

## COMPARISON ANALYSIS OF THE HEALTH OF SOE BANKS AND PRIVATE BANKS USING THE RGEC METHOD 2016-2020 PERIOD

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### ABSTRACT

Bank health can be interpreted as the ability of a bank to carry out banking operations normally and be able to fulfill all of its obligations properly in ways that are in accordance with applicable banking regulations. The purpose of this study was to determine the difference in the level of soundness in state-owned banks and private banks based on the Risk Profile factor using the NPL (Non Performing Loan) ratio, and LDR (Loan to Deposit Ratio), Good Corporate Governance (GCG), Earning (Rentability) using Return On Assets (ROA) ratio, and Net Interest Margin (NIM) and Capital ratios using the Capital Adequacy Ratio (CAR) during the period 2016 to 2020. The results of the study using the Independent Sample T-test and the Mann-Whitney test show that there is a significant difference in the level of bank soundness at state-owned banks and private banks only in the ratio of Capital Adequacy Ratio (CAR). As for the ratios of NPL (Non Performing Loans), LDR (Loan to Deposit Ratio), Return On Assets (ROA), Net Interest Margin (NIM) and Good Corporate Governance (GCG) ratios, there is no significant difference.

**Keywords:** State-Owned Banks, Private Banks, Bank Soundness Level, *Risk Profile*, *Good Corporate Governance*, *Earning Capital*.

### 1. BACKGROUND

In developed and developing countries, people really need a bank as a place to carry out their financial transactions. They consider that banks are financial institutions that are safe in carrying out various kinds of financial activities. Financial activities that are often carried out by people in developed and developing countries are the activities of saving and distributing funds. Therefore, it is important to know the soundness level of the bank. Bank health is in the interest of all parties involved, both owners, management, the public using bank services and the government, in this case Bank Indonesia as the banking supervisory authority, because failure in the banking industry will have a negative impact on the Indonesian economy (Darmawi, 2011).

Bank health can be interpreted as the ability of a bank to carry out normal banking operations and be able to fulfill all its obligations properly in ways that are in accordance with applicable banking regulations (Kasmir, 2014). Maintaining bank health can maintain economic, social and political stability. From the financial reports it will be read how the actual condition of the bank, including the weaknesses and strengths it has. Based on the financial reports, it will be possible to calculate a number of ratios which are commonly used as the basis for assessing the soundness of a bank. In this study, to measure the Bank's Soundness Level, it is necessary to have an analytical method in order to be able to find out developments in a certain period. The RGEC method is a method that assesses the soundness of a bank with RGEC Factors: *Risk Profile*, *Good Corporate Governance*, *Earnings And Capital*.

### 2. THEORETICAL FRAMEWORK

#### 2.1 Definition of Banks

Banks are a means of storing funds in the form of savings, current accounts and time deposits as well as a means of borrowing money which is referred to as credit. According to Taswan (2010), a bank is a financial institution whose activities collect funds in the form of demand deposits, deposits, savings and other deposits from parties who have excess funds through the sale of financial services which in turn can improve the welfare of the people at large.

#### 2.2 Financial Statements

Financial statements describe the financial condition and results of operations of a company at a certain time or period of time. The types of financial reports that are commonly known are balance sheets, income statements, or business results, cash flow statements, reports on changes in financial position (Harahap, 2013).

### 2.3 Bank Health Level

The soundness level of a bank is the ability of a bank to carry out banking operations normally and be able to fulfill its obligations properly in ways that are in accordance with applicable banking regulations (Kasmir, 2012).

### 2.4 RGEC method

According to Bank Indonesia Regulation Number 13/1/PBI/2011 concerning Health Assessment of Commercial Banks, banks are required to conduct a risk-based assessment of Bank Soundness using the RGEC method ( *Risk Profile, Good Corporate Governance, Earnings, Capital* ) with guidelines referring to bank circulars. Indonesia No.13/24/DPNP dated 25 October 2011 namely:

#### 2.4.1 Risk Profile

Risk Profile is an assessment of inherent risk and the quality of risk management implementation in bank operations. In assessing the performance and soundness of the bank based on the risk profile, this study uses several ratios, namely:

- a. Credit Risk (*Credit Risk*) / NPL (*Non Performing Loan*).

Credit risk is defined as the risk of loss with respect to the borrower who is unable and/or unwilling to fulfill the obligation to repay the loaned funds in full at maturity or thereafter (Pandia, 2017). The following is the calculation of the NPL formula:

$$NPL = \frac{\text{Problem Loans}}{\text{Total Credit}} \times 100$$

**Table 1. Criteria for Determining NPL Ratings**

Rating	Information	Criteria
1	Very healthy	0% < NPLs < 2%
2	Healthy	2% ≤ NPLs < 5%
3	Healthy Enough	5% ≤ NPLs < 8%
4	Unwell	8% < NPLs ≤ 11%
5	No Healthy	NPLs > 11%

Source: Codification of Assessment of Bank Soundness Level 2012

- b. Liquidity risk (*Liquidity risk*) / LDR (*Loan to Deposit Ratio*).

Liquidity risk is proportional to the LDR (*Loan to Deposit Ratio*), where the higher the LDR, the more risky the bank's liquidity conditions are, but the lower the LDR, the less effective the bank is in lending (Taswan, 2006). The following is the calculation of the LDR formula:

$$LDR = \frac{\text{Total Credit}}{\text{Third Party funds}} \times 100\%$$

**Table 2. LDR Rating Criteria**

Rating	Information	Criteria
1	Very healthy	50% < LDR ≤ 75%
2	Healthy	75% < LDR ≤ 85%
3	Healthy Enough	85% < LDR ≤ 100%
4	Unwell	100% < LDR ≤ 120%
5	No Healthy	LDR > 120%

Source: Codification of Assessment of Bank Soundness Level 2012

2.4.2 (*Good Corporate Governance*).

Assessment of *Good Corporate Governance* is an assessment of the quality of bank management for the implementation of the principles of *Good Corporate Governance*. Assessment of *Good Corporate Governance* must be carried out by each bank ( *self-assessment* ) through a *Self Assessment report on the implementation of Good Corporate Governance*.

**Table 3. Criteria for Determining GCG Ratings**

Rating	Information	Criteria
1	Very healthy	Mark Composite < 1.5
2	Healthy	1.5 < Value Composite < 2.5
3	Healthy Enough	2.5 < Value Composite < 3.5
4	Not enough Healthy	3.5 < Value Composite < 4.5
5	No Healthy	4.5 ≤ Mark Composite < 5

Source: Codification of Assessment of Bank Soundness Level 2012

2.4.3 Profitability (*Earnings*)

Analysis of bank profitability ratios is used as a tool to analyze or measure the level of business efficiency and profitability that has been collected in the form of minimum statutory reserves in the form of current accounts of the bank concerned at Bank Indonesia (Dendawijaya, 2004). The ratios used in measuring Earnings are *Return on Assets* (ROA) and *Net Interest Margin* (NIM) as follows:

a. *Return On Assets* (ROA)

*Return On Assets* (ROA) is the ratio used to measure the ability of capital invested in all assets to generate net profits (Sujarweni, 2017). ROA is formulated as follows:

$$ROA = \frac{\text{Profit Before Tax}}{\text{Total Assets}} \times 100\%$$

**Table 4. Criteria for Determining ROA Ratings**

Rating	Information	Criteria
1	Very healthy	ROA > 1.5 %
2	Healthy	1.25% < ROA ≤ 1.5 %
3	Healthy Enough	0.5% < ROA ≤ 1.25%
4	Not enough Healthy	0% < ROA ≤ 0.5%
5	No Healthy	ROA ≤ 0%

Source: Codification of Assessment of Bank Soundness Level 2012

b. *Net Interest Margin* (NIM)

*Net Interest Margin* (NIM) is the ratio between net interest income to average earning assets. The following is the NIM calculation formula:

$$NIM = \frac{\text{Net interest income}}{\text{average total productive assets}} \times 100\%$$

**Table 5. Criteria for Determining NIM Ratings**

Rating	Information	Criteria
1	Very healthy	NIM > 3%
2	Healthy	2% < NIM ≤ 3 %
3	Healthy Enough	1.5% < NIM ≤ 2%
4	Not enough Healthy	1% < NIM ≤ 1.5%
5	No Healthy	NIM ≤ 1%

Source: Codification of Assessment of Bank Soundness Level 2012

#### 2.4.4 Capital

Bank capital is funds invested by the owner in the context of establishing a business entity intended to finance bank business activities in addition to complying with regulations set by the monetary authority (Taswan, 2010). The ratio used to measure capital is the *Capital Adequacy Ratio* (CAR). Here's the CAR formula:

$$CAR = \frac{\text{Capital}}{\text{Total Assets Weighted by Risk}} \times 100\%$$

**Table 6. Criteria for Determining CAR Ratings**

Rating	Information	Criteria
1	Very healthy	CAR ≥ 11%
2	Healthy	9.5% ≤ CAR < 11%
3	Healthy Enough	8% ≤ CAR < 9.5%
4	Not enough Healthy	6.5% ≤ CAR < 8%
5	No Healthy	CAR < 6.5%

Source: Codification of Assessment of Bank Soundness Level 2012

## 2.5 Framework of thinking

The thinking framework is a conceptual model of how theory relates to various factors that have been identified as important problems (Sugiyono, 2017). In this research, a research model can be made which can be described as follows:

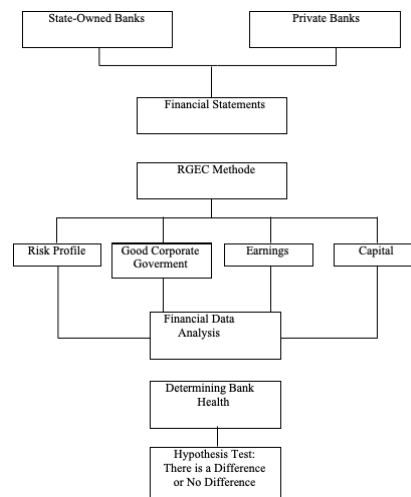


Figure 1. Thinking Framework

## 2.6 Hypothesis

H1: There are differences in the level of soundness of banks at BUMN Banks and Private Banks based on the Risk Profile factor in the 2016-2020 period.

H2: There are differences in the level of soundness of banks at state-owned banks and private banks based on GCG (Good Corporate Governance) factors in the 2016-2020 period.

H3: There are differences in the level of soundness of banks at BUMN Banks and Private Banks based on the Earnings factor in the 2016-2020 period.

H4: There are differences in the level of soundness of banks at state-owned banks and private banks based on capital factors (Capital) in the 2016-2020 period.

## 3. RESEARCH METHODS

### 3.1 Types of research

The type of research used in this study is quantitative data, descriptive, namely to analyze data in financial statements to determine the level of bank soundness between state-owned banks and private banks using the RGEC method (Risk Profile, Good Corporate Governance, Earnings, Capital). The type of data used in this research is secondary data. Secondary data in this study are in the form of financial reports on the IDX and Good Corporate Governance publications for the 2016-2020 period from state-owned banks and private banks in Indonesia.

### 3.2 Research Data and Variables

The data used in this research is secondary data. Secondary data is a source that does not directly provide data to data collectors. The secondary data sources used in this study come from financial reports on the IDX and Good Corporate Governance publications for the 2016-2020 period from state-owned banks and private banks in Indonesia.

Variables are anything in any form determined by the researcher to be studied so that information is obtained about it, then conclusions are drawn (Sugiyono, 2017). In this study there are 4 variables used, namely:

1. Risk Profile

In this study, which is used to measure the soundness of a bank based on the risk profile, this study uses several ratios, namely: Credit Risk and Liquidity Risk

2. Good Corporate Governance (Good Corporate Governance)

3. Profitability (Earnings)

In this study, which is used to measure the soundness of a bank based on profitability, this study uses several ratios, namely: *Return On Assets* (ROA) and *Net Interest Margin* (NIM)

4. Capital

In this study, which is used to measure the soundness of a bank based on capital, this study uses the Capital Adequacy Ratio (CAR).

### 3.3 Population and Sample

The population in this study consists of state-owned banks and private banks listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period, totaling 45 banks. The sample selection used the purposive sampling method, namely the purposive sampling method, which is a data sampling technique based on certain considerations (Sugiyono, 2017). The criteria used to determine the sample in this study are:

**Table 7. List of Research Samples**

No	Bank BUMN	Bank Private
1	PT Bank Country Indonesia (Persero) Tbk	PT Central Bank Asia Tbk
2	PT People's Bank Indonesia (Persero) Tbk	PT Bank CIMB Commerce Tbk
3	PT Bank Savings Country (Persero) Tbk	PT Bank pan Indonesia Tbk
4	PT Bank Independent (Persero) Tbk	PT OCBC Bank NISP

Data Sources Processed by Researchers, 2021

## 3.4 Data Analysis Technique

### 3.4.1 Descriptive Statistics

This descriptive test provides a summary of research data such as the average value (mean), the highest value (maximum), the lowest value (minimum) and the standard deviation (standard deviation).

### 3.4.2 Normality test

According to Sugiyono (2015) the implementation of the normality test can use the Kolmogorov-Smirnov test, with the applicable criteria, namely if the results are significance  $> 0.05$ . To test whether the data is normally distributed or not, the Kolmogorov-Smirnov test is carried out .

### 3.4.3 Hypothesis testing

This statistical test is used in testing the research hypothesis, namely, the independent sample t-test for normally distributed data and the Mann-Whitney test for data that is not normally distributed using the SPSS 22 for windows program.

### 3.4.4 Test Independent Sample T-Test

Independent Sample T-Test is a method used to compare two groups of means from two different (independent) samples.

### 3.4.5 Mann-Whitney test

The Mann Whitney test is part of non-parametric statistics which aims to assist researchers in differentiating the group performance results contained in the sample in the sample into two groups with two different criteria (Sujarweni, 2007).

## 4. RESULTS AND DISCUSSION

### 4.1 Assessment of Bank Soundness Level

Based on OJK regulation number 4/POJK.03/2016 and the existence of OJK circular letter number 14/SEOJK.03/2017 concerning the assessment of the soundness level of commercial banks. The following is a table of steps in calculating the Bank Soundness Ratio ratio:

#### 1. Risk Profile

##### a. Credit Risk

Following are the results of the calculation of Credit Risk (NPL) at BUMN Banks and Private Banks:

**Table 8. NPL Assessment of BUMN Banks and Private Banks for 2016-2020**

Method	Year	Bank BUMN	Rating	Ket	Bank Private	Rating	Ket
NPLs	2016	2.93%	2	Healthy	2.46%	2	Healthy
	2017	2.68%	2	Healthy	2.45%	2	Healthy
	2018	2.34%	2	Healthy	2.31%	2	Healthy
	2019	2.89%	2	Healthy	2.20%	2	Healthy
	2020	3.45%	2	Healthy	2.57%	2	Healthy
Average		<b>2.86%</b>	2	Healthy	<b>2.40%</b>	2	Healthy

Source: Data Processed by Researchers, 2021

Based on the table above, it is known that from 2016 to 2020 State-Owned Banks obtained an average NPL of 2.86% while Private Banks obtained an average NPL of 2.40%. This shows that private banks are better because compared to state-owned banks where the smaller the NPL ratio, the smaller the non-performing loans, which means that the condition of the bank is good.

##### b. Liquidity Risk \_

The following is the result of calculating *Liquidity Risk* (LDR) at state-owned banks and private banks:

**Table 9. LDR Assessment of BUMN Banks and Private Banks for 2016-2020**

Method	Year	Bank BUMN	Rating	Ket	Bank Private	Rating	Ket
LDR	2016	91.18%	3	Enough Healthy	90.68%	3	Enough Healthy
	2017	93.18%	3	Enough Healthy	92.09%	3	Enough Healthy
	2018	95.73%	3	Enough Healthy	98.80%	3	Enough Healthy
	2019	97.67%	3	Enough Healthy	98.10%	3	Enough Healthy
	2020	87.05%	3	Enough Healthy	80.35%	3	Enough Healthy
	<b>Average</b>		92.96%	3	Enough Healthy	92.00%	3

Data Sources Processed by Researchers, 2021

Based on the table above, it is known that from 2016 to 2020 BUMN Banks obtained an average LDR of 92.96% while Private Banks obtained an average LDR of 92.00%. This shows that state-owned banks are better than private banks where the higher the LDR ratio, the lower the bank's liquidity capacity, which means that the bank's condition is good. In general, both banks have a fairly healthy predicate, so that both banks are still in a liquid condition and can manage their funds well.

2. *(Good Corporate Governance)*

The following are the results of GCG calculations for state-owned banks and private banks:

**Table 10. GCG Assessment of BUMN Banks and Private Banks for 2016-2020**

Method	Year	Bank BUMN	Ket	Bank Private	Ket
GCG	2016	2	Healthy	2	Healthy
	2017	2	Healthy	2	Healthy
	2018	2	Healthy	2	Healthy
	2019	2	Healthy	2	Healthy
	2020	2	Healthy	2	Healthy
<b>Average</b>		2	Healthy	2	Healthy

Data Sources Processed by Researchers, 2021

Based on the table above, it is known that from 2016 to 2020 BUMN Banks obtained an average GCG rating of 2 while Private Banks obtained an average GCG rating of 2. This shows that state-owned banks and private banks have good GCG, in general the two banks have the same predicate, which is healthy. This shows that management can carry out GCG principles properly.

3. Profitability (*Earnings*)

a. *Return On Assets (ROA)*

The following are the results of ROA calculations for state-owned banks and private banks:

**Table 11. ROA Assessment of BUMN Banks and Private Banks for 2016-2020**

Method	Year	Bank BUMN	Rating	Ket	Bank Private	Rating	Ket
ROA	2016	2.28%	1	Very healthy	2.06%	1	Very healthy
	2017	2.40%	1	Very healthy	2.18%	1	Very healthy
	2018	2.42%	1	Very healthy	2.51%	1	Very healthy
	2019	2.06%	1	Very healthy	2.53%	1	Very healthy
	2020	1.15%	1	Very healthy	1.85%	1	Very healthy
	<b>Average</b>		2.06%	1	Very healthy	2.23%	1

Data Sources Processed by Researchers, 2021

Based on the table above, it is known that from 2016 to 2020 state-owned banks obtained an average ROA of 2.06% while private banks obtained an average ROA of 2.23%. State-owned banks have a smaller ROA when compared to private banks. This shows that private banks are better than state-owned banks where the higher the ROA ratio, the greater the level of profit achieved by the bank, so that the possibility of a bank in a troubled condition will be smaller.

b. *Net Interest Margin (NIM)*

The following are the results of NIM calculations at state-owned banks and private banks:



**Table 12 NIM Assessment of BUMN Banks and Private Banks for 2016-2020**

Method	Year	Bank BUMN	Rating	Ket	Bank Private	Rating	Ket
NIM	2016	6.37%	1	Very Healthy	5.52%	1	Very Healthy
	2017	5.96%	1	Very Healthy	5.24%	1	Very Healthy
	2018	5.65%	1	Very Healthy	5.05%	1	Very Healthy
	2019	5.17%	1	Very Healthy	5.08%	1	Very Healthy
	2020	4.51%	1	Very Healthy	4.75%	1	Very Healthy
<b>Average</b>		5.53%	1	Very Healthy	5.13%	1	Very Healthy

Data Sources Processed by Researchers, 2021

Based on the table above, it is known that from 2016 to 2020 State-Owned Banks obtained an average NIM of 5.53% while Private Banks obtained an average NIM of 5.13%. State-owned banks have a higher NIM when compared to private banks. This shows that state-owned banks are better than private banks where the higher the NIM ratio, the better the bank's management ability in terms of managing its productive assets. In general, both of them get the title of very healthy, this shows that the two banks have a good strategy in increasing profits and interest income.

#### 4. Capital Adequacy Ratio (CAR)

Following are the results of CAR calculations at state-owned banks and private banks:

**Table 13. NIM Assessment of BUMN Banks and Private Banks for 2016-2020**

Method	Year	Bank BUMN	Rating	Ket	Bank Private	Rating	Ket
CAR	2016	20.73%	1	Very Healthy	19.32%	1	Very healthy
	2017	19.83%	1	Very Healthy	20.17%	1	Very healthy
	2018	19.08%	1	Very Healthy	20.84%	1	Very healthy
	2019	19.28%	1	Very Healthy	21.77%	1	Very Healthy
	2020	19.15%	1	Very Healthy	24.81%	1	Very Health
<b>Average</b>		19.61%	1	Very Healthy	21.38%	1	Very Health

Data Sources Processed by Researchers, 2021

Based on the table above, it is known that from 2016 to 2020 state-owned banks obtained an average CAR of 19.61% while private banks obtained an average CAR of 21.38%. Private banks have a higher CAR when compared to state-owned banks. This shows that private banks are better than state-owned banks where the higher the CAR ratio, the better the bank's ability to capitalize. In general, both of them get the title of very healthy, this shows that the two banks have very good capital in fulfilling their long-term obligations and are able to handle various risks that will come.

## 4.2 Data analysis

### 4.2.1 Descriptive statistics

The following is a table of descriptive statistical results for the two banks:

**Table 14. Descriptive Statistics of State-Owned Banks and Private Banks for 2016-2020**

Jenis Bank	N	Descriptive Statistics			
		Minimum	Maximum	Mean	Std. Deviation
NPL (Bank BUMN)	20	1.90	4.20	2.8585	.69354
NPL (Bank Swasta)	20	1.31	3.84	2.3990	.84202
LDR (Bank BUMN)	20	79.25	113.51	92.9620	8.83500
LDR (Bank Swasta)	20	72.25	110.07	92.0035	10.05327
ROA (Bank BUMN)	20	.13	3.39	2.0605	.94454
ROA (Bank Swasta)	20	1.05	4.00	2.2260	.98005
NIM (Bank BUMN)	20	3.06	8.00	5.5290	1.35473
NIM (Bank Swasta)	20	3.80	6.80	5.1275	.80658
CAR (Bank BUMN)	20	16.78	23.00	19.6100	1.85583
CAR (Bank Swasta)	20	17.24	29.60	21.3825	3.17602
GCG (Bank BUMN)	20	1.00	2.00	1.7500	.44426
GCG (Bank Swasta)	20	1.00	2.00	1.5000	.51299
Valid N (listwise)	20				

Source: SPSS Output, Data Processed by Researchers in 2021



Based on the table above, that from 2016 to 2020 the lowest NPL value is located at Private Banks, namely at PT Bank Central Asia of 1.31%, while the highest NPL value lies at BUMN Banks at PT Bank Negara Indonesia, namely at 4.20 %. The average value of state-owned banks is 2.8585% and the average value of private banks is 2.399%. The standard deviation values of the two banks are smaller than the average value which indicates low variation, so it can be concluded that the two data have small deviations.

During 2016 to 2020 the lowest LDR value is in Private Banks, namely PT Bank OCBC NISP of 72.25%, while the highest LDR value lies in BUMN Banks which are in PT Bank Tabungan Negara (Persero) Tbk which is 113.51% . The average value of state-owned banks is 2.0605% and the average value of private banks is 2.226%. The standard deviation values of the two banks are smaller than the average value which indicates low variation, so it can be concluded that the two data have small deviations.

During 2016 to 2020 the lowest ROA value lies with state-owned banks, namely PT Bank Tabungan Negara (Persero) Tbk at 0.13%, while the highest ROA value lies with private banks at PT Bank Central Asia, namely 4%. The average value of state-owned banks is 92.962% and the average value of private banks is 92.0035%. The standard deviation values of the two banks are smaller than the average value which indicates low variation, so it can be concluded that the two data have small deviations.

During 2016 to 2020 the lowest NIM value lies with BUMN Banks, namely PT Bank Tabungan Negara (Persero) Tbk at 3.06%, while the highest NIM value lies with BUMN Banks which is also found at PT Bank Rakyat Indonesia, which is 8%. The average value of state-owned banks is 5.529% and the average value of private banks is 5.1275%. The standard deviation values of the two banks are smaller than the average value which indicates low variation, so it can be concluded that the two data have small deviations.

During 2016 to 2020 the lowest CAR value lies in state-owned banks, namely PT Bank Negara Indonesia at 16.78%, while the highest CAR value lies in private banks as well as PT Bank Pan Indonesia, namely 29.6%. The average value of state-owned banks is 19.61% and the average value of private banks is 21.3825%. The standard deviation values of the two banks are smaller than the average value which indicates low variation, so it can be concluded that the two data have small deviations.

During 2016 to 2020 the lowest GCG composite value lies in BUMN Banks and Private Banks, which is 1.00, while the highest GCG composite value lies in BUMN Banks and Private Banks which are also 2.00. The composite average value of BUMN Banks is 1.75 and the composite average value of Private Banks is 1.5. The standard deviation values of the two banks are smaller than the average value which indicates low variation, so it can be concluded that the two data have small deviations.

#### 4.2.2 Normality test

The following table shows the results of the normality test using Kolmogorov-Smirnov in this study:

**Table 15. Normality Test for State-Owned Banks and Private Banks for 2016-2020**

		One-Sample Kolmogorov-Smirnov Test					
		NPL	LDR	ROA	NIM	CAR	GCG
N		40	40	40	40	40	40
Normal Parameters <sup>a,b</sup>	Mean	2,62 88	92,4 828	2,14 33	5,32 83	20,49 63	1,62 50
	Std. Deviation	,796 16	9,35 424	,953 73	1,11 911	2,719 87	4902 9
Most Extreme Differences	Absolute	,094	,144	,113	,095	,132	,403
	Positive	,094	,144	,113	,095	,132	,274
	Negative	-,086	-,080	-,061	-,072	-,091	-,403
Test Statistic		,094	,144	,113	,095	,132	403
Asymp. Sig. (2-tailed)		,200 <sup>c</sup> d	,035 <sup>c</sup>	,200 <sup>c</sup> d	,200 <sup>c</sup> d	,079 <sup>c</sup>	000 <sup>c</sup>

Source: SPSS Output, Data Processed by Researchers in 2021

In the normality test for normally distributed variables, namely NPL, LDR, ROA, NIM and CAR, an Independent Sample T-Test will be carried out as a hypothesis test, while for LDR and GCG data that is not normally distributed, a Mann-Whitney Test will be carried out as a hypothesis test. .

### 4.3 Hypothesis testing

#### 4.3.1 Independent Sample T-test

The following table calculates the results of the T test:

a. *Non Performing Loans (NPL)*

**Table 16. Independent Sample T-test NPL of BUMN Banks and Private Banks in 2016-2020**

NPL	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	3.466	.070	1.884	38	.067	.45950	.24393	-.03430	.95330
Equal variances not assumed			1.884	36.654	.068	.45950	.24393	-.03490	.95390

Source: SPSS Output, Data Processed by Researchers in 2021

The table above shows the results of hypothesis testing using the Independent Samples T-Test, the value of Equal variances assumed (it is assumed that the two variants are the same) at a calculated t value of 1,884 with a Sig. (2-tailed) of 0.067, because  $0.067 > 0.05$  in this case that H1 is rejected, which means that the soundness level of the bank based on the Risk Profile factor ratio in the 2016-2020 NPL ratio between BUMN Banks and Private Banks does not exist significant difference.

b. *Return On Assets (ROA)*

**Table 17. Independent Sample T-test ROA State-Owned Banks and Private Banks 2016-2020**

ROA	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.004	.947	-.544	38	.590	-.16550	.30436	-.78164	.45064
Equal Variances not assumed			-.544	37.948	.590	-.16550	.30436	-.78166	.45066

Source: SPSS Output, Data Processed by Researchers in 2021

The table above shows the results of hypothesis testing using the Independent Samples T-Test column value Equal variances assumed (assumed the two variants are the same) at a calculated t value of -0.544 with a Sig. (2-tailed) of 0.59, because  $0.59 > 0.05$  in this case that H3 is rejected, which means that the soundness of the bank based on Earnings in the 2016-2020 ROA ratio between BUMN Banks and Private Banks does not exist significant difference.

c. *Net Interest Margin (NIM)*

**Table 18. Independent Sample T-test NIM State-Owned Banks and Private Banks 2016-2020**

NIM	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2.968	.093	1.139	38	.262	.40150	.35255	-.31221	.262
Equal variances not assumed			1.139	30.967	.264	.40150	.35255	-.31757	.264

Source: SPSS Output, Data Processed by Researchers in 2021

The table above shows the results of hypothesis testing using the Independent Samples T-Test, the value of Equal variances assumed (it is assumed that the two variants are the same) at a calculated t value of 1,139 with a Sig. (2-tailed) of 0.262, because  $0.262 > 0.05$  in this case that H3 is rejected, which means that the bank's soundness level based on Earnings on the NIM ratio for 2016-2020 between BUMN Banks and Private Banks has no significant difference.

d. *Capital Adequacy Ratio (CAR)*

**Table 19. Independent Sample T-test NIM State-Owned Banks and Private Banks 2016-2020**

CAR	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	4.391	.043	-2.155	38	.038	-1.77250	.82253	-3.43763	-.10737
Equal variances not assumed			-2.155	30.620	.039	-1.77250	.82253	-3.45091	-.09409

Source: SPSS Output, Data Processed by Researchers in 2021

The table above shows the results of hypothesis testing using the Independent Samples T-Test, the value of Equal variances not assumed (it is assumed that the two variants are not the same) at a calculated t value of -2.155 with a Sig. (2-tailed) of 0.039, because  $0.039 < 0.05$  in this case that H4 is accepted, which means that the bank's soundness level based on Capital (Capital) in the 2016-2020 CAR ratio between BUMN Banks and Private Banks there is a significant difference .

**4.3.2 Mann-Whitney test**

The following is a table of calculation results from the Mann-Whitney Test:

a. *Loan to Deposit Ratio (LDR)*

**Table 20. Mann-Whitney LDR Test of BUMN Banks and Government Banks in 2016-2020**

8i; '90	
	LDR
Mann-Whitney U	186,000
Wilcoxon W	396,000
Z	-.379
Asymp. Sig. (2-tailed)	.705
Exact Sig. [2*(1-tailed Sig.)]	.718 <sup>b</sup>

Source: SPSS Output, Data Processed by Researchers in 2021

The table above shows the results of the hypothesis test using the Mann-Whitney U test showing the calculated Z value at the LDR obtained at -0.379 with a significance value of Sig. (2-tailed) of 0.705, because  $0.705 > 0.05$  in this case that H1 is rejected, which means that the soundness level of the bank based on the Risk Profile factor in the LDR ratio for 2016-2020 between BUMN Banks and Private Banks is no difference significant.

b. Testing the Good Corporate Governance Hypothesis

**Table 21. Mann-Whitney GCG Test of BUMN Banks and Government Banks in 2016-2020**

Test Statistics <sup>a</sup>	
	GCG
Mann-Whitney U	150.000
Wilcoxon W	360.000
Z	-1.612
Asymp. Sig. (2-tailed)	.107
Exact Sig. [2*(1-tailed Sig.)]	.183 <sup>b</sup>

Source: SPSS Output, Data Processed by Researchers in 2021

From the table above, the results of the hypothesis test using the Mann-Whitney U test show that the calculated Z value for GCG is -1.612 with a significance value of Sig. (2-tailed) of 0.107, because  $0.107 > 0.05$  in this case that H<sub>2</sub> is rejected, which means that the soundness level of the bank based on the GCG (Good Corporate Governance) factor in GCG 2016-2020 between state-owned banks and private banks is no significant difference. significant.

#### 4.4 Research Result

##### a. Comparative Analysis of Bank Soundness Level Based on Risk Profile *Factors* .

Based on the first hypothesis test on the Risk Profile factor or Risk Profile using 2 ratios, namely the NPL ratio and the LDR ratio. NPL using the Independent Sample T-Test, it was found that there was no significant difference in the level of bank soundness between state-owned banks and private banks based on risk profile factors. This means that the two banks have good management skills in managing non-performing loans, even though if seen based on the average NPL ratio from 2016 to 2020 Private Banks obtained an NPL of 2.399% better than State-Owned Banks which obtained an NPL value of 2.8585 %, but the two banks received a rating of 2 which means Healthy. Therefore, banks must be able to maintain the quality of financing by suppressing the ratio of non-performing loans well and always at a low ratio for bank progress. Meanwhile, testing the LDR hypothesis hypothesis after being tested with the Mann-Whitney Test also shows no difference in the soundness of banks between State-owned banks and private banks are based on the risk profile factor which is calculated using the LDR ratio, thus the two banks are able to manage their respective liquidity risks in accordance with Bank Indonesia provisions so that funds in the form of credit are balanced with funds received from third parties. If the total credit disbursed is greater than the amount of funds raised, the bank's liquidity capacity will also be lower. This is because the amount of funds needed to finance credit is large, but if the amount of credit provided is less than the funds raised, there will be an accumulation of unproductive funds at the bank.

##### b. Comparative Analysis of Bank Soundness Level Based on Good Corporate Governance Factors.

Based on testing the GCG ratio hypothesis after being tested with the Mann-Whitney test, there is no difference in the level of bank soundness between state-owned banks and private banks based on the factor of *Good Corporate Governance* which is calculated using GCG, thus the two banks are under good governance. the company is good and good in accordance with the provisions of Bank Indonesia. Based on the ratings of the two banks, they are ranked 2, namely Healthy, which means that the two banks have demonstrated management capabilities in properly implementing GCG principles. State-Owned Banks and Private Banks have the ability to foster a good corporate culture and work ethic by applying the principle of prudence in supervising bank management and have implemented GCG principles in a disciplined manner.

##### c. Comparative Analysis of Bank Soundness Based on Profitability Factors (Earnings).

Based on testing the hypothesis on the profitability factor using 2 ratios, namely the Return On Assets ratio and the Net Interest Margin ratio using the Independent Sample T-Test, it was found that there was no significant difference in the level of bank soundness between state-owned banks and private banks based on the profitability factor ( Earnings). . Even though if we look at the average ROA ratio from 2016 to 2020, private banks get an ROA of 2.226%, which is better than state-owned banks, which get an ROA of 2.0605%, but the two banks are ranked 1, which means very healthy. Thus the two banks are able to gain profit or profit and income. If seen from the average NIM of BUMN Banks of 5.5290% and Private Banks of 5.1275% and the two banks receive the same rating, namely 1, which means that the NIM of both banks has the title of Very Healthy. This is because state-owned banks and private banks meet bank health standards set by Bank Indonesia.

d. Comparative Analysis of Bank Soundness Based on Capital Factors (Capital).

Based on testing the hypothesis on the Capital factor using the Capital Adequacy Ratio using the Independent Sample T-Test, it was found that there is a significant difference in the level of soundness of banks between state-owned banks and private banks based on the capital factor, which means that there are differences in the ability of banks to bear the risks exist by maintaining capital adequacy in accordance with Bank Indonesia regulations. This is evidenced by the difference in the average CAR from 2016 to 2020, where the CAR ratio value is high for private banks of 21.38% while state-owned banks are 19.61%, which means private banks have a better CAR ratio, because Private Banks are able to bear the existing risks by maintaining capital adequacy in accordance with Bank Indonesia regulations.

## 5. CONCLUSIONS AND IMPLICATIONS

### 5.1 Conclusion

1. There is no significant difference in the level of bank soundness between state-owned banks and private banks based on the Risk Profile which is calculated using the NPL ratio and the LDR ratio for 2016-2020.
2. There is no significant difference in the soundness level of banks between state-owned banks and private banks based on Good Corporate Governance (GCG) in 2016-2020.
3. There is no significant difference in the level of bank soundness between state-owned banks and private banks based on Earnings which is calculated using the ROA ratio and NIM ratio for 2016-2020.
4. There is a significant difference in the level of bank soundness between state-owned banks and private banks based on capital which is calculated using the ROA ratio and the NIM ratio for 2016-2020.

### 5.2 Suggestion

The results of this thesis research are used as information for the management of BUMN Banks and Private Banks regarding the assessment of the bank's soundness level, so that it is hoped that it can be used by the bank to maximize the bank's soundness level and become an evaluation to determine its business strategy in the future. The results of the thesis research can be used as material for consideration for customers in choosing a bank. In order to choose a healthy bank, it is expected that customers can anticipate risks that may be faced by the bank, so that customers can entrust their funds safely.

## BIBLIOGRAPHY

- [1] Bank Indonesia. 2011. BI Regulation Number 13/1/PBI/2011 Concerning the Soundness Rating of Commercial Banks. Jakarta.
- [2] Beby, Arnetta. 2019. Analysis Comparison of Soundness Levels of Islamic Banks and Conventional Banks Using the RGEC Method ( Risk Profile, Good Corporate Governance, Earnings And Capital). Jakarta. Accounting And Business Research Trilogy.
- [3] Budisantoso Totok, Triandaru Sigit. 2006. Banks and Other Financial Institutions. Jakarta : Salemba Empat
- [4] Budisantoso, T and Triandaru, S. 2006, Banks and Other Financial Institutions , Salemba Empat: Jakarta.
- [5] Darmawi, Herman. 2011. Management Banking. Jakarta: Earth Script
- [6] Dendawijaya, Lukman. 2003. Banking Management. Jakarta : Indonesian Ghalia.
- [7] Dendawijaya, Lukman. 2004. Banking Management. Jakarta: Ghalia Indonesia.
- [8] IAI Financial Accounting Standards Board. 2014. Financial Accounting Standards (SAK) No. 14: Stock up. Jakarta: Indonesian Institute of Accountants.
- [9] Fitriana, Nur, Ahmad Rosyid and Agus Fakhрина. 2015. Soundness Level of Islamic State-Owned Banks with Conventional State-Owned Banks: Regec Method ( *Risk Profile, Good Corporate Governance, Earnings and Capital* ). Journal of Economics and Business. Vol 17. Number 02. September 2015.
- [10] Fitriyyah, Nihayatul, Zuhrotun Nisak and Erna Hayati. 2020. Comparative Analysis of Soundness Levels of Foreign Exchange and Non-Foreign Commercial Banks on the IDX RGEC Method 2016-2018. Lamongan Islamic University .
- [11] Ghazali, 2014. Application of Multivariate analysis with the SPSS Program. Semarang: UNDIP Publishing Agency.
- [12] Gitman, Lawrence J and Chad J. Zutter. 2012. *Principles of Managerial Finance*. 13th Edition. Global Edition: Pearson Education Limited.
- [13] Please, Sofyan Syafri. 2013. Critical Analysis of Financial Statements. Jakarta: PT Raja Grafindo Persada.
- [14] Hasibuan, Malayu SP 2008. Fundamentals of Banking. Earth Script: Jakarta.
- [15] Indonesian Institute of Accountants 2002, Financial Accounting Standards, Jakarta: Salemba Empat.



- [16] Indonesian Accountants Association. 2012. Statement of Financial Accounting Standards PSAK Jakarta: Salemba four.
- [17] Indonesian Bankers Association. 2016. Bank Risk Management Strategy. First Edition Second Printing. Jakarta: Kencana.
- [18] Kasmir, 2014. Analysis of Financial Statements, 7th printing. Jakarta: PT RajaGrafindo Persada
- [19] Cashmere. 2012. Banks and Institutions FINANCIAL OTHERS . \_ Jakarta: PT. King of Grafindo Persada.
- [20] Lasta, Heidy Arrvida., et al. 2014. Analysis of Bank Soundness Using the RGEC Approach ( *Risk Profile, Good Corporate Governance, Earnings, Capital* ) Study at PT Bank Rakyat Indonesia, Tbk Period 2011-2013. Journal of Administration and Business. Vol 13 No 2 August 2014.
- [21] Mauliyana, Vivi and Nengah Sudjana. 2016. Comparative Analysis of Bank Soundness Based on the Risk Profile, Earnings and Capital Approaches
- [22] Against Government Owned Banks and Foreign Exchange National Private Banks (Study on State Owned Commercial Banks and National Foreign Exchange Private Commercial Banks Registered on the Bei for the 2012-2014 Period Based on Total Earning Ratings). Brawijaya University Malang. Octaviani, Santi and Nadya Saraswati. 2018. Analysis of Assessment of Bank Soundness Level Using the Risk Profile Method, Good Corporate Governance, Earnings, Capital. Serang Raya University
- [23] Pandya, Frianto. 2017. *Fund Management and Bank Health* . Jakarta: Rineka Cipta.
- [24] Putriana, Marissa, and Susi Artati. 2019. Comparative Analysis of Bank Soundness Using the RGEC Approach (Studies at PT. Bank Mandiri (Persero), Tbk and PT. Bank Negara Indonesia (Persero), Tbk Period 2014-2018). Journal of Management and Science. 342-347
- [25] Santoso, S. 2010. Mastering SPSS 18. Jakarta: PT Elex Media Komputindo.
- [26] Saputra, Bambang. 2014. Financial Factors Affecting Sharia Banking Market Share in Indonesia. Journal of Accounting Science. Vol. VII No. 2, August 2014.
- [27] Sudirman, I Wayan. 2013. Banking Management. Jakarta: Kencana
- [28] Sugiyono. 2017. Quantitative, Qualitative and R&D Research Methods. Bandung : Alfabeta, CV.
- [29] Suhadak, Adinda Putri Ramadhany and Zahroh ZA2015. Comparative Analysis of Bank Soundness Based on Risk Profile, Good Corporate Governance, Earnings and Capital (Rgec) in State-Owned and Private Conventional Banks (Study of State-Owned Commercial Banks and National Foreign Exchange Private Banks Listed on the Indonesia Stock Exchange Period 2011-2013). Brawijaya University Malang.
- [30] Sujarweni, V and Poly Endrayanto. 2007. Statistics for Research. Yogyakarta: Science Graha
- [31] Sujarweni, V. Wiratna. 2017. Analysis of Financial Statements: Theory, Application, & Research Results. Yogyakarta: New Press Library.
- [32] Sulistianingsih, Henny and Maivalinda. 2018. Comparative Analysis of Soundness Levels of Conventional Banks and Islamic Banks Using the RGEC Approach. Dharma Andalas University.
- [33] Sunyoto, Suyanto 2011. Regression analysis for hypothesis testing, Yogyakarta : Cap s.
- [34] Taswan. 2006. *Banking Management Concepts, Techniques, and Applications* , Yogyakarta. UPP STIM YKPN.
- [35] Taswan . 2010. *Banking Management Concepts, Techniques, and Applications*, 2nd edition, Yogyakarta. UPP STIM YKPN.
- [36] Widayaningsih, Fadjar Harimurti and Dewi Saptantinah Puji Astuti .2017. Comparative Analysis of Bank Soundness Based on the Risk Profile, Earnings and Capital Approaches. Slamet Riyadi University, Surakarta.
- [37] Wulandari, Ika. 2018. Comparison of Assessment of Bank Soundness Using the RGEC Method at Five Banks Entering Book Category 4 in Indonesia for the 2016 Period. Mercubuana University Yogyakarta.
- [38] <https://www.idx.co.id>.
- [39] [www.bi.go.id](http://www.bi.go.id).
- [40] [www.bni.co.id](http://www.bni.co.id) .
- [41] <https://bri.co.id> .
- [42] <https://bankmandiri.co.id> .
- [43] [www.btn.co.id](http://www.btn.co.id).
- [44] [www.bca.co.id](http://www.bca.co.id)
- [45] [www.cimbniaga.co.id](http://www.cimbniaga.co.id)
- [46] [www.panin.co.id](http://www.panin.co.id).
- [47] [www.ocbcnisp.com](http://www.ocbcnisp.com).