

# COVID-19 AND THE PERFORMANCE OF ISLAMIC BANKS IN INDONESIA



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## ABSTRACT

*Covid-19 has an impact on the profitability of Islamic Banks in Indonesia. Islamic banks' profitability in Indonesia tends to decline during a covid-19 outbreak. Although declining, the profitability indicators measured by Return on Asset and Net Operating Margin are more stable than Return on Equity. The average Return on Equity declined sharply in the fourth quarter of 2021. This study aims to analyze the determinants of the profitability of Islamic banks, including internal bank factors and macroeconomic indicators during the covid-19 outbreak. This study uses a quantitative approach with the fixed effect method. This study employs panel data from 8 Islamic commercial banks from 2020q1 to 2021q4. The results show that capital adequacy, disbursed financing, and operational efficiency has a negative and significant effect on the profitability of Islamic banks. Financing risk and bank size have no significant effect on the profitability of Islamic banks. Macroeconomic indicators such as economic growth, inflation, interest rates, and exchange rates have no significant effect on the profitability of Islamic banks. During the covid-19 pandemic, to increase profitability, banks need to reduce the capital and financing provided to customers. On the other hand, to increase profitability, Islamic banks need to reduce unnecessary costs so that income is not eroded. Macroeconomic indicators do not influence the performance of Islamic banks. This shows that Islamic commercial banks are more resistant to economic turbulence.*

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## INTRODUCTION

Indonesia is a country with a very large number of deaths due to Covid-19 (Malahayati et al., 2021). It was recorded that in January 2022, Indonesia was ranked 9th in the number of deaths due to Covid-19 of 144,261 people. This condition causes shocks to the economic sector (Katusiime, 2021). This economic shock can be seen from the economic restrictions and various government policies in controlling COVID-19. As a result, economic activity decreases, and economic growth begins to slow down and even decline (Ozili & Arun, 2020). According to Wahyuni et al. (2021), declining economic growth during COVID-19 caused bank performance to also decline. This statement is reinforced by Sullivan & Widodoatmodjo (2021) who state that banking financial performance tends to decline during COVID-19.

Banking financial performance can be seen from the performance of banks in generating profitability. Profitability is the ability of banks to generate profits from the management of total assets, and equity, and from the application of profit sharing. In Islamic banks, profitability can be proxied by return on assets, return on equity, and net operating margin. The development of Islamic banking financial performance is presented in Table 1. During the pandemic, the return on assets of Islamic banks was in the range of 0.90 to 1.1 percent, the return on equity was in the range of 6.1 to 7.9 percent while net operating margin was in the range of 0.39 to 1.07 percent. The biggest decline in Islamic banking profitability occurred in the fourth quarter of December 2020. Return on assets decreased from 0.94 to 0.90 and return on equity also decreased from 6.87 to 6.19 percent. However, the net operating margin increased slightly from 0.79 to 0.86 percent.

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Table 1. Development of Islamic Banking Financial Performance

| Period | ROA      | ROE      | NOM      |
|--------|----------|----------|----------|
| Mar-20 | 0.955    | 6.615    | 0.398333 |
| Jun-20 | 0.913333 | 6.3      | 0.735    |
| Sep-20 | 0.941667 | 6.876667 | 0.798333 |
| Des-20 | 0.908333 | 6.19     | 0.865    |
| Mar-21 | 1.013333 | 7.996667 | 1.078333 |
| Jun-21 | 1.04     | 7.758333 | 0.956667 |
| Sep-21 | 1.078333 | 7.861667 | 0.973333 |
| Des-21 | 1.135    | 7.45     | 0.99     |

Source: Data processed (2022)

From Table 1 and Figure 1, it can be seen that the financial performance of Islamic banking tends to fluctuate. From December to March 2020, there was economic turmoil in the intermediation function of Islamic banks, both in raising funds and in financing (Ningsih & Mahfudz, 2020). However, after the government-controlled Covid-19 through economic policies, in 2021 financial performance began to recover.

The profitability of Islamic commercial banks is influenced by internal and external factors (Al-Harbi, 2019; Alsharari & Alhmoud, 2019; Hassan & Bashir, 2012; Salsabilla et al., 2021). Internal factors that affect Islamic commercial banks include capital adequacy, liquidity, credit risk, asset quality, bank size, and efficiency (Saeed, 2014). External factors that affect the profitability of Islamic commercial banks include economic growth, inflation, interest rates, and exchange rates (Al-Jafari & Alchami, 2014; Katusiime, 2021; Messai et al., 2015; O'Connell, 2022; Winny & Yulfiswandi, 2022; Yao et al., 2018).

Capital adequacy is an important factor in determining profitability. The minimum BI requirement for capital adequacy is 8 percent. If the capital adequacy of Islamic banking increases, the ability of Islamic banking to meet short-term liabilities will be higher. This will lead to good customer response to Islamic banking so that profitability increases. Capital adequacy or bank capital ratios can be proxied using the capital adequacy ratio (CAR) (Johan, 2021) and equity to total assets (ETA) (Aliyu & Yusof, 2016). The higher the capital adequacy, the profitability will increase (Alhempri & Zainal, 2016; Aliyu & Yusof, 2016; Alshatti, 2016; Messai et al., 2015). However, according to Ha (2020), the capital ratio has a negative effect on profitability. Liquidity in Islamic banks is something important. Liquidity reflects how capable the bank is to manage assets and third-party funds to fund customer financing. The higher the liquidity of Islamic banks, the higher the profitability that will be obtained (Ha, 2020; Messai et al., 2015; Yüksel et al., 2018). However, according to Al-Jafari and Alchami (2014) liquidity has a negative effect on profitability.

Liquidity is closely related to the penetration of Islamic bank financing. As described by Gani and Bahari (2021); Ledhem and Mekidiche (2020); Supriani et al. (2021), Islamic banking contributes positively to economic growth. Islamic bank financing has a positive effect on long-term economic growth, while short-term has no significant effect (Supriani et al., 2021). Sharia banking includes Sharia Commercial Banks/BUS (14 banks), Sharia Business Units/UUS (20 banks), and Sharia People's Financing Banks/BPRS (164 banks). In this study, the authors focus on the performance of Islamic Commercial Banks during covid-19. Although, the contribution of Islamic banks to economic growth is no more than the contribution of conventional banks. However, Islamic banks have a bigger role in the real sector than conventional banks and are more resistant to economic shocks. In addition, as many as 87 percent of the Muslim population in Indonesia reinforces the importance of Islamic commercial banks even though the share of Islamic banking in the financial sector in Indonesia is only about 5 percent.

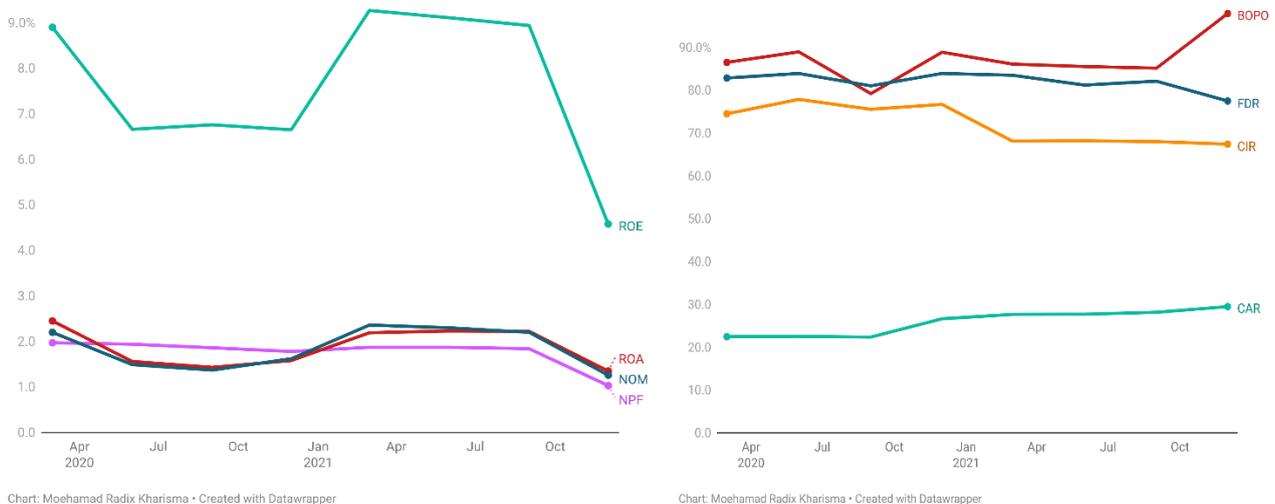


Figure 1. Performance of Islamic Banks March 2020-December 2021

This research is useful for the Islamic finance sector, especially during the pandemic. Islamic banking will know how to increase profitability from internal factors which include capital, liquidity, credit risk, operational efficiency, and

bank size. In addition, the government also contributes to the profitability of Islamic banks through government policies, both fiscal policy and monetary policy related to macroeconomic indicators. The novelty of this study is that this study took samples from only Islamic commercial banks and was carried out during the pandemic, namely after the announcement of covid-19 in Indonesia in February 2020.

## LITERATURE REVIEW

The Covid-19 pandemic has a significant effect on banking financial performance (Afkar & Fauziyah, 2021; Bixby et al., 2021; Wahyuni et al., 2021; Winny & Yulfiswandi, 2022). Financial performance during the pandemic has generally declined (Sohibien et al., 2022). Not only that, the sector with the biggest impact is the tourism and hospitality sector (Esquivias et al., 2021). The government's policy of limiting the economy when COVID-19 occurs will directly affect the movement of people. As a result, the community's economy will be limited. Economic mobility which is usually so free is limited by large-scale social restrictions.

Afkar and Fauziyah (2021) examined the trends and profitability of conventional banks and Islamic banks during the pandemic. The results stated that the pandemic caused the profitability of conventional banks and Islamic banks to decline. Interestingly, the ability of Islamic banks to record profits is greater than that of conventional banks even though they are on a downward trend. There are three problems faced by banks during the pandemic, namely liquidity, non-performing loans, and loss of income as an intermediary (Yuliarto, 2021). Wahyuni et al. (2021) explained that there were significant differences in non-performing loans during the pandemic in conventional banks. However, there are no significant differences in Islamic banks. According to Wahyuni et al. (2021), there is no significant difference in the profitability between conventional banks and Islamic banks.

To increase bank profitability during the pandemic, Kozak and Wierzbowska (2022) emphasizes that banks need to increase non-interest income. The impact of the COVID-19 pandemic explained by Ghosh and Saima (2021) will be more pronounced in banks with low levels of capital adequacy, liquidity, and performance as well as high non-performing loans. Banks with low liquidity ratios and poor financial health will decline in the second quarter of 2020. According to Karim et al. (2021), Islamic banks in Bangladesh have poorer financial health than conventional banks and all banks belong to the red zone in all periods.

This is due to the bank experiencing a contraction in the capital. Sukmana and Febriyati (2016) in their study added that Islamic banks need more capital than conventional banks to face the combined risk. The role of the bank internal factors in determining the bank's capital structure, namely profitability, bank size, and competition weakened during the pandemic (Mohammad, 2021). Miklaszewska et al. (2021) explained in their research that one way for banks to overcome the weakening due to the pandemic is by digitizing. Digitalization will help banks, especially large banks, to be able to increase their income and contribute not only to profitability but also to financial stability. Moreover, the government's policy of restricting the economy requires banks to be able to facilitate customers in banking services. Banking digitization makes it easier for customers to make transfers, payments, purchases, e-wallets, and so on. According to Santoso et al. (2020), banks are required to have competence in three priorities, relating and networking, adapting and responding to change and entrepreneurship and commercial thinking.

Bank profitability is not only influenced by internal factors but also external factors, namely macroeconomic indicators (Siregar et al., 2014). Internal factors of Islamic banks include liquidity, capital, financing risk, efficiency, and bank size (Johan, 2021; Pradhan & Pandey, 2018; Setiawan, 2021; Widarjono et al., 2022) while external factors include economic growth, inflation, exchange rates, and interest rates (Al-Jafari & Alchami, 2014; Katusiime, 2021; Messai et al., 2015; O'Connell, 2022; Winny & Yulfiswandi, 2022; Yao et al., 2018).

Johan (2021) states that the main determinant of profitability is bad loans. The higher the non-performing loan, the bank will require high bank reserve requirements it will suppress profitability. Setiawan (2021) adds that the financing risk in Islamic banks is influenced by bank capital, financing, economic growth, inflation, and the BI rate. Bank capital, financing, and economic growth have a negative effect on financing risk. This means that an increase in bank capital, financing, and economic growth will reduce financing risk. Meanwhile, inflation and the BI Rate have a positive effect on financing risk, which means that an increase in inflation and the BI rate will increase financing risk.

The profitability of Islamic banks is influenced by bank capital (Alshatti, 2016; Majumder & Li, 2018), bank operating costs (Ozili & Uadiale, 2017), financing risk (Kalkarina et al., 2016; Sukmana & Febriyati, 2016), inflation (Al-Harbi, 2019; Derbali, 2021; Masood & Ashraf, 2012; Messai et al., 2015) and BI Rate (Al-Homaidi et al., 2018; Setiawan, 2021). In detail, a decrease in bank capital, operational costs, and financing risk will improve the financial performance of Islamic banks, while an increase in inflation and the BI Rate will improve financial performance (Setiawan, 2021).

Profitability is also influenced by exchange rates (Abidillah et al., 2022; Al-Homaidi et al., 2018; Menicucci & Paolucci, 2016). The exchange rate shows the self-esteem of a country. If the exchange rate of a country strengthens, it means that the country has a surplus in sales abroad. The exchange rate used in this study is the middle exchange rate, namely the exchange rate between the selling rate and the buying rate. According to Menicucci & Paolucci (2016), the exchange rate has a positive effect on profitability. On the other hand, another study (Al-Homaidi et al., 2018) explains that the exchange rate has a negative effect on profitability.

Based on the explanation above, the framework can be described as follows in Figure 2. Figure 2 illustrates the framework of thought. The profitability of Islamic banks can be explained by using return on assets, return on equity, and net operating margin. The profitability of Islamic banks is influenced by internal factors and external factors. Internal factors include liquidity which is explained by financing to deposit ratio, capital by capital adequacy ratio, credit risk by non-performing financing, operational efficiency by cost income ratio, and bank size by the natural logarithm of total assets. External factors include economic growth as explained by gross domestic product, inflation, interest rates explained by the

BI 7 days repo rate, and exchange rates using the middle rate.

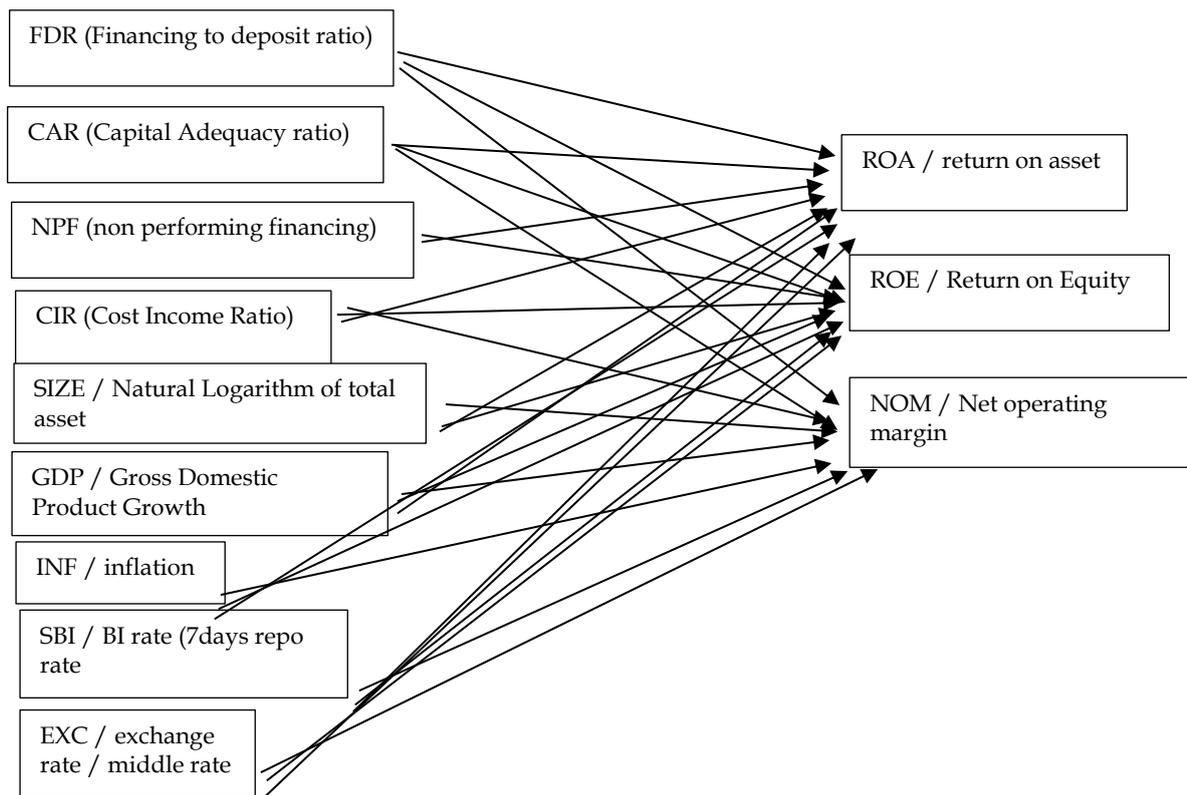


Figure 2. Research Framework

### MATERIALS AND METHODS

The object of this study is Islamic commercial banks during the pandemic period, namely from the first quarter of 2020 to the fourth quarter of 2021. This paper uses an analytical method with a quantitative approach. In this study, panel regression analysis is used to be able to make conclusions about the regression in the data carried out. The research model used is the fixed effect model.

This study uses 3 profitability models ROA, ROE, and NOM. The determinants taken as independent variables that affect profitability are liquidity, capital, credit risk, operational efficiency, and bank size. In addition, this study also takes macroeconomic indicators as independent variables which include economic growth, inflation, interest rates, and exchange rates. The type of data from this study is secondary data with sources from the Financial Services Authority (OJK) and bank websites.

The research model used is as follows:

$$ROA_{it} = \beta_0 + \beta_1 FDR_{it} + \beta_2 CAR_{it} + \beta_3 NPF_{it} + \beta_4 CIR_{it} + \beta_5 Size_{it} + \beta_6 GDP_{it} + \beta_7 INF_{it} + \beta_8 SBI_{it} + \beta_9 EXC_{it} + \epsilon_{it} \dots (1)$$

$$ROE_{it} = \beta_0 + \beta_1 FDR_{it} + \beta_2 CAR_{it} + \beta_3 NPF_{it} + \beta_4 CIR_{it} + \beta_5 Size_{it} + \beta_6 GDP_{it} + \beta_7 INF_{it} + \beta_8 SBI_{it} + \beta_9 EXC_{it} + \epsilon_{it} \dots (2)$$

$$NOM_{it} = \beta_0 + \beta_1 FDR_{it} + \beta_2 CAR_{it} + \beta_3 NPF_{it} + \beta_4 CIR_{it} + \beta_5 Size_{it} + \beta_6 GDP_{it} + \beta_7 INF_{it} + \beta_8 SBI_{it} + \beta_9 EXC_{it} + \epsilon_{it} \dots (3)$$

This study uses 12 research proxies (Al-Homaidi et al., 2018; Alshatti, 2016; Derbali, 2021; Hunjra et al., 2020; Johan, 2021; Majumder & Li, 2018; Setiawan, 2021) which is presented in Table 2.

Table 2. Definition of variables, measurements, and hypotheses

| Variable      | Proxy                      | Formula   | Expectation |
|---------------|----------------------------|---|-------------|
| Profitability | Return on Asset            | $ROA = \frac{\text{net profit}}{\text{Average of total asset}}$             |             |
|               | Return on Equity           | $ROE = \frac{\text{net profit}}{\text{Average of total equity}}$            |             |
|               | Net operating margin       | $NOM = \frac{\text{Net operation income}}{\text{Average productive asset}}$ |             |
| Liquidity     | Financing to Deposit Ratio | $FDR = \frac{\text{Total volume of financing}}{\text{Total fund deposit}}$  | +/-         |

|                |                               |   |     |
|----------------|-------------------------------|---|-----|
| Capital        | Capital Adequacy Ratio        | $CAR = \frac{capital}{risk\ weighted\ asset}$                   | +/- |
| Credit Risk    | Non-Performing Financing      | $NPF = \frac{number\ of\ problem\ financing}{Total\ financing}$ | +/- |
| Efficiency     | Cost to Income Ratio          | $CIR = \frac{Cost}{Income}$                                     | -   |
| Size           | Logaritma natural total aset  | $Size = Ln\ Total\ aset$  | +/- |
| Economy growth | Gross Domestic Product growth | $GDP\ growth = \frac{GDPT - GDPT - 1}{GDPT - 1}$                | +   |
| Inflation      | Inflation                     | $INF = Inflasi\ riil$   | +/- |
| Interest rate  | BI seven days repo rate       | $SBI = BI\ 7\ days\ repo\ rate$                                 | +/- |
| Exchange rate  | Middle rate                   | $middle\ rate = \frac{bid + ask}{2}$                            | +/- |

Source: Data processed (2022)

### RESULTS AND DISCUSSIONS

The analysis in this study includes two things, descriptive statistical analysis and inferential statistical analysis. The descriptive statistical analysis will describe the analysis based on the maximum, minimum, average, and standard deviation values. Inferential statistical analysis will be explained based on panel regression results. The following is Table 3 which contains descriptive statistics of Islamic Commercial Banks. The research sample of Islamic commercial banks taken is 8 Islamic commercial banks for the period 2020q1 to 2021q4.

Table 3. Descriptive Statistics of Islamic Commercial Banks

| Variable | Mean     | Std. Dev. | Maximum  | Minimum  |
|----------|----------|-----------|----------|----------|
| ROA      | 1.607386 | 3.028435  | 13.58    | -6.72    |
| ROE      | 6.950909 | 9.723465  | 29.77    | -31.76   |
| NOM      | 1.49375  | 3.291984  | 14.97    | -7.37    |
| FDR      | 87.57568 | 26.56805  | 196.73   | 38.33    |
| CAR      | 26.53375 | 10.72663  | 58.1     | 12.12    |
| NPF      | 1.888409 | 1.695619  | 4.98     | 0        |
| CIR      | 72.32932 | 22.51041  | 136.77   | 34.69    |
| SIZE     | 16.49011 | 1.145217  | 19.39633 | 14.32284 |
| GDP      | 0.37875  | 2.827805  | 5.05     | -4.19    |
| INF      | 1.7975   | 0.483555  | 2.87     | 1.43     |
| SBI      | 3.885417 | 0.447305  | 4.75     | 3.5      |
| EXC      | 14498.78 | 236.3309  | 14989.86 | 14174.29 |

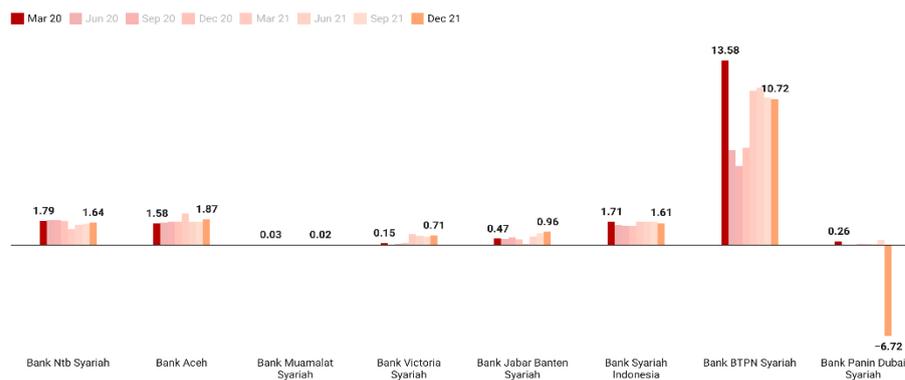
Source: Data processed (2022)

Based on Table 3 The profitability variables of Islamic commercial banks are ROA, ROE, and NOM. Variables that affect the profitability of Islamic commercial banks taken in this study include bank-specific FDR, NPF, CIR, and SIZE) and macroeconomic indicators (GDP, INF, SBI, EXC).

The following is an explanation of descriptive statistics from Table 3

#### 1. Profitability

Figure 3. showed the profitability of Islamic banks in Indonesia



ROA Islamic Banks in Indonesia



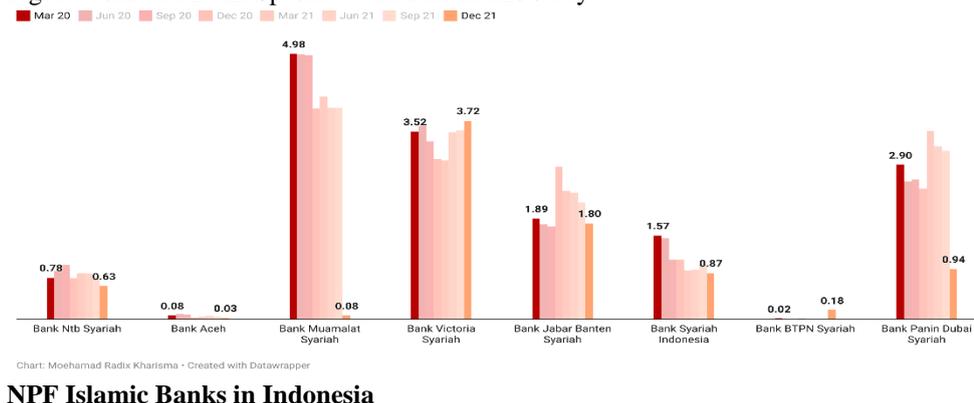
Figure 3. Profitability of Islamic Banks in Indonesia

The average ROA is 1.6 percent with a standard deviation of 3.02. This shows that the ROA data of Islamic commercial banks tend to be heterogeneous with various variations. The maximum ROA is 13.58 percent for Bank BTPN Syariah in March 2020 while the minimum ROA is -6.72 percent for Panin Dubai Syariah (see: Figure 3) in December 2021. The average ROE is 6.95 with a standard deviation of 9.75. Islamic bank ROE data tend to be heterogeneous because the average value is smaller than the standard deviation. Maximum ROE of 29.77 percent of BTPN Syariah bank in March 2020. Minimum ROE of -31.76 percent of Panin Dubai Syariah Bank in December 2021. Panin Dubai Syariah bank suffered a very large loss in the fourth quarter of 2021 after previously recording a profit-thin one. The average NOM is 1.49 with a standard deviation of 3.29 so the NOM data tends to be heterogeneous. The maximum NOM is 14.97 in March 2020 at Bank BTPN Syariah. Minimum NOM -7.37 in December 2021 at Panin Dubai Syariah bank (see: Figure 3)

In this case, the profitability of Islamic commercial banks is almost the same between ROA, ROE, and NOM. The maximum ROA, ROE, and NOM for Islamic commercial banks are at Bank BTPN Syariah in the first quarter of 2020. The minimum ROA, ROE and NOM for Islamic commercial banks are at Panin Dubai Syariah bank in the fourth quarter of 2021. During the pandemic, banks's general sharia is affected quite significantly. This can be seen in the Panin Dubai Syariah bank where profitability declined sharply during the pandemic.

## 2. Specific Bank Variables

Figure 4 showed Bank Spesific Variables of this study.



NPF Islamic Banks in Indonesia

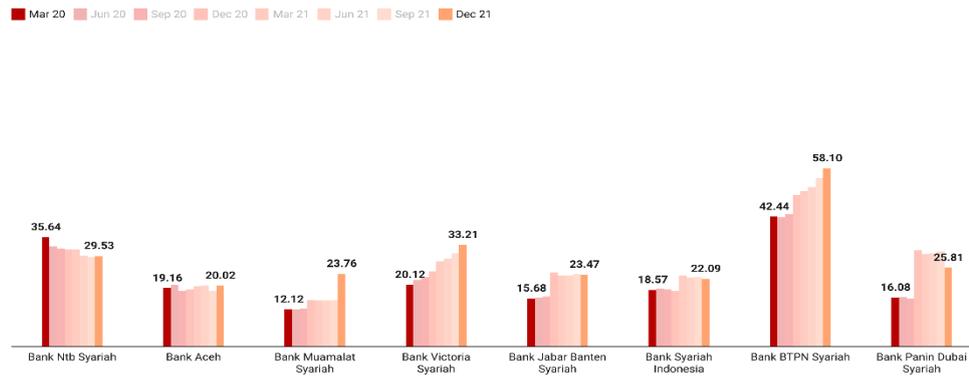


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### CAR Islamic Banks in Indonesia

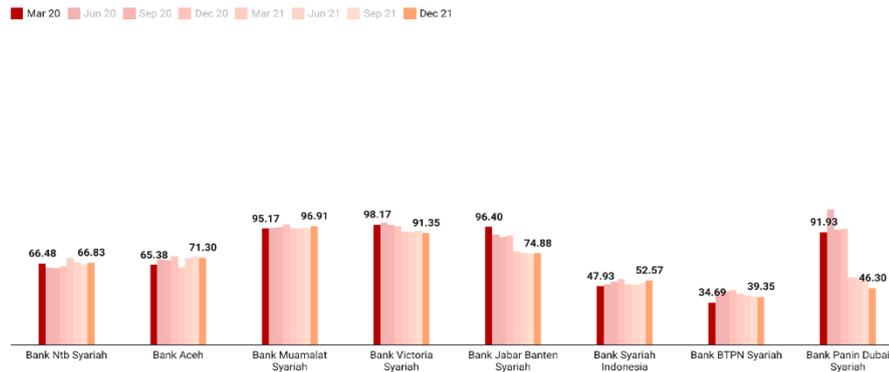


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### FDR Islamic Banks in Indonesia

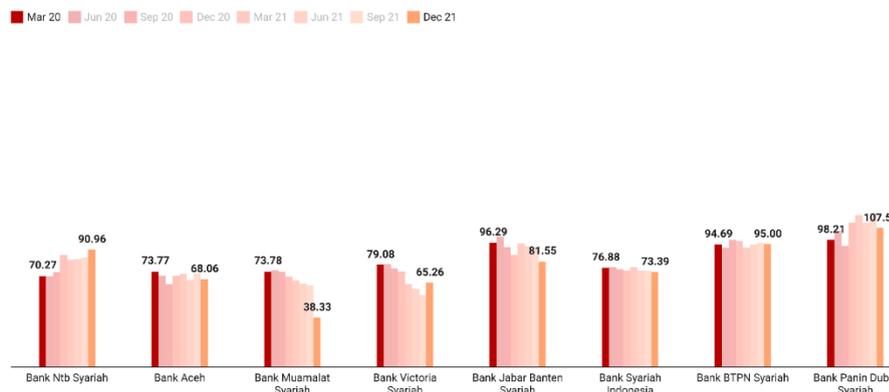


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### FDR Islamic Banks in Indonesia

Figure 4. Bank Specific variables of Islamic Banks in Indonesia

Bank-specific variables in Islamic commercial banks include FDR, CAR, NPF, CIR, and SIZE. The difference in terms of Islamic commercial banks with conventional commercial banks is in terms of Loan and Financing. In conventional commercial banks, LDR and NPL are known, while in Islamic commercial banks the terms FDR and NPF are known. FDR at Islamic commercial banks is 87.57 percent with a standard deviation of 26.56. These data are homogeneous because the average value is greater than the standard deviation. The maximum FDR is 196.73 percent at Bank Bukopin Syariah (see: Figure 4) in December 2020. This means that among the research sample, Bukopin Syariah Bank is able to channel financing of 196.73 percent of the third-party funds collected. Minimum FDR of 38.33 percent by bank Muamalat sharia (see: Figure 4) in December 2021. Bank muamalat sharia is only able to channel financing of 38.33 percent of third-party funds collected. Bank Muamalat's FDR tends to be very small in December 2021. Apart from competition with Bank Syariah Indonesia, bank muamalat also experienced a decrease in FDR due to the pandemic.

Capital Adequacy Ratio (CAR) is the level of capital adequacy in Islamic commercial banks. The average CAR is 26.53 percent with a standard deviation of 10.72 so the CAR data is homogeneous with good data variations. The maximum CAR is 58.1 percent at BTPN Syariah bank in December 2021, while the minimum CAR is 12.12 percent at Bank Muamalat in March 2020. The average Islamic bank capital of 26.53 percent is still classified as a healthy bank because it is greater than the minimum level of CAR set by BI is 8 percent.

Non-Performing Financing (NPF) is a variable that reflects the asset quality of Islamic commercial banks. In addition to reflecting asset quality, NPF also includes variables that reflect financing risk. The higher the NPF, the higher the risk of financing Islamic commercial banks. The average NPF of Islamic commercial banks is 1.88 with a standard

deviation of 1.69 so the NPF data tends to be homogeneous with good data variations. The maximum NPF is 4.98 percent for the Muamalat sharia bank in the first quarter of 2020 while the minimum NPF is for the BTPN Syariah bank in the second and third quarters of 2020.

CIR is a variable related to efficiency. The higher the CIR, the efficiency of Islamic commercial banks is low. The average CIR is 72.32 percent with a standard deviation of 22.51, which means that the CIR data is homogeneous with good data variations. The maximum CIR is 136.77 percent at the Bukopin Syariah bank in December 2021 while the minimum CIR is 34.69 percent at the BTPN syariah bank in March 2020. The low CIR indicates the high efficiency level of BTPN syariah so that it is easier for BTPN syariah to earn a profit. Judging from the profitability data, BTPN Syariah is a bank with a high level of profitability.

Size is a banking size measured by using the natural logarithm of total assets. The larger the total assets of the bank, the larger the size of the bank. The average size of Islamic commercial banks is 16.4 with a standard deviation of 1.14 so that the size data of Islamic commercial banks is homogeneous with good data variations. The highest bank size is 19.39 at Bank Syariah Indonesia in December 2021, while the smallest bank size is 14.32 at Bank Victoria Syariah in December 2021.

### 3. Macroeconomic Variables

Macroeconomic variables include GDP, INF, SBI, and EXC. The average GDP is 0.37 with a standard deviation of 2.82 so the GDP data is heterogeneous with a fairly high data variation. Maximum GDP was 5.05 percent in September 2020 while the minimum GDP was -4.19 percent in June 2020. The average inflation during the pandemic was 1.79 percent with a standard deviation of 0.48 so that inflation data tend to be homogeneous. The highest inflation was 2.87 percent in March 2020 while the lowest inflation during the pandemic occurred in March 2021 at 1.43 percent.

The SBI used in this study is the 7day repo rate. The average SBI is 3.88 with a standard deviation of 0.44 so the SBI data tends to be homogeneous with good data variation. The maximum SBI is 4.75 percent in March 2020 while the minimum SBI during the pandemic occurs in June-December 2021 at 3.5 percent. The government suppresses interest rates and inflation so that the economy does not experience a significant shock due to the pandemic. The exchange rate or EXC during the pandemic was Rp. 14,498/\$ with a standard deviation of 236.33 so the exchange rate data tended to be homogeneous. The highest exchange rate occurred in June 2020 at Rp. 14,989/\$, while the lowest exchange rate was in March 2021 at Rp. 14,174/\$. The exchange rate in June 2020 shows that it has depreciated while the exchange rate in March 2021 shows that it has appreciated. This shows that the impact of the pandemic occurred in early 2020. In 2021, with government policies, the exchange rate can be controlled more so that in the first quarter of 2021 the exchange rate can appreciate.

In addition to descriptive analysis as described above, inferential statistical analysis will also be explained through multiple linear regression analysis. The regressed sample in Islamic commercial banks includes 8 samples for 8 periods so the number of observations produced is 64 observations. The best model for the sample of Islamic commercial banks is the fixed effect model. This can be seen from the F test (Chow test) which shows results less than 0.05 so that the model chosen is the fixed effect model. In addition, when regressed to a random model, the evIEWS show that it cannot be regressed to the random effect model. This is because the number of samples (8 Islamic commercial banks) is smaller than the number of regressed variables (9 variables) so that the random effect model cannot be done. Therefore, the best model given is the fixed effect model.

Figure 5 showed Macroeconomic Variables during period of this study

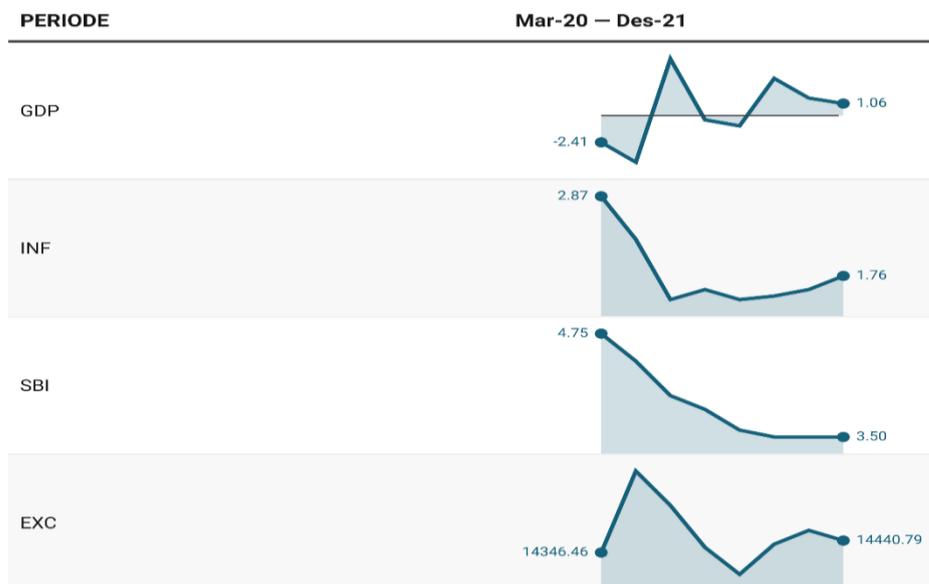


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Figure 5. Macroeconomic Variables during Covid-19

Table 4. Results of multiple linear regression analysis of Islamic commercial banks

| Fixed Effect Model |             |           |             |           |             |          |
|--------------------|-------------|-----------|-------------|-----------|-------------|----------|
| Variable           | Model ROA   |           | Model ROE   |           | Model NOM   |          |
|                    | Coefficient | Prob.     | Coefficient | Prob.     | Coefficient | Prob.    |
| C                  | -0.11844    | 0.9876    | 24.1648     | 0.7088    | -1.91816    | 0.7741   |
| CAR                | -0.03049    | 0.2319    | -0.50351    | 0.0231**  | -0.0087     | 0.6963   |
| FDR                | -0.03185    | 0.0021*** | -0.24155    | 0.0057*** | -0.02292    | 0.0106** |
| CIR                | -0.01728    | 0.0145**  | -0.11019    | 0.0635*   | -0.00311    | 0.606    |
| NPF                | 0.079016    | 0.3779    | 0.07721     | 0.9191    | 0.12786     | 0.1083   |
| SIZE               | 0.425525    | 0.2046    | 2.91993     | 0.3052    | 0.34378     | 0.2435   |
| SBI                | -0.28814    | 0.3242    | -3.17108    | 0.2041    | -0.26481    | 0.3033   |
| EXC                | -6.60E-05   | 0.7695    | -0.00123    | 0.5208    | 2.61E-05    | 0.8952   |
| INF                | 0.324434    | 0.1742    | 2.15589     | 0.2871    | -0.1032     | 0.6202   |
| GDP                | 0.007084    | 0.7619    | 0.00809     | 0.9676    | -0.02289    | 0.2688   |
| R-squared          | 0.873458    |           | 0.85474     |           | 0.8281      |          |
| Adjusted R-squared | 0.83038     |           | 0.8053      |           | 0.76958     |          |

Source: Data processed (2022)

Based on Table 4 it is known that the best model for the sample of Islamic commercial banks is the fixed effect model. Of the three profitability models, namely the ROA, ROE, and NOM models, the variables that have a significant effect are the variables that have an asterisk. Those variables are CAR, FDR, and CIR variables. The variables that affect profitability as proxied by ROA are only FDR and CIR, CAR, FDR, and CIR have a negative and significant effect on ROE, FDR has a negative and significant effect on NOM. FDR and CIR have a negative and significant effect on ROA. The meaning is that the higher the penetration of Islamic commercial banks on financing from third-party funds collected, the lower the profit generated from total asset management. This can happen because during the pandemic Islamic commercial banks must be careful in providing financing to customers. High financing during the pandemic will trigger financing risks from customers. This result is not in accordance with the proposed hypothesis which states that FDR has a significant positive effect on the profitability of Islamic commercial banks.

CIR or cost to income ratio shows how much efficiency Islamic commercial banks will charge to their income. The higher the CIR, the Islamic commercial banks tend to be less efficient. The hypothesis proposed regarding CIR is that CIR has a negative and significant effect on profitability. The results showed that CIR had a negative and significant effect on profitability as proxied by ROA and ROE while NOM, CIR had no significant effect. CIR has a negative effect on profitability, meaning that if the CIR is higher or in this case, if Islamic commercial banks are less efficient, the ROA will decrease. This result support the study by Risfandy and Pratiwi (2022).

Non-Performing Financing (NPF) during the pandemic experienced a very significant decline. At bank muamalat, for example, the NPF in the first quarter of 2020 was 4.98 percent but in the fourth quarter of 2021 it was 0.08 percent. The hypothesis proposed in the NPF is that the higher the NPF, the lower the profitability. The results showed that NPF had no significant effect on profitability. The meaning is high and low NPF will not cause profitability to increase or decrease. A real example is the NPF at Muamalat bank (see: Figure 5) which experienced a sharp decline during the pandemic but its profitability tends to be stable at 0.02 percent to 0.03 percent. This shows that during the pandemic the NPF of Islamic commercial banks did not cause profitability to increase or decrease. The results of this study are not in accordance with the research of Jaka Sriyana, Salsabilla, and Sukmana (Salsabilla et al., 2021; Sriyana, 2015; Sukmana & Febriyati, 2016) which states that NPF has a significant and negative effect on profitability.

The size of the bank which is proxied by the natural logarithm of total assets has no significant effect on profitability (ROA, ROE, and NOM). This means that the size of the bank does not affect the increase or decrease in profitability. Total assets consist of current assets and fixed assets. If a sharia commercial bank is a bank with a large bank size, it is not necessarily a large current asset because it could be a large fixed asset. If fixed assets have a higher proportion than current assets, then this will not affect profitability. The results of this study are not in accordance with the research of Miah & Uddin (2017) which states that bank size is something important in a bank that can affect profitability. This is because banks with large capitalizations will be more stable even though they are not cost efficient.

Macroeconomic indicator variables, namely interest rates (SBI), exchange rates (EXC), inflation (INF), and economic growth (GDP) have no significant effect on the profitability of Islamic commercial banks. This can be explained because Islamic commercial banks tend to be resistant to macroeconomic shocks so that the ups and downs of macroeconomic indicators do not have a significant impact on the profitability of Islamic commercial banks.

## CONCLUSIONS

This study found different results during the covid-19 pandemic on the profitability of Islamic commercial banks. The profitability of Islamic commercial banks as proxied by ROA is influenced by liquidity (financing to deposit ratio) and operational efficiency (Cost to income ratio). Profitability proxied by ROE is influenced by capital (capital adequacy ratio), liquidity (financing to deposit ratio), and operational efficiency (cost to income ratio). Profitability proxied by NOM is influenced by liquidity (financing to deposit ratio). During the pandemic, the most influential Islamic commercial bank profitability is liquidity (financing). The greater the financing disbursed by Islamic commercial banks during the pandemic, the lower the profitability of Islamic commercial banks. In detail, capital, liquidity, and operational efficiency have a significant negative effect on profitability. Interestingly, during the pandemic, macroeconomic indicator variables have no

significant effect on profitability. Bad loans and bank size also have no significant effect on profitability. This indicates that Islamic commercial banks are resistant to the COVID-19 pandemic crisis.

Islamic banking during the pandemic is expected to be able to suppress its capital and financing first in order to increase profitability. This is because during the pandemic, the government issued a policy to ease customer financing. This will lead to a decrease in the profitability of Islamic commercial banks. On the other hand, Islamic banks also need to improve their efficiency by reducing costs that can erode Islamic bank revenues in order to increase profitability.

The limitation of this study is that this research cannot include samples other than Islamic commercial banks. For further research, it is expected to be able to examine the impact of the COVID-19 pandemic on Islamic banks such as Islamic business units and Islamic people's financing banks. In addition, the influence of financial technology during the COVID-19 pandemic is also worthy of research.

The implication of this research is to increase profitability during the pandemic, it is hoped that stakeholders will be able to reduce capital, disburse financing, and increase efficiency by reducing costs. The government needs to control the COVID-19 pandemic with fiscal and monetary policies. Follow-up that can be done by further research is to examine new issues to create high novelty, especially for new normal conditions. This raises the question: Will there still be an economic recession in 2022? Can the profitability of Islamic commercial banks increase after the COVID-19 pandemic?

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