Macroeconomic Sensitivity and Financial Performance on Islamic Banks Profitability

Anafil Windriya[1*)], Mashudi[2)], Luluk Fauziah[3)], Shinta Marta Lorenza[4)], Irena Rahmawati[5)]

[1,2,3,4,5] Department of Business and Finance, Vocational School, University of Diponegoro

*Email correspondence: anafilwin@lecturer.undip.ac.id

Abstract

This study aims to determine and analyze the effect of NOM sensitivity on inflation, CAR, NPF, FDR, OER, and company size (Size) on profitability in Islamic commercial banks in Indonesia from 2017 to 2022. The population in this study are all Islamic Banks in Indonesia. The sample used is purposive sampling. There are 7 Islamic Banks that are the sample in this research object. The method used is linear regression, where this method is used for hypothesis testing. In this study, the measurement of the coefficient of determination, the F significance test, and the t significance test were used. This measurement is done to determine how much influence between variables. The test results show that simultaneously NOM sensitivity on inflation, CAR, NPF, FDR, OER, effect on profitability. However, the t significance test shows only OER has a significant negative effect on the profitability of Islamic commercial banks in Indonesia. Meanwhile, NOM's sensitivity to inflation, CAR, NPF, and firm size (Size) have no significant effect on the profitability of Islamic Banks in Indonesia. The hypothesis regarding the Financing to Deposit Ratio (FDR) has a positive effect on the profitability of Islamic banks has not been proven.

Keywords : Islamic Bank, Profitability, Sensitivity, Macroeconomic.

1. INTRODUCTION

The function of banking as a financing institution for the real sector can not be separated from economic development. According to Ryantiar (2013) in his book, the increasing real sector productivity can improve investment and business conditions which will have an impact on national income improvement. Bank finance functions as a financial intermediary between parties with and without funds. Financial institutions are similar to businesses and other service providers in their function as intermediaries. Banks used a process called production to take savings inputs and produce outputs that can be given back to the society.

The existence of Islamic banks is supported by a legal basis, namely the Act Concerning Bank (Act of the Republic of Indonesia Number 7 of 1992 concerning Banking as Amended by Act Number 10 of 1998), and specifically regulated by Act Number 21

of 2008 concerning Islamic Banking. The Islamic Banking Act was an initiative of the Indonesian Parliament. Approved and ratified by factional political parties and the government (Minister of Finance and Minister of Religion) at the Indonesian Parliament plenary meeting on June 17th, 2008, with the number of members of the Indonesian Parliament as many as 328 out of 549, except for the *Damai Sejahtera* Party faction. The Islamic Banking Act was finally ratified and implemented on July 16th, 2008 in Jakarta.

In the Global Islamic Finance Report 2021, Indonesia was on the first rank in the Islamic Finance Country Index (IFCI). This is mainly due to the Islamic social finance sector in Indonesia which is one of the most dynamic in the world. As part of the global economic plan to support post-pandemic economic recovery, it is expected that the achievement of IFCI this year will encourage the Indonesian Islamic

finance industry growth. Dody Budi Waluyo, Deputy Governor of Bank Indonesia (BI), conveyed that in the virtual seminar "The Role of Islamic Finance in the Post-Covid World" Cambridge IFA International Islamic Finance on October 29th, 2021. In the preparation of Indonesian Sharia Economic Festival (ISEF) Peak Event, this event is a series activity. Day 5 year 8 of 2021. According to S&P Global Ratings, the Islamic finance industry will expand by 10-12% between 2021 and 2022.The evaluation of Theasianbanker.com in the 2021 of the 100 largest Islamic banks in 25 countries exemplified this point. The total assets of the 100 largest Islamic banks are estimated at USD 1.11 trillion or around IDR 16.095 trillion or an exchange rate of IDR 14.500 per USD.

According to theasianbanker.com, there are five largest Islamic banks in the world by assets in 2021. The first is Al Rajhi Bank. This Saudi Arabian Islamic bank was estimated to have assets of USD 124.97 billion in 2021 or around IDR 1.812.065 trillion. (exchange rate: IDR 14 0,500 per USD). The second is the Kuwait Finance House. Kuwait Finance House is the second largest Islamic bank in the world and based in the United Arab Emirates (UAE). As of 2021, its assets were around IDR 1.142.6 trillion, or USD 78.8 billion. The third is Dubai Islamic Bank. Dubai Islamic Bank is firmly established as the third best Islamic Bank. In 2021, this bank from Kuwait had assets of approximately IDR 1.142.6 trillion or USD 70.68 billion. The fourth is Maybank Syariah. Maybank Syariah is a neighboring sharia bank which can compete with Middle Eastern sharia banks. Maybank Islamic assets were also quite large, amounting to USD 63.5 billion or around IDR 920.75 trillion in 2021. And the fifth is Qatar. Qatar is home to the world's fifth largest Islamic bank, as the name suggests. This bank has assets worth approximately IDR 694.4 trillion or USD 47.89 billion.

The Royal Islamic Strategic Studies Center (RISSC) published a report which estimated the Indonesian Muslim population at 237.56 million and was depicted in the histogram below:
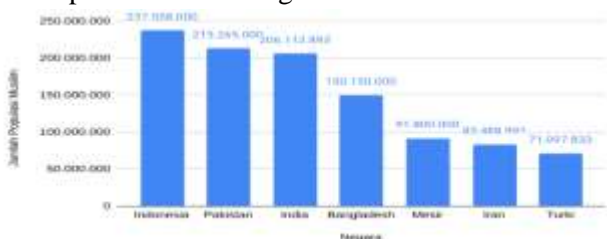

Figure 1. Seven Countries with the Most Muslim Populations

In 2022, Indonesia regained its position as the country with the largest Muslim population in the world. The Royal Islamic Strategic Studies Center (RISSC) published a report estimating Indonesian Muslim population at 237.56 million. The Muslim population makes up 86.7 percent of the country's total population. This percentage is equivalent to 12.30 percent of the 1.93 billion Muslims worldwide. However, it is still a question why Indonesia is not included in the list of the largest Islamic banks in the world. This is one of the reasons of the author to discuss Islamic banks in Indonesia in this study.
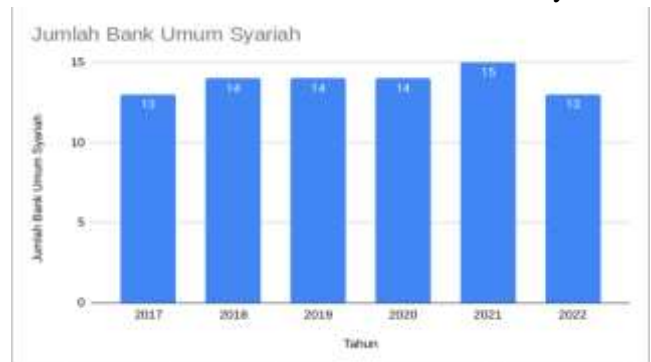

Figure 2. Number of Islamic Commercial Banks in 2017-2022 (processed data)

As the number of Islamic banks in Indonesia increases, this causes various problems in the society. The crucial problem is how the quality of the performance and health of Islamic banking is.

According to Wijaya (2019) in his research he said that Return on Assets (ROA) is a ratio used to measure a company's ability to generate profits because this ratio represents a return on company activities. ROA is the ratio between profit before tax to total assets. According to Hery (2014: 193) in his book, the higher the return on assets means the higher the amount of net profit generated for every rupiah of funds embedded in total assets.

The variables used in this study consist of external and internal factors that affect the profitability of Indonesian Islamic banks. External factors are proxied by the sensitivity of changes in income (NOM) to inflation to changes in Return on Assets (ROA), while internal factors are proxied by financial ratios including Capital Adequacy Ratio (CAR), Financing To Deposit Ratio (FDR), Net Performance Financing (NPF), Operational Efficiency Ratio (OER), and company size (Size).

This study used the sensitivity of changes in NOM to inflation to (ROA). The effect of the sensitivity of changes in NOM to inflation showed

how the change percentage in the inflation rate affected the change percentage of NOM. This showed how much changes in inflation affect changes in NOM. NOM has an impact on ROA because a high NOM ratio implies that Islamic banks are able to generate profit-sharing income that is greater than the profit-sharing expenses incurred to channel financing, so that the profits obtained by the bank are greater.
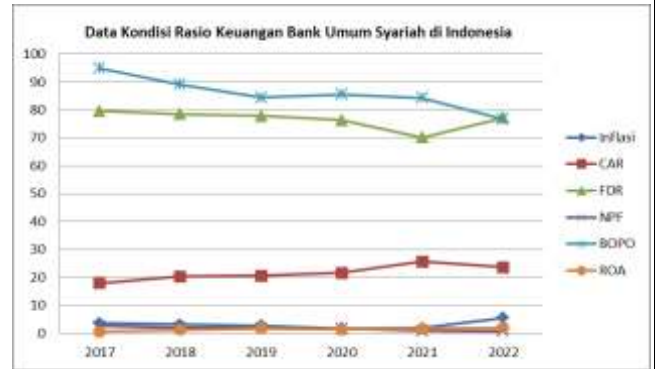

Figure 3. Financial Ratio Data of Islamic Commercial Banks in Indonesia for 2017 - 2022

In fact, the macroeconomic conditions and characteristics of Islamic banks have an effect on ROA as shown in the following table:

Table 1. The Condition Data of Financial Ratio of Islamic Commercial Banks for the 2017-2022 period in Indonesia.

Year	Inflation (%)	CAR (%)	FDR (%)	NPF (%)	OER (%)	Total Assets (In Billion Rupiah)	ROA (%)
2017	3,61	17,91	79,65	2,58	94,91	263.206	0,63
2018	3,13	20,39	78,53	1,95	89,18	291.353	1,28
2019	2,72	20,59	77,91	1,88	84,45	325.365	1,73
2020	1,68	21,64	76,36	1,57	85,55	368.338	1,40
2021	1,87	25,71	70,12	0,81	84,33	409.638	1,55
2022	5,51	23,65	77,19	0,67	76,71	460.977	2,04

Based on the data in the table above, there is a discrepancy between reality and theory and the results of the previous studies. It can be observed from the table above that inflation has decreased every year. The table provides information that in 2017 there was inflation of 3.61%, but in 2018 it decreased to 3.13%, this decline continued until in 2019 it became 2.72%. And it continued to a drastic decline in 2020 of 1.68%. However, in 2021 it increased to 1.87% and increased drastically to 5.51% in 2022. This contradicts the results obtained by Suryadi et al (2020) where the inflation rate has a positive effect on ROA and Raharjo, et al (2020) said that inflation has an effect on ROA. The results obtained are a decrease in the percentage of inflation each year followed by a decrease in ROA. It was supported by Syah (2018) in his research said that inflation has negative effect on ROA.

The level of CAR is directly proportional to ROA, but in fact in 2019-2020 when the percentage of CAR increased from 20.59% to 21.64%, ROA actually decreased from 1.73% to 1.40%. This was in line with the research conducted by Syakhrun, et al (2019) which said that CAR has a negative effect on profitability and La Difa, et al (2022) who said that CAR has a significant negative effect on profitability. The results of Almunawwaroh and Marliana (2018) show that CAR has a negative effect on bank profitability. This contradicted to the results obtained by Wirnawati and Diyani (2019) and Raharjo et al (2020) where said that CAR has no effect on ROA. In the research by Wahyudi (2020), partially CAR did not have a positive effect on ROA, which indicated that the capital condition of Islamic banks was allegedly unable to withstand the rate of possible risk of loss. Islamic banks still have capital for additional reserves for losses, but they must be more careful.

The decrease in the percentage of FDR will affect a decrease in the level of ROA, but in fact when FDR decreases, ROA does not decrease and even increases. Research by La Difa, et al (2020) strengthened this statement where the results of their research said that FDR has no significant effect on profitability. However, it is inversely proportional to the opinion of Aulia and Anwar (2021) which said that FDR has a positive and significant influence on profitability.

The decrease in the percentage of NPF causes ROA to increase. This statement is supported by the research of Syakhrun, et al (2019) which said that NPF has a negative effect on profitability. Contradicted to the results of research by Rivandi and Guzmariza (2021) and Raharjo et al (2020) which said that NPF has no significant effect on profitability.

The increase in the Operational Efficiency Ratio (OER) percentage will cause ROA. This statement is supported by research conducted by La Difa, et al (2022) that the Operational Efficiency Ratio (OER) has a significant negative effect on profitability. Aulia and Anwar (2021) argued the opposite where the Operational Efficiency Ratio (OER) has no significant effect on profitability.

The phenomenon and research gaps that have been mentioned are used as a reference for determining indicators that affect profitability in Indonesian Islamic banks.

Literature Review

The effect of the sensitivity of changes in NOM to inflation shows how the change percentage in the inflation rate affects the change percentage of NOM. This shows how much changes in inflation affect changes in NOM. NOM has an impact on ROA because a high NOM ratio implies that Islamic banks are able to generate profit-sharing income that is greater than the profit-sharing expenses incurred to channel financing, so that the profits obtained by the bank are greater. Based on the results of research by Irawan and Kharisma (2020) said that there is a significant positive relationship between NOM and profitability.

The Capital Adequacy Ratio (CAR) is a ratio that describes how much banks total risky assets (loans, investments, securities, and claims on other banks) are financed with their own capital in addition to money obtained from other sources (PBI, 2008). The greater the CAR value, the greater the bank's flexibility in allocating funds for investment activities. This will have an impact on increasing bank profitability. According to the research results of Sihite and Wirman (2021) which said that CAR has a positive effect on the profitability of Islamic banks. Damayanti et al (2021) also said that CAR has a significant positive effect on Return On Asset.

According to Muhammad (2005) in his book, Financing to Deposit Ratio (FDR) is a comparison between financing provided by banks, with third party funds that are successfully used by banks. The lower of the FDR value indicates the lack of effectiveness of the bank in channeling financing which can cause the bank to experience problems so that can lead to a decrease in bank profitability. This is supported by Aulia and Anwar (2021) in their research finding that the FDR variable has a positive effect on profitability.

Non-Performing Financing (NPF) is a financial ratio related to credit risk. The higher the NPF value illustrates the higher the credit risk of a bank which can cause the bank's profitability to decrease. This is because the Islamic banks income is obtained from profit sharing which is channeled to its clients. Research conducted by La Difa, et al (2022) supported this statement which said that the NPF variable has a negative effect on profitability. Damayanti et al (2021) also said that Non Performing Financing has a significant negative effect on Return On Asset. Research by Pravasanti (2018) also show that Non Performing Financing has a significant negative effect on Return On Asset.

Operational Efficiency Ratio (OER) is used to measure the level of efficiency and ability of a bank to carry out its operational activities. The higher the Operational Efficiency Ratio (OER) value indicates that the operational activities are increasingly inefficient so that the income is getting smaller as well. Thus, it can be said that Operational Efficiency Ratio (OER) has a negative effect on bank profitability. This is supported by research conducted by La Difa, et al (2022) which said that Operational Efficiency Ratio (OER) has a negative effect on profitability.

Operational Efficiency Ratio (OER) is used to measure the efficiency and ability of a bank in carrying out its operational activities. The greater the Operational Efficiency Ratio (OER) value, the more inefficient the bank's operations are, so that income decreases. So, it can be said that Operational Efficiency Ratio (OER) has a negative impact on bank profitability. The research conducted by La Difa, et al

(2022) supported this statement, said that Operational Efficiency Ratio (OER) has a negative effect on profitability. Banks have flexibility in placing their investments, so that the size of the company's assets can encourage greater profits. This is supported by research conducted by Maqhfirah and Fadhila (2020) which showed that company size has a positive effect on profitability. Belianti and Ruhadi (2020) also show that company size has a positive effect on profitability. However, this contradicted to the research conducted by Asri and Suarjaya (2018) which stated that company size partially has no significant effect on ROA.

Based on the previous research studies, the following hypotheses were built:

H1: The sensitivity of changes in Net Operating Margin (NOM) to inflation has a negative effect on the profitability of Islamic banks.

H2: Capital Adequacy Ratio (CAR) has a positive effect on the profitability of Islamic banks.

H3: Financing to Deposit Ratio (FDR) has a positive effect on the profitability of Islamic banks.

H4: Non-Performing Financing (NPF) has a negative effect on the profitability of Islamic banks.

H5: Operational Efficiency Ratio (OER) has a negative effect on the profitability of Islamic banks.

H6: Firm size (Size) has a positive effect on the profitability of Islamic banks.

So then, based on the description above, the effect of NOM, CAR, FDR, NPF, OER and Size on the profitability of Islamic Commercial Banks for the 2017-2022 period can be described as a research model as follows:
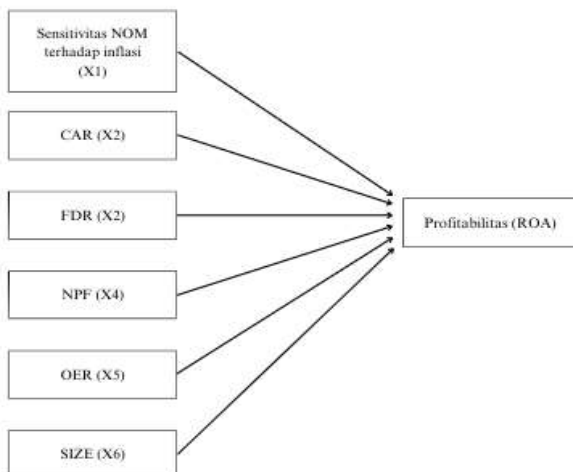

Figure 4. Thinking Framework

2. METHODS

The method used in this research is descriptive quantitative using secondary data in the form of Return On Assets (ROA) as the dependent variable and using the sensitivity of Net Operating Margin (NOM) to inflation, Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), Non-Performing Financing (NPF), Operational Efficiency Ratio (OER) and company size (SIZE) as independent data. The data was taken from the Financial Services Authority, Bank Indonesia and the annual financial reports of Bank Muamalat Indonesia, Bank Mega Syariah, Bank Panin Dubai Syariah, Bank KB Bukopin, BCA Syariah, BTPN Syariah, and Bank Aceh Syariah for the 2017-2022 period which was accessed through the official website of each company. This research used a population of all Islamic Commercial Banks in Indonesia from 2017 to 2022 of 7 banks. This research used a purposive sampling method for data collection based on several criteria.

The criteria of sample selection are: 1. Islamic Commercial Banks registered at Bank Indonesia in the 2017-2022 period. 2. The bank under research still operates during the period 2017-2022. 3. The bank under research provides complete financial reports and quarterly ratio according to the variables to be studied during the 2017-2022 period. 4. The bank under research has completed NOM, CAR, FDR, NPF, OER data and balance sheets for the 2017-2022 period. Based on these criteria, the samples used were 7 Islamic commercial banks including Bank Muamalat Indonesia, Bank Mega Syariah, Bank Panin Dubai Syariah, Bank KB Bukopin, BCA Syariah, BTPN Syariah, and Bank Aceh Syariah.

Data collection was carried out through literature study by reviewing literature books, journals, thesis, and other sources related to the research to obtain an appropriate theoretical basis related to Islamic Commercial Banks. In addition, the data was also obtained by digging up information through financial reports from Bank Muamalat Indonesia, Bank Mega Syariah, Bank Panin Dubai Syariah, Bank KB Bukopin, BCA Syariah, BTPN Syariah, and Bank Aceh Syariah in the form of quarterly financial reports published by each Islamic Commercial Banks through the Bank Indonesia website and the official website by looking at the values of the financial ratios NOM, CAR, FDR, NPF, Operational Efficiency Ratio (OER), and balance sheets in the 2017-2022 period.

Table 2. Variable Operational Definition

No	Variable	Definition	Measurement
1	Return On Assets (ROA)	A ratio between profit before tax to average total assets	$ROA = \dfrac{Profit\ Before\ Tax}{Average\ Total\ Assets}\ x\ 100\%$
2	Sensitivity of NOM to Inflation	How the change percentage in NOM influenced (caused) by the change percentage in the inflation rate	Sensitivity of NOM to inflation : $\dfrac{\Delta NOM}{\Delta Inflasi}\ x\ \dfrac{Inflasit}{NOMt}$
3	*Capital Adequacy Ratio* (CAR)	A ratio that shows how big the total amount of bank assets containing risk (loans, investments, securities, claims on other banks)	$CAR = \dfrac{Capital}{Risk\ Weighted\ Assets}\ x\ 100\%$
4	*Financing to Deposit Ratio* (FDR)	A comparison between financing provided by the bank and the third-party funds which successfully mobilized by the bank	$FDR = \dfrac{Financing}{Third\ Party\ Funds}\ x\ 100\%$
5	*Non Performing Financing* (NPF)	A ratio between problematic financing and total finaning disbursed by the Islamic banks	$NPF = \dfrac{Problematic\ Financing\ Total}{Financing\ Total}\ x\ 100\%$
6	Operational Efficiency Ratio (OER)	Measuring the bank management ability to control the operationg expenses against the operating income	$OER = \dfrac{Operating\ Expenses\ Total}{Operating\ Income\ Total}\ x\ 100\%$
7	Company Size (SIZE)	A scale on which small or big company can be classified	$SIZE = Log\ n\ Total\ Aset$

The analysis techniques in this research used the SPSS 23.0 data processing program to perform analysis and calculation of quantitative data. The method used to process the data in this research was linear regression, where this method was used to test hypotheses. In this research, measurements of the coefficient of determination, F significance test, and T significance test were used. These measurements were carried out to determine how much influence the variables have.

3. RESULTS AND DISCUSSION

3.1. Research Results

This research used a purposive sampling method where there were 7 Islamic banks in Indonesia as samples. The selected company is a company registered with Bank Indonesia for 2017 - 2022, still operating in the last five years, providing financial reports and quarterly ratios from 2017 - 2022, and has complete NOM, CAR, FDR, NPF, Operational Efficiency Ratio (OER), and balance sheet data from 2017 - 2022. The sample results that meet the criteria are as follows:

Table 3. Sample results that meet the criteria

	PT Bank Muamalat Indonesia Tbk	PT Bank Mega Syariah	PT Bank Panin Dubai Syariah Tbk	PT Bank KB Bukopin Syariah	BCA Syariah	PT BTPN Syariah	PT Bank Aceh Syariah
Registered with Bank Indonesia (2017 - 2022)	✓	✓	✓	✓	✓	✓	✓
Still operating (2017 - 2022)	✓	✓	✓	✓	✓	✓	✓
Completeness of Data (NOM, FDR, ROA, CAR, NPF, OER, dan Size)	✓	✓	✓	✓	✓	✓	✓

Regression Analysis

Testing of multiple linear regression analysis in this research was processed using the SPSS 23.0 program. In this research there was a problem, namely an excluded variable occurred when processing data using SPSS 23.0, this problem was due to the value obtained on the FDR variable being too different from the value of other variables and the results were the same as the value of the NPF variable after data transformation. So that SPSS 23.0 excluded these variables, and did not process the data.

Hypothesis Test
Multiple Linear Regression

Testing of multiple linear regression analysis in this research was processed using the SPSS 23.0 program, where the test results can be observed in the table below:

Table 4. Models: *Summary*
Model : Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.869[a]	.754	.730	1.03413	1.093

a. Predictors: (Constant), LN_SN, LN_SIZE, LN_CAR, LN_NPF, LN_OER
b. Dependent Variable: LN_Y

Table 5. *Anova*
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	164.155	5	32.831	30.700	.000[b]
	Residual	53.471	50	1.069		
	Total	217.626	55			

a. Dependent Variable: LN_Y
b. Predictors: (Constant), LN_SN, LN_SIZE, LN_CAR, LN_NPF, LN_OER

Table 6. *Coefficients*
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-5.438	1.215		-4.475	.000		
	LN_CAR	.771	.437	.162	1.765	.084	.585	1.710
	LN_NPF	.358	.350	.092	1.024	.311	.608	1.645
	LN_OER	-8.978	1.340	-.745	-6.697	.000	.397	2.520
	LN_SIZE	.049	.246	.020	.200	.843	.514	1.946
	LN_SN	-.005	.101	-.005	-.049	.961	.582	1.718

a. Dependent Variable: LN_Y

Table 7. *Excluded Variables*

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		Minimum Tolerance
						Tolerance	VIF	
1	LN_FDR	.[b]	.	.	.	.000	.	.000

a. Dependent Variable: LN_Y

b. Predictors in the Model: (Constant), LN_SN, LN_SIZE, LN_CAR, LN_NPF, LN_OER

Based on the table above, it can be seen that there are excluded variables which are because the results of the FDR in the sample of companies are exactly as same as the results of the NPF, so SPSS excluded these variables. Thus, from the SPSS output, the final results of multiple linear regression are obtained as follows:

Y = -5,438 + 0,771 CAR +0,358 NPF - 8,978 OER + 0,049 SIZE -0,005 SN

a. Coefficient of Determination (R2) and Correlation (R)

It was used to find out how much the independent and control variables used the regression model can explain the dependent variable. It was found that R2 was 0.754, this indicated that ROA could be explained using the variables CAR, NPF, Operational Efficiency Ratio (OER), SIZE, and NOM Sensitivity of 75.4% while the remaining 24.6% of the variability of the ROA value was explained by other variables which was not examined. The coefficient value (R) was 0.869, this indicated that there was a unidirectional positive relationship between CAR, NPF, Operational Efficiency Ratio (OER), SIZE, and NOM's sensitivity to ROA.

b. F Test

The F test was conducted to determine the effect of CAR, NPF, Operational Efficiency Ratio (OER), SIZE, and NOM Sensitivity simultaneously on the ROA variable. The results of the F test of the regression model can be seen in table 5. ANOVA based on the results of the F test and it was known that the calculated F value was 30.700 with a significant value of 0.000. The significant value of the calculated F was found to be less than 0.05, so it could be concluded that CAR, NPF, Operational Efficiency Ratio (OER), SIZE, and NOM sensitivity have an effect on ROA.

c. T Test

T test was conducted to determine the effect of applying CAR, NPF, Operational Efficiency Ratio (OER), SIZE, and NOM Sensitivity on the ROA variable. The results of the t test of the regression model are as follows:

Table 8. T Test Count

Description	t count	Sig.	Annotation
CAR	1.765	.084	Not Significant
NPF	1.024	.311	Not Significant
OER	-6.697	.000	Significant
SIZE	.200	.843	Not Significant
Sensitivity of NOM	-.049	.961	Not Significant

Based on the table above, the calculated t value of CAR to ROA is 1.765 with a significance value of 0.084. Because the t and sig values are less than 0.05, it can be concluded that CAR has no significant effect on the ROA value. For the results of the calculated t value of the NPF on the value of ROA is 1.024 with a significance value of 0.311. Because the t and sig values are less than 0.05, it can be concluded that the NPF has no significant effect on the ROA value. The result of the calculated t value from OER to the ROA value is -6.697 with a significance value of 0.000. Because the t and sig values are greater than 0.05, it can be concluded that Operational Efficiency Ratio (OER) has a significant influence on the ROA value. In the SIZE variable, the calculated t value is 0.200 with a significance value of 0.843. Because the t and sig values are less than 0.05, it can be concluded that SIZE has no significant effect on the ROA value. And on the NOM Sensitivity variable to inflation, the calculated t

value to the ROA value is -0.049 with a significance value of 0.961. Because the t and sig values are less than 0.05, it can be concluded that CAR has no significant effect on the ROA value.

3.2. Discussion

Based on the result above, the findings of this research are:

a. The Effect of Sensitivity of NOM Variable to Inflation to ROA

From the results of the research, it was obtained that the regression coefficient of the NOM sensitivity variable to inflation in a negative direction was -0.005 with a significance value of 0.961 where this value was not significant at a significance level of 0.05, because it was greater than 0.05. It can be interpreted that the variable sensitivity of NOM to inflation has no significant effect on ROA. Thus, the first hypothesis which stated the sensitivity of NOM to inflation has a negative effect on ROA cannot be accepted. This study showed that the high or low sensitivity of NOM to inflation has no significant effect on the profitability of Islamic banks. This is supported by the results of research conducted by Suryadi, et al (2020) which stated that inflation has no significant effect on ROA. Arumingtyas and Muliati (2019) also said that inflation has no effect on ROA because Islamic Banks do not use the system interest in operations.

The results of this research illustrated that the high or low value of the sensitivity of NOM to inflation has no significant effect on the profitability of Islamic banks proxied by ROA. The sensitivity of NOM to the inflation rate reflected how much influence changes in the inflation rate cause to the percentage change in NOM. From a theoretical point of view, the results of research on Islamic banking in Indonesia tended to be more in line with pure Islamic Economic Theory which explained that Islamic economics placed more emphasis on the circulation of money in the real sector so as to achieve a balance between the money supply and money demand. Money is not considered as an investment in Islam, but solely as a medium of exchange, so that money must be used for real businesses that bring benefits. In contrast to conventional banks which follow to an interest rate system where if inflation increases, interest rates will decrease. When interest rates fall or are low, there will be more demand for loans where people will choose to borrow more money than save them. This can bring an impact on decreasing bank income or profitability.

b. The Effect of CAR Variable to ROA

The second proposed hypothesis stated that the Capital Adequacy Ratio (CAR) has a positive effect on ROA. From the research results, it was found that the regression coefficient of the CAR variable with a positive direction was 0.771 with a significance value of 0.084, where this value was not significant at a significance level of 0.05 because it was greater than 0.05. It can be interpreted that the CAR variable has no significant effect on ROA. Thus, the second hypothesis which stated that CAR has a positive effect on ROA cannot be accepted. The results of this research were supported by the results of research conducted by Aulia and Anwar (2021). This research showed that CAR has no effect on ROA. Raharjo et al (2020) in his research also showed that CAR has no effect on ROA. Research by Pravasanti (2018) also shows that CAR has no significant effect on ROA. Astuti (2022) also supports this statement by the result of her research that show CAR has no significant effect on ROA.

The results of this research illustrated that the size of the CAR value did not necessarily affect the size of the bank's profitability value proxied by ROA. If Islamic banks are unable to manage their capital effectively to generate profits, then even their large capital reserves will only have a small impact on bank profitability. Furthermore, the CAR regulations of Bank Indonesia require a minimum CAR of 8%. This requirement requires banks to always comply with the criteria for the capital adequacy index (CAR). However, the facts on the ground that the majority of banks tend to limit the CAR value to no more than 8% because that means there is no capital investment or even waste because bank equity is actually trust, and 8% CAR is only provided by Bank Indonesia to adjust in accordance to business International Banking from the Bank for International Settlements. In the research by Wahyudi (2020), partially CAR did not have a positive effect on ROA, which indicated that the capital condition of Islamic banks was allegedly unable to withstand

the rate of possible risk of loss. Islamic banks still have capital for additional reserves for losses, but they must be more careful.

c. The Effect of FDR Variable to ROA

In this research, there was a problem, namely an excluded variable occurred when processing data using SPSS 23.0, this problem was due to the value obtained on the FDR variable being too different from the value of other variables and the results were the same as the value of the NPF variable after data transformation. So, SPSS 23.0 excluded these variables, and did not process the data.

d. The Effect of NPF Variable to ROA

The fourth proposed hypothesis stated that Non-Performing Financing (NPF) has a negative effect on ROA. From the results of the research, it was obtained that the regression coefficient of the NPF variable with a positive direction was 0.358 with a significance value of 0.311, where this value was not significant at a significance level of 0.05 because it was greater than 0.05. It can be interpreted that the NPF variable has no significant effect on ROA. Thus, the fourth hypothesis which stated that NPF has a negative effect on ROA could not be accepted. The results of this research were supported by the results of research conducted by Rivandi and Guzmaria (2021) which showed that NPF has no significant effect on ROA which is a proxy for profitability. It is also supported by Raharjo et al (2020) in his research that showed NPF has no effect on ROA. Astuti (2022) and Nasution et al (2022) also show that NPF has no effect on ROA in Islamic Bank Indonesia.

The results of the research illustrated that any increase or decrease in the NPF variable did not affect profitability (ROA) in Islamic Commercial Bank Companies in Indonesia. This showed that the bank will still get benefits from its assets even though the bank's NPF has increased or decreased. Because the significant influence of NPF on ROA is directly related to determining the level of congestion financing provided by a bank.

Moreover, the average NPF of Islamic commercial banks in Indonesia is below the BI standard rate of 5% so that the NPF of Islamic banks has no effect on profitability. NPF is the ratio used to determine problem financing borne by banks based on the total financing that has been disbursed by banks. The higher the NPF value, the smaller the change in profit. This is because the income received by the bank will decrease and the costs for allowance for write-offs of receivables will increase which will result in decreased profits or increased losses.

The results of this research were in line with the research results by Wahyudi (2020) whose partial test findings showed that NPF has no significant impact on ROA. Where the performance of Islamic bank customers decreased due to default, but this did not significantly affect bank profitability. The bank will still earn profit with the assets it owns.

e. The Effect of Operational Efficiency Ratio (OER) Variable to ROA

From the results of the research, the regression coefficient of the Operational Efficiency Ratio (OER) variable was obtained with a negative direction of -8.978 with a significance value of 0.000, where this value is significant at a significance level of 0.05 because it is smaller than 0.05. Thus, the fifth hypothesis which stated Operational Efficiency Ratio (OER) has a negative effect on ROA could be accepted. The results of this research were supported by the results of research conducted by Syakhrun, et al (2019), and La Difa, et al (2022) which showed that Operational Efficiency Ratio (OER) has a significant negative effect on ROA which is a proxy for profitability. in their research also show that Operational Efficiency Ratio (OER) has a significant negative effect on ROA.

The results of this research illustrated that the greater the Operational Efficiency Ratio (OER) value, the lower the bank's profit proxied by ROA. Syakhrun, et al (2019) in his research stated that the income generated by banks is influenced by the level of efficiency of the bank in carrying out its operation. The smaller the Operational Efficiency Ratio (OER) ratio, the more efficient the operational costs incurred by Islamic banks, so that the profits generated by these banks can increase. Conversely, the higher the bank's Operational Efficiency Ratio (OER) ratio, the less efficient the bank is in controlling its operating costs, thereby affecting the decrease in income generated by Islamic Commercial Banks.

f. The Effect of SIZE Variable to ROA

From the results of the research, it was found that the regression coefficient of the Size variable with a positive direction was 0.049 with a significance value of 0.843 where this value was not significant at a significance level of 0.05 because it was greater than 0.05. Thus, the sixth hypothesis which stated that Size has a negative effect on ROA could not be accepted. The results of this research are supported by the results of research conducted by Asri and Suarjaya (2018) which showed that company size has no significant effect on ROA which is a proxy for profitability.

The results of the research showed that the condition of a larger company size (Size) does not directly cause an increase in bank profits proxied by ROA. Islamic banks that have high assets do not necessarily have large income and vice versa. It is possible that the bank has too many fixed assets so that it does not affect the increase in bank income. The size of the assets owned can provide a high amount of credit, where credit risk can occur which reduces bank profits, so it does not really affect ROA. In addition, the larger the size of a company, the company will also need a lot of funds to carry out its operational activities so that it can reduce the level of profitability obtained by the company.

4. CONCLUSION

Based on the test results, it was found that the results of the regression test were only the OER variable which had a significant negative effect on profitability proxied by ROA. Meanwhile, the variables CAR, NPF, SIZE, and NOM's sensitivity to inflation have no significant effect. There was a problem in this study, namely the results of data processing through SPSS 23.0 excluded these variables, and did not process the data because the FDR variable was too different from the value of other variables and the result is the same as the value of the NPF variable after data transformation. And the third hypothesis that FDR has a positive effect on the profitability of Islamic banks has not been proven. Suggestions that can be given regarding this research are that the management of Islamic banks is advised to reduce Operational Efficiency Ratio (OER) values and increase bank effectiveness. This is because referring to the research results that Operational Efficiency Ratio (OER) has a negative influence on bank profitability.

5. REFERENCES

"5 Bank Syariah Terbesar di Dunia, Ada yang dari Negara Tetangga." *Ekbis Sindonews.com*, 29 August 2022, https://ekbis.sindonews.com/read/869905/178/5-bank-syariah-terbesar-di-dunia-ada-yang-dari-negara-tetangga-1661764122. Accessed 1 March 2023.

"Indonesia Raih Peringkat Pertama Islamic Finance Country Index (IFCI) Pada Global Islamic Finance Report 2021." *Bank Indonesia*, 29 October 2021, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2328321. aspx. Accessed 22 February 2023.

"Statistik Perbankan Syariah - Desember 2021." *OJK*, https://www.ojk.go.id/id/kanal/syariah/data-dan-statistik/statistik-perbankan-syariah/Pages/Statistik-Perbankan-Syariah---Desember-2021.aspx. Accessed 20 April 2023.

Almunawwaroh, M., & Marliana, R. (2018). Pengaruh Car,Npf Dan Fdr Terhadap Profitabilitas Bank Syariah Di Indonesia. *Amwaluna: Jurnal Ekonomi Dan Keuangan Syariah*, 2(1), 1–17. https://doi.org/10.29313/amwaluna.v2i1.3156

Arumingtyas, F., & Muliati, L. (2019). Analisis Pengaruh Inflasi Terhadap Profitabilitas Bank Umum Syariah Devisa Di Indonesia. *Simposium Nasional Multidisiplin (SinaMu)*, 1(1).

Asri, N. N. S., & Suarjaya, A. A. G. (2018). Pengaruh Dana Pihak Ketiga, Capitaladequacy Ratio, Likuiditas, dan Ukuran Perusahaan Terhadap Profitabilitas. *E-Jurnal Manajemen Unud*, 7(6), 3384–3411.

Astuti, R. P. (2022). Pengaruh CAR, FDR, NPF, Dan BOPO Terhadap Profitabilitas Perbankan Syariah. *Jurnal Ilmiah Ekonomi Islam*, 8(03), 3213–3223. http://dx.doi.org/10.29040/jiei.v8i3.6100

Aulia, R., & Anwar, S. (2021). Pengaruh Biaya Operasional dan Pendapatan Operasional, Net Operating Margin, Dana Pihak Ketiga dan Capital Adequacy Ratio terhadap Profitabilitas Bank Syariah. *Bukhori: Kajian Ekonomi Dan Keuangan Islam*, 1(1), 21–38. https://doi.org/10.35912/bukhori.v1i1.437

Belianti, L., & Ruhadi. (2020). Analisis Pengaruh Indeks Maqashid Syariah dan Ukuran Perusahaan terhadap Profitabilitas. *Industrial Research Workshop and National Seminar*, 11(01), 1167–1172. https://ejournal.stiedewantara.ac.id/index.php/001/article/view/311

Damayanti, C., Nurdin, A. A., & Widayanti, R. (2021). Analisis Pengaruh NPF, CAR, dan FDR terhadap Profitabilitas Bank Umum Syariah di Indonesia Periode 2015-2019. *Journal of Applied Islamic Economics and Finance*, 2(1), 9–20. https://doi.org/10.35313/jaief.v2i1.2818

Irawan, M. A., & Kharisma, F. (2020). Pengaruh Net Operating Margin (NOM) terhadap Return On Asset (ROA) pada Perbankan Syariah Tahun 2013-2017. *Borneo Student Research*, *1*(3), 1468–1473.

La Difa, C. G., Setyowati, D. H., & Ruhadi, R. (2022). Pengaruh FDR, NPF, CAR, dan BOPO Terhadap Profitabilitas Bank Umum Syariah di Indonesia. *Journal of Applied Islamic Economics and Finance*, 2(2), 333–341. https://doi.org/10.35313/jaief.v2i2.2972

Maqhfirah, S., & Fadhlia, W. (2020). Pengaruh Modal Intelektual Dan Ukuran Perusahaan Terhadap Profitabilitas Bank Umum Syariah (Studi Pada Bank. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)*, *5*(1), 137–148.

Nasution, S., Silalahi, P. R., & Khairunnisa, A. (2022). Analisis Pengaruh Fdr Dan Npf Terhadap Profitabilitas Bank Syariah Di Indonesia. *Inklusif (Jurnal Pengkajian Penelitian Ekonomi Dan Hukum Islam)*, *7*(1), 1. https://doi.org/10.24235/inklusif.v7i1.8992

Pravasanti, Y. A. (2018). Pengaruh NPF dan FDR Terhadap CAR dan Dampaknya Terhadap ROA Pada Perbankan Syariah Di Indonesia. *Jurnal Ilmiah Ekonomi Islam*, *4*(03), 148. https://doi.org/10.29040/jiei.v4i03.302

Raharjo, H., Wijayanti, A., & Dewi, R. R. (2020). Analisis Pengaruh Kinerja Keuangan Dan Inflasi Terhadap Profitabilitas Bank Umum Syariah Di Indonesia (Tahun 2014-2018). *Jurnal Ilmiah Akuntansi Dan Manajemen*, *16*(1), 15–26. https://doi.org/10.31599/jiam.v16i1.110

Rivandi, M., & Gusmariza, T. (2021). Pengaruh Financing to Deposit Ratio, Capital Adequacy Ratio dan Non Performing Financing terhadap Profitabilitas pada Bank Umum Syariah. *Owner*, *5*(2), 473–482. https://doi.org/10.33395/owner.v5i2.470

Sihite, A. H. R., & Wirman. (2021). Pengaruh Capital Adequacy Ratio (CAR) Dan Financing To Deposit Ratio (FDR) Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. *Maro: Jurnal Ekonomi Syariah Dan Bisnis*, *4*(2), 1–8. https://doi.org/10.31949/maro.v4i2.1189

Suryadi, N., Mayliza, R., & Ritonga, I. (2020). Pengaruh Inflasi, Biaya Operasional Terhadap Pendapatan Operasional (Bopo), Dan Pangsa Pasar Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Priode 2012-2018. *Jurnal Tabarru': Islamic Banking and Finance*, *3*(1), 1–10. https://doi.org/10.25299/jtb.2020.vol3(1).4724

Syah, T. A. (2018). Pengaruh Inflasi, BI Rate, NPF, dan BOPO terhadap Profitabilitas Bank Umum Syariah di Indonesia. *El-Jizya : Jurnal Ekonomi Islam*, *6*(1), 133–153. https://doi.org/10.24090/ej.v6i1.2051

Syakhrun, M., Anwar, A., & Amin, A. (2019). Pengaruh Car, Bopo, Npf Dan Fdr Terhadap Profitabilitas Pada Bank Umum Syariah Di Indonesia. *Bongaya Journal for Research in Management (BJRM)*, *2*(1), 1–10. https://doi.org/10.37888/bjrm.v2i1.102

Wahyudi, R. (2020). Analisis Pengaruh CAR, NPF, FDR, BOPO dan Inflasi terhadap Profitabilitas Perbankan Syariah di Indonesia: Studi Masa Pandemi Covid-19. *At-Taqaddum*, *12*(1), 13. https://doi.org/10.21580/at.v12i1.6093

Wijaya, R. (2019). Analisis Perkembangan Return On Assets (ROA) dan Return On Equity (ROE) untuk Mengukur Kinerja Keuangan. *Jurnal Ilmu Manajemen*, *9*(1), 40. https://doi.org/10.32502/jimn.v9i1.2115

Wirnawati, M., & Diyani, L. A. (2019). Pengujian CAR, NPF, FDR, dan BOPO Terhadap Profitabilitas Pada Bank Umum Syariah. *Jurnal Mahasiswa Bina Insani*, *4*(1), 69–80. http://www.ejournal-binainsani.ac.id/index.php/JMBI/article/view/1157/1009