# CHAPTER IV

RESULT AND ANALYSIS

In this chapter, the result of each Internal Islamic banking indicator index and each macroeconomic variable index as well as the resilience index of Islamic banking, macroeconomic pressure index, and resilience of Islamic banking under macroeconomic pressure index will be explained. In this chapter also will be discussed the result from multiple linear regression by using ordinary least square (OLS). Eviews 9 is the auxiliary tool to run the regression to find the correlation and influence from independent variables toward the dependent variable.

A. Indexation Result

1. Single Index from Each Micro-Banking Indicator.

a) Capital Adequacy Ratio (CAR)

The capital adequacy ratio from Islamic banking shows its fluctuating movement since the beginning of researched period in 2010 until 2017. The percentage of CAR from Islamic banking form 2010 to 2017 respectively in 16,25%, 16,63%, 14,13%, 15,35%, 14,42%, 15.74%, 15,02%, 15,19% (Otoritas Jasa Keuangan, 2016).
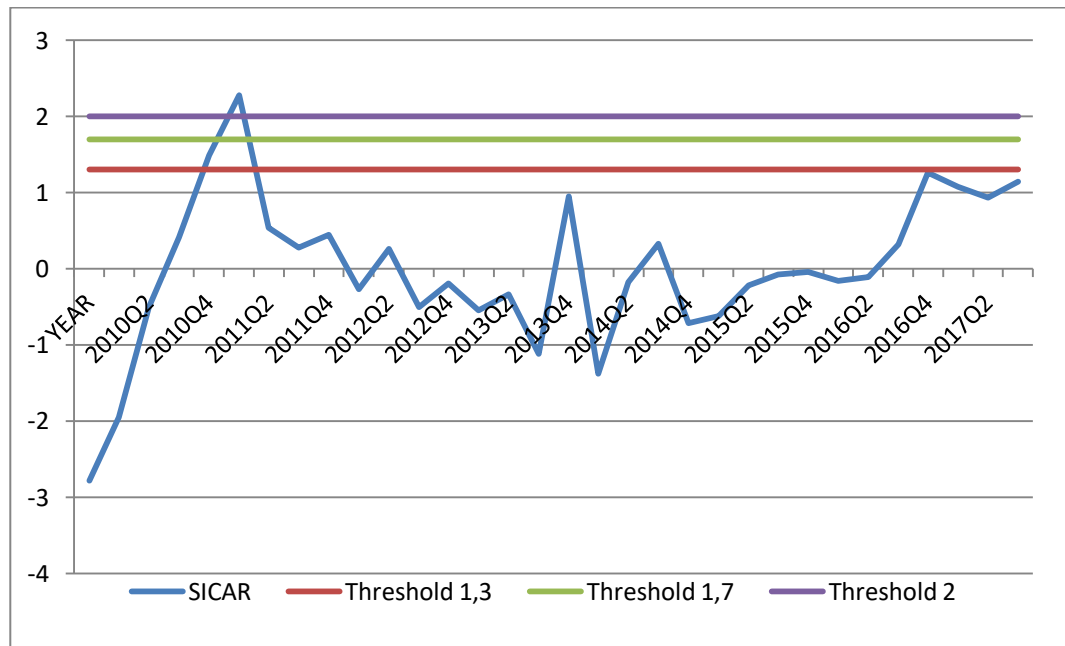
Source: *Laporan Perbankan Syariah* (data processed Ms. Excel)

FIGURE 4.1

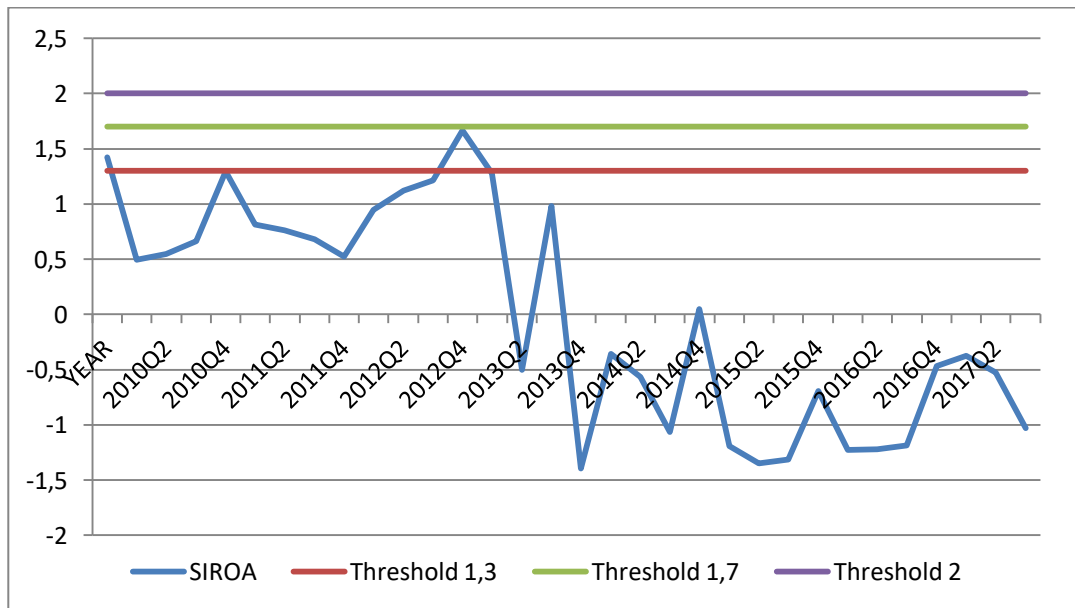CAR index of Islamic Banking Period 1st Quarter 2010 – 4th Quarter 2017

The high risk of CAR according to the index movement is in during 4th quarter in 2010 and 1st quarter in 2011. The Index of CAR fluctuates and exceeds the threshold 1,3 during 4th quarter in 2010 and it keeps moving beyond the threshold 2 during 1st quarter in 2011. During those two quarters, the CAR of Islamic banking is considered at the high growth driven by the good growth of economic condition in Indonesia after the global recession from 2008. The high growth of CAR is followed by the high risk from the main capital of Islamic banking. The main capital ratio of Islamic bank over the risk-based balance asset (ATMR) is still low at 11.21% in 2010. It is still fragile towards the changes of economic condition. However, in the end of 2010, the condition of global economy is still trying to recover from the recession and crisis. However in the

business cycle, the recession comes after the peak position. (Laporan Perkembangan Perbankan Syariah, 2010).

The fluctuation of CAR is in normal area after the 4th quarter in 2010 and 1st quarter in 2011. The normal movement is caused by The growth of third party funds (DPK) keeps increasing and followed by the increasing of credit channeled and also supported by the macroeconomic condition that can survive after the global financial crisis. based on the percentage of financing that is conducted by Islamic banking to earn the profit. In the end of 2017, CAR of Islamic banking increases to 16,78% (Bank Indonesia , 2017). The Islamic banking still has enough percentage of CAR to maintain and stabilize the intermediary function under the tolerant level of Bank Indonesia at 8% (Bank Indonesia, 2010).

b) **Return on Assets (ROA)**

Return on Asset (ROA) is the internal indicator for Islamic banking to see the profitability time over time. During the researched period from 2010 – 2017, ROA of Islamic banking also shows the fluctuation with the percentage from 2010 to 2017 respectively by 1,67%, 1,79%, 2,14%, 2%, 0,41%, 0,49%, 0,66%, 0,96% (Bank Indonesia , 2017). The ROA growth of Islamic banking is still can be said competitive with the conventional banking.

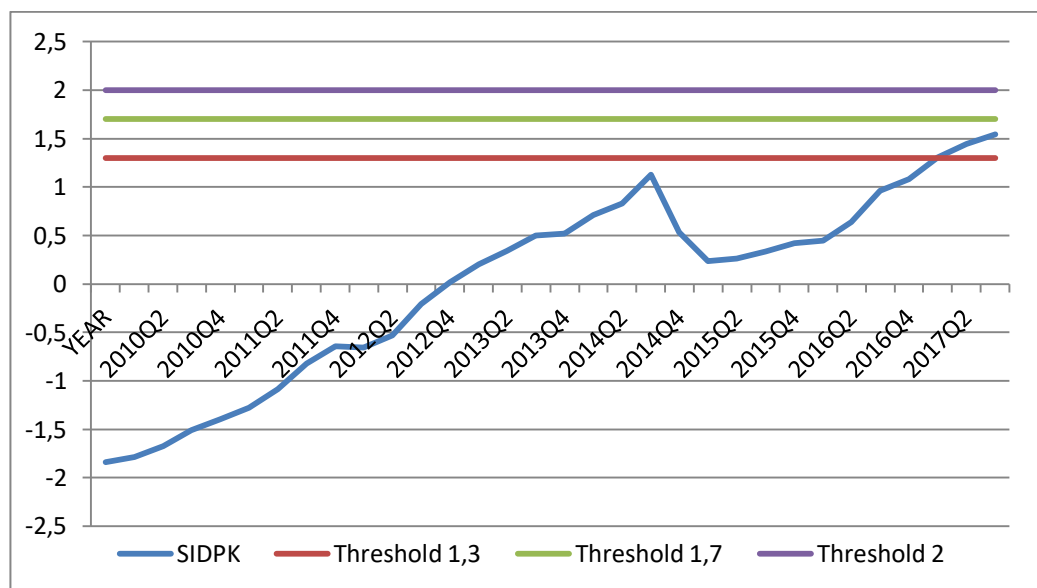Source: *Laporan Perbankan Syariah* (data processed Ms. Excel)

FIGURE 4.2

ROA index of Islamic Banking Period 1st Quarter 2010 – 4th Quarter 2017

The fragile condition of ROA is in period during the end of 2012 and the beginning of 2013 the growth of ROA is high, but in this high percentage of ROA, the financial report of Islamic banking is disposed decreasing. Even though Islamic banking is still risk bearing capacity indicates by the growth of its enough capital for the financing exceed the tolerance percentage of Bank Indonesia at 8%, the risk-based balance asset (ATMR) shows the declined thus resulted the declining in CAR, this is because Islamic banking is trying to expanse the business under the volatility of economic condition (Laporan Perkembangan Perbankan Syariah , 2013).

c) Third Party Funds (DPK)

Islamic banking as the intermediary institution should have the enough liquidity source to channel its fund from the surplus to deficit party. The third party funds (DPK) is the internal indicator for Islamic banking to measure the adequacy of liquidity. During the researched period from 2010 to 2017, DPK has increasing trend line. It keeps increasing from 2010 to 2014 respectively 60.284, 90.176, 124.023, 165.421, 193.901 IDR millions. It decreases in 2015 to 170,234 IDR millions, but increasing in the next year 2016 to 184,355 IDR millions and 223.179 IDR million in 2017.

Source: *Laporan Perbankan Syariah* (data processed Ms. Excel)

FIGURE 4.3

DPK index of Islamic Banking Period 1st Quarter 2010 – 4th Quarter 2017

The fragile condition of DPK according to the index is in period during 2015 and 2017, Islamic banking face the year of difficulties where the assets

growth which reaches to 49% in period 2009 to 2013 cannot be reached in this year at 7,98%. This indicates there is a significant decreasing in Islamic banking assets. The decreasing of Islamic banking performance is not only indicates by the decreasing of assets but also in third party funds (DPK) and financing. While, the third party funds (DPK) is main source of Islamic banking to channel the financing. Yet, in this year, the non performing financing (NPF) also shows the increasing. The decreasing of Islamic banking performance is caused by several factors, such as the limitation of capital and the risk-based balance asset (ATMR), inefficient operational cost, the expensive price to earn profit, and economic condition (Bank Indonesia, 2016). The depreciation of rupiah against dollar, the increasing of inflation rate, the increasing of U.S interest rate by The Federal reserve system that cause the capital outflow from developing countries back to U.S, devaluation of Rinminbi (China), in the year of mini crisis in 2015 (Otoritas Jasa Keuangan, 2016).

During 2017, the DPK index of Islamic banking exceed the threshold 1,3. Even though the DPK increasing (yoy) from 2016 to 2017, but the macroeconomic condition become the pressure for the Islamic banking. The depreciation of rupiah against U.S dollar, the growing economic condition in U.S driven the capital outflow and the increasing of interest rate in U.S by the Fed has becoming the pressure for the Indonesian economy in this year. This results the big amount of third party funds in Islamic banking in wary position when short term credit funds is channeled to long term credit, then Islamic banking will have the maturity mismatch. Yet, the risk comes from the credit in foreign currency is

channeled to financing the several projects that will give Rupiah earning, this results to the currency mismatch in Islamic banking (Bank Indonesia , 2017).

2. Resilience of Islamic Banking Index

The condition of Islamic banking resilience can be seen from figure 4.4 below, the resilience of Islamic banking that is figured by the index shows that the development of Islamic banking year over year (yoy) has the good level of resilience. During the researched period, the index of resilience is moving below the 3 set stipulate thresholds, while in the end of 2016 4th quarter and the beginning of 2017 in the 1st quarter shows its movement in the area of 1,5 threshold and back to normal area.
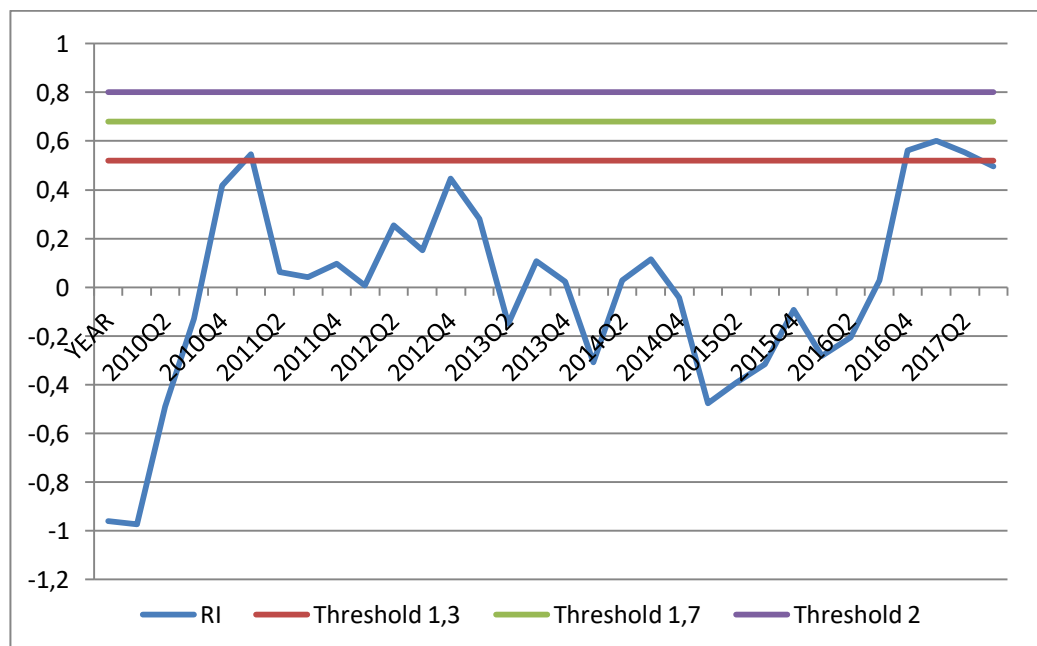
Source: *Laporan Perbankan Syariah* (data processed Ms. Excel)

FIGURE 4.4

Resilience index of Islamic Banking Period 1st Quarter 2010 – 4th Quarter 2017

In term of profitability, during the researched period 2010 to 2015, the percentage of return on aseets (ROA) of Islamic banking respectively by 1,67%, 1,79%, 2,14%, 2%, 0,41%, 0,49%, 0,66%, 0,96%. The growth of ROA of Islamic banking is still considered competitive by Bank Indonesia with the market share year over year (yoy) by 3,24%, 3,98%, 4,58%, 4,89%, 4,95%, 4,87%, 5,3%, 5,4%. Meanwhile, the third party funds (DPK) keeps increasing from 2010 to 2014 respectively by 60.284, 90.176, 124.023, 165.421, 193.901 IDR millions. It decreases in 2015 to 170,234 IDR millions, but increasing in the next year 2016 to 184,355 IDR millions and 223.179 IDR million in 2017.

In term of liquidity, the percentage of CAR from Islamic banking form 2010 to 2017 respectively in 16,25%, 16,63%, 14,13%, 15,35%, 14,42%, 15.74%, 15,02%, 15,19% (Otoritas Jasa Keuangan, 2016). The fluctuation of CAR is based on the percentage of financing that is conducted by Islamic banking to earn the profit. In the end of 2017, CAR of Islamic banking increases to 16,78% (Bank Indonesia , 2017). The Islamic banking still has enough percentage of CAR to maintain and stabilize the intermediary function under the tolerant level of Bank Indonesia at 8% (Bank Indonesia, 2010).

With the condition where third party fund (DPK) keeps increasing year over year, and the percentage of capital adequacy ratio (CAR) is adequate to stimulate the channeling funds activity from surplus to deficit party, and also the competitive percentage of return on assets (ROA) in Islamic banking indicates the resilience of Islamic banking during the researched period is can be maintain.

In the condition where the resilience is can be maintain, Islamic also should anticipate the unpredictable changes in macroeconomic shock. The changes in nominal exchange rate year over year has made the value of Rupiah is depreciated against U.S Dollar. Islamic banking should be careful in channeling the funds, when Islamic banking conducts short term credit funds is channeled to long term credit in condition where Rupiah is depreciated, then Islamic banking exposed the maturity mismatch. The decreasing in national economy growth that indicates by the decreasing in GDP that can decrease the amount of saving and reduce the level of third party fund (DPK) and reduce credit and financing channeled to the real sector will reduce the percentage of profitability of Islamic banking that can results the difficulty in business expanse and reduce the efficiency of Islamic banking in running the business.

3. Single Index from Selected Macroeconomic Variable

a) Gross Domestic Product (GDP)

The growth of GDP during the researched period shows the stable growth in between 5% to 6% with the growth target is around 7%. This indicates the national economy has become solid after the global recession in 2008 and it is supported by several indicators such as investment, consumption and support from financial institution. In the 1st quarter in 2014, Indonesian GDP is in 122,5387 and increases to 128,5149 in 1st quarter 2015, to 134,9292 in 1st quarter 2016, and in the 4th quarter in 2017, Indonesian GDP is in 147,1187 with the growth (yoy) from 2014 to 2017 respectively 5% in every conservative years (Research Federal Researve St. Louis, 2017).
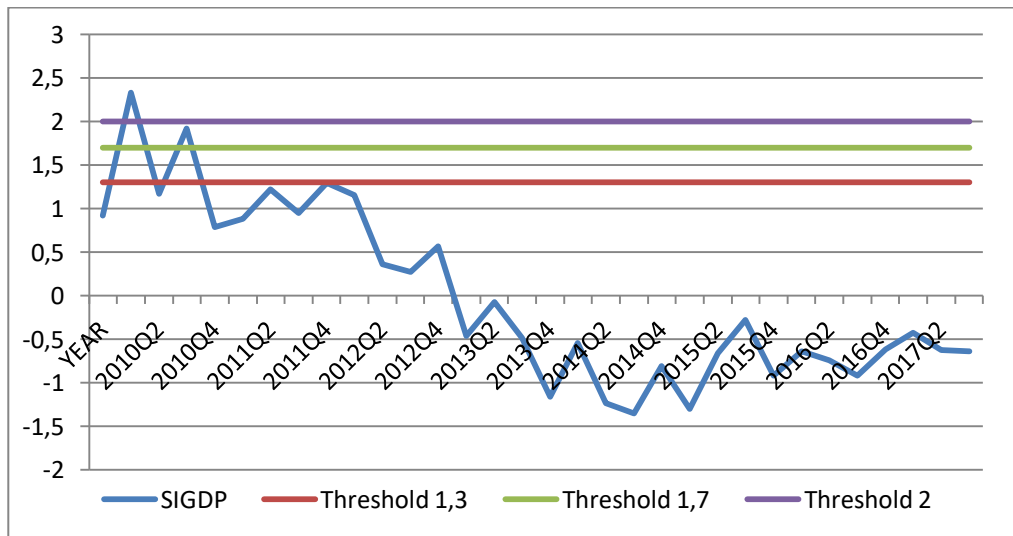
Source: Federal Reserve Bank of ST. Louis (data processed Ms. Excel)

FIGURE 4.5

GDP Growth index Period 1st Quarter 2010 – 4th Quarter 2017

During 2010, the condition of Indonesian economy is obtaining the good performance and proving that Indonesia can restrain from global recession in 2008. The positive trend of Indonesian GDP becomes one of the indicators for the growth of national economy, but there are several challenges and risk for the economic growth in Indonesia during 2010. GDP growth Index shows the movement beyond the threshold 2 in the 1st quarter 2010 and still moves beyond the threshold 1,5 in the 4th quarter 2010. It shows that in 2010 Indonesian economy following with the good growth but also trying to recover from the global recession. The challenges and risks in 2010 for Indonesian economy from the macroeconomic environment are the excess inflow of foreign capital, the high excess of liquidity, the inflation pressure that disposed to increase, the weakness of banking sectors' efficiency and competitiveness for real sector (Bank Indonesia, 2011).

The challenge for Indonesian economy that can be risk is needed to be solved to accelerate the economic growth. First, the excess inflow of foreign capital will trigger the national balance sheet regarding to the condition of domestic financial market with the medley of financial instrument, then the choice for the foreign capital inflow is limited. Second, the high excess of liquidity in banking sector if not channeled to the real sector will result the money supply (M2) and trigger the increasing of inflation rate when the excess liquidity is channeled to the credit for consumption sector. Third, the pressure from inflation origins from non-fundamental factor (volatile food) that gives second round effect towards the fundamental factor (Bank Indonesia, 2011).

b) Exchange Rate (ER)

The Exchange rate can be referred to the value of one country's currency in relation to another currency. If the economy of a country improves, the country's currency tends to strengthen against other currencies. Conversely, if a country's currency weakened against the currencies of other countries, it is possible that the condition of the country weakened compared to the previous.

The growth of exchange rate in Indonesia has been fluctuating since the researched period. Exchange rate has been several times in the depreciation position against U.S dollar. The exchange rate index show its movement exceeds the threshold 1,3 in the 2nd quarter 2015. In this year according to the report of economic growth conducted by Bank Indonesia, the economic growth in 2015 which is lower compared to the previous year give disadvantages to the domestic

economic and followed by Rupiah depreciation results pessimist characteristic of Indonesian economy. The depreciation of Rupiah in 2015 leads to the appearing of corporation risk such as the declining in financial institution performance (banking sector). This declining performance of financial institution results to decrease the ability of financial institution to payback the debt. In line with that risk, the non-performing financing keeps increasing and credit growth for real economy keeps decreasing (Laporan Perekonomian Indonesia, 2016).
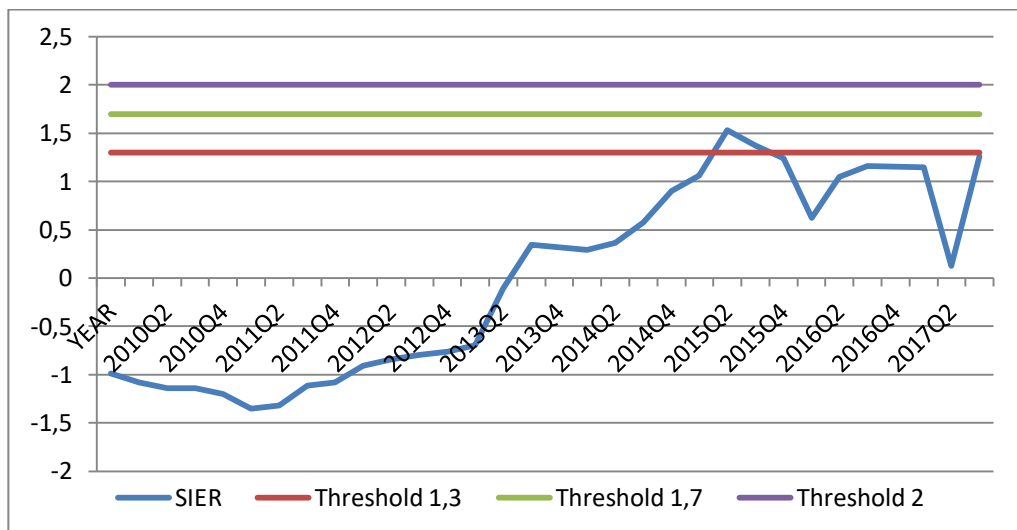
Source: Central Bureau of Statistic (data processed Ms. Excel)

FIGURE 4.6

Exchange Rate index Period 1st Quarter 2010 – 4th Quarter 2017

The depreciation of Rupiah in 2015 in 3rd quarter 14,055 from 13,160 in 2nd quarter in 2015 and 11,755 in 1st quarter in 2014 also gives disadvantage contribution toward the import of raw material regarding the raw material used for supplying the industries and manufactures are dominated imported from foreign country. Yet, in banking sector, the depreciation Rupiah also trigger some risk, the

risk comes from the credit in foreign currency is channeled to financing the several projects that will give Rupiah earning, this results to the currency mismatch in Islamic banking (Bank Indonesia, 2016).

c) **Inflation Rate (INF)**

The inflation target is the rate of inflation that must be achieved by Bank Indonesia in coordination with the government to stimulate the growth for national economy. Based on the PMK No.66/PMK.011?2012 on inflation target of 2013,2014 and 2015 dated April 30th 2012, the inflation target set by the government for period 2013 to 2015 respectively by 4,5%, 4,5%, and 4% with ± 1% deviation.
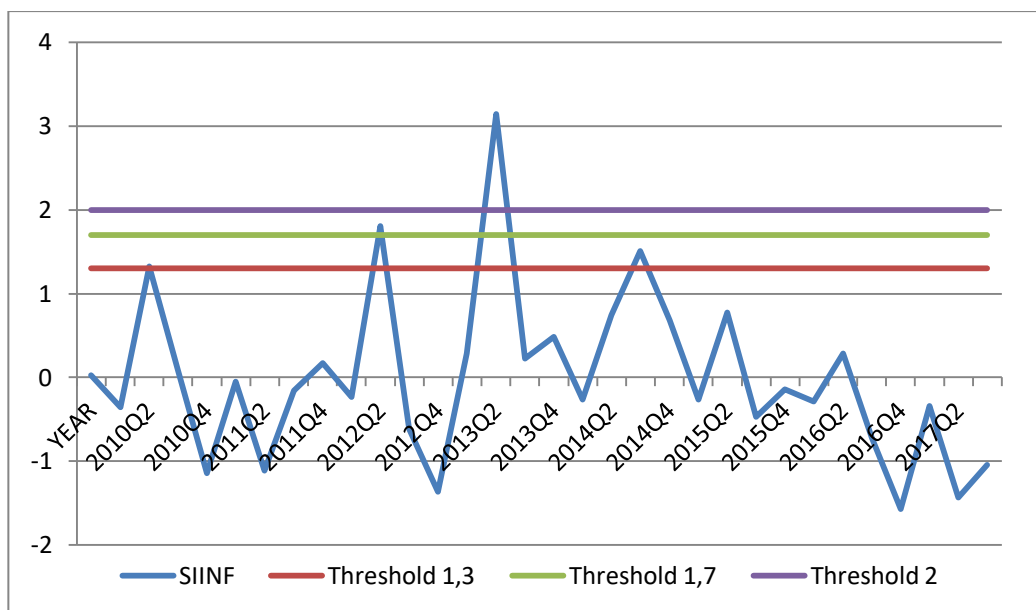
Source: Bank Indonesia (data processed Ms. Excel)

FIGURE 4.7

Inflation Rate index Period 1st Quarter 2010 – 4th Quarter 2017

The inflation rate index shows its movement exceed the threshold 1,7 in 3rd quarter 2012, exceeds threshold 2 in 3rd quarter in 2013, and also exceeds threshold 1,5 in 2nd quarter 2014. Then, it moves in the normal area in the next 3 years until 2017. In 2013, the increasing of inflation rate was caused by the increasing in the price of gasoline price (BBM) followed by increasing in electricity price, volatile food, and administered price. The increasing of inflation rate during 2013 in 2nd, 3rd quarter respectively by 1,03% to 2,5% has stalled trends in labor and welfare. In banking sector, the rise in inflation rate will cause the increasing in the operational cost and lead banking sector to the inefficient, it is indicates by declining in the shares of financial sector from 8,2% in 1st quarter to 7,8% in 2nd quarter , and 7,6% in 3rd quarter (Bank Indonesia, 2014).

In 2014 2nd quarter, the inflation rate index exceeds the threshold 1,5 and move to normal area in the next quarter. The increasing of inflation rate in this quarter is caused by the administered price and volatile food pressure. in the high pressure from administered price and volatile food, the inflation rate in 2014 is still can be maintain by the coordination between Bank Indonesia and government from several monetary policy. The inflation that cause by an increasing in gasoline price (BBM) has been managed in the 2013 and doesn't give contribution towards the inflation in 2014 with inflation based on CPI reaches 8,36% less lower than inflation based on CPI in 2013 that reaches 8,38% (Bank Indonesia, 2015).

B. Regression Result

1. Descriptive Variable

TABLE 4.1
Descriptive Variables

	RI	GDP	INF	ER
Mean	-2.08E-16	2.91E-16	-6.94E-17	-3.19E-16
Median	0.028772	-0.003752	0.211604	-0.147220
Maximum	0.602427	1.710710	1.531359	3.143183
Minimum	-0.972081	-1.644050	-1.354531	-1.567868
Std. Dev.	0.400140	1.000000	1.000000	1.000000
Skewness	-0.575512	0.034599	0.045484	0.979315
Kurtosis	3.188989	1.843417	1.398152	4.535664
Jarque-Bera	1.814096	1.789963	3.432254	8.259326
Probability	0.403714	0.408615	0.179761	0.016088
Sum	-6.66E-15	1.18E-14	-2.00E-15	-9.99E-15
Sum Sq. Dev.	4.963472	31.00000	31.00000	31.00000
Observations	32	32	32	32

Source: Data Processed (Eviews 9)

Table 4.1 shows the entire descriptive variables used in this study. The dependent variable is resilience index of Islamic banking and the independent variable consists of single index of each selected macroeconomic variable; Gross Domestic Product (GDP), Exchange Rate (EXR), Inflation Rate (INF).

2. Classical Assumption Test

a. Normality Test

The normality test is the supplementary to the graphical assessment of the normality. In this study, the normality test is conducted by looking at the histogram of the residual. The residual will be said as normal or not normal can be

seen from Jarque-Bera test. The null hypothesis (Ho) states that the residual has a normal distribution. While, the alternative Hypothesis (Ha) states that the residual has not normal distribution.

Ho is accepted if probability of Jerque-Bera > 0.05

Ha is accepted if probability of Jerque-Bera < 0.05
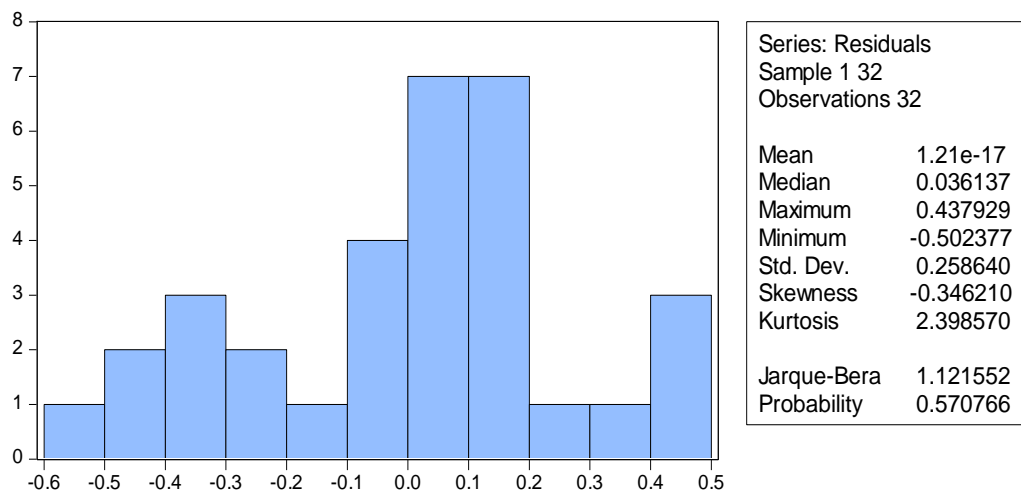
Source: Data Processed (Eviews 9)

FIGURE 4.10

Normality Test

According to the figure 4.10, the value of Jarque-Bera is 1.1215522 with the probability level 0.570766. It is higher than 0.05 or 5%. It means the null hypothesis is accepted. Null hypothesis (Ho) states that the residual has a normal distribution.

b. **Heteroskedasticity Test**

Heteroskedasticity test is used to test whether the regression model occurred similarity variance of residuals of the observations to other observations. If the

variance of the residuals of the observations to other observations is constant, then it is called homokedasticity. If the variance is not constant, it is called heteroscedasticity. A good regression model is homokedasticity or there is no heteroskedasticity (Gujarati, 2007). The results of heteroskedasticity test are:

TABLE 4.2

Heteroskedasticity Test Result

Heteroskedasticity Test: White			
F Statistic	1.149082	Prob F (9.22)	0.3725
Obs*R Squared	10.23246	Prob Chi Square(9)	0.3320
Scaled Explained SS	5.478359	Prob Chi Square(9)	0.7908

Source: Data Processed (Eviews 9)

Based on the heteroskedasticity test by using White specification, The white test regresses the squared residual on the cross product of the original regressors and a constant, it shows the value of Obs*R Squared is 10.23246 with the Prob. Chi-Square is 0.3320 greater than alpha 5% (>0.05). So, the result is no heteroskedasticity.

c. Autocorrelation Test

Detecting the presence of Autocorrelation is very important in multiple regression when a researcher has applied ordinary least square over an estimator to get the competent estimator. This Study used Breusch-Ggodfrey Serial Correlation LM Test by comparing the probability value Obs * R Squared with α = 5% (0, 05). The result of the Breusch-Ggodfrey Serial Correlation LM Test for autocorrelation as follows:

<center>**TABLE 4.3**</center>

<center>Autocorrelation Test Result</center>

Breusch-Godfrey Serial Correlation LM Test			
F Statistic	1.461305	Prob. F (2,26)	0.2504
Obs*R Squared	3.233578	Prob. Chi Square (2)	0.1985

Source: Data Processed (Eviews 9)

Based on the chart, the value of Obs*R-squared is 3.233578 and its profitability is 0.1985 more than α=5% (0.05). So, it can be ascertained that there is no autocorrelation in the regression model.

d. Multicollinearity Test

This study uses variance inflation factors to test the multicollinearity by looking at the centered VIF. The centered of each variable should not more than 10 or it should less than 10 to be said there is no multicollinearity in the data regression. The result from multicolinearity test using variance inflation factors as follow:

<center>**TABLE 4.4**</center>
<center>Variance Inflation Factors</center>

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.002701	1.000000	NA
GDP	0.017090	6.130605	6.130605
ER	0.016416	5.889026	5.889026
INF	1.003286	1.178692	1.178692

Source: Data Processed (Eviews 9)

From the result of the variance inflation factors, the result of centered VIF of each variable is not more than 10 then it can be said that there is no multicollinearity in the regression model.

3. Regression Estimation Result

In this Study multiple linear regression analysis is used. The model of regression estimation for this study is :

$$RI_t = a + \beta_1\,GDP_t + \beta_2\,ER_t + \beta_3\,INF_t + e$$

Based on the regression calculation using Eviews 9 shows the correlation between dependent variable and independent variables with the coefficient.

$$RI_t = \text{-5,66E-16} + 0{,}773634\,SIGDP_t - 0{,}676592\,SIER_t + 0{,}118573\,SIINF_t + e$$

TABLE 4.5

The Result of Regression Estimation

Variable	Regression		
	Coefficient	T-Test	Prob.
Constanta	-5.66E-16	-1.18E-14	1.0000
SIGDP	0.773634	6.204313	0.0000
SIER	-0.676592	-5.587133	0.0000
SIINF	0.118573	2.166860	0.0389
R-Squared	0.582200		
F-Statistic	13.00591		
Prob. F-Stat	0.000017		

Dependent Variable: Resilience Index of Islamic Banking

Source: Secondary Data Processed (eviews 9)

Based on the regression result, gross domestic product (GDP) and Inflation rate (INF) have positive and significant correlation towards the resilience of

Islamic banking. Meanwhile, Exchange rate (ER) has negative and significant correlation towards the resilience of Islamic banking.

4. **Statistic Test**

   a. **T-Test (Partial Regression Coefficient Testing)**

      i. **Constanta**

      Based on the regression result, the coefficient of Constanta is -5.66E-16. It means, when all the independent variables (selected macroeconomic variable) are considered to be constant, so the amount of resilience of Islamic banking is -5.66E-16.

      ii. **Gross Domestic Product (GDP)**

      The null hypothesis (Ho) states that gross domestic product (GDP) is positive and significant effect towards the resilience of Islamic banking. The alternative hypothesis (Ha) states that gross domestic product (GDP) is not positive and significant effect towards the resilience of Islamic banking.

      Ho is accepted if probability levels of variable < 0.05

      Ha is accepted if probability levels of variable > 0.05

      According to the result of regression estimation table, the probability level of variable GDP is less than 0,05 > 0.0000. So, it can be concluded that the null hypothesis (Ho) is accepted and the alternative hypothesis (Ha)

is rejected. The result is gross domestic product (GDP) variable is significantly affecting the resilience of Islamic banking.

The table also shows the value of the coefficient (β_1) for GDP is 0.773634. the value of coefficient is positive. It means that gross domestic product (GDP) has positive and significant correlation towards the resilience of Islamic banking. When GDP increased by 1 unit will increase the resilience of Islamic banking by 0,645504 unit. It can be assumed that the other factors are considered fixed or ceteris paribus.

iii. Exchange Rate (ER)

The null hypothesis (Ho) states that exchange rate (ER) is negative and significant effect towards the resilience of Islamic banking. The alternative hypothesis (Ha) states that exchange rate (ER) is not negative and significant effect towards the resilience of Islamic banking.

Ho is accepted if probability levels of variable < 0.05

Ha is accepted if probability levels of variable > 0.05

According to the result of regression estimation table, the probability level of variable exchange rate (ER) is less than 0,05 > 0.0000. So, it can be concluded that the null hypothesis (Ho) is accepted and the alternative hypothesis (Ha) is rejected. The result is exchange rate (ER) variable is significantly affecting the resilience of Islamic banking.

The table also shows the value of the coefficient (β_2) for exchange rate (ER) is -0.676592. the value of coefficient is negative. It means that exchange rare (ER) has negative and significant correlation towards the resilience of Islamic banking. When exchange rate (ER) increased (depreciation of IDR against USD) by 1% unit will decrease the resilience of Islamic banking by 0.676592 unit. It can be assumed that the other factors are considered fixed or ceteris paribus.

iv. Inflation Rate (INF)

The null hypothesis (Ho) states that inflation rate (INF) is positive and significant effect towards the resilience of Islamic banking. The alternative hypothesis (Ha) states that inflation rate (INF) is not negative and significant effect towards the resilience of Islamic banking.

Ho is accepted if probability levels of variable < 0.05

Ha is accepted if probability levels of variable > 0.05

According to the result of regression estimation table, the probability level of variable inflation rate (INF) is less than 0,05 < 0.0389. So, it can be concluded that the null hypothesis (Ho) is accepted and the alternative hypothesis (Ha) is rejected. The result is inflation rate (ER) variable is significantly affecting the resilience of Islamic banking.

The table also shows the value of the coefficient (β_2) for inflation rate (INF) is 0.118573. The value of coefficient is positive. It means that inflation rate (ER) has positive and significant correlation towards the

resilience of Islamic banking. When inflation rare (ER) increased by 1 unit will increase the resilience of Islamic banking by 0.118573 unit. It can be assumed that the other factors are considered fixed or ceteris paribus.

b. F-Test (Simultaneous Regression Model Testing)

The statistic of F-test is basically to determine the influence of independent variables on the dependent variable simultaneously.

The null hypothesis (Ho) states all the independent variables simultaneously affect the resilience of Islamic banking.

The alternative hypothesis (Ha) states all the independent variables simultaneously affect the resilience of Islamic banking.

According to the regression result shows the level of probability F-statistic is 0.000017, which is smaller than 0,05. It means, all the independent variables; gross domestic product (GDP), exchange rate (ER), and inflation rate (INF) simultaneously affect the resilience of Islamic banking in Indonesia.

c. Coefficient Determination (R^2)

Based on the result of regression, the R squared value is 0.582200. It means that the value of all independent variables used can explain about 58% toward the dependent variables, while the 42% is explained by the other factors that are not included in the regression model such as from the political issues, global financial system and global macroeconomic condition.

5. Regression Result Discussion

The finding from the regression using multiple linear regression aims to determinant the correlation and influence between dependent resilience of Islamic banking index with all independent variables; gross domestic product (GDP), exchange rate (ER), and inflation rate (INF). All the selected macroeconomic variables as the independent variables that influence on the resilience index of Islamic banking will be discussed one by one.

TABLE 4.6

The Accumulation of Independent Variable Influence on

Dependent Variables

Variables	Coefficient	Probability
Constanta	-5.66E-16	1.0000
GDP	0.773634	0.0000
ER	-0.676592	0.0000
INF	0.118573	0.0389

Source: Data Processed (Eviews 9)

1. The Influence of Gross Domestic Product on Resilience of Islamic Banking.

The coefficient value of gross domestic product is 0.773634 which means that if there is an increase on global gross domestic product about 1 unit, the resilience index of Islamic banking will increase about 0.773634 unit, with the assumption that other variables are constant or ceteris paribus. The result is significant because the probability value is less than 5%.

The regression result show there is positive and significant correlation between GDP and resilience index of Islamic banking. It is because GDP is the macroeconomic factor that indicates the economic growth. The increase of GDP can affect the intermediary function of Islamic banking, whether the right hand side function or left hand side function. The right hand side is the function of Islamic banking to collect the funds and saving from people deposit and other sources. Meanwhile, the left hand side is the function of Islamic banking to channel the funds to earn the profit through financing, funding, trading and credit channeling.

In the right hand side function where Islamic banking collect the funds and saving from economy is affected by the increasing of GDP. The increasing of GDP will increase the amount of saving and investment from economy to Islamic banking and increase the amount of Islamic banking liquidity and capital or the Third Party funds (DPK), then Islamic banking will gradually have the adequacy of capital or liquidity and increase the percentage of capital adequacy ratio (CAR) where it is expressed as a percentage of a bank's risk weighted credit exposure that is used to protect depositors and promote the stability and efficiency of bank. Thus, by the increasing of CAR and DPK Islamic banking is more resilient to run its function as the intermediary function to serve the economy.

In the left hand side function where Islamic banking channels the capital or liquidity to earn the profit through financing, funding, trading, and credit channeling is affected by the increasing of GDP. The increasing of GDP that followed by the increasing of Islamic banking capital and liquidity also increase

the amount of percentage of credit, funding, financing channeled by the Islamic banking to earn the profit. While, GDP has positive correlation with saving, thus the increasing of saving in banking sector through third party funds (DPK) also gives the support to the Islamic bank as the mains source of funds. Islamic banking can channel the funds from saving to the financing side which is giving profitability that indicated by the increasing in return on assets (ROA) to the Islamic banking and also giving support for the real sector.

The increasing of gross domestic product constantly increases the society welfare. So, when Islamic banking channels its funds to the real sector through several products such as *murabahah, musyarakah* and credit in the good condition of national economy will reduce probability of the credit risk exposed to the Islamic banking and reducing the percentage of non performing financing (NPF) in Islamic banking.

TABLE 4.7

The Summary of GDP Influence on The resilience of Islamic banking

Macroeconomic Variable Changes	Micro-banking variable transmission	The resilience of Islamic banking
The increasing of gross domestic product (GDP)	1. Increases the third party fund (DPK) caused by increasing in saving, 2. Increases capital adequacy ratio (CAR), Islamic banking ha enough capital over the credit.	Increase the resilience level of Islamic banking in Indonesia.

	3. Increases return on assets (ROA) caused by the adequacy capital channeled to the financing and credit sector to gain the profit. 4. Decreases the non-performing financing (NPF) in Islamic banking as the good condition of national economy, the return from the financing can be obtained.	

The result from the research is in-line with the researches conducted by several researchers. The similar research conducted by Lely Indriani (2016), the aims of the result is to determine the impact of financing to deposit ratio, gross domestic product, inflation, and exchange rate towards the resilience of Islamic banking and conventional in Indonesia. The result shows that GDP has significant and positive impact to the resilience of Islamic banking.

The research conducted by Ayu Yanita Sahara (2013), the research finding show there is positive and significant influence of gross domestic product (GDP) towards the return on assets (ROA) period 2008 to 2010. Sampling technique used is purposive sampling. It is gained sample amount of 13 Islamic banking. F test results showed that simultaneous variable inflation, BI rate, and GDP have significant effect on ROA, while T test result shows that partially, GDP has positive and significant influence on ROA. The positive and significant influence

of GDP towards ROA indicates that the performance and resilience of Islamic banking is significant influenced by GDP.

The research conducted by Adi Setiawan (2009), the research was conducted to examine the influence of macroeconomic factors, as measured by inflation and GDP growth, market shares as measured by shares of bank financing and the characteristic measured by CAR, FDR, NPF, ROA, SIZE to return on asset (ROA) Islamic banking in Indonesia. The result shows GDP has significant and positive effect on profitability of Islamic banking proxies by return on asset (ROA).

2. The Influence of Exchange Rate on Resilience of Islamic Banking.

The coefficient value of exchange rate is -0.676592 which means that if there is an increase on exchange rate (depreciation against U.S dollar) about 1 unit, the resilience of Islamic banking will decrease by 0.568104 unit, with the assumption that other variables are constant or ceteris paribus. The result is significant because the probability value is less than 5%.

The negative correlation between exchange rate variable and the resilience index of Islamic banking in Indonesia gives the explanation that exchange rate variable has negative effects towards the resilience of Islamic banking. An increasing of exchange rate or depreciation of Rupiah towards US Dollar will decrease the level of resilience of Islamic banking in Indonesia, vice versa.

In the right hand side function where Islamic banking collect the funds and saving from economy is affected by the depreciation of rupiah (increasing in

nominal exchange rate). The depreciation of rupiah causes the price of imported goods and services become expensive. Moreover the imported goods are the raw material to produce final good, it causes the production cost become higher and result the increasing in price of goods. The increasing of goods price will decrease the purchasing power parity (PPP) of society to obtain the goods. As the result, society withdraws its saving and deposits to obtain the goods and decrease the amount of funds or capital in Islamic banking that is collected from society's saving. It is decreasing the amount of third party funds (DPK) in Islamic banking.

In the left hand side function where Islamic banking channels the capital or liquidity to earn the profit through financing, funding, trading, and credit channeling is affected by the depreciation of Rupiah (increasing in nominal exchange rate). The depreciation of rupiah which leads to decreasing in purchasing power parity (PPP) and decreasing the amount of DPK caused by the society withdrawal leads to the decreasing in the capital adequacy ratio where it is expressed as a percentage of a bank's risk weighted credit exposure. The decreasing in ratio of capital over channeled credit will decrease the amount of the main capital ratio of Islamic bank over the risk-based balance asset (ATMR) and caused the occurring of liquidity risk and credit risk in Islamic banking. Islamic banking will respond by decreasing the amount credit channeling through *Musyaraah or Mudharabah* (financing) to minimal the risk and Islamic banking can absorbs the risk while Rupiah is depreciated against U.S Dollar. This case will decrease the amount of ROA that is obtained from the financing. Moreover, when Islamic banking conducts short term credit funds is channeled to long term credit

in condition where Rupiah is depreciated, then banks will have the maturity mismatch. So, the depreciation of Rupiah will decrease the resilience of Islamic banking in Indonesia.

TABLE 4.8

The Summary of Exchange rate Influence on The resilience of Islamic banking

Macroeconomic Variable Changes	Micro-banking variable transmission	The resilience of Islamic banking
The increasing nominal exchange rate (depreciation of Rupiah against U.S Dollar)	1. Decreases the third party fund (DPK) as the result from low level of PPP of society and do withdrawal to increase their PPP. 2. Decreases the return on assets (ROA) is caused by anticipating the inadequacy capital in Islamic banking. 3. Decreases the capital adequacy ratio (CAR) to balance the amount of capital in Islamic banking. 4. Decreasing in main capital ratio of Islamic bank over the risk-based balance asset (ATMR) as the decreasing in capital of CAR occurs.	Decrease the resilience level of Islamic banking in Indonesia.

This result is in line with other researches conducted by several researchers, including: Dwijayanthy and Naomi (2009) state that any impact of exchange rates on profitability, which the bank identified if the exchange rate appreciation or depreciation, it will have an impact on liabilities in foreign currency of bank upon maturity tempo. As a result, the profitability of banks will change if in the case, the bank did not hedge. These results are also supported by the argument of Samuelson (2006). The exchange rate is important because during the economic crisis generally there is an increase on the dollar, thereby causing foreign debt is unable to pay, so the banks will have difficulty in making payment.

The same results are indicated by Desi Marilin and Rohmawati (2012) and Rosanna ((2007) which state that the exchange rate significantly influences the profitability of Islamic banking. Foreign exchange rate will determine the real investment returns. The currency declined clearly will reduce the purchasing power of income and capital gains are derived from any types of investment. The decline in these investments will affect the Bank operational activities. By the decline in investment, financing request in Islamic banks will also decrease. It will affect the bank's financial ratios, one of the ratios is the ratio of profitability represented by ROA (Sukirno, 2003, p. 350).

3. The Influence of Inflation Rate on Resilience of Islamic Banking.

The coefficient value of inflation rate is 0.118573 which means that if there is an increase on inflation about 1 unit, will increase resilience of Islamic banking about 0.118573 unit, with the assumption that other variables are constant. The

coefficient value of inflation rate has positive and significant less than 0,05 or 5% > 0.0389 influence on resilience of Islamic banking. The result is not appropriate with the null hypothesis (Ho) that states inflation rate is negative and significant effect towards the resilience of Islamic banking. Then, the alternative hypothesis (Ha) is accepted. It is because the result shows inflation is positive and significant effect towards the resilience of Islamic banking.

Based on the regression result, the inflation rate has positive and significant influence on the resilience of Islamic banking. As long as the type of inflation is demand pull inflation which is promote the rise in good and service productivity. The demand pull inflation is also good for the saving, where people have high demand, high consumption and saving caused by the increasing of income. Demand-pull inflation occurs when job opportunities are high, it creates high levels of income and expenditure raises that exceed the economic capacity of issuing goods and services. Excessive spending will cause inflation.

Specifically in Indonesia, one of the inflation components is from volatile foods. The increasing in demand for volatile foods in several period of time in a year increases the level of consumer price index and results the increasing in inflation rate. The high demand for the volatile foods leads to the increasing in consumer price index and inflation rate. This is the inflation in Indonesia is considered as the demand pull inflation. Regarding the data used in this research is inflation rate based on the consumer price index.

In the banking sector, the demand pull inflation will give benefit for the Islamic banking. The high demand in consumption indicates the good performance of national economy, where consumption, investment, and saving have positive correlation with the national income. The inflation that is caused by the demand pull inflation brings the good growth of productivity of goods and services then results the increasing in people income. In line with the increasing of people income, it will increase the amount of saving in Islamic banking and increase the amount of third party fund (DPK) in Islamic banking, thus Islamic banking can expanse the business through financing and credit channeling to the real economy.

In the right hand side function where Islamic banking collect the funds and saving from economy is affected by the increasing of inflation rate. The demand pull inflation rate will caused the increasing in the saving and deposits. This can give extra liquid and capital for Islamic banking as the third party funds (DPK) increases and Islamic banking can channel the fund for the real sector and investment.

In the left hand side function where Islamic banking channels the capital or liquidity to earn the profit through financing, funding, trading, and credit channeling is affected by the increasing of inflation rate. The increasing of inflation rate caused by the demand pull inflation will caused the price assets of Islamic bank increases, and when Islamic banking trade its assets will results the capital gain and Islamic banking can increase its return on assets (ROA).

TABLE 4.9

The Summary of Inflation rate Influence on The resilience of Islamic
banking

Macroeconomic Variable Changes	Micro-banking variable transmission	The resilience of Islamic banking
The increasing inflation rate (demand pull inflation)	1. Increases saving and the third party fund (DPK) resulted from the increasing of people income. 2. Increases the return on assets (ROA) is caused by the adequacy capital in Islamic banking, then channel it capital to the credit and financing sector. 3. increases the capital adequacy ratio (CAR).	Increases the resilience level of Islamic banking in Indonesia.

This same research conducted by Ridhwan (2006) analysis the influence of interest rate and inflation rate on profitability of Islamic banking in Indonesia. The research result shows inflation rate has positive and significant influence on the profitability of Islamic banking that proxied by return on assets (ROA). The increasing of third party funds caused by the increasing of saving, return on assets of Islamic banking (ROA) trough its assets lead the increasing of capital adequacy ratio (CAR) in Islamic banking increases as the measurement of a bank's capital that is used to protect depositors and promote the stability and efficiency of bank.