








# “Impact of the COVID-19 pandemic and New Normal implementation on credit risk and profitability of Indonesian banking institutions”

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# IMPACT OF THE COVID-19 PANDEMIC AND NEW NORMAL IMPLEMENTATION ON CREDIT RISK AND PROFITABILITY OF INDONESIAN BANKING INSTITUTIONS

## Abstract

This study aims to compare the credit risk and profitability of banks in Indonesia. For this, the descriptive-quantitative method is used. The sample collection is based on the purposive sampling method. The study involved 71 Indonesian banks listed on the Indonesian Stock Exchange and Financial Services Authority, both conventional and Sharia. The research data are secondary data that include published results of quarterly financial reports of both conventional and sharia banks obtained from the website of the Financial Services Authority or the official websites of banks. The profitability of banks in making profit is measured by the Return on Assets ratio. The method of analysis used is the paired sample t-test. The results show significant differences in nonperforming loans (NPL) before and after the COVID-19 pandemic in conventional banking. However, there is no significant difference in Sharia banking. Moreover, there is no significant difference in profitability before and after the new normal implementation. This study provides empirical evidence that Indonesia's banking restructuring policies to anticipate the impact of COVID-19 did not work optimally. The study is expected to help bank managers and the Financial Services Authority as a basis for evaluating the implementation of government policies to restructure the banking system.

## Keywords

banking credit risk, nonperforming loan, nonperforming financing, banking profitability, pandemic, new normal

## JEL Classification

G18, G21, G32

## INTRODUCTION

Financial services authorities maintain the stability of the financial system and economic growth in accordance with regulation 11/PJOK.03/2020. This regulation deals with stimulating the national economy as a countercyclical policy regarding the impact of the transmission of COVID-19 (Funke & Tsang, 2020). Debtors affected by COVID-19 can apply for credit/financing restructuring to banks and finance companies. Since March 2020, banks have not set aside reserves for debtors affected by the pandemic. Credit collectability assessment is trimmed by only relying on one pillar. Credit cutting is intended to keep a bank's lousy credit ratio in check. As of September 27, 2020, 100 banks have restructured loans in the amount of IDR 904.285 trillion from 7,465,990 debtors (OJK, 2019b). This value comes from 5,824,976 MSME debtors with a credit value of IDR 359,977 trillion and 1,641,014 non-MSMEs debtors with a credit of IDR 544.308 trillion (Thomas, 2020).

COVID-19 is a disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus. WHO declared the COVID-19

outbreak a global pandemic on March 11, 2020. COVID-19 can cause respiratory system disorders, ranging from mild symptoms such as flu to lung infections, such as pneumonia. COVID-19 was declared to have entered Indonesia on March 2, 2020, and disturbed the public's health. The COVID-19 pandemic hit the world, including Indonesia, which significantly impacted the economy, including the banking sector. The COVID-19 pandemic has brought changes in credit, financing, and banking profitability in Indonesia. This means that the pandemic condition is predicted to last a long time without a definite time limit, so that all sectors must be prepared to survive in such conditions, including banking. Lending, which is one of the core businesses of banking, is stagnated due to uncertainty and slowdown in economic activity. This condition raises research questions about the immediate impact of COVID-19 and the new normal implementation on the credit risk and profitability of banks in Indonesia, which are divided into sharia and conventional ones.

## 1. LITERATURE REVIEW AND HYPOTHESES

Government Regulation Number 21 of 2020 to reduce the transmission of COVID-19 has an impact on the performance of business activities, including banks and their partners (Teresiené et al., 2021). The announcement of COVID-19 and government regulations related to this phenomenon caused the development of existing businesses in Indonesia to be limited. There is a decrease in demand as a variable income, which is inversely proportional to the fixed costs incurred as operational costs. Business owners have difficulty maintaining income so that there is a failure to compete debt obligations to banks. This will be a risk for a lending bank, and then will be reflected in the level of credit risk and financial performance of a bank.

Nonperforming loans/financing are loans that experience repayment difficulties due to deliberate factors or other factors beyond the prospective debtor's control (Yurttadur et al., 2019). The NPL ratio shows non-performing loans for conventional banks, and the non-performing financing (NPF) ratio for Islamic banks. Both are measurements of credit and financing risk that are predicted to be affected by the COVID-19 announcement phenomenon.

Nonperforming loan management absorbs 2.8 percent of bank operational costs (Carpinelli et al., 2017). Bank Indonesia instructs NPL or Financing's calculation in national banks' annual reports following SE BI No. 6/23/DPNP dated May 31, 2004, concerning the analysis of bank financial ratios. The resulting credit pressure pushed the economy into a recession or slow growth path (Al-Kharusi & Murthy, 2020).

As of July 2020, Financial Services Authority noted that Sharia banking's NPF ratio fell to 3.38% in May (OJK, 2019a). However, this decline is considered insignificant, since before the COVID-19 pandemic sharia banks in Indonesia experienced significant development (Sherwin, 2017). Nonperforming financing can affect liquidity and solvency, which impacts customers' trust, prospective customers and bank performance (Muhammad et al., 2020). Banks' trust, confidence, and soundness may lead to efficient performance to survive and compete among industries (Zeitun & Benjelloun, 2013).

Bank operating income is obtained through operational transactions such as credit and additional income in banking services. Credit income is obtained from debtor fees, while bank service income is obtained from operational services such as administrative costs, transfer fees and other services. However, after the announcement of COVID-19 in Indonesia and the implementation of government regulations to restrict society activities, the bank's operating income has been declined both in terms of credit income and banking service income. Credit income decreased because most businesses experienced a reduction in income to the risk of bankruptcy so that the distribution target of credit funds was hampered, then the risk of non-performing loans could reduce bank income. In addition, government regulations cause banking activities to switch virtually only so that operating income from non-virtual activities stopped.

In June 2020, the Government was working on implementing the New Normal. Office and economic activities are revived by continuing to apply health protocols. Implementing the new nor-

mal after the pandemic made economic actors and offices considerate the work system's application drastically. Thus, some offices applied physical restrictions, which would affect their business. The new normal implementation is regulated by the Decree of the Minister of Health No. HK.01.07/MENKES/328/2020 concerning Guidelines for the Prevention and Control of COVID-19 at Workplace. The policy is predicted as a solution to the transmission of the virus by limiting activities without stopping activities and can restore business conditions in Indonesia. Thus, business people can still maintain income and be able to pay their obligations to third parties such as banks so that the credit risk is reduced.

Restructuring is one of the government's efforts to overcome various financial problems that have arisen due to the COVID-19 pandemic. Restructuring is necessary for the banking system to avoid future losses (Kloks, 2021; Teresiené et al., 2021). Credit restructuring is predicted to make it easier for customers to fulfill their responsibilities to the bank, as well as the health of banking liquidity. The restructuring is expected to reduce pressure on NPL and NPF non-performing loans. Researchers suspect that there is a significant difference in bank profitability between the announcement of COVID-19 and the implementation of the new normal.

This study aims to compare credit risk as measured by the ratio of non-performing loan/financing (NPL/NPF) and profitability as measured by Return on Assets (ROA) in conventional and Islamic banks in Indonesia during the transition period in Indonesia due to COVID-19.

Thus, the following hypotheses are formulated in this study:

*H1a: There is a significant difference in NPLs before and after the announcement of COVID-19.*

*H1b: There is a significant difference in NPF before and after the announcement of COVID-19.*

*H2a: There is a difference in ROA of conventional banking before and after the announcement of COVID-19.*

*H2b: There is a difference in ROA of Islamic banking before and after the announcement of COVID-19.*

*H3a: There are differences in banks' NPLs in Indonesia after the announcement of COVID-19 with the implementation of the New Normal.*

*H3b: There is a difference in the NPF of banking in Indonesia after the announcement of COVID-19 with the implementation of the New Normal.*

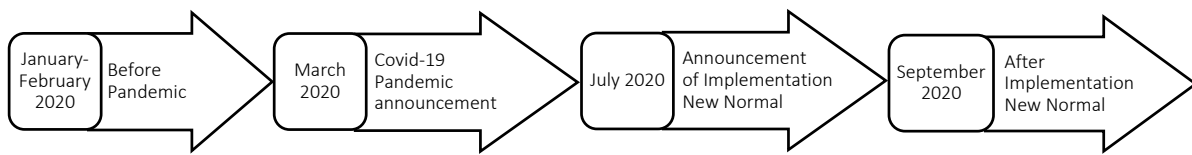
*H4a: There is a difference in ROA of conventional banking in Indonesia between the period after the COVID-19 announcement and the announcement of the New Normal implementation.*

*H4b: There is a difference in ROA of Islamic banks in Indonesia between the post-COVID-19 announcement and the implementation of the New Normal.*

## 2. METHOD

This study involved 71 Indonesian banks listed on the IDX and the Financial Services Authority. Both conventional banks engaged as many as 38 and 33 Sharia banks. The type of data used is secondary data, namely data obtained indirectly and published. Sources of data from both conventional and sharia banking quarterly financial reports are obtained from the Financial Services Authority's website or banks' official websites.

Nonperforming credit/financing is defined as credit/financing which, according to its quality, is based on the risk of possible substandard, doubtful, and default/loss conditions. Profitability in this study is defined as banks' ability to make profit, as measured by the ratio of Return on Assets. Furthermore, the NPL/NPF and ROA ratios were analyzed before and after the announcement of the COVID-19 pandemic on March 11, 2020, before and after the implementation of the New Normal in June 2020. For comparison, the data before and after COVID-19 and New Normal are calculated using paired testing to ascertain the ef-



**Figure 1.** Research timeline

fect of changes in each ratio being compared. To test the research hypotheses, the Paired Sample t-test was used.

The research timeline can be seen in Figure 1.

### 3. RESULTS

As predicted, NPLs before and after the COVID-19 pandemic differ significantly ( $\text{sig } 0.013 < 0.05$ ) so that *H1a* is accepted. However, there is no significant changes between NPF before and after the COVID-19 pandemic in Sharia banking, which is reflected by a significance value (2-tailed)  $0.108 > 0.05$ ; thus, *H1b* is rejected. In contrast, *H2a* is rejected, since  $\text{sig } 0.135 > 0.05$ , which means there is no essential difference between ROA before and after the COVID-19 pandemic in conventional banks, while Sharia banks show a prediction with  $\text{sig } 0.000 < 0.05$ ; thus, *H2b* is accepted. Table 1 shows the hypothesis testing.

Calculation based on the results of the analysis in Appendix A.

Unfortunately, these findings cannot confirm the hypothesis regarding the immediate effect of COVID-19 on new normal condition, even NPL

( $0.309 > 0.05$ ) and NPF ( $0.262 > 0.00$ ), thus, *H3a* and *H3b* are rejected. This study also shows that there is a significant difference between ROA after the COVID-19 pandemic and the new normal. It is proven in Sharia ( $0.000 < 0.05$ ) rather than in conventional banks ( $0.904 > 0.05$ ). Thus, *H4b* is accepted, and *H4a* is rejected.

The profitability of conventional banks is relatively stable even though the credit risk has changed significantly after COVID-19. Interestingly, Sharia banks, whose financing risk is stagnant, have actually experienced significant changes in their profitability after COVID-19. In addition, the consequences of credit and financing risks caused by the new normal cannot be ascertained. But, as expected, this will change the profitability of Sharia banks. The implication is that the implementation of the new normal by the government is the best solution at this time, even though Sharia banks have to struggle harder to improve their financial performance.

### 4. DISCUSSION

Conventional banking operations are more vulnerable to the risk of bad credit. Since the announcement of COVID-19, all banks have expe-

**Table 1.** Hypothesis testing results

Hypothesis	Variable	t-statistic	Sig. (2tailed)	Decision
H1a	NPL before and NPL after the COVID-19 pandemic	-2.601	0.013	Accepted
H1b	NPF before and NPF after the COVID-19 pandemic	-1.650	0.108	Rejected
H2a	ROA before and ROA after the COVID-19 pandemic in conventional banks	1.526	0.135	Rejected
H2b	ROA before and ROA after the COVID-19 pandemic in Sharia banks	5.111	0.000	Accepted
H3a	NPL after the COVID-19 pandemic and NPL after the implementation of the new normal	-1.031	0.309	Rejected
H3b	NPF after the COVID-19 pandemic and NPF after the implementation of the new normal	1.140	0.262	Rejected
H4a	ROA after the COVID-19 pandemic and ROA after the implementation of the new normal in conventional banks	-0.122	0.904	Rejected
H4b	ROA after the COVID-19 pandemic and ROA after the implementation of the new normal in Sharia banks	-6.905	0.000	Accepted

rienced turmoil in their intermediary function, both in terms of financing and raising funds. This study supports the studies by Colak and Öztekin (2021), Gong et al. (2021), Lalon (2020), and Noman et al. (2017), but contradicts Ari et al. (2020), who found empirical evidence that NPLs after COVID-19 tended to be stable and more conducive compared to the crisis that hit Indonesia before. Sharia banking is more likely to survive in the face of NPF risk. Changes in NPF before and after COVID-19 do not show a significant number because the NPF value tends to be stable. The insignificant NPF value indicates no difference in Sharia banking performance between the period before and after the pandemic, indicating that Sharia banking in Indonesia is still able to survive amid the pandemic period. Retail-oriented banks have better profitability and stability (Mergaerts & Vennet, 2016; Totanan et al., 2021). The decline in NPF value is more stable even though its profitability has decreased significantly (Song et al., 2019).

COVID-19 affected the profitability of Sharia banks rather than conventional banks. These results indicate that the management of conventional banks can manage bank finances efficiently so that conventional bank profits remain stable in pandemic conditions. The source of bank income is positively related to performance but inversely proportional to risk. Those conditions after COVID-19 do not affect ROA changes (Gong et al., 2021). The profitability of Sharia banks has decreased due to an increase in operational costs charged to banks. The COVID-19 pandemic has caused all banks to experience changes in their intermediation function and tend to decline financing and fundraising, including Sharia banks. The profitability of Sharia banks has decreased due to an increase in operating costs charged to tires. For this solution, Sharia banks should create product innovation with the financing feature in order to achieve increase profitability.

Implementing the new normal has not been effective in returning bank operations to normal and has not reduced NPLs. Banking restructuring policies have not yet optimally improved banking health in Indonesia. A significant increase in credit restructuring resulted from COVID-19 and the new normal faced by companies but have not reduced NPL. Furthermore, there is no significant

difference in NPF after the COVID-19 pandemic and new normal implementation. These results indicate that the new normal implementation has not effectively returned Sharia banks' operations to their original state. They have not been able to reduce their NPF. Moreover, the banking restructuring policy has not been optimal in improving the health of banking in Indonesia.

The new normal application marked by the start of movement in the real sector has not impacted the performance of the banking industry intermediation function. The implementation of the new normal can help the economy move again. However, bank lending is still considered to be very limited. Banking rescues debtor loans that are running, which have the potential to become problem loans. An economy that is moving normally will help reduce the pressure on potential nonperforming loans.

In addition, there is a significant difference between ROA in Sharia banking after the COVID-19 pandemic and new normal implementation. Restructuring policies in Sharia banking can work well, proven to improve profitability performance. Restructuring is necessary for the banking system to avoid future losses (Kloks, 2021; Teresienė et al., 2021). This is inseparable from the strategy pursued by sharia bank managers, including risk mitigation by mapping debtors, who are feasible to be restructured and who are not yet feasible (Ariffin & Kassim, 2014). Sharia banking still has to grow. Sharia banking focuses on industries (Elamer et al., 2020) that can still have good prospects amid the pandemic. Bank managers must choose a business sector that can exist and develop. One of the uniqueness of Sharia banks is that they can pawn gold, which is considered relatively high. Sharia banking develops digital banking and online banking. The current state of the coronavirus pandemic is testing Sharia banking digital services and online banking to see if customers are using them. Sharia banking must assist its debtors, especially MSMEs. The institutions must be provided with assistance to maintain their business. Sharia banking does digital marketing. Pandemic conditions force all meetings to be held virtually. It must be used as a place to sell. Sharia banking leaders must have agile leadership, not being able to use old methods. Thus, adaptation is the best way to deal with a pandemic situation.

## CONCLUSION

This study aims to compare the ratio of credit or non-performing financing (NPF) and non-performing loans (NPL) to profitability and credit risk in both conventional and Islamic banks in Indonesia. Changes in these ratios during the financial regulation transition period in Indonesia due to COVID-19 are analyzed. These changes were observed before the announcement of COVID-19, after COVID-19 and after the implementation of the new normal.

The analysis was carried out using a paired t-test to see the differences in each of these conditions. Based on the results of the analysis, NPLs are more vulnerable to COVID-19 than NPF, even though their profitability is more stable than Sharia. Furthermore, changing conditions to new normal seems to have only a little effect of ROA in Sharia banks, while in conventional banks, their NPL, NPF, and ROA are stable. The research contribution can be used by bank managers and financial services authorities as a basis for evaluating the implementation of government policies in the area of banking restructuring. Financial services authorities can be advised to strengthen supervision of the provision of banking financial services to minimize credit risk. The study suggests that future research should use interim or annual data to identify longer-term impacts and examine factors other than risk and profitability.

## AUTHOR CONTRIBUTIONS

Conceptualization: Sri Wahyuni.  
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 Formal analysis: Sri Wahyuni.  
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 Writing – original draft: Sri Wahyuni.  
 Writing – reviewing & editing: Siti Nur Azizah, Zulfikar.

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## APPENDIX A

**Table A1.** Paired samples correlations (the result of *H1a*)

Pair	N	Correlation	Sig.
NPL_1 & NPL_2	39	.900	.000

**Table A2.** Paired samples test (the result of *H1a*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
NPL_1 – NPL_2	-.21487	.51597	.08262	-.38213	-.04762	-2.601	38	.013

**Table A3.** Paired samples correlations (the result of *H1b*)

Pair	N	Correlation	Sig.
NPF_1 & NPF_2	34	.839	.000

**Table A4.** Paired samples test (the result of *H1b*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
NPF_1 – NPF_2	-.46824	1.65502	.28383	-1.04570	.10923	-1.650	33	.108

**Table A5.** Paired samples correlations (the result of *H2a*)

Pair	N	Correlation	Sig.
ROA_1 & ROA_2	39	.676	.000

**Table A6.** Paired samples test (the result of *H2a*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
ROA_1 – ROA_2	.28795	1.17863	.18873	-.09412	.67002	1.526	38	.135

**Table A7.** Paired samples correlations (the result of *H2b*)

Pair	N	Correlation	Sig.
ROA_1 & ROA_2	34	.920	.000

**Table A8.** Paired samples test (the result of *H2b*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
ROA_1 – ROA_2	2.2537353	2.5712452	.4409649	1.3565854	3.1508852	5.111	33	.000

**Table A9.** Paired samples correlations (the result of *H3a*)

Pair	N	Correlation	Sig.
NPL_1 & NPL_2	39	.622	.000

**Table A10.** Paired samples test (the result of *H3a*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
NPL_1 – NPL_2	-.21308	1.29072	.20668	-.63148	.20533	-1.031	38	.309

**Table A11.** Paired samples correlations (the result of *H3b*)

Pair	N	Correlation	Sig.
NPF_1 & NPF_2	34	.914	.000

**Table A12.** Paired samples test (the result of *H3b*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
NPF_1 – NPF_2	.24118	1.23325	.21150	-.18913	.67148	1.140	33	.262

**Table A13.** Paired samples correlations (the result of *H4a*)

Pair	N	Correlation	Sig.
ROA_1 & ROA_2	39	.844	.000

**Table A14.** Paired samples test (the result of *H4a*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
ROA_1 – ROA_2	-.01908	.97712	.15647	-.33582	.29767	-.122	38	.904

**Table A15.** Paired samples correlations (the result of *H4b*)

Pair	N	Correlation	Sig.
ROA_1 & ROA_2	34	.901	.000

**Table A16.** Paired samples test (the result of *H4b*)

Pair	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
				Lower	Upper			
ROA_1 – ROA_2	-1.8969706	1.6018988	.2747234	-2.4558995	-1.3380417	-6.905	33	.000