency Ratio (CAR) shows the ability of capital to cover possible losses on loans extended along with losses on investment in securities. CAR according to Bank Indonesia Circular Letter Number 3/30/DPNP dated 14 December 2001 and according to previous studies can be formulated as follows:

$$CAR = \frac{\text{capital}}{\text{RWA}}$$

Bank Size (X5)

Bank size is measured from the total assets owned by the bank, but because the total assets of each company are different and even have a large difference, the bank size is calculated using the natural logarithm of the total.

III. RESULT AND DISCUSSION

Based on data analysis it is known that partially the significance value of ROA and CAR t-test is below 0.05 so it can be concluded that ROA and CAR have an effect on Liquidity Risk.

Based on data analysis it is known that the significance value of the F test is less than 0.05 so it can be concluded that simultaneously NWC, NPL, ROA, CAR and company size have an effect on Liquidity Risk.

IV. CONCLUSION
Table 1
The Partial t-test Result

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.271	1.720		3.064	.012
	NPL	5.408E-8	.000	.115	.829	.426
	NWC	.024	.024	.129	.970	.355
	ROA	.818	.306	.383	2.714	.022
	CAR	.005	.001	.705	4.970	.001
	SIZE	-6.675E-16	.000	-.126	-.928	.375

a. Dependent Variable: LIKUIDITAS

Based on data analysis it is known that partially ROA and CAR have an effect on Liquidity Risk. The effect of ROA is due to the financing distributed by banks being able to provide the maximum contribution to profits at banks that carry out operational activities for five

periods. The profit earned also resulted in an increase in total assets. In this case, it means that the bank's management is able to properly manage the financing distributed to the public and the bank can also fulfill the obligations that must be paid to its customers.

Table 2
The Simultanous F-test Result

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	197.024	5	39.405	10.953	.001^b
	Residual	35.976	10	3.598		
	Total	233.000	15			

a. Dependent Variable: LIKUIDITAS

b. Predictors: (Constant), SIZE, NWC, CAR, NPL, ROA

Adequate CAR aims to maintain bank liquidity and avoid disbursing financing without proper analysis or consideration. The existence of adequate capital will help the bank to be able to channel larger funds to customers so as to be able to provide benefits for the bank.

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