

## Analysis of the Impact of the Covid-19 Pandemic on the Growth of Non-Performing Loans in Indonesian Banking

Rafida Khairani<sup>1</sup>, Kevin Stephan<sup>1</sup>, Jerico Prince Wijaya<sup>1</sup>,  
Charolina<sup>1</sup>, Anggita Putri<sup>1</sup>

<sup>1</sup>Universitas Prima Indonesia, Medan, Indonesia  
Jl. Sampul No.4, Medan, Indonesia  
\*Email: rafidakhairani256@gmail.com

### ABSTRACT

This paper aims to clarify the determinants of the movement of non-performing loans in the Indonesian banking sector and the impact of the COVID 19 pandemic on them. To this end, secondary data is obtained from the ministry of Health and the financial services authority I (OJK), each consisting of 47 data samples that have undergone different most t analyzes. The analysis used the non-performing loan variable and the COVID19 pandemic variable. the results of the data analysis are how that COVID19 has s a significant mpact on non-performing loans, and the COVID19 variable can be used as an external indicator of the increase n non-performing loans by Indonesian banks. It has been shown that there is a significant positive correlation between non-performing loans and the country's economic situation.

**Keywords:** *Non-performing loans, Covid-19 pandemic, Economic*



## INTRODUCTION

The increasing volatility of financial markets inevitably leads to a strengthening of banking risk. With such a background, achieving a profitable business becomes a very difficult and challenging undertaking. Therefore, bank managers are tasked with making adequate plans and policies to control overall risk. Management is responsible for establishing balance and ensuring safe, stable, and profitable operations. There are various definitions of risk in the literature, one of which is given by Vaughan and Vaughan (1995) who define risk as a condition in which there is a possibility of a negative deviation from the desired outcome that we expect or expect. Therefore, we can say that for there to be a risk in financial operations, it must: possibly, cause economic damage, be uncertain, and unintentional.

Since loans are the riskiest part of a bank's assets, their quality is one of the most important determinants of business stability and success. While there is still no universally accepted definition of bad debt, the most commonly used are those from the International Monetary Fund, the Basel Committee on Banking Supervision, and the International Finance Institute. As defined by the Basel Committee on Risk Management, non-performing loans are all loans that are uncollectible within 90 days from the due date. If we take into account that one of the main activities of all banks is lending, then the importance of bank exposure to credit risk and its management becomes clear to everyone. Therefore, several methods have been developed to manage this risk. In this case, there is more and more talk about bad debts and ways to solve them. Banks are getting closer to restructuring bad debts and cleaning up their balance sheets to create the prerequisites for new credit growth.

The Covid-19 pandemic is caused by the spread of the Coronavirus disease (Covid-19). WHO (2022) explained that Covid-19 was transmitted by the SARS-CoV-2 virus. Pandemics move like waves that can hit the least able to cope. An increase in non-performing loans, a decrease in the quality of loan portfolios, and the possibility of extreme cases of bank runs have been cited as the main negative consequences of COVID-19 for banks (Goodell, 2020).

The global spread of the coronavirus is a humanitarian tragedy that has befallen the world, and Indonesia is no exception. Since the outbreak of the coronavirus, several policies have been set by the Indonesian government to deal with it, one of which is the implementation of social distancing policies. Indirectly, this social distancing policy hinders several business sectors from operating. The coronavirus pandemic has caused unprecedented economic shocks and many businesses are having a hard time maintaining a business. Not all of these businesses will survive and most of the households find it difficult to repay loans that were taken before the pandemic. This means that an increase in non-performing loans cannot be avoided because some of the loans will not be repaid in full. So that the distribution of credit by banks is carried out carefully to minimize the existence of bad loans.

Bank Indonesia constantly emphasizes that banks should lend only to clients who are likely to repay loans, even in difficult times. It also reminds banks of the need to monitor risk carefully to identify non-performing loans early and begin to address these problems. In Indonesia, there was an increase in non-performing loans (NPL) at a rate of 2.53% in December 2019, an increase of up to 2.7% in February 2020. Several Indonesian banks, particularly small-scale banks, have gone out of business due to unresolved credit problems. again, such as the

case of bad loans that occurred at the Rural Bank (BPR) BKK Kebumen, MNC Bank, Artos Bank, Bank Banten, Dubai Syariah Panin Bank, and BJB Syariah Bank (Rossiana, 2020).

## METHOD

This research was carried out by conducting a comparative research method, in Yusuf (2014) explained that this method was used to find out the causes/consequences in 2 groups of existing and different data. The approach in this research is a quantitative method, in Sugiyono (2016) quantitative research is defined as a method using numbers/values and statements that have a scientific and objective nature and are measured by statistical analysis.

The population used in the form of data on Banks in Indonesia listed on the Indonesia Stock Exchange (IDX) as of March 2022 as many as 47 banks. The sample to be studied is the entire population, this is because the population taken is by the sample criteria and the object to be studied. In addition, with this implementation, more accurate data will be obtained.

Documentation study techniques are carried out in collecting related data needed in this study, where previous events are recorded/recorded (Muchson, 2017). Furthermore, secondary data was obtained from the bursa iEfek Indonesia website and the iOtoritas Jasa iKeuangan I (OJK) website in the form of financial report data for each bank.

Data analysis using a different test. Where to determine the difference in the mean through the different tests used is as follows (Santoso, 2008): 1). Paired Sample t-test. The paired T-test will show paired observations so that the entity and object of the study will be measured twice (2). Furthermore, the results of the mean ratio between the 2 sets will be identified as zero. 2). Sign-Wilxocon. The sign-Wilxocon test is a non-parametric statistical hypothesis test used to test the location of a set of samples or to compare the locations of two populations using a matched set of samples.

## RESULTS AND DISCUSSION

### Descriptive statistics

In identifying the characteristics of the data in this study, descriptive statistics were used. According to Parampreet, K. et al. (2018) in describing/describing the relationship between one variable and another in the sample/population in an organized manner, descriptive statistics are used. In this study, non-performing loans (NPL) will be analyzed before and after the Covid-19 pandemic phenomenon occurred. The following is descriptive statistical data:

**Table 1.** Descriptive Statistical Test Results

	Descriptive Statistics				
	N	Minim um	Maximu m	Mean	Std. Deviation
Before the Covid-19 Pandemic	282	.00	16.73	3.3925	2.02087
After the Covid-19 Pandemic	282	.00	21.39	3.7813	2.77244
Valid N (listwise)	282				

Based on table 1, it can be seen that the value of the NPL variable before the pandemic occurred was 3.4%. Meanwhile, after the pandemic, the NPL value showed an average of 3.7813. These values are still in the safe range even though there is an increase, quoted in the Circular Letter of Bank Indonesia Number 6/23/DPNP of 2004, the NPL value  $<2\%$  is defined as a safe condition while the  $NPL > 12\%$  is an unsafe condition.

### Hypothesis testing

#### Normality test

The Kolmogorov-Smirnov test is a nonparametric fittest and is used to determine whether two distributions differ, or whether the underlying probability distribution differs from the hypothesized distribution. In this test, the data is said to be normally distributed if  $IAU \text{ Symp sig (2-tailed)} > i0.05$ . The results of the Kolmogorov-Smirnov test are shown in the following table:

**Table 2.** Kolmogorov-Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		94
Normal Parameters <sup>b</sup>	Mean	.0000000
	Std. Deviation	2,07173625
	Most Extreme Differences	
	Absolute	.090
	Positive	.090
	Negative	-.052
Test Statistic		.090
Asymp. Sig. (2-tailed)		.060 <sup>c</sup>

Based on table 2, it is known that the Asymp value. Sig. (2-tailed)  $0.06 > 0.05$ . So that it can be concluded if the data is normally distributed, and is feasible to use and continue.

#### Homogeneity Test

To determine the variation of population homogeneity, a homogeneity test was conducted. If the value of Sig. If the result obtained is more than ( $>$ )  $i0.05$  then the data is homogeneous, but if the value of Sig. obtained less than ( $<$ )  $0.05$  gata is considered not homogeneous (Ghozali, 2018). The results of the homogeneity test of this study are shown in the following table:

**Table 3.** Homogeneity Test Results

Levene Statistic	df1	df2	Sig.
1.801	1	92	.183

In Table 3. it is known that the NPL value is Sig. of 0.183 which means more than ( $>$ )  $0.05$ . So that it can be concluded that the data is homogeneous.

### Different Test

To identify the differences between the samples observed in this study, the impaired sample iT-test and the sign-wilxon test were performed. Marked with a value less than 0.05, the determinant was used. In that case, there is a big difference in non-performing loans in Indonesian banking before and during iCovid-19 (Rahmawati, 2020). If the value is greater than 0.05, then there is no significant difference in Indonesian banking non-performing loans before and during Covid19.

**Table 4.** Different Test Results Paired Sample Test

		Paired Samples Test				t	df	Sig.	
		Paired Differences						(2-	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			taile	
					Lower	Upper		d)	
Pair 1	Before the Covid-19 Pandemic - After the Covid-19 Pandemic	-.38883	2.70232	.16092	-.70559	-.07207	-2.416	281	.016

Meanwhile, the results of the Sign-Wilcoxon difference test are shown in the following table:

**Table 5.** Sign-Wilxon. Different Test Results  
Test Statistics

	Sesudah Pandemi Covid-19 - Sebelum Pandemi Covid-19
Z	-3.335 <sup>b</sup>
Asymp. Sig. (2-tailed)	.001

- a. Wilcoxon Signed Ranks Test  
b. Based on negative ranks.

Table 5 shows the iSig value data. (2-tailed) of 0.016 on the value of the credit rating ratio. This value is less than (<) 0.05, which means that there are significant differences before and or after the pandemic in the ratio of non-performing loans. Furthermore, in table 5 the sign-wilxon test gets the Asymp value. Sig. (2-tailed) is 0.001 in the ratio of non-performing loans. The results also show that there are significant differences between before and after the pandemic in the ratio of non-performing loans. So it can be concluded that there are significant differences before and or after the pandemic in the ratio of non-performing loans

### Discussion

Based on data analysis, it is known that the independent variable Covid-19 Pandemic (X) affects the level of non-performing loans. This is supported by the paired sample iT-test, and a

big value is obtained. namely  $0.016 < 0.05$  and the sign-wilcoxon test shows the value of Sig. ie  $0.001 < 0.05$ . So H1 is accepted, where the Covid-19 pandemic affects economic conditions that determine the level of non-performing loans. Research has been in line with research by Akbar, A. et al. (2021) which explains that non-performing loans (NPLs) of Banks in Indonesia have an impact due to the Covid-19 pandemic. This is indicated by an increase in the NPL value in Quarters II and III in 2020. The results obtained are also in line with Burhanuddin Abdullah's statement quoted by Iswi Haryani that bad loans can be caused by natural disasters and or emergencies beyond human capabilities; the debtor's business is getting worse and difficult to develop (Hariyani, 2013).

The increase in the NPL value started from the tendency for bank receipts to focus more on customer loans. So that when customers have difficulty in making returns, it will cause an increase in NPL. Thus, it can be concluded that the occurrence of COVID-19 is one of the external factors of banks caused by emergencies such as COVID-19 which has resulted in a worsening of the debtor's business situation, thus having an impact on increasing the number of NPL Banks in Indonesia. Therefore, banks in Indonesia must be able to formulate the right strategic formula to overcome the problem of bad loans as institutional strengthening and improvement of banking service procedures.

## CONCLUSION

Bad credit cases were found in several banks in Indonesia. The results of data analysis prove that it is true that COVID-19 cases have an impact on increasing bad credit cases at several banks in Indonesia. Therefore, the COVID-19 case can be used as an external factor for banks and debtors that can affect the increase in bad loans, in addition to inflation, exchange rates, and others as stated by Prize Putri Pratamawati (Pratamawati, 2018). The economic slowdown due to the COVID-19 case will lead to unsustainable credit growth, which poses risks to financial stability and triggers an asymmetric effect on the macroeconomic system.

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