

ISLAMIC MONEY INSTEAD IMPLICATIONS BASED ON MACROECONOMIC AND SOCIAL VALUE VARIABLES IN INDONESIA

Eva Misfah Bayuni^{1*}, Muhammad Yunus², Mujahid³,
Shifa Nurul Fadhilah⁴, Yusuf Azis Yusrizal⁵, Silvani Fauziyyah Adilla⁶,
Mujahid Al Haq⁷

Faculty of Shari'a, Universitas Islam Bandung

Jl. Tamansari No.24-26 Bandung Wetan, Kota Bandung 40184

*[1evamisfah@unisba.ac.id](mailto:evamisfah@unisba.ac.id) [2muhamad.yunus@unisba.ac.id](mailto:muhamad.yunus@unisba.ac.id) [3mujahid@unisba.ac.id](mailto:mujahid@unisba.ac.id)
[4shifaadhilah25@gmail.com](mailto:shifaadhilah25@gmail.com) [5yusufazis48@gmail.com](mailto:yusufazis48@gmail.com) [6silvanifauziyyah@gmail.com](mailto:silvanifauziyyah@gmail.com),
[7jahidalhaq21@gmail.com](mailto:jahidalhaq21@gmail.com)

Abstract

The purpose of this research is to find out the implications of Islamic Money Instead based on macroeconomic and social variables value in Indonesia. The used data is secondary data of 2010-2019 time series. The method of this research is using Vector Autoregressive and Vector Error Correction Model (VECM). E-views 9 program is used for processing data. The result of this research indicates that there are implications for a variety of Islamic Money Instead in Indonesia based on macroeconomic and social value variables in Indonesia on 1st model. GDP and inflation as macroeconomic variable have positive implication for Islamic Money Instead, meanwhile the exchange rate variable has negative implication on it. On 2nd model there are implications for Islamic Money Instead based on macroeconomic variable. GDP and inflation have positive implication and greater value than the 1st model. While the exchange rate has negative implication and has not a response for Islamic Money Instead shock. Furthermore, the 3rd model indicates that there is positive implication based on social value variable not only for zakat but also infaq shadaqah.

Keywords: Islamic Money Instead; Macroeconomic; Social Value

*Correspondent author

I. Introduction

Money is a tool of payment transaction on human activities which appears later after human experiencing the difficulties on barter period. Then the types

of money evolved very rapidly after that. Along with the rapid evolvement of the human transaction at this moment, money has a very important role in the economic sustainability of a country.

The amount of money circulation in a country is determined by the amount of supply and demand for money (Butra Aini et al., 2016). Indonesia as a country that implements dual monetary system has functions of the demand of conventional money and Islamic Money Instead.

Islamic Money Instead more quickly stable than demand for conventional money in responding to the shock of the variables that affect it (Ascarya et al., 2008). One of variables which affects Islamic Money Instead is contained on macroeconomic condition. Among the macroeconomic variables which affect the Islamic Money Instead are Gross Domestic Product (GDP), Consumer Price Index or inflation and exchange rate (Ascarya et al., 2008).

Furthermore, according to Chapra that the factor which affect the function of Islamic Money Instead include the social value as a form of the demand of money from the social activities (Chapra, 1996). It becomes the difference between the function of Islamic Money Instead and conventional money. In the function of Islamic Money Instead, each individual has the obligation to set aside his income partially to be allocated to Zakat, Infaq, Shadaqah, and Waqf. The form of this distribution is a proof of the balance of the world and the hereafter in Islam.

The Previous Research

Research about the demand for money in Indonesia in general has been done quite a lot. General overview of the research about behaviour of the demand for money in Indonesia can be read in (Ascarya et al., 2008) which examines the behaviour of aggregate monetary in Indonesia that implements dual monetary system. The result of the research indicates that the return of the profit sharing (Mudhabarah) affects negatively on the demand of all component on Islamic Money (real money, Wadiah current account, Mudharabah savings, and Mudharabah deposits). Islamic Money Instead more quickly stable than the demand of conventional money in responding to shock of other variables. The request of conventional money in general indicates the motive for transaction and precautionary behaviour (real money, current account, and savings), as well as the motive for speculating/investing behaviour (deposit). Meanwhile, Islamic Money Instead in general only indicates the motive for transaction and precautionary behaviour.

Furthermore, the research (Butra Aini et al., 2016) indicates that GDP is not significantly affect the demand of money. The exchange rate variable has positive and significant effect on the demand of real money in the short term. While the interest

rate has negative and significant effect on the demand of real money. The demand of real money in Indonesia in long term is affected by GDP variable positively and significantly. While the exchange rate and interest rate variable have a negative effect.

Another research by Maulana (Rifki Aditia & Cahyono, 2018) indicates the results of VECM estimates, social values, real money, Wadhiah current account, the return of Sharia and long term Mudharabah savings are not affecting significantly to the demand of money in the perspective of Islamic Economics in Indonesia. The result of variance decomposition which has the largest contributions is social values, then real money, mudharabah deposit, mudharabah savings, the return of sharia,

real GDP, and Wadhiah current account as the smallest.

The similarity between this research and the previous researches lies on some variables which is used on the research, such as Islamic Money Instead component, macroeconomic and social value variables. Although the difference between this research and the previous researches is the previous researches are made separately and not mutually integrated with Islamic Money Instead, macroeconomic and social value variable. Furthermore, the period of this research object is longer than previous researches which is 10 years while the period of the previous object researches is about 3-5 years. So, this research can be assessed as more comprehensive research than the previous researches.

Theoretical Framework

In more detail, the concept of this research is conducted that follows this:

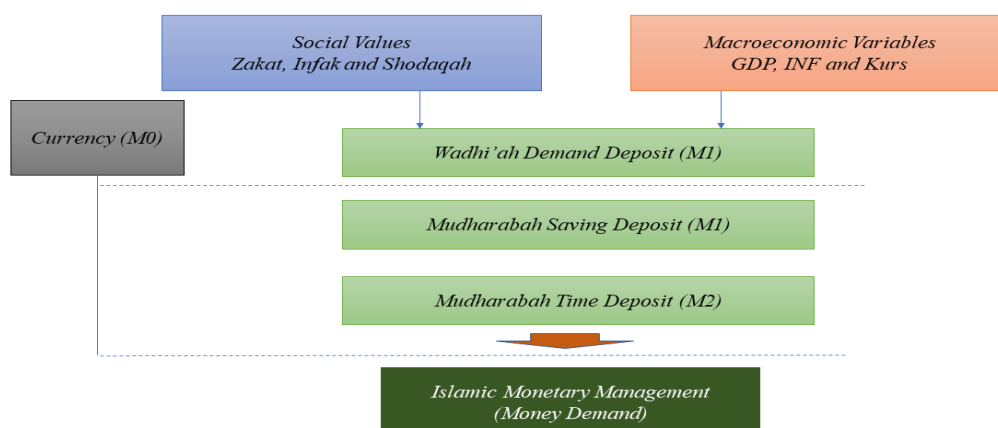


Figure 1. Theoretical Framework

For limiting the problem of this research, the researcher will focus on the discussion about the impact of the macroeconomic and social value variables toward Islamic Money Instead in Indonesia.

Object of Research

The object of this research is one of the components of Islamic Money Instead such as real money or money which is circulating in the community (M0), macroeconomic (real GDP, CPI, and exchange rate) and social value (Zakat, and Infaq Shodaqoh) variables in Indonesia for 10 years in 2010-2019.

Operational variables used in this study include:

1) Variable X (independent variable) is a variable that affects.

The independent variable of this research consists of social value and macroeconomic variable, namely:

- a) GDP (Ln_GDP): Gross Domestic Product, the data which is used on this research is Constant Price of Gross Domestic Product.
- b) Inflation (INF): The increase in the prices of goods commonly be kept constant. The data is used to reflect the increase in price (inflation) on goods/Index Price Consumers (CP).
- c) Exchange Rate (Ln_EX): Rupiah rate exchange compared with the USD, taken by middle exchange rate value between the sale rate exchange and the purchase rate exchange.

d) Social Value (Ln_ZAKAT): Social value component, namely the total amount of income from the collection of Zakat.

e) Social Value (Ln_INSH): Social value component, namely the total amount of income from the collection of Infaq and Shadaqah.

2) Y variable (the dependent variable) is the effect variable. The dependent variable is Islamic Money Instead, namely real money, current account, Mudharabah savings, and Mudharabah current account (Ln_M2Islam).

Model equation of this study is built into 3 (three) models to explain the implications of the demand of Islamic money based in macroeconomic variable such as GDP, inflations, and exchange rate also social value variable such as Zakat, Infaq, and Shadaqah collectively (1st model), the implications of the demand of Islamic money based on macroeconomic variable such as GDP, inflation, and exchange rate (2nd model), and the implications of the demand of Islamic money based on social value variable such as Zakat, Infaq, and Shodaqoh (3rd model).

The following is the equation model of this research:

Model 1:

$$\Delta LN_M2Islam_t = \alpha + \sum_{i=1}^p \beta_{1i} \Delta LN_PDB_{t-i} + \sum_{i=1}^p \beta_{2i} \Delta INF_{t-i} + \sum_{i=1}^p \beta_{3i} \Delta LN_EX_{t-i} + \sum_{i=1}^p \beta_{4i} \Delta LN_ZAKAT_{t-i} +$$

$$\sum_{i=1}^p \beta_{5i} \Delta LN_INSH_{t-i} + \varepsilon_t \tag{1}$$

$$\sum_{i=1}^p \beta_{2i} \Delta LN_INSH_{t-i} + \varepsilon_t \tag{3}$$

Model 2:

$$\Delta LN_M2Islam_t = \alpha + \sum_{i=1}^p \beta_{1i} \Delta LN_PDB_{t-i} + \sum_{i=1}^p \beta_{2i} \Delta INF_{t-i} + \sum_{i=1}^p \beta_{3i} \Delta LN_EX_{t-i} + \varepsilon_t \tag{2}$$

Model 3:

$$\Delta LN_M2Islam_t = \alpha + \sum_{i=1}^p \beta_{1i} \Delta LN_ZAKAT_{t-i} +$$

Research Method

The method which is used on this research namely Vector Error Correction Model (VECM). Eviews 9 Program is used for data processing.

Several stages of VAR and VECM were carried out as follows (Ascarya, 2012):

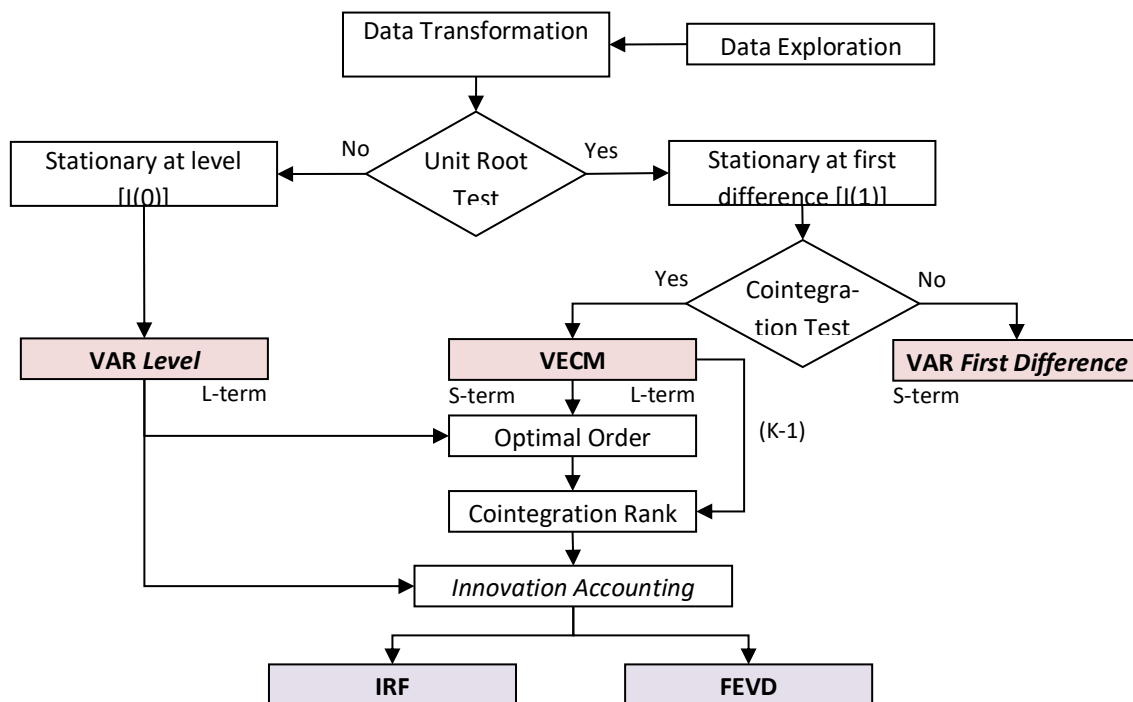


Figure 2. Process of VAR and VECM

Generally VAR/VECM analysis process (Ascarya, 2012) can be describe as follows:

- 1) The data base that was ready to be transformed first in the form of natural logarithm (ln), except for the data that has been formed as percentage or index. It is the process for getting consistent and valid result.

- 2) The first examine is the root unit examine. It is the process to determine whether the data is secondary data or contain the trend.
- 3) If the data is stationary in the first derivative, the data will be examined for the existence of cointegration between variables. If there is no cointegration between variables, VAR can only be

performed on the first derivative. If there is cointegration between variables, VECM can be performed using level data to obtain long run relation between variables.

Hyphotesis

The Hypothesis proposed in this study is as follows:

Model 1

Ho₁: Macroeconomic variables such as GDP, Inflation and Exchange Rate and also social value variables such as Zakat and Infaq Shadaqah have no significant effect on Islamic Money Instead in Indonesia

Ha₁: Macroeconomic variables such as GDP, Inflation, and Exchange Rate and also social value variables such as Zakat and Infaq Shadaqah have significant effect on Islamic Money Instead in Indonesia

Model 2

Ho₂: Macroeconomic variables such as GDP, Inflation and Exchange Rate have no significant effect on Islamic Money Instead in Indonesia

Ha₂: Macroeconomic variables such as GDP, Inflation and Exchange Rate have

significant effect on Islamic Money Instead in Indonesia

Model 3

Ho₃: Social value variables such as Zakat and Infaq Shadaqah have no significant effect on Islamic Money Instead in Indonesia

Ha₃: Social value variables such as Zakat and Infaq Shadaqah have significant effect on Islamic Money Instead in Indonesia

II. Discussion

The Results of Stationarity Test

The first step of this research is to examine the stationary of the entire variables. The stationary test of data is used to determine whether there is unit root or no between the variable based on Phillips-Perron Test (PP) at the certain level and first difference. If the value of PP statistically is smaller than the value of MacKinnon Critical Values then the data has been stationary at level that has been determined. The stationary test also can be seen from the PP probability value which is less than level. The result of stationary test can be seen on the table below.

Table 1. Stationarity Test

Variable	PP Value 1 st Model		PP Value 2 nd Model		PP Model 3 rd Value	
	Level	1 st Difference	Level	1 st Difference	Level	1 st Difference
LN_M 2 Islam	5.261855	-13.56217	5.261855	-13.56217	5.261855	-13.56217
LN_GDP	3.405014	-10.86890	3.405014	-10.86890		
INF	- 0.762637	-7.907969	- 0.762637	-7.907969		
LN_EX	1.631025	-11.20783	1.631025	-11.20783		
LN_ZAKAT	0.449066	-37,26374			0.449066	-37,26374
LN_INSH	0.152521	-43.82836			0.152521	-43.82836
MacKinnon critical values:	1% level	-4.046072	-4.046072		-4.046072	
	5% level	-3.452358	-3.452358		-3.452358	
	10% level	-3.151673	-3.151673		-3.151673	

Note: Bold print indicates that the data is stationary at the 1%, 5%, and 10% significance levels.

Based on the result of the test, there is no stationary variable at the certain level. Then the root unit test is continued by the first difference level. After all the variable were examined root unit at first difference by PP test, the result indicated that all variables were stationary at the first difference level. From the result of the test it can be concluded that at the first difference data does not contain of unit root.

The Result of Optimum Lag Test

Optimum lag test is an important thing because it is useful in identifying how

long the reaction of a variable to another variable and eliminating the problem of autocorrelation. The testing of the long lag can be conducted by using the criteria of the information that is available, namely *Akaike Information Criterion (AIC)* and *Shwarz Information Criterion (SC)*.

Based on the result of the optimum lag test on the variable of the test, optimum lag on all models is at second lag based on the AIC test. The lag has selected for getting the significant estimated VECM result and the adaptation of a short run to a long run. The optimum lag result test of all models can be seen on the table below.

Table 2. Optimum Lag Test Results

lag	1 st Model		2 nd Model		3 rd Model	
	AIC	SC	AIC	SC	AIC	SC
0	-6.590203	-6.448553*	-12.20418	-12.10974*	2.078293	2.149118
1	-7.071005	-6.079456	-12,27691*	-11.80474	1.467647	1.750947*
2	-7.158473*	-5.317024	-12.20761	-11.35771	1.332079*	1.827853

Note: An asterisk (*) indicates that the lag has been optimum based on the Akaike Information Criterion (AIC) criteria

The Result of VAR Stability Test

The VAR stability test was carried out by calculating the roots and functions of polynomials or known as roots of characteristic polynomials. If all the roots of the polynomial function are in the unit circle or if absolute value is < 1 so the VAR is considered stable and the generated *Impulse Response Function* (IRF) dan *Forecast Error Variance Decomposition* (FEVD) are valid. Based on the table below, all models are stable because the absolute value is under 1.

Table 3. VAR Stability Test Results

Lag	Module Range		
	Model 1	Model 2	Model 3
lag 2	0.441877	0.322181	0.601096

	0.441877	0.265939	0.601096
	0.423857	0.128224	0.584241
	0.423857	0.128224	0.584241
	0.406731		0.317276
	0.406731		0.317276

The Result of Cointegration Test

Cointegration relations in an equation system implies that there is error correction model in that system which describes the consistent dynamics on the relation between the short term and its long term. Cointegration test is carried out using the *Johansen Cointegration Test* methods by comparing the value of trace statistic to its critical value. If the value of trace statistic is greater than the critical value, then there is cointegration in the model. All models of the research below encountered the cointegration in a long term.

Table 4. Cointegration Test Results

Model 1				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.301434	132.1725	95.75366	0.0000
At most 1 *	0.292220	90.20164	69.81889	0.0005
At most 2 *	0.206831	49.76392	47.85613	0.0327
At most 3	0.111858	22.65287	29.79707	0.2636
At most 4	0.043944	8.773942	15.49471	0.3867
At most 5	0.029605	3.516046	3.841466	0.0608
Model 2				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.189932	49.07651	47.85613	0.0382
At most 1 *	0.138653	24.22136	29.79707	0.1912
At most 2 *	0.041795	6.609005	15.49471	0.6235
At most 3	0.013227	1.571191	3.841466	0.2100
Model 3 Model				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.232951	62.21333	29.79707	0.0000
At most 1 *	0.192200	31.18436	15.49471	0.0001
At most 2 *	0.051708	6.211809	3.841466	0.0127

Note: Bold indicates that the data is cointegrated at a critical value of 5%

After testing the cointegration and it is proven that each equation has cointegration, then the analysis of the responsiveness of macroeconomic variables to money uses VAR modelling and VECM estimation approach. Later the result of the VECM process will provide two main estimation outputs which estimate the cointegration or the effect of long run equilibrium between the variables, and estimate error correction or the speed of its variables for moving toward its long run equilibrium. The significance which is used on this research at the level of 5%.

The Result of Islamic Money Instead (M2Islam) VECM Estimation Based on Macroeconomic and Social Value Variables (1st Model)

Macroeconomic variable in a long term indicates that the output of GDP and inflation have positive relation significantly to Islamic Money Instead of 2,78381 and 0,03338. Meanwhile the exchange rate has negative relation but not significantly to Islamic Money Instead of -0,310347. It means when GDP and inflation increase by one percent then the equilibrium request of Islamic Money Instead increases significantly of 2,78381 and 0,03338 percent. Furthermore, when exchange rate increases by one percent then the equilibrium request of Islamic Money Instead decreases not significantly of 0,310347 percent. The result of VECM estimation can be seen on the following table:

Table 5. 1st Model of VECM Estimation Result

1 st Model					
LONG TERM					
Variable	Coefficient	T-Statistics	Variable	Coefficient	T-Statistics
LN_GDP(-1)	2.78381	[5.80392]	LN_ZAKAT(-1)	0.13409	[2.99687]
INF(-1)	0.03338	[2.59829]	LN_INSH(-1)	-0.151202	[- 4.79483]
LN_EX(-1)	-0.310347	[-1.11854]	C	-21.67084	

The social value variable in the long term indicates that Zakat has positive relation significantly to Islamic Money Instead of 0,13409. Meanwhile Infaq Shadaqah have negative relation significantly to Islamic Money Instead of 0,151202. It means when Zakat increases by one percent then the equilibrium request of Islamic Money Instead increases by

0,31409 percent. Meanwhile when Infaq and Shadaqah increase by one percent then the equilibrium request of Islamic Money Instead decreases of 0,151202 percent.

The Impulse Response Function of Islamic Money Instead (M2Islam) Based on Macroeconomic and Social Value Variables

Cholesky Decomposition standard is used for identifying the response of macroeconomic and social value variables to money supply. *Cholesky Decomposition* aims for generating the impulse responses

are depends critically in order of variables in the system. In the research the period of time which is used in analysing macroeconomic and social value variables to money supply are projected in 24 months (two years) later because VECM is a method to analyses the long term and assuming that after 2 years it can be attain the stability.

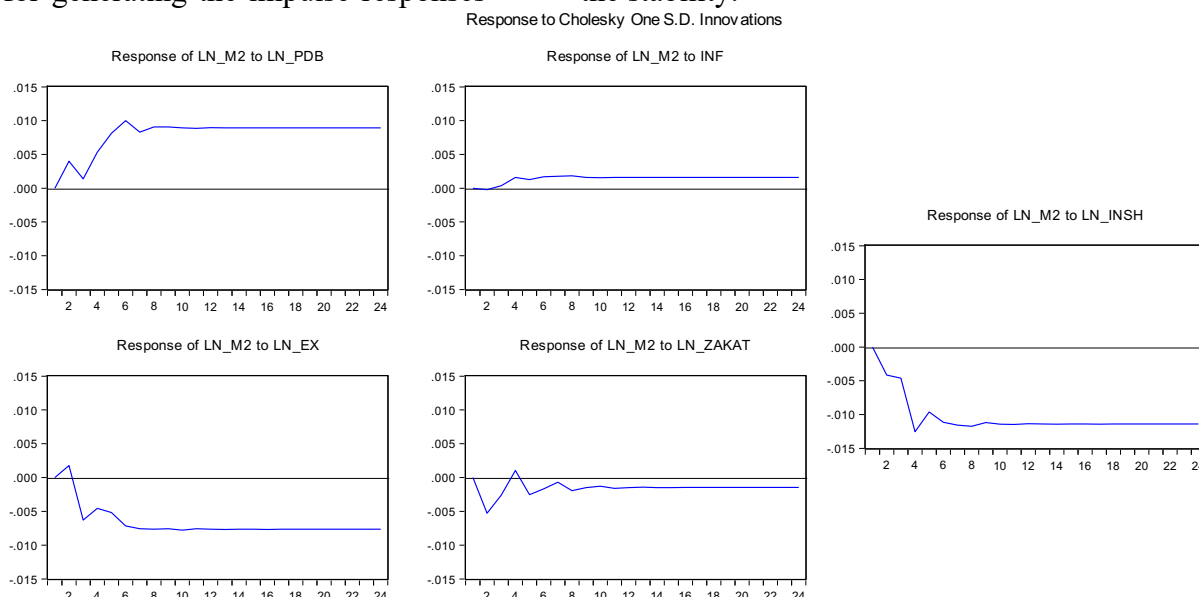


Figure 3. IRF Result Analysis of Model 1

Based on the picture above it can be indicated that the IRF movement in each model has an identical response direction. In the first month, the money supply has not responded to the shock of all macroeconomic and social value variables. In the second month, the variables that gave a negative response to money supply were zakat, infaq, and shadaqoh variable. The variables provide a negative response continuously until the end of observation period. Furthermore, variables that responds positively to the money supply in the second month are GDP, inflation, and

exchange rate. The variables provide a positive response continuously until the end of observation period except for the exchange rate variable that precisely provides a negative response. All of the variables above began to attain the stability in the 12th period.

Islamic Money Instead provides a positive response to the shock of GDP and inflation. It is in accordance with research that has been done (Gustiani, Ebrinda Daisy, Ascarya, 2010) that if people are more prosperous then the assumption is the demand of money will increase. Social

value has provided negative response because of the domination of the system of conventional over the system of Sharia and also can be caused by real money, conspicuous consumption and its social value.

While exchange rate has a negative response to Islamic Money Instead, it is different from the research that has been done (Sabeth Abilawa & Siddiq, 2016) which states that the exchange rate has a positive response to the demand of money in Indonesia. The difference can be caused by the difference of the research objects. The previous research is about the demand of money in Indonesia including conventional and Islamic money. Meanwhile the focus of this research is Islamic Money Instead.

Furthermore, Islamic Money Instead also provides a negative response to the shock of Zakat and Infaq Shadaqah variables. This result is different from research (Gustiani, Ebrinda Daisy, Ascarya, 2010) which obtained that the social value of zakat and infaq shadaqah have different behaviour when there is a shock in the Islamic Money Instead.

The Variance Decomposition of Islamic Money Instead (M2Islam) Based on Macroeconomic and Social Variables

FEVD analysis in this study aims to explain the contribution of each macroeconomic and social value variables in explaining diversity in its effect on money supply. FEVD observation were carried out for 24 periods (two years). In the

first month the variation in money supply is 100 percent only affected by the variable itself. Money supply which is affected by other variable shocks is only responded in the second period. Furthermore, variables that give a response to the shock at the end of observation and the result of FEVD can be seen in the figure below.

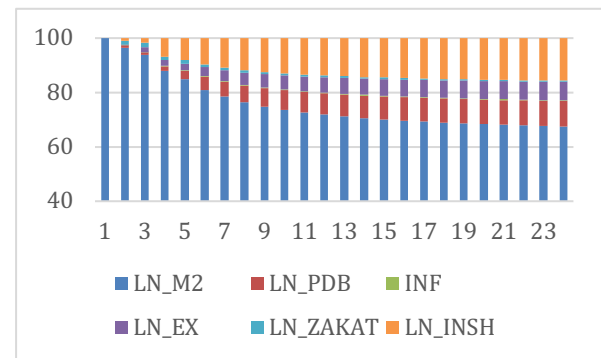


Figure 4. Result Output FEVD of 1st Model

In the 12th period, fluctuation in Islamic Money Instead can be explained by the GDP variable of 9,29 percent, the exchange rate of 6,77 percent, and the inflation of 0,96 percent. Meanwhile infaq shadaqah variable can be described in amount of 15,66 percent and zakat of 0,96 percent.

Social value such as infaq and shadaqah have the most substantial contribution in accordance with the research that has been done (Rifki Aditia & Cahyono, 2018) in which social value variable has the most substantial contribution in affecting Islamic Money Instead. There was no variable separation between zakat, and infaq shadaqah in that research, so it was concluded generally that

social value such as zakat, and infaq shadaqah have the most substantial contribution. And this research also obtains that infaq shadaqah have the most substantial contribution compared to zakat.

The value of infaq shadaqah contribution which is substantial to the transformation of Islamic Money Instead describes that Islamic Money Instead behaviour only for transaction and precautionary behaviour (Ascarya et al., 2008). It corresponds to the demand of Islamic Money Instead which was conveyed in (Chapra, 1996) that Islamic Money Instead consist of consumption and social value.

$$M_d = f(Y_s, S, \pi)$$

Where

Y_s = goods and services that relate to the fulfilment of the needs and productive investment in accordance with the values of Islam.

S = all moral and social value (including zakat) which affects the allocation and distribution of the resource and something that can help to minimize the demand of money for

conspicuous consumption and not productive investment and also speculative behaviour.

π = the level of gain or losses corresponds to the values of Islam.

The Result of VECM Islamic Money Instead (M2Islam) Estimation Based on Macroeconomic Variables (2nd Model)

Macroeconomic variable in the long term indicates that the output of GDP and inflation related positively and significantly to Islamic Money Instead of 5,810272 and 0,151791. While the exchange rate has negative association significantly against Islamic Money Instead of -2,02409. It means when GDP and inflation increased by one percent then the equilibrium request of Islamic Money Instead increases by 5,810272 and 0,151791 percent. Furthermore, when the exchange rate increases by one percent then the equilibrium request of Islamic Money Instead decreased by 2,02409 percent. The following table indicates the result of the VECM estimation:

Table 6. 2nd Model of VECM Estimation Results

2 nd Model					
LONG TERM					
Variable	Coefficient	T-Statistics	Variable	Coefficient	T-Statistics
LN_GDP(-1)	5.810272	[6.64291]	LN_EX(-1)	-2.02409	[- 3.15607]
INF(-1)	0.151791	[5.04971]	C	-46.9558	

The Impulse Response Function of Islamic Money Instead (M2Islam) Based on Macroeconomic Variable

Period of time which is used in this research for analyzing the macroeconomic

variable to money supply which is projected 24 months (two years) later, because VECM is a method to analyze the long term and assuming that after two years will gain the stability.

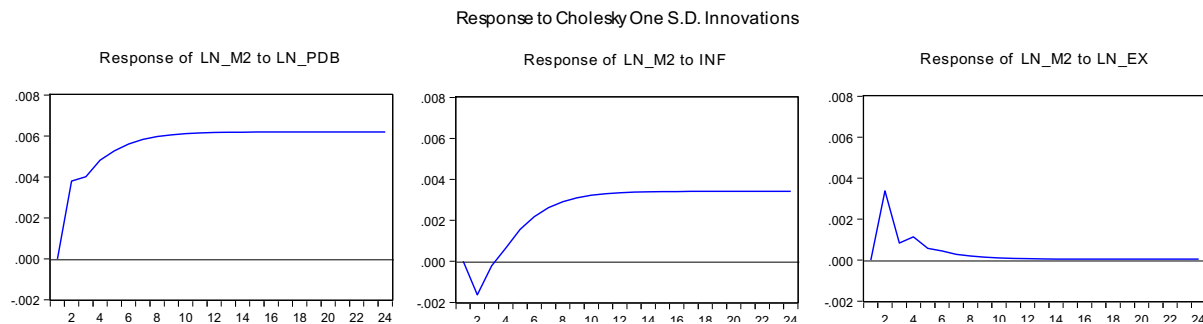


Figure 5. IRF Result Analysis of 2nd Model

Based on the picture above, it can be indicated that the IRF movement in each model has an identical response direction. In the first month, the money supply has not responded to the shock of all macroeconomic variables. In the second month, the variable that gives a negative response to money supply is the inflation variable. At the end of period of observation, the inflation variable turn direction into a positive response. Further, the variable that responds positively to the money supply in the second month is GDP and the exchange rate. Variables that continue to provide a positive response until the end of observation period except for exchange rate variable that is not responding. All of variables above began to gain the stability in the 12th period.

The result of the impulse response in the 2nd model indicates that transformation in GDP and inflation will have positive implication are more substansial to the

Islamic Money Instead. While the transformation of exchange rate variable did not affect the Islamic Money Instead. GDP macroeconomic variable is a determinant factor of the growth of economy (Sabeth Abilawa & Siddiq, 2016) and relates closely to the income of communities. The increase of income will increase GDP and has a positive effect on the Islamic Money Instead.

A positive response is also indicated by Islamic Money Instead to the inflation. It is not a problem because the inflation also can occur due to disturbances on the supply and the demand side. Including GDP and inflation that affect each other so this result can be accepted.

While the result of impulse response on the exchange rate indicates that each exchange rate transformation did not have implication (not responding) to Islamic Money Instead. It is different from the result of research (Sabeth Abilawa &

Siddiq, 2016) that indicated a positive response.

The Variance Decomposition of Islamic Money Instead (M2Islam) Based on Macroeconomic Variable

In the first month, the variation of money supply is 100 percent only affected by the variable itself. Money supply which is affected by the shock of another variable is only responded to the second period. Furthermore, following variables that give a shock response at the end of the observation and the result of FEVD which can be seen in the figure below.

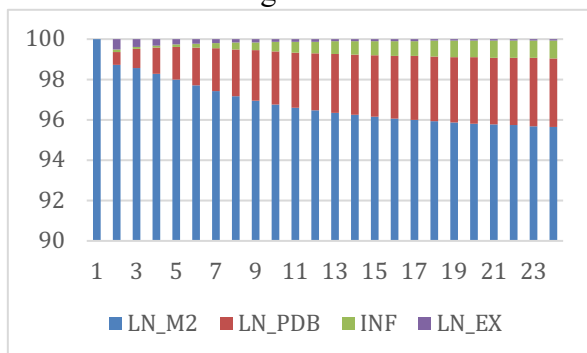


Figure 6. Result Output FEVD of 2nd Model

In the 12th period the fluctuation of Islamic Money Instead can be explained by

the GDP variable of 3.39 percent, inflation of 0,88, and exchange rate of 0,06 percent.

The result of composition indicates that GDP occupied the first position, then inflation and exchange rate occupied the second and the third position. Based on the result Islamic Money Instead is affected by the shock of GDP and inflation variable. Meanwhile the exchange rate variable does not affect (IRF analysis).

The Result of VECM Islamic Money Instead (M2Islam) Estimation Based on Social Value (3rd Model)

Social value variable in the long term indicates that zakat has positive relation significantly to Islamic Money Instead of 0,37543. Meanwhile infaq and shadaqah have positive relation but not significantly to Islamic Money Instead of 0,1147. It means when zakat increases by one percent then the equilibrium request of Islamic Money Instead increases of 0,37543 percent. And when infaq and shadaqah increased by one percent then the equilibrium request of Islamic Money Instead also arises at 0,1147 percent but not significantly. The following table indicates the result of the VECM estimation:

Table 7. The Result of VECM Estimation 3rd Model

3 rd Model (M2)					
LONG TERM					
Variable	Coefficient	T-Statistics	Variable	Coefficient	T-Statistics
LN_ZAKAT(-1)	0.37543	[7.57577]	C	9.21115	
LN_INSH(-1)	0.1147	[1.93800]			

The Impulse Response Function of Islamic Money Instead (M2Islam) Based on Social Value

In this research, period of time which is used in analyzing the social value to

money supply is projected in 24 months (two years) later, because the VECM is a method to analyze the long term and assume that after two years will gain the stability.

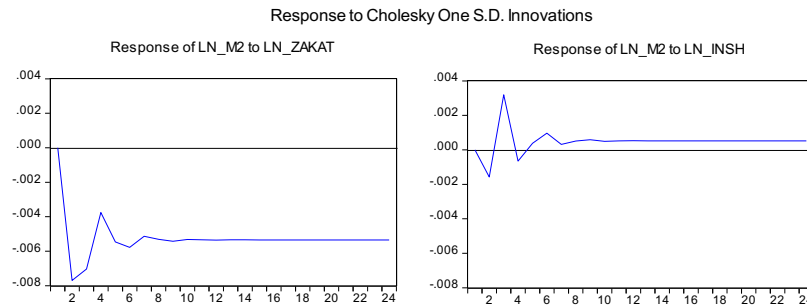


Figure 7. IRF Result Analysis of 3rd Model

Based on picture above it can be indicated that IRF movement in each model has an identical response direction. In the first month, the money supply has not responded to the shock of all social value variables. In the second month, the two variables, namely zakat, infaq, and shadaqah gave a negative response to the money supply. Variables that continue to provide a negative response until the end of observation period except infaq and shadaqah variable give the positive response stably. All of the variables above began to gain the stability in the 12th period.

Based on the result of the 3rd model the response of social value variable such as zakat, infaq, and shadaqah is different from the result of impulse response on the 1st model when the entire of variables tested collectively. In this model, the transformation of zakat will respond negatively while infaq and shadaqah will respond positively to shock of Islamic Money Instead.

The 3rd model in essence is the ideal model of Islamic Money Instead behaviour when the money is used except for consumption that allocated for zakat, infaq, and shadaqah. The response of Islamic Money Instead to the shock of zakat has different result with the research (Gustiani, Ebrinda Daisy, Ascarya, 2010) which respond positively. Islamic Money Instead responds negatively to the shock of zakat, it means that people have different behaviour when decide to distribute zakat so the Islamic Money Instead gives a negative response.

Based on the research that has been done (Haq Kamal et al., 2021) the distribution of zakat at this time affect negatively to inequality income. It is interesting if related to the result of Islamic Money Instead responds negatively to the shock of zakat. In this case it can be noted that the distribution of zakat has probability to affect the Islamic Money Instead.

The Variance of Decomposition of Islamic Money Instead (M2Islam) Based on Social Value

In the first month, the variation of money supply is 100 percent only affected by the variable itself. Money supply which is affected by other variable shocks is only responded in the second period. Furthermore, the following variables that give the shock response at the end of observation and also the result of FEVD which can be seen in the figure below.

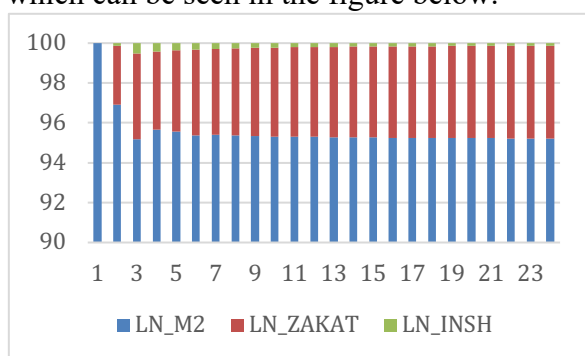


Figure 8. Result Output FEVD of 3rd Model

In the 12th period, fluctuations in the Islamic Money Instead can be explained by the infaq and shadaqah variable of 15.66 percent and zakat of 9.29 percent.

The result of the composition of the 3rd model indicates that infaq and shadaqah occupy the first position, then zakat. Based on the result, Islamic Money Instead is affected by the shocks of infaq and zakat variable in which infaq occupies the first position and then zakat.

The Analysis of VECM Estimation Result, Impulse Responses Function, and Variance Decomposition

We can indicate generally that the whole model of research has long term relation to Islamic Money Instead in Indonesia. Each model also has an initial description of the shock of variables that affects it, such as macroeconomic variable and social value. The Islamic Money Instead has various responses to the shocks that occurred in macroeconomic and social value variable.

In the first model, Islamic Money Instead responds positively to the shocks of GDP and inflation. It correspond to the research that has been done (Gustiani, Ebrinda Daisy, Ascarya, 2010). Social value has negative response that can be caused by the domination of conventional system over the Sharia system. And it also can be caused by real money, conspicuous consumption, and social value itself. Exchange rate variable also has negative response to Islamic Money Instead. It has different result from the research that has been done (Sabeth Abilawa & Siddiq, 2016). Social value such as infaq and shadaqah have the most substantial contribution in accordance with the research that has been done (Rifki Aditia & Cahyono, 2018). The substantial value of infaq shadaqah contribution to the transformation of the Islamic Money Instead indicates that Islamic Money Instead behaviour is for transaction and precautionary behaviour (Ascarya et al., 2008). It corresponds to the function of Islamic Money Instead which was conveyed (Chapra, 1996) that the Islamic Money

Instead consist of consumption and social value.

The 2nd model, the result of impulse response indicates that the transformation of GDP and inflation will have positive implication which is more substantial to the Islamic Money Instead. Meanwhile the transformation of the exchange rate did not affect the Islamic Money Instead. Positive response is also indicated by the Islamic Money Instead to the inflation. While the result of impulse response on the exchange rate indicates that any occurred transformation in exchange rate did not have implication (not responding) to the Islamic Money Instead. The result of composition indicates that GDP occupies the first position, then inflation at the second and exchange rate at the third position.

Furthermore the 3rd model, the response of social value variable such as zakat, infaq, and shadaqah is different with the result of impulse response in the 1st model when all variables tested collectively. In this model, the transformation of zakat will responds negatively, while infaq and shadaqah will responds positively to the shock of Islamic Money Instead. The result of composition of the 3rd model indicates that infaq and shadaqah occupied the first position, and then zakat.

III. Conclusion

The conclusion of the implication analysis result on the first model indicates that macroeconomic variables such as GDP, inflation, and social value have positive implication significantly to Islamic Money

Instead in Indonesia. Meanwhile exchange rate as macroeconomic variable has not significantly and social value of infaq and shadaqah has negative implication significantly to Islamic Money Instead.

Based on the second model, macroeconomic variable still indicates the similar result for GDP and inflation variable which have positive implication significantly to Islamic Money Instead in Indonesia. While the exchange rate variable has negative implications significantly to Islamic Money Instead in Indonesia.

Based on the third model, social value of zakat has positive implication significantly to Islamic Money Instead in Indonesia while the infaq and shadaqah have positive implication but not significantly.

Bibliography

- Ascarya, A. (2012). TRANSMISSION CHANNEL AND EFFECTIVENESS OF DUAL MONETARY POLICY IN INDONESIA. *Buletin Ekonomi Moneter Dan Perbankan*, 14(3), 269–298.
<https://doi.org/10.21098/bemp.v14i3.405>
- Ascarya, A., Hasanah, H., & Achsani, N. A. (2008). PERILAKU PERMINTAAN UANG DALAM SISTEM MONETER GANDA DI INDONESIA. *Buletin Ekonomi Moneter Dan Perbankan*, 11(1), 53 – 88–53 – 88.
<https://doi.org/10.21098/bemp.v11i1.235>

- Butra Aini, H., Tan, S., & Delis, A. (2016). Analisis Permintaan Uang Riil di Indonesia. In *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah* (Vol. 4, Issue 1). *Economics and Finance* (Vol. 3).
- Chapra, M. U. (1996). Monetary management in an Islamic economy. *Islamic Economic Studies*, 4(1). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3165360
- Gustiani, Ebrinda Daisy, Ascarya, J. E. (2010). Analisis Pengaruh Social Values Terhadap Jumlah Permintaan Uang Islam di Indonesia. *Buletin Ekonomi Moneter Dan Perbankan*, 517–548.
- Haq Kamal, A., Purbowisanti, R., Asmara Sani, A., Retno Setiorini, K., Alma Ata, U., Brawijaya No, J., Kasihan, K., & Istimewa Yogyakarta, D. (2021). DO THE DISTRIBUTION OF ZAKAT AND ISLAMIC BANK FINANCING AFFECT INCOME INEQUALITY IN INDONESIA? *Jurnal Ekonomi Dan Keuangan Syariah*, 5(1), 90–102. <https://doi.org/10.29313/amwaluna.v5i1.5854>
- Rifki Aditia, M., & Cahyono, E. F. (2018). RESPONSIVENESS OF SOCIAL VALUES AND REAL GROSS DOMESTIC BRUTO ON MONEY DEMAND IN INDONESIA. In *Journal of Islamic Monetary* Sabeth Abilawa, M., & Siddiq, R. (2016). *DETERMINAN PERMINTAAN UANG DI INDONESIA*. 6(1). <http://jurnal.untirta.ac.id/index.php/>