

## Comparative analysis of financial performance during and after the COVID-19 pandemic: Study of state-owned banks listed in the Kompas 100 index

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**Abstract:** This study aims to analyze the financial performance of State-Owned Enterprises (BUMN) banks during and after the Covid-19 pandemic listed on the Kompas 100 Index. The analysis of financial performance at these banks uses liquidity ratios, solvency ratios, profitability ratios and Non-Performing Loan ratios. The selection of banks listed on the Kompas 100 Index is expected to be able to generalized to describe the overall financial performance of banks listed on the Indonesia Stock Exchange (IDX) in facing the Covid-19 pandemic.

**Keywords:** Banking financial ratios, COVID-19 Pandemic, Financial performance.

### 1. Introduction

The COVID-19 pandemic has caused major disruptions in the global economy. Lockdowns, travel restrictions, and reduced business activity have resulted in economic recessions in many countries. The impact has been particularly significant in the financial sector, including banking. Banks are facing liquidity challenges due to increased demand for emergency loans and reduced repayment capacity. On the other hand, credit risk has increased as many borrowers are struggling to repay their loans due to job losses or reduced income.

Banking companies are one of the financial sub-sectors that play a strategic role in economic activities. This is because banks function as financial intermediary institutions, namely collectors and distributors of public funds. The activities carried out by banks also aim to increase the equality of economic growth and maintain national stability towards increasing the welfare of the people so that the existence of banking companies during the Covid-19 pandemic as financial intermediary institutions (financial intermediary institutions) become important (Maulidia and Wulandari, 2021).

However, in reality the Covid-19 pandemic has also had an impact on banking companies when viewed in terms of net profit/loss. Measuring financial performance is an important thing to do, because this measurement is a means of improving the company's operational activities. By improving operational performance, it is hoped that the company's finances can continue to experience better growth, and can compete with other companies through the level of efficiency and effectiveness (Hery, 2015: 29). This financial performance measurement is carried out by analyzing a company's financial report.

Analysis of banking financial performance during the COVID-19 period requires a deep understanding of market dynamics, economic policies, and changes in consumer behavior to provide accurate insights into how the pandemic has affected the overall financial health of banks. The selection of state-owned banks listed on the Kompas 100 index was carried out to be able to describe the financial performance listed on the Indonesia Stock Exchange. The Kompas 100 Index is an index of selected stocks that have high liquidity, as well as large market capitalization values, and are also stocks that have good fundamentals and performance.

Based on the description above, the following research questions can be formulated: How is the Comparison of Financial Performance During and After the Covid-19 Pandemic (Study of State-Owned Banks Listed on the Kompas 100 Index)?

## 2. Literature Review

### 2.1. Signal Theory

Signal theory explains how a company should provide signals to users of financial statements. According to (Brigham and Houston, 2013) a signal is an action taken by company management that provides an indication to investors about how management views the company's prospects. Signal theory explains why companies have the urge to provide financial statement information to external parties.

### 2.2. Financial Statements

Financial reports are information that provides an overview of a company's financial condition. This information can be used as an overview of a company's financial performance (Hidayat, 2018: 2).

Bank financial reports are financial reports that will describe the overall financial position of a bank, starting from the position of assets, liabilities, income, and costs that have been carried out by the bank. Through this report, the actual condition of the bank will be known, including the strengths and weaknesses of the bank. The bank financial report will also show the performance of bank management in one period.

### 2.3. Financial Statement Analysis

Financial statement analysis is a series of processes to identify, measure, and compare financial statements. Comparison of financial statements is done by comparing all types of financial statements in the current year with financial statements in the previous year period (Ivan et al., 2021: 1).

According to Hutabarat (2020: 3) there are several objectives of measuring company performance, namely:

1. To be able to determine the level of profitability.
2. To be able to determine the level of liquidity.
3. To be able to determine the level of solvency.
4. To be able to determine the level of business stability.

### 2.4. Ratio-Banking Financial Ratios

According to Andrianto et al. (2019: 372-373), some of the most commonly used ratios in analyzing bank financial reports include:

1. Liquidity Ratio  
The liquidity ratio is a ratio that aims to assess how liquid a bank is in carrying out its business activities and serving its customers.
2. Solvency Ratio  
The solvency ratio is a ratio that aims to assess how effective a bank is in achieving its goals.
3. Profitability Ratio  
The profitability or rentability ratio is a ratio used to assess the level of business efficiency and profitability that a bank has achieved in a certain period.

Banking financial ratio analysis is carried out using liquidity ratios, solvency ratios, profitability ratios, and Non-Performing Loan (NPL) ratios. The types of liquidity ratios that can be used in analyzing bank financial statements are Loan to Deposit Ratio. Loan to deposit ratio is a ratio used to assess the composition of the amount of credit provided by a bank compared to the amount of public funds and equity used by the bank. Here is the formula for calculating the loan to deposit ratio:

$$\text{Loan to Deposit Ratio} = \frac{\text{Kredit}}{\text{Dana Pihak Ketiga}} \times 100\%$$

The type of solvency ratio that can be used in analyzing bank financial statements is the Capital Adequacy Ratio. The capital adequacy ratio is a bank performance ratio used to assess the adequacy of capital owned by a bank. The following is the formula used in calculating the capital adequacy ratio:

$$\text{Capital Adequacy Ratio} = \frac{\text{Modal Inti}}{\text{ATMR}} \times 100\%$$

The types of profitability ratios that can be used in analyzing bank financial reports are:

1. *Return On Assets*

$$\text{Return On Assets} = \frac{\text{Laba Sebelum Pajak}}{\text{Total Aset}} \times 100\%$$

2. *Return On Equity*

$$\text{Return On Equity} = \frac{\text{Laba Bersih}}{\text{Modal Inti}} \times 100\%$$

3. Operating Expenses/Operating Income (BOPO)

$$\text{BOPO} = \frac{\text{Beban Operasional}}{\text{Pendapatan Operasional}} \times 100\%$$

4. *Net Interest Margin*

$$\text{Net Interest Margin} = \frac{\text{Pendapatan Bunga Bersih}}{\text{Aset Produktif}} \times 100\%$$

Credit risk is a common risk in the banking sector. The type of Credit Ratio used by banks is the Non-Performing Loan (NPL) ratio. Here is the formula for calculating non performing loans:

$$\text{Non Performing Loan} = \frac{\text{Kredit Bermasalah}}{\text{Total Kredit}} \times 100\%$$

### 3. Methods

This research was conducted at state-owned banks listed in the Kompas 100 Index, namely PT. Bank Negara Indonesia (Persero), Tbk, PT. Bank Mandiri (Persero), Tbk, PT. Bank Rakyat Indonesia (Persero), Tbk, and PT. Bank Tabungan Negara (Persero), Tbk and the object of this research is the financial report of state-owned banks during and after the Covid-19 pandemic, namely the period 2020, 2021, 2022, and 2023.

The population of this study consists of all banking services listed on the Indonesia Stock Exchange. The sample of this study is state-owned banks listed on the Kompas 100 Index are PT. Bank Negara Indonesia (Persero), Tbk, PT. Bank Mandiri (Persero), Tbk, PT. Bank Rakyat Indonesia (Persero), Tbk, and PT. Bank Tabungan Negara (Persero), Tbk. The selection of banks listed on the Kompas 100 Index is expected to be generalized to describe the overall financial performance of banks listed on the Indonesia Stock Exchange (IDX) in facing the period during and after the Covid-19 pandemic.

For the purpose of data collection, the documentation method will be implemented. Data collection using documentation techniques is intended to collect secondary data, namely financial reports from state-owned banks listed in the Kompas 100 Index for the period 2020, 2021, 2022, and 2023.

The data analysis method in this study is as follows

### 3.1. Liquidity Ratio

**Table 1.**  
Loan to deposit ratio rating determination criteria.

Ranking	Information	Criteria
1	Very healthy	$50\% < \text{LDR} \leq 75\%$
2	Healthy	$75\% < \text{LDR} \leq 85\%$
3	Healthy enough	$85\% < \text{LDR} \leq 100\%$
4	Unwell	$100\% < \text{LDR} \leq 120\%$
5	Not healthy	$\text{LDR} > 120\%$

Source: POJK No. 4/POJK.03/2016.

### 3.2. Solvency Ratio

**Table 2.**  
Capital adequacy ratio rating determination criteria.

Ranking	Information	Criteria
1	Very healthy	$\text{CAR} \geq 12\%$
2	Healthy	$9\% \leq \text{CAR} < 12\%$
3	Healthy enough	$8\% \leq \text{CAR} < 9\%$
4	Unwell	$6\% < \text{CAR} < 8\%$
5	Not healthy	$\text{CAR} \leq 6\%$

Source: POJK No. 4/POJK.03/2016.

### 3.3. Profitability Ratio

#### 3.3.1. Return on Assets

**Table 3.**  
Criteria for determining return on assets ranking.

Ranking	Information	Criteria
1	Very healthy	$\text{ROA} > 1.5\%$
2	Healthy	$1.25\% < \text{ROA} \leq 1.5\%$
3	Healthy enough	$0.5\% < \text{ROA} \leq 1.25\%$
4	Unwell	$0\% \leq \text{ROA} \leq 0.5\%$
5	Not healthy	$\text{ROA} \leq 0\%$

Source: POJK No. 4/POJK.03/2016.

#### 3.3.2. Return on Equity

**Table 4.**  
Return on equity rating determination criteria.

Ranking	Information	Criteria
1	Very healthy	$\text{ROE} \geq 20\%$
2	Healthy	$12.5\% \leq \text{ROE} < 20\%$
3	Healthy enough	$5\% \leq \text{ROE} < 12.5\%$
4	Unwell	$0\% \leq \text{ROE} < 5\%$
5	Not healthy	$\text{ROE} < 0\%$

Source: POJK No. 4/POJK.03/2016

### 3.3.3. Operating Expenses/Operating Income (BOPO)

**Table 5.**  
BOPO rating determination criteria.

Ranking	Information	Criteria
1	Very healthy	$BOPO < 90\%$
2	Healthy	$90\% < BOPO < 94\%$
3	Healthy enough	$94\% < BOPO \leq 96\%$
4	Unwell	$96\% < BOPO \leq 100\%$
5	Not healthy	$BOPO > 100\%$

Source: POJK No. 4/POJK.03/2016

### 3.3.4. Net Interest Margin

**Table 6.**  
Net interest margin ranking determination criteria.

Ranking	Information	Criteria
1	Very healthy	$NIM > 3\%$
2	Healthy	$2\% < NIM \leq 3\%$
3	Healthy enough	$1.5\% < NIM \leq 2\%$
4	Unwell	$1\% < NIM \leq 1.5\%$
5	Not healthy	$NIM \leq 1\%$

Source: POJK No. 4/POJK.03/2016

### 3.3.5. Non-Performing Loan (NPL) Ratio

**Table 7.**  
Criteria for determining non-performing loan ratings.

Ranking	Information	Criteria
1	Very healthy	$0\% < NPL \leq 2\%$
2	Healthy	$2\% < NPL \leq 3.5\%$
3	Healthy enough	$3.5\% < NPL \leq 5\%$
4	Unwell	$5\% < NPL \leq 8\%$
5	Not healthy	$NPL > 8\%$

Source: POJK No. 4/POJK.03/2016.

The data used in this study is secondary data obtained from state-owned banks listed on the Kompas 100 Index, namely PT. Bank Negara Indonesia (Persero), Tbk, PT. Bank Mandiri (Persero), Tbk, PT. Bank Rakyat Indonesia (Persero), Tbk, and PT. Bank Tabungan Negara (Persero), Tbk. There are two types of data in this study, namely quantitative data and qualitative data. This study focuses more on quantitative data in the research conducted. Quantitative Data is data or information obtained in the form of numbers. This data in the form of numbers can then be processed using mathematical formulas, or can also be analyzed with statistical models.

## 4. Results and Discussion

### 4.1. Analysis of State-Owned Bank Financial Ratios During the Covid-19 Pandemic

#### 4.1.1. Analysis of State-Owned Bank Financial Ratios for the Period 2020 and 2021

**Table 8.**

Loan to Deposit Ratio (LDR) of BUMN Banks for the 2020-2021 Period Expressed in Millions of Rupiah, Unless Otherwise Stated).

Year	Total Credit (a)	Total third party funds (b)	100% (c)	LDR a/b×c	OJK standards
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 964,727,517	Rp. 1,144,639,741	100%	84.3%	Healthy
2021	Rp. 1,050,156,922	Rp. 1,291,176,119	100%	81.3%	Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 1,020,192,968	Rp. 1,120,921,926	100%	91.0%	Healthy enough
2021	Rp. 1,042,867,453	Rp. 1,138,743,215	100%	91.6%	Healthy enough
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 586,206,787	Rp. 679,452,445	100%	86.3%	Healthy enough
2021	Rp. 582,436,230	Rp. 729,168,611	100%	79.9%	Healthy
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 260,114,163	Rp. 278,990,918	100%	93.2%	Healthy enough
2021	Rp. 274,835,291	Rp. 295,952,200	100%	92.9%	Healthy enough

1) PT. Bank Mandiri (Persero), Tbk

PT. Bank Mandiri (Persero), Tbk during the 2020-2021 period obtained a healthy LDR percentage. This is due to credit growth that is balanced with periodic growth in third party funds during the period.

2) PT. Bank Rakyat Indonesia (Persero), Tbk

PT. Bank Rakyat Indonesia (Persero), Tbk experienced a fairly healthy LDR percentage. Total credit and third party funds of BRI bank experienced growth every year.

3) PT. Bank Negara Indonesia (Persero), Tbk

PT. Bank Negara Indonesia (Persero), Tbk has a healthy LDR percentage. BNI's total credit and total third party funds have grown in each period, the LDR owned by this bank has improved from quite healthy to healthy.

4) PT. State Savings Bank (Persero), Tbk

PT. Bank Tabungan Negara (Persero), Tbk has a fairly healthy LDR percentage in 2020 and 2021.

#### 4.1.2. Analysis of Financial Solvency Ratio of State-Owned Banks for the Period 2020-2021

**Table 9.**

Capital adequacy ratio (CAR) of state-owned banks for the 2020-2021 period.

(Expressed in millions of Rupiah, unless otherwise stated)

Year	Core Capital	ATMR	100%	CAR	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 182,065,400	Rp. 988,801,635	100%	18.4%	Very healthy
2021	Rp. 196,048,380	Rp. 1,064,602,090	100%	18.4%	Very healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 187,205,189	Rp. 982,289,178	100%	19.1%	Very healthy
2021	Rp. 267,009,045	Rp. 1,017,519,464	100%	26.2%	Very healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 103,111,486	Rp. 645,853,818	100%	16.0%	Very healthy
2021	Rp. 122,869,965	Rp. 655,545,739	100%	18.7%	Very healthy
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 17,625,854	Rp. 129,249,781	100%	13.6%	Very healthy
2021	Rp. 18,531,612	Rp. 134,340,567	100%	13.8%	Very healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. Bank Mandiri (Persero), Tbk has a CAR percentage that is in the very healthy category during the 2020-2021 period. Bank Mandiri has an ATMR nominal that continues to increase during the 2020-2021 period.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk has a nominal ATMR that continues to increase during the 2020-2021 period and the CAR ratio is in the very healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk has a nominal ATMR that continues to increase during the 2020-2021 period, while the bank's core capital also increased on average.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk has an ATMR nominal and core bank capital that has increased on average, except in 2020 which experienced a decline.

### 4.1.3. Analysis of Financial Profitability Ratio of State-Owned Banks for the Period 2020-2021

#### 4.1.3.1. Return on Assets (ROA)

**Table 10.**

Return on assets (ROA) of BUMN banks for the 2020-2021 period.

(Expressed in millions of Rupiah, unless otherwise stated)

Year	Profit before tax	Total assets	100%	ROA	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 24,392,405	Rp. 1,541,964,567	100%	1.6%	Healthy enough
2021	Rp. 38,358,421	Rp. 1,725,611,128	100%	2.2%	Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 29,993,406	Rp. 1,610,065,344	100%	1.9%	Very healthy
2021	Rp. 40,992,065	Rp. 1,678,097,734	100%	2.4%	Very healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 5,112,153	Rp. 891,337,425	100%	0.6%	Healthy enough
2021	Rp. 12,550,987	Rp. 964,837,692	100%	1.3%	Healthy
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 2,270,857	Rp. 361,208,406	100%	0.6%	Healthy enough
2021	Rp. 2,993,320	Rp. 371,868,311	100%	0.8%	Healthy enough

#### 4.1.3.2. PT. Bank Mandiri (Persero), Tbk

PT. Bank Mandiri (Persero), Tbk experienced an increase in ROA percentage in 2021. This increase was influenced by the increase in the nominal profit before tax received.

- 1) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk experienced an increase in ROA percentage in 2021 and is in the very healthy category.
- 2) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk experienced a decrease in ROA percentage in 2020 and was in the fairly healthy category.
- 3) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a percentage decline in 2020 and was in the fairly healthy category.

## 4.1.3.3. Return on Equity (ROE)

**Table 11.**  
Return on equity (ROE) of BUMN banks for the 2020-2021 period.  
(Expressed in millions of Rupiah, unless otherwise stated)

Year	Net profit	Core capital	100%	ROE	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 18,398,928	Rp. 182,065,400	100%	10.1%	Healthy enough
2021	Rp. 30,551,097	Rp. 196,048,380	100%	15.6%	Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 18,660,393	Rp. 187,205,189	100%	10.0%	Healthy enough
2021	Rp. 30,755,766	Rp. 267,009,045	100%	11.5%	Healthy enough
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 3,321,442	Rp. 103,111,486	100%	3%	Unwell
2021	Rp. 10,977,051	Rp. 122,869,965	100%	8.9%	Healthy enough
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 1,602,358	Rp. 17,625,854	100%	9.1%	Healthy enough
2021	Rp. 2,376,227	Rp. 18,531,612	100%	12.8%	Healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. Bank Mandiri (Persero), Tbk experienced a decrease in ROE percentage in 2020 and was in a fairly healthy category. This decrease was influenced by a decrease in the nominal net profit received.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk experienced a decrease in ROE percentage in 2020 and was in a fairly healthy category. The decrease in ROE in 2020 was due to a decrease in the nominal net profit.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk experienced a decline in ROE percentage in 2020 and was in the unhealthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced an increase because BTN's ROE percentage in 2021 increased from quite healthy in 2020 to a healthy category in 2021.

## 4.1.3.4. BOPO

**Table 12.**  
BOPO BUMN bank period 2020-2021.  
(Expressed in millions of Rupiah, unless otherwise stated)

Year	Operational expenses	Operating income	100%	BOPO	OJK
	(a)	(b)	(c)	a/b×c	standards
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 113,857,010	Rp. 138,112,497	100%	82.4%	Very Healthy
2021	Rp. 107,603,061	Rp. 146,043,264	100%	73.7%	Very Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 150,291,390	Rp. 180,070,091	100%	83.5%	Very Healthy
2021	Rp. 150,584,537	Rp. 191,728,919	100%	78.5%	Very Healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 69,684,507	Rp. 74,915,951	100%	93%	Healthy
2021	Rp. 59,364,946	Rp. 72,132,230	100%	82%	Very Healthy
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 25,290,102	Rp. 27,620,387	100%	91.6%	Healthy
2021	Rp. 25,277,654	Rp. 28,314,486	100%	89.3%	Very Healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. BankMandiri (Persero), Tbk has operating income that increases every year, but the BOPO percentage fluctuates, Bank Mandiri's BOPO percentage increased during the 2020 period.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk has an operating income that increases every year, but the BOPO percentage fluctuates, BRI's BOPO percentage increased during the 2020 period, and only experienced a decrease in percentage in the 2021 period and is still in the very healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk has an increasing BOPO percentage during the 2020 period in the healthy category, and only experienced a decrease in the percentage in the 2021 period and became a very healthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a percentage decline in the 2020-2021 period.

## 4.1.3.5. Net Interest Margin (NIM)

**Table 13.**

Net interest margin (NIM) of BUMN banks for the 2020-2021 period.

*(Expressed in millions of Rupiah, unless otherwise stated)*

Year	Net interest income	Productive assets	100%	NIM	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 62,520,805	Rp. 1,416,314,418	100%	4.4%	Very Healthy
2021	Rp. 73,062,494	Rp. 1,555,837,700	100%	4.7%	Very Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 93,584,113	Rp. 1,499,655,359	100%	6.2%	Very Healthy
2021	Rp. 114,094,429	Rp. 1,574,849,049	100%	7.2%	Very Healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 37,151,966	Rp. 818,875,423	100%	4.5%	Very Healthy
2021	Rp. 38,246,731	Rp. 876,052,956	100%	4.4%	Very Healthy
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 8,913,843	Rp. 340,659,725	100%	2.6%	Healthy
2021	Rp. 12,991,303	Rp. 353,133,024	100%	3.7%	Very Healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. BankMandiri (Persero), Tbk experienced a decrease in the NIM percentage in 2020, then experienced an increase in the NIM percentage in 2021, which was in the very healthy category.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk experienced a decrease in the NIM percentage in 2020, then experienced an increase in the NIM percentage in 2021 and was in the very healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk experienced a decrease and increase in the NIM percentage and is in the very healthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a decrease in the NIM percentage in 2020 then experienced an increase in the NIM percentage in 2021.

4.1.4. Analysis of Non Performing Loan (NPL) Ratio of State-Owned Bank Finances for the Period 2020-2021

**Table 14.**

Non performing loans of state-owned banks for the period 2020-2021.

(Expressed in millions of Rupiah, unless otherwise stated)

Year	Non-performing loans	Total credit	100%	NPL	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2020	Rp. 29,438,481	Rp. 964,727,517	100%	3.1%	Healthy
2021	Rp. 28,140,052	Rp. 1,050,156,922	100%	2.7%	Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2020	Rp. 28,021,597	Rp. 1,020,192,968	100%	2.7%	Healthy
2021	Rp. 31,238,375	Rp. 1,042,867,453	100%	3.0%	Healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2020	Rp. 24,629,844	Rp. 586,206,787	100%	4.2%	Healthy enough
2021	Rp. 21,527,805	Rp. 582,436,230	100%	3.7%	Healthy enough
PT. State Savings Bank (Persero), Tbk					
2020	Rp. 11,355,333	Rp. 260,114,163	100%	4.4%	Healthy enough
2021	Rp. 10,179,042	Rp. 274,835,291	100%	3.7%	Healthy enough

1) PT. Bank Mandiri (Persero), Tbk

PT. Bank Mandiri (Persero), Tbk experienced a decrease in NPL in 2021, being in the healthy category.

2) PT. Bank Rakyat Indonesia (Persero), Tbk

PT. Bank Rakyat Indonesia (Persero), Tbk experienced an increase in NPL in 2021 in the healthy category, and experienced a decrease in NPL in 2020 in the healthy category.

3) PT. Bank Negara Indonesia (Persero), Tbk

PT. Bank Negara Indonesia (Persero), Tbk experienced an increase in the percentage of NPL in 2020 in the fairly healthy category, and experienced a decrease in the percentage of NPL in 2021 in the fairly healthy category.

4) PT. State Savings Bank (Persero), Tbk

PT. Bank Tabungan Negara (Persero), Tbk experienced a periodic decline during the 2020-2021 period and was in the fairly healthy category.

#### 4.2. Analysis of State-Owned Bank Financial Ratios After the Covid-19 Pandemic

##### 4.2.1. Analysis of Loan to Deposit Ratio of State-Owned Bank Finance for the Period 2022 and 2023

**Table 15.**

Loan to deposit ratio (LDR) of BUMN banks for the 2022-2023 period.

*Expressed in millions of Rupiah, unless otherwise stated*

Year	Total Credit	Total third party funds	100%	LDR	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 1,202,230,169	Rp. 1,490,844,592	100%	80.6%	Healthy
2023	Rp. 1,398,071,233	Rp. 1,576,949,619	100%	88.7%	Healthy enough
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 1,139,077,065	Rp. 1,307,884,013	100%	87.1%	Healthy enough
2023	Rp. 1,266,429,247	Rp. 1,358,328,761	100%	93.2%	Healthy enough
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 646,188,313	Rp. 769,268,991	100%	84%	Healthy enough
2023	Rp. 695,084,769	Rp. 810,730,343	100%	86%	Healthy enough
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 298,281,704	Rp. 321,923,257	100%	92.7%	Healthy enough
2023	Rp. 333,698,141	Rp. 349,584,008	100%	95.5%	Healthy enough

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. Bank Mandiri (Persero), Tbk during the 2022 period obtained a healthy LDR percentage and the 2023 period was quite healthy.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk experienced a fairly healthy LDR percentage.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk has a fairly healthy LDR percentage for 2022 and 2023.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk has a fairly healthy LDR percentage in 2022 and 2023.

#### 4.2.2. Analysis of Financial Solvency Ratio of State-Owned Banks for the Period 2022-2023

**Table 16.**

Capital adequacy ratio (CAR) of state-owned banks for the period 2022-2023.

(Expressed in millions of Rupiah, unless otherwise stated)

Year	Core capital (a)	ATMR (b)	100% (c)	CAR a/b×c	OJK standards
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 223,271,290	Rp. 1,203,506,671	100%	18.6%	Very healthy
2023	Rp. 258,956,049	Rp. 1,245,624,433	100%	20.8%	Very healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 273,812,348	Rp. 1,116,250,681	100%	24.5%	Very healthy
2023	Rp. 283,949,415	Rp. 1,086,957,749	100%	26.1%	Very healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 133,435,934	Rp. 710,550,455	100%	18.8%	Very healthy
2023	Rp. 147,488,111	Rp. 684,777,419	100%	21.5%	Very healthy
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 22,533,407	Rp. 139,630,514	100%	16.1%	Very healthy
2023	Rp. 27,154,078	Rp. 155,590,147	100%	17.5%	Very healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. Bank Mandiri (Persero), Tbk has a CAR Ratio percentage in the very healthy category during the 2022-2023 period.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk has a nominal ATMR that continues to increase during the 2022-2023 period and the CAR ratio is in the very healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk has a nominal ATMR that continues to increase during the 2022-2023 period, while the bank's core capital also increased on average, except in 2022 which experienced a decline.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk has an ATMR nominal and core bank capital that has increased on average, except in 2022 which experienced a decline.

#### 4.2.3. Analysis of Financial Profitability Ratio of State-Owned Banks for the Period 2022-2023

##### 4.2.3.1. Return on Assets (ROA)

**Table 17.**

Return on assets (ROA) of BUMN banks for the 2022-2023 period.

(Expressed in millions of Rupiah, unless otherwise stated)

Year	Profit before tax	Total Assets	100%	ROA	OJK Standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 56,337,726	Rp. 1,992,544,687	100%	3%	Very Healthy
2023	Rp. 74,684,881	Rp. 2,174,219,449	100%	3.4%	Very Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 64,596,701	Rp. 1,865,639,010	100%	3.5%	Very Healthy
2023	Rp. 76,429,712	Rp. 1,965,007,030	100%	3.9%	Very Healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 22,686,708	Rp. 1,029,836,868	100%	2.2%	Very Healthy
2023	Rp. 25,639,738	Rp. 1,086,663,986	100%	2%	Very Healthy
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 3,875,690	Rp. 402,148,312	100%	1.0%	Healthy Enough
2023	Rp. 4,380,210	Rp. 438,749,736	100%	1.0%	Healthy Enough

1) PT. Bank Mandiri (Persero), Tbk

PT. Bank Mandiri (Persero), Tbk experienced an increase in ROA percentage in 2023. This increase was influenced by the increase in the nominal profit before tax received.

2) PT. Bank Rakyat Indonesia (Persero), Tbk

PT. Bank Rakyat Indonesia (Persero), Tbk experienced an increase in ROA percentage in 2023 compared to 2022 and remained in the very healthy category.

3) PT. Bank Negara Indonesia (Persero), Tbk

PT. Bank Negara Indonesia (Persero), Tbk experienced a ROA percentage in 2023 compared to 2022, where the ratio remained and was in the very healthy category.

4) PT. State Savings Bank (Persero), Tbk

PT. Bank Tabungan Negara (Persero), Tbk experienced a fairly healthy ROA ratio percentage in 2022 and 2023.

## 4.2.3.2. Return on Equity (ROE)

**Table 18.**

Return on equity (ROE) of BUMN banks for the 2022-2023 period.

*(Expressed in millions of Rupiah, unless otherwise stated)*

Year	Net profit	Core capital	100%	ROE	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 44,952,368	Rp. 223,271,290	100%	20.1%	Very healthy
2023	Rp. 60,051,870	Rp. 258,956,049	100%	23.2%	Very healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 51,408,207	Rp. 273,812,348	100%	18.8%	Healthy
2023	Rp. 60,425,048	Rp. 283,949,415	100%	21.3%	Very healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 18,481,780	Rp. 133,435,934	100%	14%	Healthy
2023	Rp. 21,106,228	Rp. 147,488,111	100%	14%	Healthy
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 3,045,073	Rp. 22,533,407	100%	13.5%	Healthy
2023	Rp. 3,500,988	Rp. 27,154,078	100%	12.9%	Healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. Bank Mandiri (Persero), Tbk experienced an increase in ROE percentage in 2023 compared to 2022 and is in the very healthy category.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk experienced an increase in ROE percentage in 2023 to a very healthy category compared to 2022 which was in the healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk ROE percentage in 2022 and 2023 is the same, in the healthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a decrease in the percentage of BTN ROE in 2023 compared to 2022.

## 4.2.3.3. BOPO

**Table 19.**  
BOPO BUMN bank period 2022-2023.  
(Expressed in millions of Rupiah, unless otherwise stated)

Year	Operational expenses	Operating income	100%	BOPO	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 106,029,852	Rp. 162,197,941	100%	65.4%	Very healthy
2023	Rp. 113,276,885	Rp. 187,918,448	100%	60.3%	Very healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 144,351,719	Rp. 208,657,756	100%	69.2%	Very healthy
2023	Rp. 165,196,777	Rp. 242,025,514	100%	68.3%	Very healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 56,581,158	Rp. 79,480,013	100%	71%	Very healthy
2023	Rp. 62,363,863	Rp. 88,137,199	100%	70.8%	Very healthy
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 24,367,417	Rp. 28,182,220	100%	86.5%	Very healthy
2023	Rp. 27,633,809	Rp. 32,173,538	100%	85.9%	Very healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. BankMandiri (Persero), Tbk has operating income that increases every year, the BOPO percentage fluctuates, Bank Mandiri's BOPO percentage increased during the 2022 period.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk has an operating income that increases every year, but the BOPO percentage fluctuates, BRI's BOPO percentage increased during the 2022 period.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk has an increasing BOPO percentage during the 2022 period in the very healthy category, and only experienced a decrease in percentage in the 2023 period with a very healthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a percentage decline in the 2023 period.

## 4.2.3.4. Net Interest Margin (NIM)

**Table 20.**

Net interest margin (NIM) of BUMN banks for the 2022-2023 period.

*(Expressed in millions of Rupiah, unless otherwise stated)*

Year	Net interest income	Productive assets	100%	NIM	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 87,903,354	Rp. 1,771,877,340	100%	5.0%	Very Healthy
2023	Rp. 95,886,574	Rp. 1,943,112,270	100%	4.9%	Very Healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 124,597,073	Rp. 1,644,479,937	100%	7.6%	Very Healthy
2023	Rp. 135,183,487	Rp. 1,768,673,704	100%	7.6%	Very Healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 41,320,692	Rp. 905,591,941	100%	4.6%	Very Healthy
2023	Rp. 41,275,673	Rp. 955,266,492	100%	4%	Very Healthy
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 14,997,284	Rp. 366,904,491	100%	4.1%	Very Healthy
2023	Rp. 13,430,290	Rp. 406,035,808	100%	3.3%	Very Healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. BankMandiri (Persero), Tbk experienced a decrease in NIM percentage in 2023 compared to 2022 and is in the very healthy category.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk has the same NIM percentage in 2022 and 2023 in the very healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk experienced a decline in NIM percentage in 2023 compared to 2022 but remained in the very healthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a decrease in the NIM percentage in 2023 compared to 2022 but is still in the very healthy category.

#### 4.2.4. Analysis of Non-Performing Loan Ratio of State-Owned Bank Finances for the Period 2022-2023

**Table 21.**

Non performing loans of state-owned banks for the period 2022-2023.

(Expressed in millions of Rupiah, unless otherwise stated).

Year	Non-performing loans	Total credit	100%	NPL	OJK standards
	(a)	(b)	(c)	a/b×c	
PT. Bank Mandiri (Persero), Tbk					
2022	Rp. 22,676,806	Rp. 1,202,230,169	100%	1.9%	Very healthy
2023	Rp. 16,133,591	Rp. 1,398,071,233	100%	1.2%	Very healthy
PT. Bank Rakyat Indonesia (Persero), Tbk					
2022	Rp. 30,447,892	Rp. 1,139,077,065	100%	2.7%	Healthy
2023	Rp. 37,322,699	Rp. 1,266,429,247	100%	2.9%	Healthy
PT. Bank Negara Indonesia (Persero), Tbk					
2022	Rp. 18,161,498	Rp. 646,188,313	100%	2.8%	Healthy
2023	Rp. 14,835,551	Rp. 695,084,769	100%	2.1%	Healthy
PT. State Savings Bank (Persero), Tbk					
2022	Rp. 10,070,300	Rp. 298,281,704	100%	3.4%	Healthy
2023	Rp. 10,048,900	Rp. 333,698,141	100%	3.0%	Healthy

- 1) PT. Bank Mandiri (Persero), Tbk  
PT. Bank Mandiri (Persero), Tbk experienced an improvement in the NPL ratio in 2023 compared to 2022 and is in the very healthy category.
- 2) PT. Bank Rakyat Indonesia (Persero), Tbk  
PT. Bank Rakyat Indonesia (Persero), Tbk experienced an increase in NPL in 2023 in the healthy category.
- 3) PT. Bank Negara Indonesia (Persero), Tbk  
PT. Bank Negara Indonesia (Persero), Tbk experienced a decrease in the NPL percentage in 2023 to be in the healthy category.
- 4) PT. State Savings Bank (Persero), Tbk  
PT. Bank Tabungan Negara (Persero), Tbk experienced a periodic decline during the 2022-2023 period and was in the healthy category.

#### 4.3. Discussion

##### 4.3.1. Comparison of State-Owned Bank Financial Performance during and after the Covid-19 pandemic for the 2020-2023 period based on the Liquidity Ratio

From the research results, it is known that PT. Bank Tabungan Negara (Persero), Tbk is the only state-owned bank that obtained a less than good LDR due to the total credit given being too large when compared to the total third party funds. So that in that year, BTN bank was not liquid, as a result, BTN bank did not have sufficient resources to finance its short-term debt in 2020 and 2021. However, BTN bank managed to become liquid in 2022 and 2023, which means that this bank has sufficient resources to finance its short-term debt.

Meanwhile, the other three state-owned banks, namely PT. Bank Mandiri (Persero), Tbk, PT. Bank Rakyat Indonesia (Persero), Tbk, and PT. Bank Negara Indonesia (Persero), Tbk experienced liquidity in the 2020-2023 period. This means that the financial performance of the banks mentioned had good performance during the 2020-2023 period. These three state-owned banks have sufficient resources to finance their short-term debts.

##### 4.3.2. Financial Performance of State-Owned Banks for the Period 2020-2023 Reviewed from the Solvency Ratio

The highest CAR was achieved by BRI in 2021 with a percentage of 26.2%, while the lowest CAR was achieved by BTN in 2020 with a percentage of 13.6%.

The CAR percentage depends on the comparison between the core capital owned by a bank and the ATMR owned. The higher the CAR percentage, the better, meaning that the bank has sufficient capital to support its assets that contain various risks.

#### 4.3.3. *Financial Performance of State-Owned Banks for the 2020-2023 Period Reviewed from Profitability Ratios*

In this study, profitability ratios were analyzed using ROA, ROE, BOPO, and NIM.

##### 4.3.3.1. *Return on Assets (ROA)*

In 2020, the three state-owned banks, namely Bank Mandiri, BNI, and BRI, experienced a decline in ROA percentage due to the economic conditions that fell as a result of Covid-19. The impact of Covid-19 caused the three banks to have to form a large loss reserve, as a result the burden borne became even greater and resulted in a drastic decline in profit before tax. Among the three banks, BNI experienced a drastic decline because the burden of the loss reserve formed was greater than that of Bank Mandiri and BRI.

##### 4.3.3.2. *Return on Equity (ROE)*

In 2020, the three state-owned banks, namely Bank Mandiri, BNI, and BRI, experienced a decline in ROE percentage due to the economic conditions that fell as a result of Covid-19. The impact of Covid-19 caused the three banks to have to form a large loss reserve, as a result the burden borne became even greater and resulted in a drastic decline in net profit. Among the three banks, BNI experienced a drastic decline because the burden of loss reserves formed was greater than that of Bank Mandiri and BRI.

##### 4.3.3.3. *BOPO*

In 2020, 2021, 2022, 2023 BTN achieved a BOPO ratio below the specified standard so that it can be said that this bank is less able to carry out its operational activities in those years. Meanwhile, the three state-owned banks, namely Bank Mandiri, BRI, and BNI, obtained the BOPO ratio standard according to the provisions so that they were able to carry out their operational activities well during the 2020-2023 period.

##### 4.3.4. *Net Interest Margin (NIM)*

This NIM percentage depends on the comparison between the net interest income obtained by banks with the productive assets they own. The higher the value of this ratio, the better, this means that banks can generate net interest income optimally and maximally.

#### 4.3.5. *Financial Performance of State-Owned Banks for the Period 2020-2023 Reviewed from the Non-Performing Loan (NPL) Ratio*

The increase and decrease of NPL depends on the comparison between non-performing loans and total loans given. The increase and decrease of non-performing loans are influenced by various factors, one of which is the bankruptcy of debtors or banks that are not good at managing credit.

## 5. Conclusion

Based on the results of research and discussion to determine the financial performance of state-owned banks using financial ratios during the pandemic and after the pandemic, it can be concluded that:

1. The financial performance of state-owned banks from the liquidity ratio during the pandemic and after the pandemic, namely the 2020-2023 period using the Loan to Deposit Ratio (LDR) can be said to have a Healthy financial performance. Although PT. Bank Tabungan Negara (Persero), Tbk has an unhealthy LDR ratio during the pandemic and after the pandemic, namely in 2020-2023, on average state-owned banks have good liquidity.
2. The financial performance of state-owned banks from the solvency ratio using the Capital

Adequacy Ratio (CAR) has good financial performance because it is in the very healthy category and above the standards determined during the pandemic and after the pandemic, namely the 2020-2023 period.

3. The financial performance of state-owned banks from the profitability ratio using Return On Assets (ROA) Return On Equity (ROE) BOPO Net Interest Margin (NIM) has a healthy financial performance during the pandemic and after the pandemic. Although PT. Bank Tabungan Negara (Persero), Tbk has a fairly healthy ROA, ROE, and BOPO ratio in 2020-2023, and PT. Bank Negara Indonesia (Persero), Tbk has a less healthy ROE ratio in 2020, on average state-owned banks have good profitability.
4. The financial performance of state-owned banks from the Non-Performing Loan (NPL) ratio has a very healthy financial performance during the pandemic and after the pandemic, namely the 2020-2023 period because it is below the specified standard.
5. In general, the financial performance of banks during the pandemic and after the pandemic was in a healthy condition because the capital owned by each bank was still large and was able to distribute credit well.

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### References

- [1] Andrianto, Fatihuddin, D., & Firmansyah, MA (2019). Bank Management. Pasuruan: CV. Qiara Media Publisher.
- [2] Anggraini, D. (2023). Financial Statement Analysis. Fundamentals of Management Accounting (p. 214). Padang: PT. Global Executive Technology.
- [3] Anwar, S. (2022). Banks and Financial Institutions. Cirebon: CV. Green Publisher Indonesia.
- [4] Arifin, J., & Syukri, M. (2006). Excel Applications in Applied Banking Business. Jakarta: PT Elex Media Komputindo.
- [5] Bank Mandiri. Brief History, Vision & Mission, Annual Financial Report. <https://Mandiri Bank.co.id>.
- [6] Bank Negara Indonesia. Brief History, Vision & Mission, Annual Financial Report. <https://www.bni.co.id>.
- [7] Bank Rakyat Indonesia. Brief History, Vision & Mission, Annual Financial Report. <https://bri.co.id>.
- [8] Bank Tabungan Negara. Brief History, Vision & Mission, Annual Financial Report. <https://www.btn.co.id>.
- [9] Indonesia Stock Exchange. Financial Report. [www.idx.co.id](http://www.idx.co.id).
- [10] Darmawan. (2020). Basics of Understanding Ratios and Financial Reports. Yogyakarta: UNY Press.
- [11] Darmawi, H. (2012). Banking Management. Jakarta: PT Bumi Aksara.
- [12] Diokno, CO.B. (2023). A Comparative Analysis of the Profitability of Selected Listed Firms in Media Subsector in the Philippines. *Open Journal of Accounting*, 1–13.
- [13] Hadisantoso, E., Dharmawati, T., Intihanah, Akib, M., & Pasha, A. (2023). Socialization of the Importance of Internal Banking Control in Islamic Banks. *Journal of Service and Dedication to the Indonesian Community (NadiKami)*, 6–14.
- [14] Hadisantoso, E., Wawo, AB, Syaiah, & Rasyid, SA (2022). Analysis of Accounting Information and Non-Accounting Information in Credit Decision Making (Case Study at PT. Bank Tabungan Negara (Persero) Tbk. Kendari Sharia Branch Office). *Journal of Accounting and Finance (JAK)*, 128–140.
- [15] Hery. (2016). *Financial Statement Analysis: Integrated and Comprehensive Edition*. Jakarta: PT Grasindo.
- [16] Hery. (2021). *Banking Management*. Jakarta: PT Grasindo.
- [17] Hidayat, WW (2018). *Basics of Financial Report Analysis*. Ponorogo: Uwais Inspirasi Indonesia.
- [18] Hrp, AP, & Saraswati, D. (2020). *Banks and Other Financial Institutions*. Surabaya: CV. Jakad Media Publishing.
- [19] Hutabarat, F. (2020). *Analysis of Company Financial Performance*. Serang: Desanta Muliavisitama.
- [20] Indonesian Institute of Accountants. (2007). *Financial Accounting Standards*. Jakarta: Salemba Empat.
- [21] Ismail. (2018). *Banking Management: From Theory to Application*. Jakarta: Prenada Media Group.
- [22] Kariyoto. (2017). *Financial Report Analysis*. Malang: UB Press.
- [23] Khan, IA, Akhter, S., Faiz, J., Khan, S., Amir, M., Shah, N.A., & Khan, M.S. (2023). Determinants of Credit Risk and Operational Risk in Banking Sector Evidence from Pakistani Banking Sector. *Journal of Financial Risk Management*, 15–27.
- [24] Kuswandi. (2006). *Understanding Financial Ratios for Laypeople*. Jakarta: PT Elex Media Indonesia.
- [25] Liu, W. (2020). How Useful Is It For Banks to Analyze Financial Statements. *American Journal of Industrial and Business Management*, 1488–1504.
- [26] Loen, B., & Ericson, S. (2008). *Asset Liability Management of Foreign Exchange Banks*. Jakarta: PT Grasindo.
- [27] Maulidia, N and Wulandari PP, 2021. Analysis of Bank Financial Performance during the COVID-19 Pandemic at State-Owned Banks Listed on the Indonesia Stock Exchange.