

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**IN THE NAME OF ALLAH THE
MOST GRACIOUS AND
MOST MERCIFUL**



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ACCREDITATION



ANALYSIS THE IMPACT OF
SELECTED MACROECONOMIC
VARIABLES TOWARDS THE
RESILIENCE OF ISLAMIC BANKING
IN INDONESIA

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Background



Background



Financial Crisis

1. Global Financial Crisis
2. Asian Financial Crisis



Interconnectedness and Interdependences

Global Financial Market Under VUCA (Volatility, Uncertainty, Complexity, and Ambiguity)



Economic Shock

The economic fluctuation and disturbance can be the external shock for the resilience of Islamic banking



The Vulnerability of Islamic Banking

The worsened vulnerability resulted from economic disturbance can jeopardize the stability of banking system



The Resilience of Islamic Banking

The worsened vulnerability disturbs the resilience



Islamic Banking as a Financial Intermediary

Institution that serves country's money supply and operate much of the country's payment system

Problem Statement of the Study & Limitation of Study



1. First

How does the gross domestic product affect on the resilience of Islamic banking?

2. Second

How does the nominal exchange rate affect on the resilience of Islamic banking?

3. Third

How does the inflation rate affect on the resilience of Islamic banking?

4. Fourth

How does aggregate money supply (M2) affect on the resilience of Islamic banking?



1. Focusing on Islamic Banking in Indonesia

2. Examining several selected macroeconomic variables that are capable of giving shock toward the resilience of Islamic banking in Indonesia over the researched period

3. The study period is ranging from January 2010 – December 2017

Objective of the Study



Research Framework

Analysis of Resilience on Islamic Banking

External Shock of Islamic Bank

- ❖ Gross Domestic Product (GDP)
 - ❖ Inflation (INF)
 - ❖ Exchange Rate (ER)
- ❖ Aggregate Money Supply (M2)

Selected Macroeconomic Variables

Performance Indicator of Islamic Bank

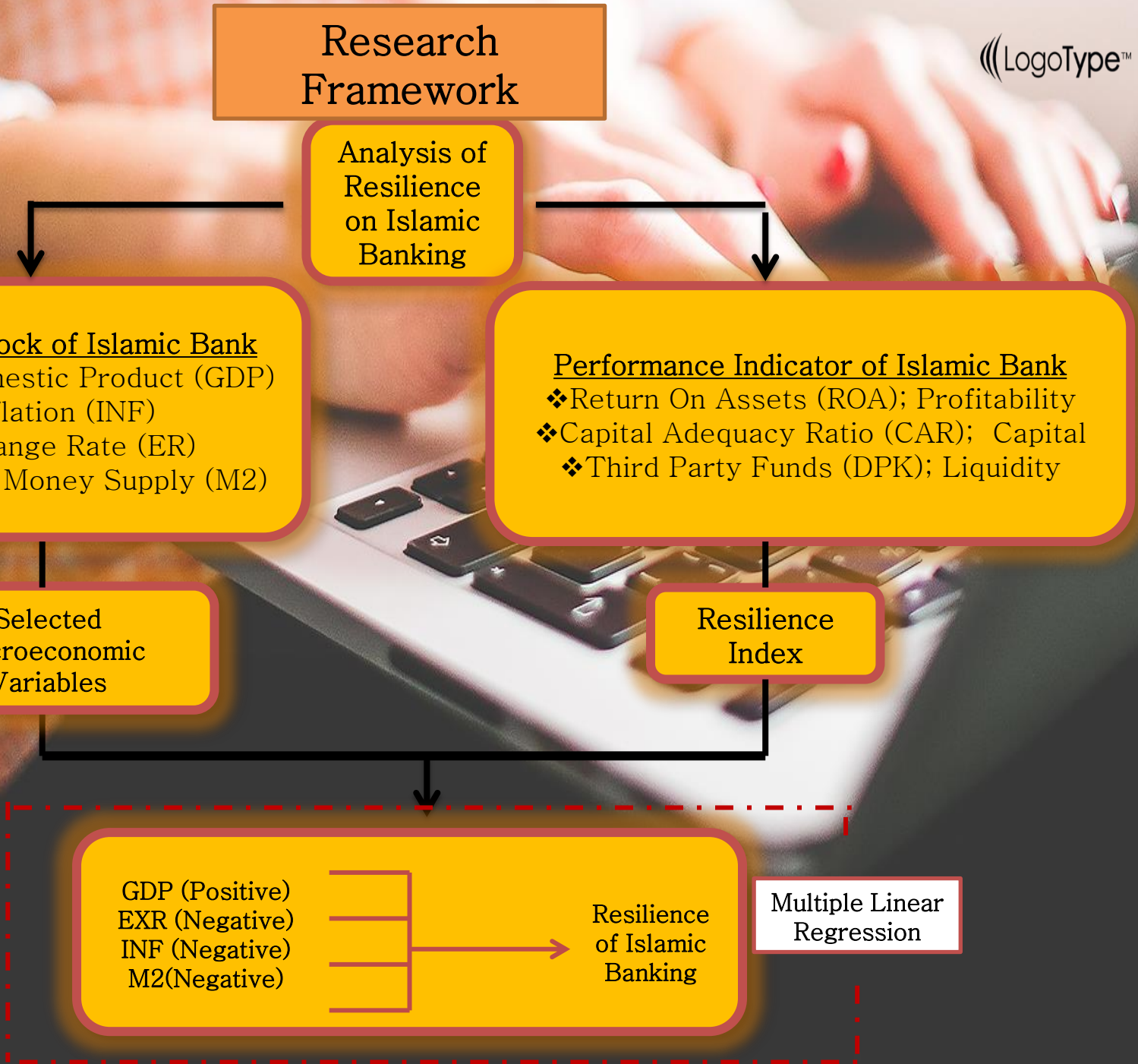
- ❖ Return On Assets (ROA); Profitability
- ❖ Capital Adequacy Ratio (CAR); Capital
- ❖ Third Party Funds (DPK); Liquidity

Resilience Index

GDP (Positive)
EXR (Negative)
INF (Negative)
M2(Negative)

Resilience of Islamic Banking

Multiple Linear Regression





Hypothesis

H1

Gross domestic product (GDP) is positive and significant effect towards the resilience of Islamic banking

H2

Nominal exchange rate (ER) is negative and significant effect towards the resilience of Islamic banking

H3

Inflation rate (INF) is negative and significant effect towards the resilience of Islamic banking

H4

Aggregate money supply (M2) is negative and significant effect towards the resilience of Islamic banking



1 Indexation

- Single Index of each variable.

$$SI_t = \frac{X_t^j - \bar{X}}{\sigma}$$

- Composite Index is an index that contains more than one single index of selected Item.

$$(0,3 \times SI \text{ ROA}) + (0,3 \times SI \text{ CAR}) + (0,3 \times SI \text{ DPK}) = \text{Composite Index}$$

Steps to Obtain Composite Index

1. Item Selection
 2. Examining Empirical Relationship
 3. Calculating The Composite Index
- Threshold the availability of Threshold shows the fluctuation of each index (1,3 alert, 1,7 wary, 2 danger)

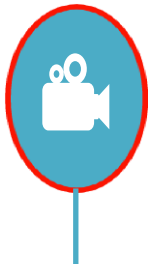
Research Model and Analysis Method



2

Multiple Linear Regression

$$RI_t = a + \beta_1 GDP_t + \beta_2 ER_t + \beta_3 INF_t + \beta_4 M2_t + E$$



R-Squared

1



T-Test & F-Test

2



Classical Assumption Test

3



Normality Test



Autocorrelation Test



Multicollinearity Test



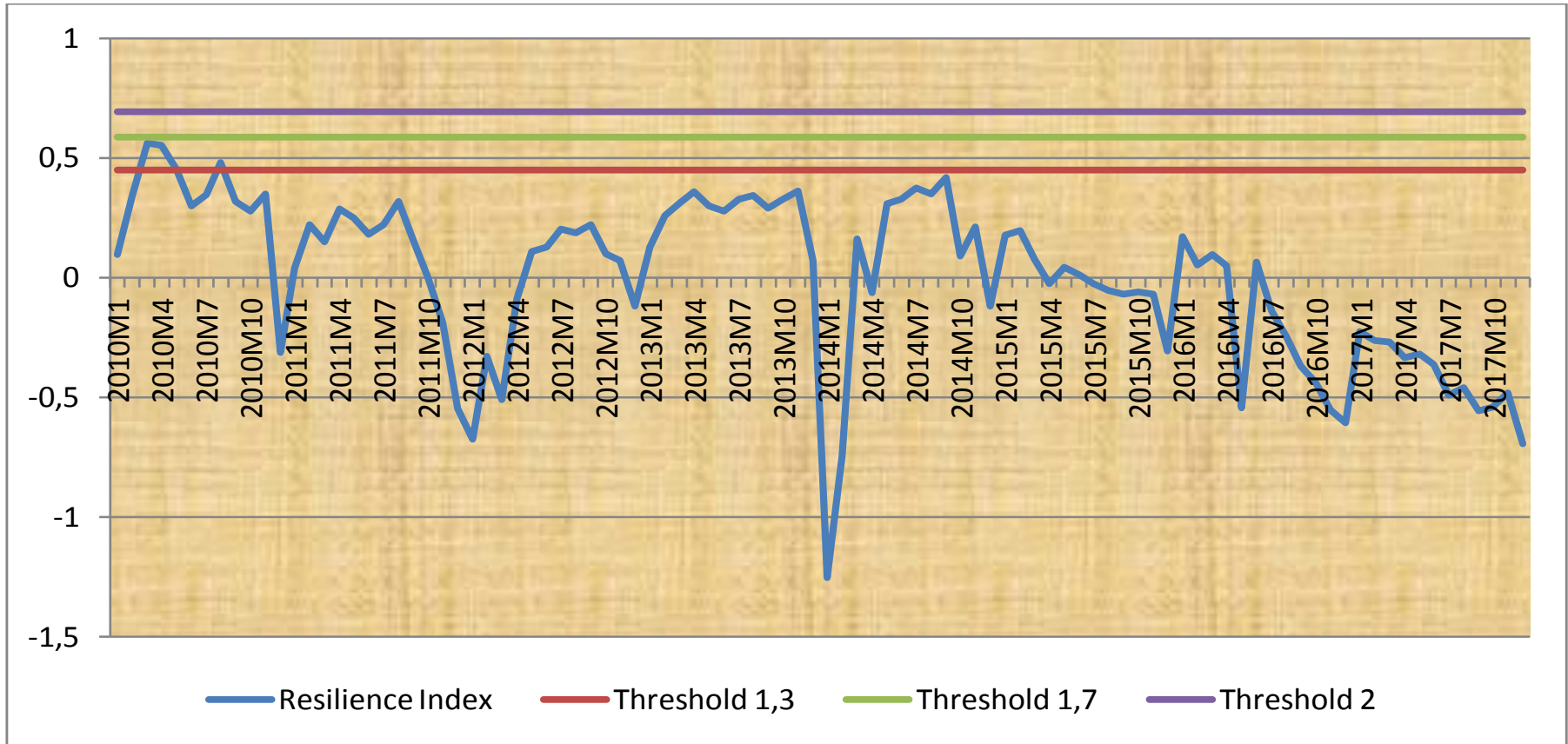
Heteroskedasticity Test



REGRESSION ESTIMATION RESULT

Result

1. Composite Index
(Resilience Index of
Islamic Banking)

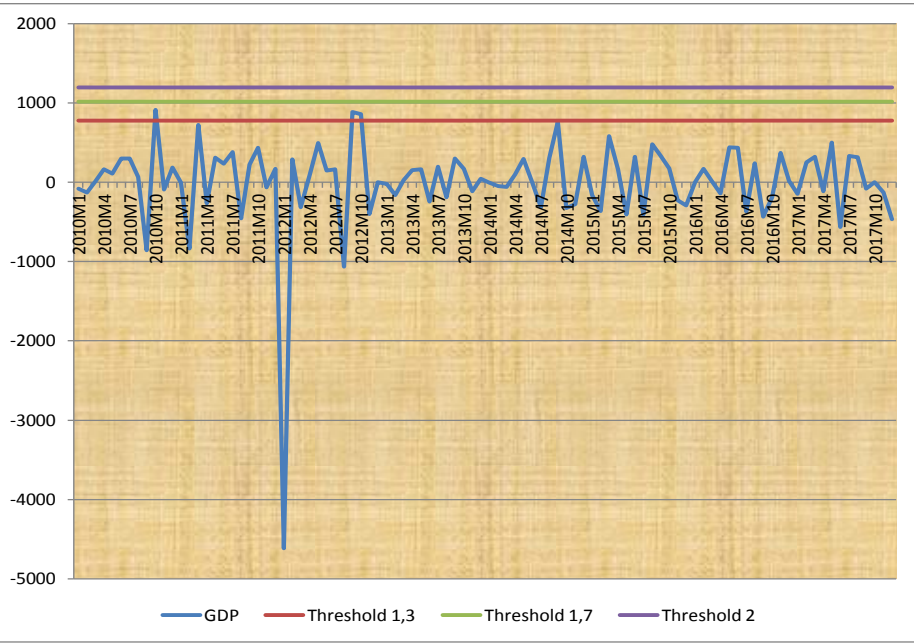


Source: Data Processed (Microsoft Excel)

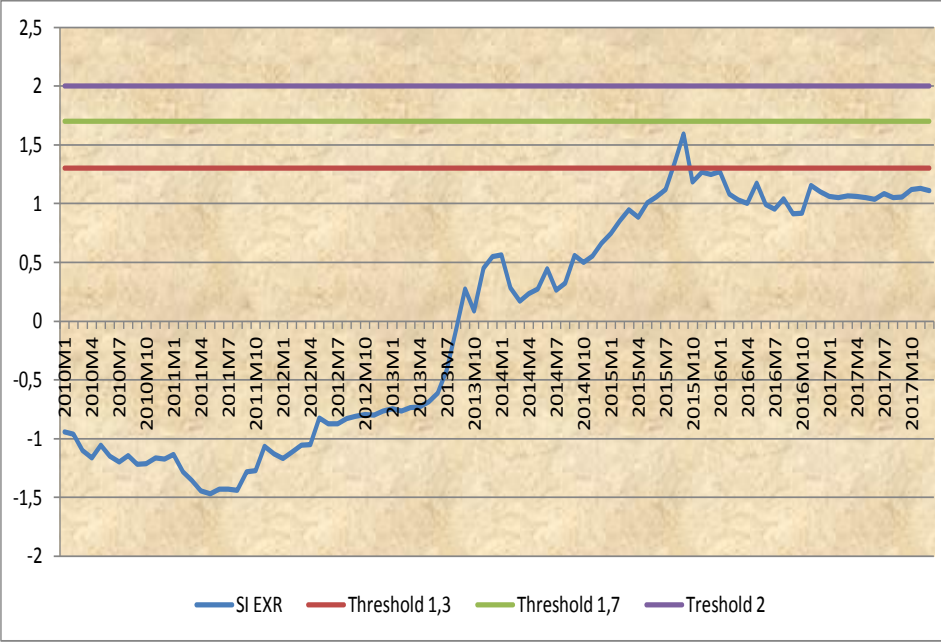
FIGURE 4.1

Resilience Index of Islamic Banking Period January 2010 – December 2017

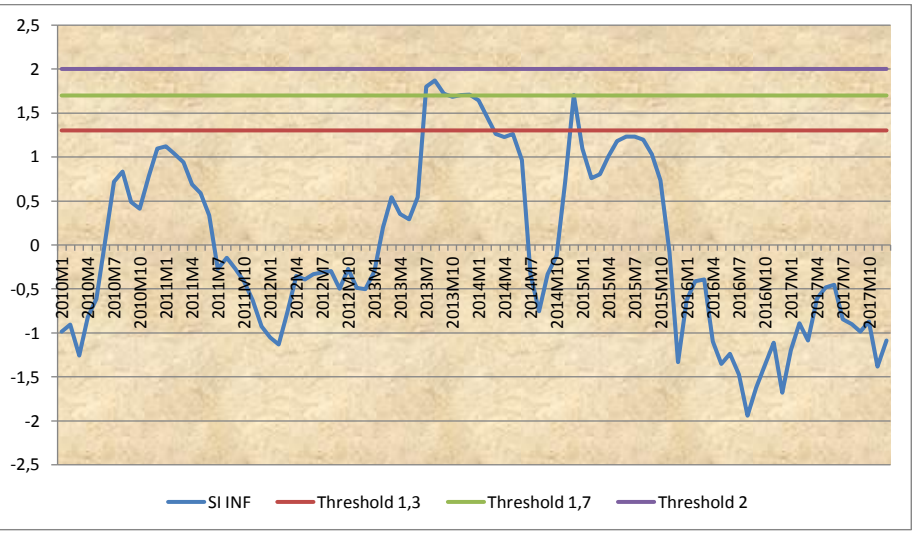
Singe Index of Each Macroeconomic Variable



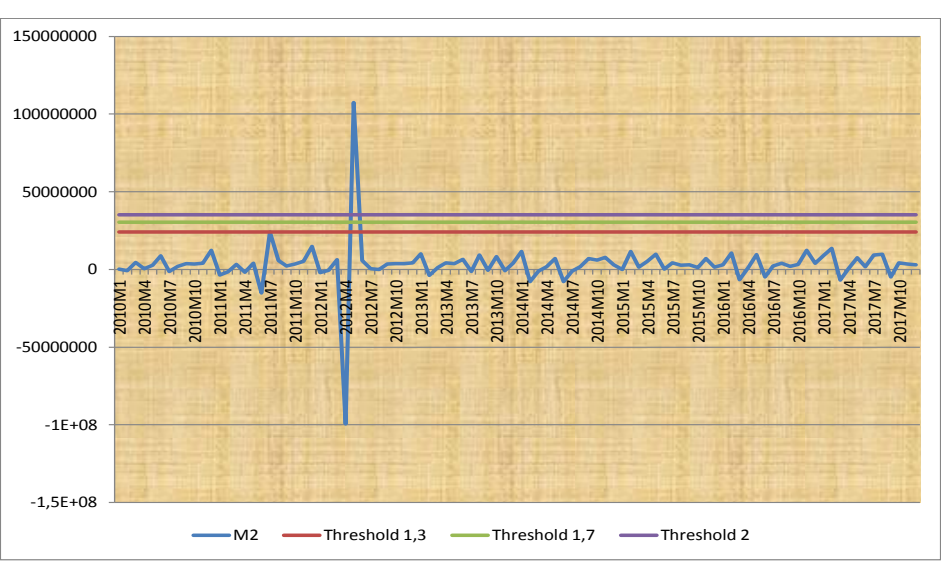
GDP growth Index Period January 2010 – December 2017



Exchange Rate Index Period January 2010 – December 2017



Inflation Rate Index Period January 2010 – December 2017



M2 Growth Index Period January 2010 – December 2017

TIME	AREA	Variables				
		RI	GDP	INF	ER	M2
2010	Normal	-	-	√	√	√
	Threshold 1,3	√	√	-	-	-
	Threshold 1,7	-	-	-	-	-
	Threshold 2	-	-	-	-	-
2011	Normal	√	√	√	√	√
	Threshold 1,3	-	-	-	-	-
	Threshold 1,7	-	-	-	-	-
	Threshold 2	-	-	-	-	-
2012	Normal	√	-	√	√	-
	Threshold 1,3	-	√	-	-	√
	Threshold 1,7	-	-	-	-	√
	Threshold 2	-	-	-	-	√
2013	Normal	√	√	-	√	√
	Threshold 1,3	-	-	√	-	-
	Threshold 1,7	-	-	√	-	-
	Threshold 2	-	-	-	-	-
2014	Normal	√	√	-	√	√
	Threshold 1,3	-	-	√	-	-
	Threshold 1,7	-	-	-	-	-
	Threshold 2	-	-	-	-	-
2015	Normal	√	√	-	-	√
	Threshold 1,3	-	-	√	√	-
	Threshold 1,7	-	-	-	-	-
	Threshold 2	-	-	-	-	-
2016	Normal	√	√	√	√	√
	Threshold 1,3	-	-	-	-	-
	Threshold 1,7	-	-	-	-	-
	Threshold 2	-	-	-	-	-
2017	Normal	√	√	√	√	√
	Threshold 1,3	-	-	-	-	-
	Threshold 1,7	-	-	-	-	-
	Threshold 2	-	-	-	-	-

Heat Map

Where;
 √ : Signaling Position

Source: Data Processed (Microsoft Excel)


Regression Estimation Result

Variable	Regression		
	Coefficient	T-Test	Prob.
Constanta	1.665193	3.066887	0.0029
LOG(GDP)	0.035825	0.646387	0.5197
INF	-0.187455	-2.921795	0.0044
LOG(ER)	-0.000137	-3.156460	0.0022
LOG(M2)	-0.006175	0.152993	0.8787
R-Squared	0.738636		
F-Statistic	41.92029		
Prob. F-Stat	0.000000		

T-
Test



F-
Test



Classical Assumption Test

1. Normality Test

Jarque-Bera	Probability
1.296205	0.523037

Greater than 5% , 0,05

2. Heteroskedasticity Test

(Glesjer)

F Statistic	0,728590	Prob. F (4.91)	0,5747
Obs* R Squared	2,979081	Prob. Chi Squared (5)	0,5613
Scaled Explained SS	3,936724	Prob. Chi Squared (5)	0,4146

Greater than 5% , 0,05

3. Autocorrelation Test (Durbin-Watson)

F-Statistic	41,92029
Prob. (F-Statistic)	0,000000
Durbin-Watson stat.	2,197372

Du 1.7553 < DW 2.197372 < 4-Du 2.2447

4. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.294804	23.46155	NA
LOG(GDP)	0.003072	1.058559	1.058467
INF	0.004116	1.577694	1.529259
LOG(ER)	1.89E-09	25.22833	1.514130
LOG(M2	0.001629	1.525788	1.511639

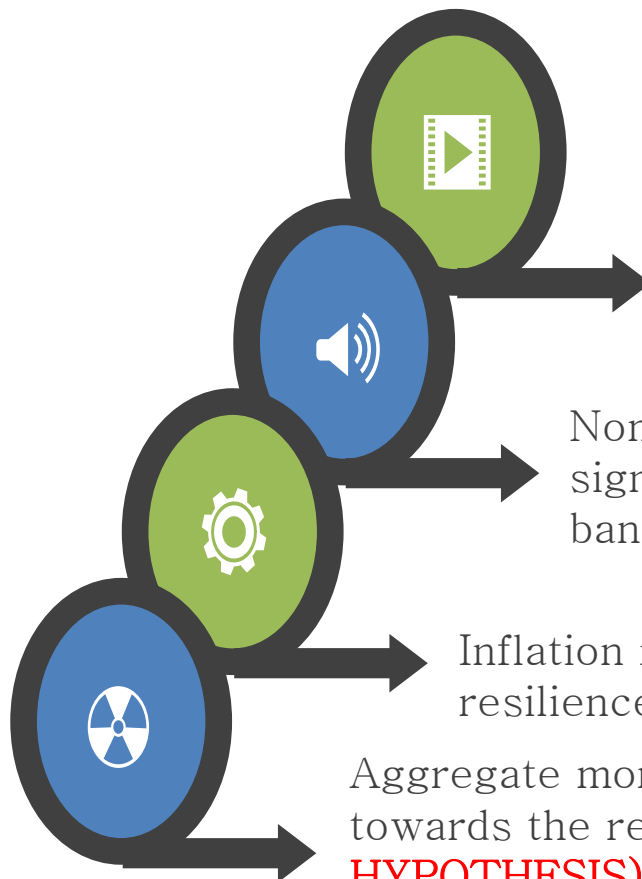
Centered VIF of each variable < 10 or 5

Result and Discussion



The Accumulation of Dependent Variable influence on Independent Variables. Source: Data Processed (Eviews 9)

Variables	Coefficient	Probability
Constanta	1.665193	0.0029
LOG(GDP)	0.035825	0.5197
INF	-0.187455	0.0044
LOG(ER)	-0.000137	0.0022
LOG(M2)	-0.006175	0.8787



Gross domestic product (GDP) is positive and not significant effect towards the resilience of Islamic banking **(SLIGHTLY DIFFERS WITH HYPOTHESIS)**

Nominal exchange rate (ER) is negative and significant effect towards the resilience of Islamic banking **(IN LINE WITH HYPOTHESIS)**

Inflation rate (INF) is negative and significant effect towards the resilience of Islamic banking **(IN LINE WITH HYPOTHESIS)**

Aggregate money supply (M2) is negative and not significant effect towards the resilience of Islamic banking **(SLIGHTLY DIFFERS WITH HYPOTHESIS)**

Conclusion



Inflation Rate

Inflation rate has negative and significant effect on the resilience of Islamic banking in Indonesia. It is caused by the increasing of inflation rate will give difficulties to Islamic banking to deal with Murabahah product and reduce its performance with the limited capital

GDP

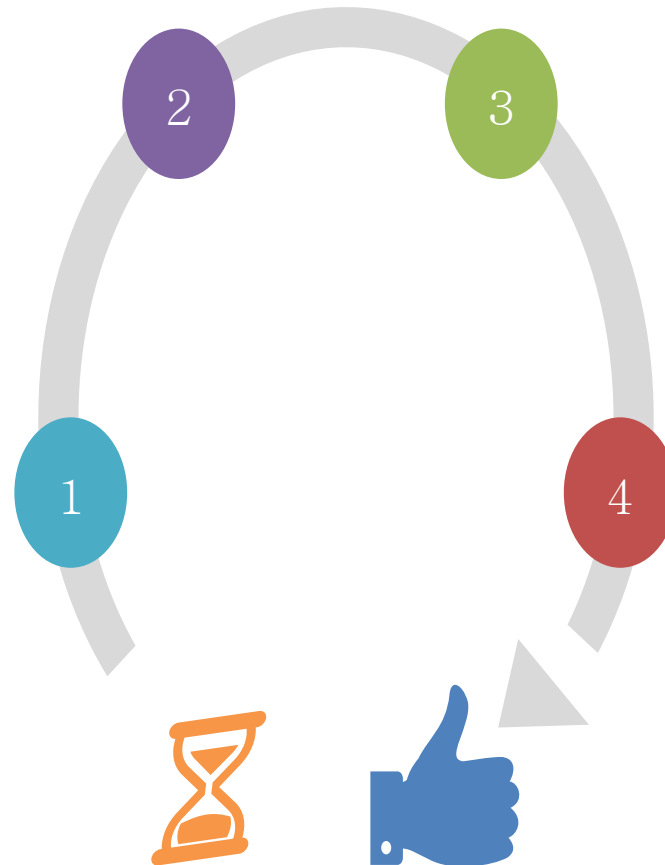
GDP has positive but not significant effect on the resilience of Islamic banking In Indonesia. It is caused by the small percentage of Islamic banking market share and Islamic banking doesn't have big portion in the factor of national income

Exchange Rate

Exchange rate has negative and significant affect on the resilience of Islamic banking in Indonesia. The increasing of exchange rate (depreciation) the use of rupiah for financial transaction will be decreased and leads to the decreasing of liquidity of Islamic banking

Aggregate Money Supply (M2)

M2 has negative and not significant influence on the resilience of Islamic banking. the increasing of M2 will result to the inflation, while inflation is one of the problem in economy as well it effect to the Islamic banking



Suggestion



For Islamic Banking

Islamic banking should increase its market share to obtain the better performance by creating more attractive product



To monitor the ratio of profit and margins offered to costumers so value return on assets not impaired when the financial crisis occurs caused by Inflation



Pay attention on the exchange rate in the profitability of the company because exchange rate is one of the external factor that affect profitability of Islamic banking .



For Bank Indonesia and Government



BI as monetary decision maker should monitor the growth of inflation

To monitor good growth of exchange rate in order to stabilize the financial transaction in Indonesia and results ability of Islamic banking to participate more in international financial transaction.



To monitor the growth of M2 in order the increasing quantity of M2 still can be absorbed by the financial system, and become support to the adequacy of liquidity to run the function





END OF PRESENTATION

**THANK YOU FOR YOUR PRECIOUS TIME
MAY ALLAH BLESS US WITH KNOWLEDGE AND WISDOM**

WASSALAM

