

# THE DETERMINANTS FACTORS OF PROFITABILITY ISLAMIC BANK IN INDONESIA

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## ABSTRAK

Tujuan dari penelitian ini adalah untuk mengetahui faktor yang mempengaruhi pertumbuhan dari profitabilitas bank syariah di Indonesia. Penelitian ini menggunakan pendekatan kuantitatif dengan metode *Autoregressive Distributed Lag* (ARDL). Data yang digunakan adalah data bulanan variabel makroekonomi dan variabel perbankan periode Januari 2006 – Desember 2019. Variabel makroekonomi yang digunakan adalah *Industrial Production Index*, Inflasi, Nilai Tukar Rupiah terhadap dollar, suku bunga. Sedangkan variabel perbankan yang digunakan adalah *Capital Adequacy Ratio*, *Non Performing Financing*, *Financing to Deposit Ratio*, Biaya Operasional dan Pendapatan Operasional, serta variabel *return on asset*. Hasil dari penelitian ini adalah dalam jangka pendek hanya variabel Nilai Tukar, Biaya Operasional dan Pendapatan Operasional serta *Non Performing Financing* yang berpengaruh terhadap *Return on Asset*. Variabel *Industrial Production Index*, Inflasi, suku bunga, *Capital Adequacy Ratio*, dan *Financing to Deposit Ratio* tidak berpengaruh terhadap *return on asset* dalam jangka pendek. Kemudian dalam jangka panjang hasilnya sama yaitu hanya variabel Nilai Tukar, Biaya Operasional dan Pendapatan Operasional serta *Non Performing Financing* yang berpengaruh terhadap *Return on Asset*. Variabel *Industrial Production Index*, Inflasi, suku bunga, *Capital Adequacy Ratio*, dan *Financing to Deposit Ratio* juga tidak berpengaruh terhadap *return on asset* dalam jangka panjang. Variabel nilai tukar merupakan variabel yang paling berpengaruh dalam jangka pendek maupun jangka panjang terhadap profitabilitas of Islamic bank. Dengan demikian penelitian ini diharapkan bisa membantu perbankan syariah dalam menganalisa faktor yang mempengaruhi profitabilitas perbankan syariah di Indonesia.

**Kata Kunci:** Variabel bank syariah, variabel makroekonomi, profitabilitas

## ABSTRACT

*The purpose of this research is to find out the determinant factors that the growth of Islamic bank profitability in Indonesia. This research uses a quantitative approach with the Autoregressive Distributed Lag (ARDL) method. The data used is monthly data of macroeconomic variables and banking variables for the period January 2006 – December 2019. Macroeconomic variables used are the Industrial Production Index, Inflation, Rupiah Exchange Rate with the dollar, interest rate. While the banking variables used are Capital Adequacy Ratio, Non-Performing Financing, Financing to Deposit Ratio, Operational Cost and Operational Income, as well as variable return on assets. The result of this study is that in the short term only variable Exchange Rates, Operational Costs, and Operational Income and Non-Performing Financing affect Return on Assets. Variable Industrial Production Index, Inflation, interest rates, Capital Adequacy Ratio, and Financing to Deposit Ratio have no effect on return on assets in the short term. Then in the long run the result is the same is that only variable Exchange Rates, Operational Costs, and Operational Income and Non-Performing Financing affect the return on assets. Variable Industrial Production Index, Inflation, interest rates, Capital Adequacy Ratio, and Financing to Deposit Ratio also have no effect on return on assets in the long term. Exchange rate variables are the most influential variables in the short and long term on the profitability of Islamic banks. Thus, this research is expected to assist Sharia banking in analyzing factors that affect the profitability of Sharia banking in Indonesia.*

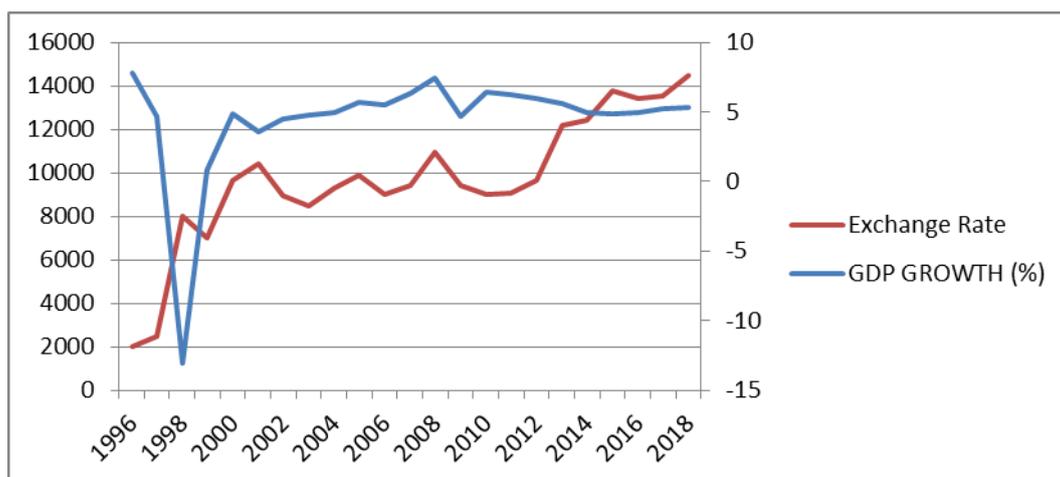
**Keywords:** Islamic Bank Variable, Macroeconomics Variable, Profitability.

## 1. INTRODUCTION

### Background

One of the important indicators in an economy is the stability of banks because banks are at the heart of the economy. The economic crisis could cause bank stability to be disrupted and have an impact on the economy (Nurfalah dkk., 2018). Kaminsky dkk, (1988) defines the banking crisis

as a situation in which an attack on the exchange rate system causes a sharp depression in the exchange rate, or it can also lead to a sharp decline in international reserves or even a combination of the two. According to Frankel & Rose (1996), the financial crisis was a major change for some indicators of the potential or actual value of the currency. One of the economic crises that ever occurred in the world was the economic crisis of 1997-1998. The crisis was marked by a weakening rupiah exchange rate in mid-1997, which caused many banks in Indonesia to go bankrupt. The crisis has also impacted the currencies of other Asian countries. Like Thailand which experienced a decline in the bath currency in early 1997. The rupiah depreciated from 1997 to a level of Rp 4,650 in US dollar at the end of 1997. In fact, at the end of the previous year, the rupiah still felt in the range of Rp 2,300 in US dollar (Nurfalah dkk., 2018). The peak of the crisis occurred in mid-1998 which resulted in the rupiah reaching Rp. 16,000 against the US dollar. The decline in the rupiah was caused by Indonesia's economic growth which reached a negative figure of -13.1% in 1998. The rupiah crisis of 1998 had to be addressed by raising interest rates. However, rising interest rates cannot stabilize the rupiah exchange rate because there is no protection from unhedged foreign exchange exposure that tries to buy the dollar. Ultimately a combination of exchange rate depreciation, high interest rates, rising dollar demand, and rising problems with loans that have large debts could lead to major problems leading to a banking crisis (Suta & Musa, 2003). The following are the conditions of Indonesia's GDP growth and Exchange Rate from 1996 to 2018.



Pictures 1. Exchange rate developments and economic growth in Indonesia  
Pictures Sources: Bank Indonesia

According to the news quoted from kontan website, on August 9, 2016, Dupla Kartini reported that rupiah depreciation suddenly shook the banking world because banks hid problems that could not be seen by the public. After the issuance of the package in banking regulation in October 1988, banks in Indonesia grew very rapidly. New banks have emerged due to the ease of permits to establish banking in Indonesia. At that time, everyone could set up a bank with a capital of Rp 1 billion. This regulation is what makes banks grow very rapidly. However, the rapid growth of banking is not accompanied by proper managerial. Oversight of monetary authorities was very weak at the time. Many banks rely on short-term foreign loans. Unfortunately, most of those loans are not by hedging or hedging mechanisms. Not to mention, fierce competition triggers banks to funnel loans to risky businesses, such as property. Not only that, the lack of supervision caused many private bank lending to be concentrated to debtors in one group (insider lending). This triggers a high risk of bad credit. Citing Bank Indonesia's 1998 annual report, the number of bad loans in national banks reached Rp 10.2 trillion as of April

1997, an increase of 7.7% compared to the end of 1996 (Kartini, 2016). As a result, when the rupiah exchange rate falls, the bank's foreign exchange debt swells, and debtors affected by the crisis have difficulty paying their foreign exchange obligations to banks, banks are experiencing liquidity difficulties. Bank Indonesia as the central bank at that time tightened liquidity drastically by stopping transactions of Money Market Securities (Surat Berharga Pasar Uang) and increasing the interest rate of Bank Indonesia Certificates (SBI). With the cessation of funds from BI, interbank lending rates increased. Banks have to compete fiercely for public funds by increasing deposit rates. As a result, more banks are struggling with liquidity and debit balances in Bank Indonesia's clearing system (Kartini, 2016).

In addition to the 1998 crisis, in 2008 there was also a world financial crisis called the subprime mortgage crisis (Hamidi, 2012). The crisis began in mid-2007 and peaked in September 2008, marked by the announcement of the bankruptcy of several financial institutions in the United States. The beginning of the problem occurred in the period 2000-2001, when the shares of dotcom companies in the United States collapsed, so that the companies that issued the shares could not afford to pay loans to banks. To address this, the Fed lowered interest rates. Low interest rates are utilized by developers and housing finance companies. Homes built by developers and financed by housing finance companies are cheap houses, sold to low-income people who do not have adequate financial guarantees. With the collapse in the share value of these companies, banks face defaults from their debtors (developers and housing finance companies) (Nezky, 2013). The 2008 global financial crisis resulted in instability in the financial sector resulting in a worsening performance of the rill sector. The aftermath of the financial crisis affected the performance of the rill sector, resulting in very high costs and requiring a long recovery time. Sharia banking as part of Indonesia's financial system is considered more resilient in the face of crisis than conventional banks. It is evident from the research conducted by Nurfalah dkk., (2018) which states that Islamic banking is more stable in the face of crisis compared to conventional banking.

Islamic banking system is believed to provide solutions to build a more stable and secure banking system because it is free from usury, maisir and gharar that have been contained in the conventional banking system. Ahmed (2002) argue that the existing process in the Profit and Loss Sharing (PLS) system can make Islamic banks avoid worsening the balance sheet due to economic factors. This is because the concept of PLS is risk from asset to liabilities. The stability of Islamic banking can also be demonstrated by the many international studies that prove that the Islamic banking system has better stability than conventional banking systems. As the results of research conducted by Cihak & Hesse (2008), Hasan & Dridi (2010), Boumediene & Caby (2010). Even Parashar & Venkatesh (2010) noted that Islamic banks are more stable than conventional banks due to the underlying system. Islamic banking as a financial institution can certainly be influenced by macroeconomic conditions such as ups and downs in economic growth, inflation fluctuations, changes in exchange rates and interest rates. Changes in macro variable conditions can occur during an economic crisis. In addition to changes in macroeconomic variable conditions changes of banking variables can also affect the growth of Islamic banking as measured by its profitability.

### **Research Problems**

Based on the background description above, the research problem in this study is:

1. Does economic growth affect the profitability of Islamic banking in Indonesia?
2. Does inflation affect the profitability of Islamic banking in Indonesia?
3. Does the exchange rate affect the profitability of Islamic banking in Indonesia?
4. Does interest rates affect the profitability of Islamic banking in Indonesia?

5. Does the capital adequacy ratio affect the profitability of Islamic banking in Indonesia?
6. Does the financing to deposits ratio affect the profitability of Islamic banking in Indonesia?
7. Does operational costs and operational income affect the profitability of Islamic banking in Indonesia?
8. Does non performing financing affect the profitability of Islamic banking in Indonesia?

## 2. RESEARCH METHOD

### Types of Research

The research approach that will be used in this research is quantitative approach. Did Sugiyono (2014:8) what is meant by quantitative research is a research method based on the philosophy of positivism, which is used to research on certain populations or samples, In quantitative research data analysis using statistics. Did Sugiyono (2014:31) statistics used can be descriptive statistics and inferential/inductive statistics using quantitative approaches. As research conducted by Jatnika (2020) which uses quantitative methods in its research.

### Operational Definitions and Variable Measurement

Did Anshori & Iswati 2009:60) what is meant by operational definition is a definition given to a variable by giving meaning or specification of activities, or providing an operational required to measure the variable. Profitability is defined as company revenue generated from revenue after deducting all costs incurred during a given period. In Islamic banking profitability is measured using return on assets (ROA).

In this study using macroeconomic variables and banking variables. Macroeconomic variables used are Industrial Production Index (IPI), Inflation, Exchange Rate, Interest Rate. Furthermore, the banking variables used are Capital Adequacy Ratio (CAR), Financing to Deposits Ratio (FDR), Operating Income Operating Expenses (BOPO) and Non Performing Financing (NPF). Industrial Production Index (IPI) is an economic indicator that calculates the production output of mill and other sectors of the manufacturing, mining, and manufacturing industries such as oil and gas and electricity. Inflation is a general and continuous increase in prices. Inflation data obtained from Bank Indonesia. Price indicators that are often used as a reference by economic actors in making economic decisions are the Consumer Price Index (CPI). The type of data used is monthly data in percentage form. The exchange rate in this study is the price of rupiah against the U.S. Dollar. Rupiah exchange rate is measured by Natural Logarithm of BI middle rate (Selling Rate + Buy Rate)/2 at the end of the month from January 2006 to December 2019. Interest rate is the policy rate set by Bank Indonesia. The interest rate used is the monthly BI rate from January 2006 to December 2019.

Capital Adequacy Ratio (CAR) is capital and risk-weighted assets. Data obtained from core capital balance, complementary capital, inclusion and weighted assets, according to the risks in the report of calculation of Minimum Capital Provision Obligation (KPMO). Financing to Deposits Ratio (FDR) is third party financing and funds. Data obtained from the total balance of financing and balance of third party funds are given a report on the productive assets of commercial banks. While the total balance and third party obtained from the performance report of commercial banks. Operating Income Operating Expenses (BOPO) are operating costs and operating income. Data obtained from the total balance of operating expenses in the profit and loss statement. While the total operating income in the profit and loss statement. Non Performing Financing is one of the performance assessment instruments of a Sharia bank which is an interpretation of assessment on productive assets, especially in the assessment of problematic financing. Non Performing Financing needs to be considered because of its volatile and uncertain nature. NPF ratio is the ratio used to measure the risk of failure of financing, where

NPF is the ratio between non-performing financing (which is included in the criteria of financing is less smooth, doubtful, and bad) with the total financing disbursed.

### **Types, Data Sources and Data Analysis Techniques**

The data type used in this study is secondary data runtun time (time series) monthly (January 2006 to December 2019). Did Bungin (2005:122) Secondary data is data obtained from the second source or secondary source of the required data. For example through someone else or a document. The data sources in this study were obtained from several sources. ROA, CAR, FDR, BOPO, NPF data are obtained from the official website of the Financial Services Authority. Macroeconomic Variable Data is obtained from Bank Indonesia's official website. Based on the problem formulation and research objectives previously stated, the analysis technique used in this study uses a quantitative statistical tool called Autoregressive Distributed Lag (ARDL) using Eviews 9 (Hamzah & Handri, 2017). The tests were stationary testing, ARDL model estimation, and Bound cointegration testing.

### **ARDL Model Estimation**

The estimation method to be used in this study is to use the Autoregressive Distributed Lag (ARDL) approach. The ARDL model was chosen because ARDL is able to see the influence of Y and X over time, as well as the influence of past Y variables on present Y. The ARDL model is a merging of Autoregressive (AR) and Distributed Lag (DL) models. According to Gujarati & Poter (2010) the AR model is a model that uses one or more past data from dependent variables among explanatory variables. The DL model is a regression model that involves data in the present and past (lagged) of explanatory variables.

ARDL does not require research in terms of the degree of integration of each variable, so it can eliminate the uncertainty. This approach is applied by ignoring those variables integrated at zero, I(0), or one I(1) (Pesaran dkk., 2001). The advantage of ARDL models is that they are unbiased and efficient because they can be used with few samples. By using ARDL can be obtained long-term estimates and short-term estimates simultaneously, which will avoid the occurrence of autocorrelation problems. In addition, the ARDL method is also able to distinguish between free variables and bound variables.

The ARDL model is a model that incorporates past free variables, be it past free variables or past bound variables in its regression analysis. Dependencies between dependent variables to independent variables are very difficult to find in constant circumstances, often independent variables respond to dependent variables with a certain time lag or referred to as lag. The basic models used in this study are as follows:

$$\begin{aligned} ROA_t = & \beta_0 + \emptyset_1 ROA_{t-1} + \dots + \emptyset_p ROA_{t-p} + \beta_0 IPI_t + \beta_1 IPI_{t-1} + \dots + \beta_q IPI_{t-q} + \beta_0 INF_t + \beta_2 INF_{t-1} \\ & + \dots + \beta_r INF_{t-r} + \beta_0 LnNT_t + \beta_3 LnNT_{t-1} + \dots + \beta_s LnNT_{t-s} + \beta_0 SB_t + \beta_4 SB_{t-1} + \dots + \beta_u SB_{t-u} \\ & + \beta_0 CAR_t + \beta_5 CAR_{t-1} + \dots + \beta_v CAR_{t-v} + \beta_0 NPF_t + \beta_6 NPF_{t-1} + \dots + \beta_w NPF_{t-w} + \beta_0 FDR_t \\ & + \beta_7 FDR_{t-1} + \dots + \beta_w FDR_{t-w} + \beta_0 BOPO_t + \beta_8 BOPO_{t-1} + \dots + \beta_x BOPO_{t-x} + \theta_1 IPI_t + \theta_1 IPI_{t-1} + \dots \\ & + \theta_q IPI_{t-q} + \theta_1 INF_t + \theta_2 INF_{t-1} + \dots + \theta_r INF_{t-r} + \theta_1 LnNT_t + \theta_3 Kurst_{t-1} + \dots + \theta_s LnNT_{t-s} + \theta_1 SB_t \\ & + \theta_4 SB_{t-1} + \dots + \theta_u SB_{t-u} + \theta_1 CAR_t + \theta_5 CAR_{t-1} + \dots + \theta_v CAR_{t-v} + \theta_1 NPF_t + \theta_6 NPF_{t-1} + \dots + \theta_w NPF_{t-w} \\ & + \theta_1 FDR_t + \theta_7 FDR_{t-1} + \dots + \theta_w FDR_{t-w} + \theta_1 BOPO_t + \theta_8 BOPO_{t-1} + \dots + \theta_x BOPO_{t-x} + \epsilon_t \end{aligned}$$

Explanation:

$\emptyset$  = Coefficient of dependent

$\beta_0$  = Constans

$\beta_1 \beta_2 \beta_3 \beta_4 \beta_5 \beta_6 \beta_7 \beta_8$  = Short-Term Independent Coefficient

ROA = Return on Asset

IPI = Industrial Production Index

INF = Inflation

LnNT = Log Natural Exchange Rate

SB = Interest Rate

CAR = Capital Adequacy Ratio

NPF = Non Performing Financing

FDR = Financing to Deposit Ratio

BOPO = Operating Income Operating Expenses

$\theta_1 \theta_2 \theta_3 \theta_4 \theta_5 \theta_6 \theta_7 \theta_8$  = Long-Term Independent Coefficient

$\epsilon_t$  = Error Term

The specifications of ARDL model that will be used by this research refer to the similar model owned by Majid & Kassim (2015), Anwar dkk., (2020), Abduh & Omar (2012), Chowdhury dkk., (2018), dan (Bougatef dkk., (2020). All five studies used ARDL as a model for analyzing the variables tested.

### 3. RESULT AND DISCUSSION

Basically the estimation model used in this study is the VAR model. But in practice the model can change. The change of model is based on the level of data stationary. If the data shows stationary at the level of level and first difference then the test can be replaced with ARDL. However, when the data shows all stationary on the first difference then the estimation model that can be used is unrestricted VAR (if there is no cointegration) and uses Error Correction Model (ECM) when there is cointegration. After that it is newly selected using ECM or Vector Error Correction Model (VECM) depending on the number of endogenous variables that exist. But if the data shows stationary at the level of 1st difference and 2nd difference then the used is Autoregressive model. Therefore, the discussion will begin with the monitoring of the level of data stationary.

Table 1. Stationary test At Level

Table Sources: Eviews 9

<i>Variable</i>	<i>t-Statistik</i>	<i>Prob.*</i>	<i>Ket</i>
ROA	-2.384517	0.1477	Not Stasioner
IPI	-0.644571	0.8559	Not Stasioner
INF	-4.093845	0.0013	Stasioner
LNNT	-1.003683	0.7515	Not Stasioner
SB	-3.358757	0.0139	Stasioner
CAR	-0.752665	0.8291	Not Stasioner
FDR	-2.040343	0.2695	Not Stasioner
BOPO	-2.794085	0.0614	Stasioner
NPF	-2.655145	0.0843	Stasioner

Testing data stationary is very important for time series data. Because in the time series data there is economic behavior over time, the fluctuations in the data that occur reflect how economic actors behave. Time-based data is said to be stationary if the data is stocky showing a constant pattern of variation over time or in other words there is no increase or decrease in the data that is too striking (Ekananda, 2014:51).

Table 1. Is the result of a Stationary Test at Level. The table above shows the stationary level of ROA, IPI, INF, LNNT, SB, CAR, FDR, BOPO, and NPF data in Indonesia at the level. Haisl's test of Dickey-Fuller's Augmented root unit shows that variable data on inflation, interest rates, operating costs and operating income, as well as non-performing financing are stationary at that level. While other variables are not stationary at the level. Next is the stationary test at the first different level.

Table 2. Stasionery Test at First Different  
Table Sources: Eviews 9

<i>Variable</i>	<i>t-Statistik</i>	<i>Prob.*</i>	<i>Ket</i>
ROA	-12.38066	0.0000	Stasioner
IPI	-3.427926	0.0114	Stasioner
INF	-6.179677	0.0000	Stasioner
LNNT	-7.086638	0.0000	Stasioner
SB	-5.062048	0.0000	Stasioner
CAR	-10.20370	0.0000	Stasioner
FDR	-11.04976	0.0000	Stasioner
BOPO	-10.06561	0.0000	Stasioner
NPF	-3.110751	0.0278	Stasioner

From the test results of the root unit test with the ADF (Augmented Dickey-Fuller) method in table 2 shows that all variables are stationary at the first different level. Stationary-level results at the level and first different require the use of the Autoregressive Distributed Lag (ARDL) method. Next is a short-term and long-term ARDL test. The following are the results of a short-term ARDL test.

Table 3. Short-Term ARDL Test  
Table Sources: Eviews 9

<i>Variable</i>	<i>Coefficeint</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>	<i>Signifikan</i>
ROA (-1)	0.679441	0.075081	9.049410	0.0000	Significant
ROA (-2)	0.137030	0.074942	1.828498	0.0695	Significant
IPI	0.002550	0.001803	1.414131	0.1594	Not Significant
INF	0.003313	0.009769	0.339103	0.7350	Not Significant
LNNT	-0.379661	0.184475	-2.058061	0.0413	Significant
SB	-0.001391	0.019027	-0.073125	0.9418	Not Significant
CAR	-0.008702	0.011198	-0.777127	0.4383	Not Significant
FDR	0.002628	0.001648	1.594449	0.1130	Not Significant
FDR(-1)	0.003428	0.001815	1.888641	0.0609	Significant
FDR(-2)	-0.015621	0.001753	-8.910099	0.0000	Significant
FDR(-3)	-0.000976	0.002114	-0.461620	0.6450	Not Significant
FDR(-4)	0.007304	0.001673	4.366177	0.0000	Significant
BOPO	-0.003119	0.001488	-2.096460	0.0377	Significant
NPF	-0.066349	0.026700	-2.485005	0.0141	Significant
C	4.469716	1.559628	2.865887	0.0048	Significant

From the results of the short-term ARDL estimate above, shows that the natural log of exchange rates (LNNT) in the short term has a significant negative effect of 0.0413 is increased by a level of significance of 5% with a coefficient of -0.379661. The result makes it clear that if there is a 1% increase in the natural log of the exchange rate then the profitsability of Islamic banks will be reduced by 0.379661. Other variables that have significant effect are operating costs and operating income (BOPO) where the probability value is 0.0377 and the coefficient value is -0.003119. The results showed that BOPO in the short term has a significant negative effect on the profitability of Islamic banking in Indonesia. Furthermore, non-performing financing (NPF)

variables in the short term have a significant negative effect where the probability value is 0.0141 and the coefficient value is -0.0066349. Meanwhile, in addition to IPI, INF, SB, CAR, and FDR variables in the short term, it has no effect on the profitability of Sharia banking. This is due to the probability values of IPI, INF, SB, CAR, and FDR variables more than the significance of 1%, 5%, and 10%. Next is the results of long run coefficients test or Autoregressive Distributed Lag (ARDL) test results in the long run.

Table 4. Long Run Coefficients Test  
Table Sources: Eviews 9

<i>Variable</i>	<i>Coefficeint</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>	<i>Significant</i>
IPI	0.013894	0.009124	1.522804	0.1299	Not Significant
INF	0.018050	0.054003	0.334245	0.7387	Not Significant
LNNT	-2.068679	0.847444	-2.441081	0.0158	Significant
SB	-0.007581	0.103251	-0.073424	0.9416	Not Significant
CAR	-0.047415	0.061904	-0.765944	0.4449	Not Significant
FDR	-0.017633	0.013010	-1.355273	0.1774	Not Significant
BOPO	-0.016997	0.007484	-2.271207	0.0246	Significant
NPF	-0.361521	0.153735	-2.351583	0.0200	Significant
C	24.354359	6.673474	3.649427	0.0004	Significant

From the results of long-term ARDL estimates there are variables that have a significant and insignificant effect. Variables LNNT, BOPO, and NPF have a significant effect on the Profitbailitas (ROA) of Sharia banking. The natural log variable exchange rate has a probability value of 0.0158 with a coefficient of -2.068679, with which the natural log variable of the exchange rate negatively affects the profitability of Sharia banking. Furthermore the BOPO variable has a coefficient value of -0.016997 with a probability of 0.0246. with these results bopo variables have a significant negative effect on the profitability of Islamic banking in Indonesia. The NPF variable also has a significant negative effect with a coefficient value of -0.361521 with a probability of 0.0200. Meanwhile, long-term variables IPI, INF, SB, CAR, and FDR have no effect on the profitability of Islamic banking in Indonesia. The variable has no effect on the profitability of Sharia banking because the probability value is greater than the significance of 1%, 5%, and 10%.

Table 5. Bound Testing Cointegration Test  
Table Sources: Eviews 9

<b>Test Statistic</b>	<b>Value</b>	<b>K</b>
F-statistic	2.400279	8
<b>Critical Value Bounds</b>		
<b>Significance</b>	<b>I0 Bound</b>	<b>I1 Bound</b>
10%	1.95	3.06
5%	2.22	3.39
2.5%	2.48	3.7
1%	2.79	4.1

From the test results in table 5 Bound Testing Cointegration shows that the value of F-statistic Value > value I(0) at a significance of 5% is 2.400279 > 2.22. So refuse Ho. This means that it can be used to determine that each model has a long-term balance relationship, as well as residual estimates the ARDL model has been stationary.

In this study in the short term variable Exchange Rate, Operational Costs and Operational Income and Non Performing Financing affect Return on Assets. These results are in line with research conducted by Nahar & Sarker (2016). The Variable Industrial Production Index,

Inflation, Interest Rate, Capital Adequacy Ratio, and Financing to Deposite Ratio have no effect on return on assets in the short term. These results are in line with research conducted by Rashid dkk., (2017), Sholikhin dkk., (2020), Yanikkaya dkk., (2018), Then in the long run the result is the same, namely only variable Exchange Rates, Operational Costs and Operational Income and Non Performing Financing that affects Return on Assets. The Variable Industrial Production Index, Inflation, Interest Rate, Capital Adequacy Ratio, and Financing to Deposite Ratio also have no effect on return on assets in the long term. Exchange rate variables are the most influential variables in the short and long term on the profitability of Islamic banks.

#### 4. CONCLUSIONS AND SUGGESTIONS

The conclusion of the results and discussion in this study is that in the short term only variable Exchange Rates, Operational Costs and Operational Income and Non Performing Financing affect Return on Assets. The Variable Industrial Production Index, Inflation, Interest Rate, Capital Adequacy Ratio, and Financing to Deposite Ratio have no effect on return on assets in the short term. Then in the long run the result is the same, namely only variable Exchange Rates, Operational Costs and Operational Income and Non Performing Financing that affects Return on Assets. The Variable Industrial Production Index, Inflation, Interest Rate, Capital Adequacy Ratio, and Financing to Deposite Ratio also have no effect on return on assets in the long term. Exchange rate variables are the most influential variables in the short and long term on the profitability of Islamic banks. Thus, this research is expected to help Sharia banking in analyzing factors that affect the profitability of Islamic banking in Indonesia.

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