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Research

The Impact of Covid-19 on the Financial Performance of Conventional Banking in Indonesia

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Abstract. *In early 2020, Covid-19 was declared a pandemic by the World Health Organisation (WHO). Covid-19 has had an impact on various sectors including the banking sector, as has happened to conventional banks in Indonesia, there has been an increase in non-performing loans, a decrease in profitability, but also an increase in third-partyfunds and adequate liquidity. The purpose of this study is to determine whether there are differences in the financial performance of conventional banks using variables (DPK), Credit Risk (NPL), Liquidity (LDR) and Profitability (ROA). This research is a comparative quantitative study and uses secondary data, the population in this study were 46 conventional banks listed on the IDX in 2018 - 2021, sample selection using purposive sampling method. Data testing uses a normality test with the Shapiro Wilk method. The data analysis method uses descriptive statistical analysis and for hypothesis testing using the Wilcoxon Signed Rank Test. In this research, the results show that there is a significant difference between DPK, LDR and ROA before and during the Covid-19 pandemic, but there is no difference in NPL before and during the Covid-19 pandemic.*

Keywords: *Banking Financial Performance, Credit Risk, Liquidity, Profitability, Third-partyFunds.*

INTRODUCTION

Background

The financial system plays a very important role in the economy. A well-run financial system is strong evidence of a country's economic growth. As part of the economic system, the financial system functions to allocate funds from those in surplus to those in deficit. Efficiency in the intermediary role of financial institutions will ensure the smooth allocation of savings and the rate of return on savings and investment (Saif-Alyousfi & Saha, 2021).

Since the beginning of 2020, the COVID-19 pandemic that has shaken the world has put severe pressure on the economy, and the financial industry in Indonesia has also been affected. The impact of this pandemic has caused the supply and demand sides to be disrupted simultaneously, as a result of limited mobility, so that the production process is disrupted and people's income decreases. Nonetheless, the impact is far different compared to the impact of the 1998 monetary crisis which was devastating, therefore

Indonesia is now experienced in better infrastructure (Adi Cakranegara, 2020).

According to OJK, the impact of the Covid-19 pandemic on the banking industry shows that the profitability of Conventional Commercial Banks (BUK) is still maintained even though the bank's ROA (return on assets) fell to 1.59% from 2.47% in the same period the previous year. NIM (net interest margin) fell to 4.45% from 4.91% in line with net interest income which contracted by -2.21% from 2.69%. Thus, the financial performance of Indonesian banks remains interesting for further study.

The extraordinary, pre-emptive, and forward looking regulations/policies of the Financial Services Authority (OJK), along with accommodative monetary policy and expansionary fiscal policy during the pandemic, have proven to be able to maintain financial market confidence and stability. OJK assesses that financial system stability until the end of 2020 is still maintained, supported by strong FSI capital with very adequate liquidity buffers. OJK also deepened and analysed several current issues related to financial stability, including analysing the increasing trend of retail investors and its relationship with stability in the national stock market and the relationship between increasing healthy community mobility amid the pandemic, economic recovery, and bank credit growth. The financial sector has been very active in helping the real sector and the public to make adjustments and adapt new habits amid the pandemic by providing convenience and various relaxations.

Thus, the financial performance of Indonesian banks remains interesting for further study. Financial performance of financial institutions (banks) has long been the focus of attention of researchers again. Financial performance reflects the health and sustainability of a bank's business so that stakeholders pay close attention to it (Egbunike & Okerekeoti, 2018). Financial performance is a basic measurement of the financial position which can be done through the analysis of the bank's financial scale (ratio). Financial ratios act as a tool to measure the financial position and performance of banks, which presents important information related to bank health, financial position and profitability (Van Home in Ediningsih and Satmoko, 2022). The main source of variables used as the basis for measurement is the financial statements of the relevant banks. In this research, the variables used to measure the financial performance of banks include Third-partyFunds (DPK), Credit Risk (NPL), Liquidity (LDR) and Profitability (ROA).

The results of previous research for the third-partyfunds (DPK) variable are still very little researched. It was found that there were differences in performance during the period before and during the Covid-19 pandemic in BUKU 3 Islamic banks, but in BUKU I and BUKU 2 Islamic banks there was no difference (Amitarwati, et al, 2021).

Previous research also shows inconsistencies for the credit risk variable (NPL). The covid-19 pandemic resulted in an increase in NPLs, the NPL ratio of commercial banks in Indonesia in March 2020 was 2.77%, but during the covid-19 pandemic in July 2020 it rose to a level of 3.22% (Yanti & Prasetyo, 2021). This research is in line with the results of research by Seto and Septianti (2021), Evida (2022), Melinda and Nurasik (2021), that there is no significant difference in NPLs before and during the Covid-19 pandemic. Likewise, according to Ilhami and Thamrin (2021) and Amitarwati (2021) who examined Islamic banks concluded that there was no difference in NPF before and during the Covid-19 pandemic. However, this research is different from the research results of Sullivan and Widoatmodjo (2021), Ristanto (2021) which state that there are significant differences in NPLs before and during the Covid-19 pandemic.

The COVID-19 pandemic has weakened lending trends, resulting in a looser LDR for banks. According to OJK, the LDR of commercial banks as of September 2020 was 83.46%, much smaller than in 2019 which was 94.43%. A number of bankers stated that the trend of lending began to move in the fourth quarter of 2020, gradually pushing LDR towards a more normal direction. In line with the results of research by Faizah and Amrina (2021), Amrina et al (2021), Melania (2021), Ambardi and Nuraini (2021) which suggest that there are significant differences in LDR before and during the Covid-19 pandemic, it was found that LDR on average showed a significant downward trend. This research is different from the research results of Sullivan and Widoatmodjo (2021), Ristanto (2021) which state that there is no difference in LDR before and during the covid-19 pandemic.

The Covid-19 pandemic that disrupted economic activities made many customers face financial distress, resulting in significant differences in banks in earning profits through returns on their assets. According to the grouping of commercial banks according to business activities (BUKU), the development of BUKU 1 and BUKU 4 net profits experienced the largest decline of -56.5% and -37.14% (republika.co.id, 2 February 2021). As BNI bank profits fell by 63.9%, the largest net profit owner BCA also fell by 4.2% (Melania, 2021). Similar research results include the results of Fitria and Wokas (2021), Amrina, et al (2021) and Melinda and Nurasik (2021). However, in contrast to the results of Ristanto's research (2021) which concluded that there was no difference in ROA before and during the Covid-19 pandemic.

The main contribution of this research is to investigate the financial performance of banks for the evaluation of value creation performance and estimate the impact of the global financial crisis on the financial system of conventional banks in Indonesia, when considering the uncertainty of NPL, LDR and bank profitability.

Formulation of the Problem

According to the background that has been explained, the problem formulation of this research is as follows:

1. Is there a difference in commercial bank third-party funds before and during the Covid-19 pandemic?
2. Is there a difference in the credit risk of commercial banks before and during the covid-19 pandemic?
3. Is there a difference in liquidity of commercial banks before and during the Covid-19 pandemic?
4. Is there a difference in profitability of commercial banks before and during the Covid-19 pandemic?

LITERATURE REVIEW

Conventional / Commercial Bank

According to Law Number 10 of 1998 Article 1(3) on Banking "Commercial Banks are banks that conduct business activities conventionally and or according to Sharia Principles which in their activities provide services in payment traffic". Financial institutions that offer various products and services to the public with functions such as collecting funds directly from the public in various forms, providing credit loans to people in need, buying and selling foreign exchange or forex, selling insurance services, giro services, cheque services, receiving safekeeping of valuables and so on (Anggraini and Muniarty, 2020). Conventional banks are state-owned, private, or cooperative banks where the main business is lending short-term loans and collecting deposits in the form of demand deposits, deposits and savings (Soko & Harjanti, 2022).

Bank Financial Performance

Financial performance is as a basis for measuring the financial position which can be done through the analysis of the bank's financial scale (ratio). Ratio is a tool to explain the relationship between two kinds of financial data that are useful in determining changes / conversions of profits with economic events Soko & Harjanti, 2022).

The main source of variables used as the basis for measurement is the financial statements of the relevant banks. Through financial reports, it can be seen how the bank's real financial condition is also as a whole, both its shortcomings and advantages (Seto & Septianti, 2021).

The measurement of bank health has been determined by BI where banks are required to prepare reports regularly and regularly regarding all their activities in a certain period (Soko & Harjanti, 2022).

Third-partyFunds

According to Bank Indonesia Regulation No. 10/19/PBI/2008 Third-partyFunds are the obligations of banks to the population in rupiah and foreign currencies. Generally, funds raised by banks from the public will be used to fund real sector activities through lending.

According to the Financial Services Authority Regulation No. 50/POJK.03/2017, Third-partyFunds, also known as DPK, are sources of financing or funding received from third parties or the general public who impose obligations on banks in the form of deposits. Third-partyfunds are deposits, debt securities, securities issued, loans obtained, and others that are equivalent. In other words, DPK is a term for all public funds deposited in banks as savings, deposits, and current accounts.

In this study, DPK is calculated using the formula, namely (Seto & Septianti, 2021):

$$DPK = \frac{Dana\ Pihak\ Ketiga}{Total\ Kewajiban} \times 100\%$$

Credit Risk

According to Moridu (2020) Non-performing loans are in lending / lending there is a risk of congestion. Where credit cannot be collected which results in losses.

The amount of credit risk is measured through NPL, because it can be used to calculate and assess the percentage of non-performing loans on the total credit provided by the bank. NPL can be calculated using the formula (Soko & Harjanti, 2022).

$$NPL = \frac{Kredit\ Bermasalah}{Total\ Kredit\ yang\ diberikan} \times 100\%$$

NPL assessment criteria are as follows (Seto and Septianti, 2021):
- If the NPL value is < 2% then it is classified as very healthy
- If the NPL value is 2% - 5% then it is classified as healthy
- If the NPL value is > 5% - 8% then it is classified as quite healthy
- If the NPL value is >8% - 12% then it is classified as less healthy
- If the NPL value is> 12% then it is classified as unhealthy

Liquidity

Liquidity is the ability of a company to meet its short-term obligations. On the one hand, high liquidity (low liquidity risk) indicates that banks are more resilient to liquidity crises. On the other hand, high liquidity may have the downside of holding too many liquid assets rather than income-generating assets (Harb et al, 2021).

The author uses LDR to measure liquidity because LDR can assess the composition of the quantity of credit submitted over the entire third-partyfunds. The calculation is as follows (Soko & Harjanti, 2022):

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

LDR assessment criteria are as follows (Ross, 2020):
- If LDR < 78% then it is classified as very healthy
- If LDR 78% - 85% then classified as healthy
- If LDR 85% - 100% then classified as quite healthy
- If LDR 100% - 120% then classified as less healthy
- If LDR >120% then it is classified as unhealthy

Profitability

Profitability is the reliability of the organisation in making profits through its assets. The profitability ratio is a ratio to measure the reliability of the organisation when pursuing profits, which illustrates the effectiveness of its management (Seto & Septianti, 2021).

Return On Asset is an assessment of profitability which is related to the company's asset structure, useful for comparing performance between companies because it is independent of financing decisions. The minimum ROA category for a bank according to BI is 1.5% (Soko & Harjanti, 2022):

$$ROA = \frac{Laba\ sebelum\ pajak}{Total\ aset} \times 100\%$$

ROA assessment criteria are as follows (Ross, 2020):
- If ROA> 1.5% then it is classified as very healthy
- If ROA 1.25% - 1.5% then classified as healthy
- If ROA 0.5% - 1.25% then classified as quite healthy
- If ROA 0% - 0.5% then classified as less healthy
- If ROA < 0% then it is classified as unhealthy

RESEARCH METHOD

Type, Object, and Subject of Research

The type of research used is quantitative research which is comparative in nature. The quantitative approach is to test theories, build facts, prove relationships between variables, provide statistical descriptions, estimate and interpret the results (Ilhami and Thamrin, 2021). This research is comparative, namely a Research that compares the existence of a variable with two or more different samples and/or at different times (Faizah and Amrina, 2021). This research purposes to determine whether there are differences in the performance of third-partyfunds (DPK), credit risk (NPL), liquidity (LDR) and profitability (ROA) of commercial banks before and during the covid-19 pandemic.

The object of research is the variables studied, which in this study include third-partyfund variables, credit risk, liquidity and profitability. The subjects in this study are commercial banks listed on the Indonesia Stock Exchange.

Population, Sample and Sampling Technique

The population used is commercial banks listed on the Indonesia Stock Exchange, which totals 46 banks. Meanwhile, the sample is part of the number of characteristics that the population has determined (Hermawan, 2021).

The sampling technique is through purposive sampling method, namely according to special categories, including commercial banks that have been and are still listed on the Indonesia Stock Exchange, have complete data needed in the study, disclose financial statements as of 31 December 2018 - 2021.

Data Testing Method

Data testing analysis is to explain the tests on the data before testing the hypothesis. In this study, the normality test was used. The data processing tool used is the SPSS programme.

Normality Test

The normality test is useful in analysing whether each variable is normally distributed or not. The test used is the Shapiro-wilk test through a statistical programme tool. The Shapiro-wilk method is an effective normality test method and applies to a small total sample. According to Razali and Wah in Quraisy (2020), suggesting that initially the Shapiro-wilk test was limited to a sample size of <50.

The formula for determining the conclusion is:

a. If the significance number > 0.05 then the data is normally distributed.
b. If the significance number $\leqslant$ 0.05 then the data is not normally distributed.

Data Analysis Method and Hypothesis Testing

The data analysis used is descriptive statistical analysis whose role is to provide an explanation of the data about the characteristics (nature) of the object studied with the original sample data and to state generally applicable decisions (Marina and Marlina, 2015). Hypothesis testing is the collection of data relevant to the proposed hypothesis, then processing and analysing the data empirically to prove the truth of the hypothesis.

Uji Beda

Comparative analysis is testing population parameters in the form of comparisons with sample sizes that are also in the form of comparisons. In other words, it is testing hypotheses related to the presence or absence of differences between the variables studied (Anwar, 2009).

1. *Paired Sample T-Test Testing*

Paired sample t-test is one of the testing methods used in analysing the usefulness of treatment, it is known that there is a difference in average before and after treatment (Rahimah, 2022). According to Santoso in Seto and Septianti (2021) Paired sample t-test is useful for assessing differences in 2 paired samples, this test is conducted if the data is normally distributed. The test categories are as follows:

H_a: There are differences in Third-partyFunds (DPK), Credit Risk (NPL), Liquidity (LDR) and profitability (ROA) before and during the Covid-19 pandemic.

H_0: There is no difference in Third-partyFunds (DPK), Credit Risk (NPL), Liquidity (LDR) and Profitability (ROA) before and during the Covid-19 pandemic.

- - The formula for determining the conclusion is:
  a. If the probability (Asymp.Sig 2-tailed) > 0.05 then H_0 is accepted.
  b. If the probability (Asymp.Sig 2-tailed) $\leqslant$ 0.05 then H_0 is rejected.

2. *Wilcoxon Signed Rank Test*

The Wilcoxon signed rank test is a test that is useful for assessing differences in two paired samples. According to Santoso in Seto and Septianti (2021), the Wilcoxon test is a nonparametric test that can be a substitute for the paired sample t-test when the data is not normally distributed.

- The test categories are as follows:

H_a: There are differences in Third-partyFunds (DPK), Credit Risk (NPL), Liquidity (LDR) and Profitability (ROA) before and during the Covid-19 pandemic.

H_0: There is no difference in Third-partyFunds (DPK), Credit Risk (NPL), Liquidity (LDR) and Profitability (ROA) before and during the Covid-19 pandemic.

- The formula for determining the conclusion is:
  1. If the probability (Asymp.Sig 2-tailed) > 0.05 then H_0 is accepted.

2. If the probability (Asymp.Sig 2-tailed) $\leqslant$ 0.05 then H_0 is rejected.

RESULTS AND DISCUSSION

Research Results

The population in this research is all Commercial Banks listed on the IDX with the period 2018 - 2021 consisting of 46 banks. The sampling technique was purposive sampling method, the following are the results of the sample selection process in this research:

Table 1 Sample selection procedure

No	Criteria	Rejected (X)	Total (Σ)
			46
1	Commercial banks that have been and are still listed on the Indonesia Stock Exchange for the period 2018 - 2021.	(3)	43
2	Commercial banks which have complete data needed in the study for the period 2018 - 2021.	(5)	38
3	Commercial banks that disclose financial statements as of 31 December 2018 - 2021.	(17)	21
	Total Banks obtained as samples		**21**
	Observation Period		**4 Years**
	Total Units of Analysis		**84**

Source: Data processed (2022)

According to table 1 above, the commercial banks sampled in this research which have fulfilled the criteria that have been set before, consisting of 21 banks. The sample list of commercial banks is shown in table 2 as follows:

Table 2 Research Samples

No	Name of Bank	Bank Code
1	PT Bank Jago Tbk	ARTO
2	PT Bank Central Asia Tbk	BBCA
3	PT Bank Negara Indonesia (Persero) Tbk	BBNI
4	PT Bank Rakyat Indonesia (Persero) Tbk	BBRI
5	PT Bank Tabungan Negara Indonesia (Persero) Tbk	BBTN
6	PT Bank Jtrust Indonesia Tbk	BCIC
7	PT Bank Danamon Indonesia Tbk	BDMN
8	PT Bank Pembangunan Daerah Jawa Barat dan Banten Tbk	BJBR
9	PT Bank Pembangunan Daerah Jawa Timur Tbk	BJTM
10	PT Bank QNB Indonesia Tbk	BKSW
11	PT Bank Maspion Indonesia Tbk	BMAS
12	PT Bank Mandiri (Persero) Tbk	BMRI
13	PT Bank CIMB Niaga Tbk	BNGA

14	PT Bank Maybank Indonesia Tbk	BNII
15	PT Bank Permata Tbk	BNLI
16	PT Bank BTPN Tbk	BTPN
17	PT Bank Oke Indonesia Tbk	DNAR
18	PT Bank China Construction Bank Indonesia Tbk	MCOR
19	PT Bank Mega Tbk	MEGA
20	PT Bank OCBC NISP Tbk	NISP
21	PT Bank Woori Saudara Indonesia 1906 Tbk	SDRA

Source: Data processed (2022)

Descriptive Analysis of Research Data

The variables in this study are Third-partyFunds (DPK), Credit Risk (NPL), Liquidity (LDR) and Profitability (ROA). The research period used in this study is for 4 years divided into years before the Covid-19 pandemic which includes 2018 - 2019 and years during the Covid-19 pandemic represented by 2020 - 2021.

Descriptive statistical analysis explains the descriptive characteristics of the research variables which include the minimum value, maximum value, average value, and standard deviation.

Table 3 Descriptive Statistical Test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DPK before Covid-19	42	55.67	97.73	83.1233	8.62849
DPK during Covid-19	42	60.07	96.01	84.9019	7.88874
NPL before Covid-19	42	0.81	6.16	2.5336	1.14882
NPL during Covid-19	42	0.00	4.97	2.6224	1.30637
LDR before Covid-19	42	47.54	178.56	94.6705	24.25904
LDR during Covid-19	42	52.64	162.30	88.5181	26.03207
ROA before Covid-19	42	-8.99	3.97	1.3826	2.14910
ROA during Covid-19	42	-8.70	3.73	0.6802	2.48825
Valid N (listwise)	42				

Source: Spss 25 data processing (2022)

According to the table above, it illustrates that the condition of Third-partyFunds (DPK) before the Covid-19 pandemic shows an average DPK value of 83.12% and a standard deviation of 8.63%. For the minimum value of DPK of 55.67% came from PT Bank BTPN Tbk (BTPN) in 2019, while the maximum value of 97.73% was owned by PT Bank QNB Indonesia Tbk (BKSW) in 2018. During the pandemic, it was explained that the minimum value of DPK of 60.07% came from PT Bank Woori Saudara Indonesia 1906 Tbk (SDRA) in 2020, while the maximum value of 96.01% came from PT Bank China Construction Bank Indonesia Tbk (MCOR). Meanwhile, the average value of deposits during the pandemic is 84.90% and a standard deviation of 7.89%. The difference in the average value of deposits is around 1.78% where the average value of deposits during the Covid-19 pandemic is greater than before the pandemic. In other words, the average value of deposits has increased during the Covid-19 pandemic.

Referring to table 3 illustrates the average value of NPL before the Covid-19 pandemic of 2.53% and a standard deviation of 1.15%, the minimum value of Credit Risk (NPL) of 0.81% came from PT Bank BTPN Tbk (BTPN) in 2019, while the maximum value of 6.16% was owned by PT Bank Jago Tbk (ARTO) in 2018. During the pandemic, the average NPL value was 2.62% and the standard deviation was 1.31%, the minimum NPL value of 0.00% came from PT Bank Jago Tbk (ARTO) in 2020, while the maximum NPL value of 4.97 came from PT Bank Jtrust Indonesia Tbk (BCIC) in 2020. The average value of NPLs during the pandemic is greater than before the Covid-19 pandemic. Although NPLs have increased during the pandemic, the NPL condition of commercial banks is still classified as healthy / good because it is less than 5%.

Table 3 explains the liquidity condition (LDR) before the pandemic, the average LDR value was 94.67% and the standard deviation was 24.26%, the minimum LDR value of 47.54% came from PT Bank Jago Tbk (ARTO) in 2019, while the maximum value of 178.56% was owned by PT Bank BTPN Tbk (BTPN) in 2019. Meanwhile, during the pandemic, the minimum LDR value of 52.64% was obtained by PT Bank Pembangunan Daerah Jawa Timur Tbk (BJTM) in 2021, while the maximum LDR value of 162.30% was obtained by PT Bank Woori Saudara Indonesia 1906 Tbk (SDRA) in 2020. The average value of LDR during the pandemic is 88.52% and the standard deviation is 26.03%. The difference in the average value of LDR is around 6.15% where the average value of LDR before the pandemic is greater than during the pandemic. Although the average LDR has decreased during the pandemic, the condition of commercial banks is still quite healthy.

Table 3 explains that the condition of profitability (ROA) before the pandemic has an average ROA value of 1.38% and a standard deviation of 2.15%, for the minimum value of -8.99% comes from PT Bank Jago Tbk (ARTO) in 2019, while the maximum value is 3.97% owned by PT Bank Central Asia Tbk (BBCA) in 2018. Meanwhile, during the pandemic, the average value of ROA was 0.68% and the standard deviation was 2.49%. The minimum value of ROA of -8.70% was obtained by PT Bank Jago Tbk (ARTO) in 2020, while the maximum value of 3.73% was obtained by PT Bank Mega Tbk (MEGA) in 2021. The difference in the average value of ROA during the pandemic is around 0.70% where the ROA value before the Covid-19 pandemic is greater than during the pandemic. In other words, the average value of ROA has decreased during the Covid-19 pandemic, but the condition of commercial banks is still quite healthy.

Data Testing Analysis

Data testing analysis needs to be done to ensure that the data obtained has passed these tests before testing the hypothesis. To analyse data testing in this study, a normality test was conducted using the Shapiro Wilk method to determine the normality of the data so that it could proceed to hypothesis testing where if the data is normally distributed, the hypothesis testing is conducted paired sample t-test or if it is not normally distributed, the Wilcoxon signed rank test is used as a substitute for the difference test in hypothesis testing.

Normality Test

The normality test is useful in analysing whether each variable is normally distributed or not. The normality test used in this study is Shapiro-wilk, which can be seen in table 4.

Table 4 Normality Test Results

Normality Test						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
DPK_before Covid-19	0.088	42	0.200*	0.948	42	0.057
DPK_after Covid-19	0.160	42	0.009	0.892	42	0.001
NPL_before Covid-19	0.174	42	0.003	0.895	42	0.001
NPL_after Covid-19	0.107	42	0.200*	0.964	42	0.203
LDR_before Covid-19	0.191	42	0.001	0.900	42	0.001
LDR_after Covid-19	0.240	42	0.000	0.857	42	0.000
ROA_before Covid-19	0.172	42	0.003	0.724	42	0.000
ROA_after Covid-19	0.289	42	0.000	0.689	42	0.000

Source: Data Processed

The research data in table 4, can be said to have fulfilled the assumption of normality if the significance number> 0.05. According to the table above, it can be seen from the significance value (Sig) of DPK, NPL, LDR and ROA is smaller than 0.05 so it can be said that the data is not normally distributed. Therefore, the paired t-test requirement is not met. So the next Wilcoxon Signed Rank Test was conducted for hypothesis testing.

Wilcoxon Signed Rank Test

In this research, hypothesis testing was conducted through the Wilcoxon signed rank test as a substitute for the Paired sample t-test because the normality assumption was not fulfilled. The Wilcoxon test is included in non-parametric statistics so it does not require normally distributed research data. The purpose of the wilcoxon test is to identify whether there is a difference in the means of 2 paired samples. The research data used in this test is mainly ordinal or interval scale data.

The purpose of this research is to find out the differences in the financial performance of commercial banks represented by 4 variables with the ratio of DPK, NPL, LDR and ROA where there are 4 hypotheses. The results of hypothesis testing with the Wilcoxon Signed Rank Test are shown in table 2 below:

Table 5 Wilcoxon Signed Rank Test
Period Before and During Covid-19 (2018 - 2021)

Test Statistics[a]				
	DPK	NPL	LDR	ROA
Z	-2.720[b]	-1.688[b]	-2.645[c]	-3.845[c]
Asymp. Sig. (2-tailed)	0.007	0.091	0.008	0.000
a. Wilcoxon Signed Ranks Test				
b. According to negative ranks.				
c. According to positive ranks.				

Source: Data Processed

According to table 5, the results of the Wilcoxon Signed Rank Test on the Third-partyFund (DPK) variable by looking at the Asymp. Sig. (2-tailed) value of 0.007 is less than 0.05 so it can be concluded that there is a significant difference in DPK before and during the Covid-19 pandemic. Then H1 is accepted, which states that there is a significant difference between third-partyfunds (DPK) before and during the Covid-19 pandemic in commercial banks listed on the IDX. Commercial bank deposits increased significantly during the Covid-19 pandemic. Before the covid-19 pandemic, the performance of commercial bank deposits was in good condition. Then during the covid-19 pandemic, the performance of DPK actually got better, with the total value of DPK obtained by commercial banks getting higher.

Third-partyfunds are the main source of funds in the bank's operational activities and as a parameter of the bank's performance. Third-partyfunds can represent the bank's performance in terms of capital. The development of deposits can determine the total development of credit in the following year which can determine the level of bank profits. As the amount of deposits collected increases, the bank's ability to provide credit increases, which in turn increases the bank's revenue, resulting in an increase in bank profits.

The impact of the Covid-19 pandemic for a number of companies is struggling to survive, some are facing a decline but some are facing an increase. This growth in deposits is accompanied by restrained household consumption and a cautious attitude in responding to the pandemic. In other words, the use of funds by the public for consumption and other needs has decreased. The increase in deposits during the co-19 pandemic reflects that people still have high trust and great interest in keeping their funds at commercial banks. This means that the intermediary function of commercial banks in storing public funds is still running well and banks can rely on these funds to support their operational activities. The increase in third-partyfunds also increases the bank's ability to provide credit which can increase revenue and profits for the bank. This condition can be a good signal for related parties who need information about the performance of commercial bank deposits.

The results of this research are in accordance with the research of Amitarwati et al (2021) where it was found that there were differences in performance for the DPK variable between before and during the Covid-19 pandemic. However, according to the results of research by Amirtawati et al (2021) on BUKU I and BUKU 2 Islamic banks, it was found that there was no difference in DPK performance before and during the covid-19 pandemic.

From the results of the Wilcoxon Signed Rank Test on the Credit Risk / Non Performing Loan (NPL) variable by looking at the Asymp. Sig. (2-tailed) obtained a value of 0.091 which is more than 0.05 so it can be concluded that there is no significant difference in NPL before and during the Covid-19 pandemic, so H2 is rejected, because there is only a slight increase in NPL during the covid-19 pandemic. So the results of this study indicate that there is no difference in NPLs before and during the Covid-19 pandemic.

This illustrates that the credit risk faced by commercial banks is low, in line with the credit restructuring program / providing payment relief during the Covid-19 pandemic as an anticipation of credit risk. This credit restructuring policy makes the total non-performing loans which are the impact of the Covid-19 pandemic can be reduced and does not affect the quality of assets shown by commercial bank NPLs. In other words, commercial banks are still able to maintain the stability of their financial system or credit quality both before and during the Covid-19 pandemic. The NPL performance of commercial banks before the covid-19 pandemic was healthy, while during the covid-19 pandemic, although there was an increase in NPLs, it was still in the healthy category. The higher the NPL value indicates poor bank performance. Conversely, the lower the NPL value, the better the performance.

This research is in line with the results of research by Amitarwati et al (2021), Melinda and Nurasik (2021), that there is no significant difference in NPL before and during the Covid-19 pandemic. Likewise, according to Ilhami and Thamrin (2021)) who examined Islamic banks concluded that there was no difference in NPF before and during the Covid-19 pandemic. This research is different from the research results of Sullivan and Widoatmodjo (2021), Ristanto (2021) which state that there are significant differences in NPLs before and during the Covid-19 pandemic.

From the results of the Wilcoxon Signed Rank Test on the Liquidity / Loan to Deposit Ratio (LDR) variable by looking at the Asymp. Sig. (2-tailed) obtained a value of 0.008 which is less than 0.05 so it can be concluded that there is a significant difference in LDR before and during the Covid-19 pandemic. Then H3 is accepted, that there is a significant difference in liquidity (LDR) before and during the Covid19 pandemic in commercial banks listed on the IDX. that the LDR of commercial banks decreased significantly during the pandemic.

This occurred due to the prudent attitude of banks in providing credit when the economic situation was uncertain during the Covid-19 pandemic as well as due to weakening economic activity and reduced demand for credit. Liquidity risk reflects the bank's inability to pay its overdue debt through cash flow funding or high-quality liquid assets. LDR conditions are quite healthy or in other words, the liquidity of commercial banks is still sufficient so that commercial banks can be said to remain able to fulfil their obligations or pay their short-term debts that will mature during the Covid-19 pandemic.

One source of vulnerability that banks need to observe during the covid-19 pandemic is the resilience of bank liquidity. The LDR performance of commercial banks before the COVID-19 pandemic was in a fairly healthy position. During the COVID-19 pandemic, commercial bank liquidity was still safe with a total LDR value that was also included in the fairly healthy category. As is known, the higher the LDR value, the more unhealthy it will be because it is considered that although it is productive, it is illiquid. This means that banks will find it difficult to meet their short-term obligations.

This research is in accordance with the results of research by Faizah and Amrina (2021), Melania (2021), Ambardi and Nuraini (2021), which concluded that there were significant differences in LDR before and during the Covid-19 pandemic. This research is different from the results of research by Sullivan and Widoatmodjo (2021), Ristanto (2021) which states that there is no difference in LDR before and during the covid-19 pandemic.

Furthermore, the Wilcoxon Signed Rank Test on the Profitability (ROA) variable by looking at the Asymp. Sig. (2-tailed) value is 0.000 which is less than 0.05 so it can be concluded that there is a significant difference in ROA before and during the Covid-19 pandemic. So H4 is accepted, that there is a significant difference in profitability (ROA) before and during the Covid-19 pandemic in commercial banks listed on the IDX. In this research, ROA decreased significantly during the pandemic. The ROA performance of commercial banks before the covid-19 pandemic was in the healthy category. In contrast to the performance of commercial bank profitability during the Covid-19 pandemic where the ROA value is in a fairly healthy position. The higher the ROA, the healthier it is because it is considered that management has been effective in managing its assets to make a profit.

The Covid-19 pandemic that disrupted economic activities made many customers face financial hardship, resulting in a significant difference in the banks' ability to earn profits through return on assets. This decline in ROA reflects that commercial bank management is less effective in using assets to earn profits. Although the condition of ROA is still quite healthy during the Covid-19 pandemic, it can be said that the performance of commercial banks is better before the Covid-19 pandemic than during the Covid-19 pandemic.

The research that supports the results of this research includes the results of Niu and Wokas (2021), Melania (2021), Faizah and Amrina (2021) and Melinda and Nurasik (2021) which concluded that there was a significant difference in ROA before and during the Covid-19 pandemic. Bank profitability is one of the things that will be affected during the covid-19 pandemic. During the Covid-19 pandemic, Bank Indonesia issued an interest rate reduction policy to stimulate the country's economy. The policy of setting the benchmark interest rate is considered an important thing that can affect changes in banking income, then also have an impact on the condition of its financial performance (Soko and Harjanti, 2022).

CONCLUSIONS AND SUGGESTIONS

The results showed that during the covid-19 pandemic the performance of Third-Party Funds (DPK) actually improved, the intermediary function of commercial banks in storing public funds is still running well and banks can rely on these funds to support their operational activities. For Credit Risk (NPL), although there is an increase in NPL, it is still in the healthy category, meaning that conventional banks are still able to maintain the stability of their financial system or credit quality. Liquidity conditions (LDR) have decreased but are still safe in a fairly healthy category, so conventional banks can be said to be able to fulfil their obligations or pay their short-term debts that will mature during the Covid-19 pandemic. Profitability performance during the pandemic has decreased dramatically, where the ROA value of conventional banks has dropped to a fairly healthy position. This research has several limitations in scope and discussion, therefore further researchers are advised to add other factors or variables that make it possible to assess bank performance and use a longer time period or use different bank subjects (samples) to be more comprehensive.

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