RESPONSIVENESS OF SOCIAL VALUES AND REAL GROSS DOMESTIC BRUTO ON MONEY DEMAND IN INDONESIA

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ABSTRACT

This study aims to determine the effect, estimates shocks and determine the contribution of social values, real GDP currency, *wadi'ah* demand deposits, *Mudaraba* savings, *mudaraba* deposits and Islamic Bank Returns on money demand in Indonesia. Theoretically, Real GDP and social values are able to increase money demand using each mechanism. Money demand represented by M_2 with a composition comprising of fiat money, *wadi'ah* demand deposits, *mudaraba* savings and *mudaraba* investment deposits completed Islamic Bank return as balancing cost in Money demand. This study employed comparative quantitative analysis as its research methodology. This research utilizes 8 (eight) variable which were analyzed by employing unit root test, determining Lag Optimal, Cointegrate-Test, VECM Estimates, Impulse Response Function and Variance Decomposition. The results of VECM estimation showed that real GDP, fiat money, *wadi'ah* demand deposits, *shari'ah* return, *mudaraba* savings and *mudaraba* investment deposits have significant influence on the Money Demand (MD) in the long-term. In short-term, social values significantly influenced MD in Indonesia. The results of Impulse response showed that real GDP positively responded by the M_2. Similarly, social values fiat money, *wadi'ah* deposits, *mudaraba* deposits, and *shari'ah* return positively respondend by the M_2IS. Conversely, *mudaraba* savings negatively responded by the M_2IS. Variance decomposition results showed that social values have the biggest contribution, then followed by *wadi'ah* demand deposits, *mudaraba* deposits, *mudaraba* savings, currency, real GDP and *shari'ah return.*

Keywords: GDP, Social Values, Money Demand, VECM.
JEL Classifications: D6, E2, E5, P4

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I. INTRODUCTION

Money demand plays an important role in Islamic economics due to its impact on the financial stability. Its stability needs to be maintained owing to the fact that it affects the purchasing power. Islam encourages the exchange rate of money to not be eroded and diminished because the decline in the value of money will jeopardize the society (Ḥifẓurrab, 2006). Money as an economic regulator has a function to improve human capability to allocate economic resources. This relates to the functions of money as a means of payment, store value, standard values, and the standard of payment in the future. As the money supply in the community grows high, the demand for money will also increase in the direction of the increase in the money supply. Demand for money has a very important role for the monetary policy authority in determining the right policy to maintain economic stability (Prawoto, 2010).

Other economists argue that the important factor of money demand is also influenced by economic conditions. The status quo of a country's economic condition is reflected in its Gross Domestic Product (GDP). A high GDP indicates a high economic growth, which results in the increased money demand. Changes in GDP was accompanied by changes in the money circulated in the country. This suggests a linkage between macroeconomic factors (in this case GDP) with the amount of money in circulation. The amount of money in circulation is determined directly by the Indonesian banks without questioning the relationship with currency and demand deposits. This behavior is based on an analysis of the determination of the money supply, in which the money supply is related to currency and demand deposit (Iswardono, 1993).

Hwang (2002) found that in the long-term, balance of real income society and interest rate have fixed effect on M_2, while for M_1 variable is not very influential. The result is similar with the finding of Widodo (2015). An important conclusion from these studies is that M_2 is closely related to income and interest rates and this linkage becomes a reference in the stability of money demand (Bahmani-Oskooee and Wang, 2007).

The money supply in Indonesia has an upward trend. In the last five years, the average money supply growth rate (M_1) account 13.56%, quasi money account 12.04% and money (M_2) of 11.28%. The largest growth for narrow money (M_1) is in the year 2013 amounted to 22.69%, for the money circulated widely is in 2012 amounted to 14.85% (Indonesia 2012). Meanwhile, based on government reports of *shari'ah* banking in 2011 to 2015, the amount of *wadi'ah* current account, *mudaraba* savings and *mudaraba* deposits in Indonesia has always increased (Indonesia, 2012).

Indonesia is currently using a dual banking system in its economic system. The purpose of the dual banking system is to synchronously use both conventional and Islamic banking models, which we often referred to as dual banking system. This of course greatly affect the monetary mechanism in Indonesia, one of which is the demand for money. The demand for Money in Indonesia is currently influenced by components derived from Social values.

There are a number of factors that also contribute to money demand, and one of them is social values. It is the desire to give charity and help others in order to have God's blessings. Social value activities require money. This factor arises because in Islamic Worldview, a Muslim must prepare consumption in the hereafter with as

well as possible by allocating some funds during life. Islam promotes a monetary system which aims to achieve justice and socio-economic equality. This system prohibits interest rates and promotes profit-sharing. Chapra (1996) defines Social values as all activities of a social nature and certainly not prohibited by Islamic law (*zakah*, *infaq*, alms, and *waqf*) and these activities have an influence on the demand for money.

This research seeks to fill the void of providing empirical evidence about the linkage between social values, real GDP and other important factors to money demand. This research is useful for government and regulator to see how far the influence of social values and other variables to the money demand. This research aims to:

1) Analyze the effect of real GDP, social values, currency, *wadi'ah* current account, *mudaraba* saving, *mudaraba* deposit and Islamic Bank Return to M_2 money in Indonesia;
2) Estimate the shocks to real GDP, social values, currency, *wadi'ah* current account, *mudaraba* saving, *mudaraba* deposit as well as the Islamic Bank Returns in influencing the demand for money in Indonesia;
3) Find out which variable has the greatest impact on M_2 in Indonesia.

II. LITERATURE REVIEW
2.1. Money Demand
According to Choudhury (1997) in Adiwarman (2007), money demand is a representation of the overall needs of transactions in the real sector. The higher the capacity and volume of the real sector, the higher the demand for money.

2.1.1. Demand for Money in Islam
According to Ibn Taymiyah in Karim (2002), the demand for a good is a desire for something, which is described by the term *raghbah fil al-syai*. It is also interpreted as a number of goods requested. Broadly speaking, demand in Islamic economics is similar to conventional economics, but different sources. The source of the demand for Money should come from Islamic finance as well. There are certain principles that must be observed by individual Muslims in their desires.

Islam requires people to consume halal and *thayyib* goods. Moreover, in the teachings of Islam, people who have large sums are not necessarily allowed to spend their money to buy anything and in whatever amount it wants, and Islam does not advocate the demand for a good for the purpose of grandeur, luxury and exuberance. It is already written on QS. Al-Israa: 26-27.

وَءَاتِ ذَا ٱلۡقُرۡبَىٰ حَقَّهُۥ وَٱلۡمِسۡكِينَ وَٱبۡنَ ٱلسَّبِيلِ وَلَا تُبَذِّرۡ تَبۡذِيرًا ٢٦ إِنَّ ٱلۡمُبَذِّرِينَ كَانُوٓاْ إِخۡوَٰنَ ٱلشَّيَٰطِينِۖ وَكَانَ ٱلشَّيۡطَٰنُ لِرَبِّهِۦ كَفُورًا ٢٧

"And give unto the families of his right, unto the poor and on the way, and spend not thy waste extravagantly. Lord! These wicked spirits are the brethren of shaitan and the shaitan is very disobedient to his Lord" (Q.S. Al-Israa: 26-27)

2.1.2. Real Gross Domestic Product

According to Mankiw (2003), GDP is the value of all goods and services produced by residents within a State whether domestic or foreign within a certain period. GDP is defined as the overall value of an output of all goods and services produced within the territory of Indonesia within a specified time period computed are all goods and services used by end users and not those used for subsequent production processes.

Real GDP measures the value of output in two years or more that is different by assessing goods and services adjusted for inflation. Real GDP is the value of goods and services measured using constant prices.

2.1.3. Social Values

According to Chapra (1996), social values consist of all social activities that can or cannot be quantified. It includes moral values, activities of an unlimited social nature. Looking at the Islamic economic system, the activities that are reflective of social values are *zakah*, *infaq*, *shadaqah* and *waqf* as well as other socioeconomic and financial instruments that fit the criteria used by (Chapra, 1996). The benefits of ZIS (*zakah*, *infaq* and alms) Chapra (1985) in (Karim 2006) states that *zakah* has a positive impact in increasing the availability of funds for investment because the payment of *zakah* on wealth and stored property will encourage the payers of *zakah* to seek income from their wealth, so as to be able to pay *zakah* without reducing its wealth. Thus, in a society which has good practice of Islamic teachings, gold and silver deposits, and unproductive wealth are likely to diminish in order to increase investment and generate greater prosperity. This is in harmony with QS. At-Taubah: 103.

خُذْ مِنْ أَمْوَٰلِهِمْ صَدَقَةً تُطَهِّرُهُمْ وَتُزَكِّيهِم بِهَا وَصَلِّ عَلَيْهِمْ إِنَّ صَلَوٰتَكَ سَكَنٌ لَّهُمْ وَٱللَّهُ سَمِيعٌ عَلِيمٌ ١٠٣

"Take zakah from some of their property, with the charity you clean and purify them and pray for them. Verily, your prayer is a tranquility for them. And Allah is Hearing, Knowing" (Q.S. At-Taubah: 103).

2.2. Relationship Variable
2.2.1. Real GDP against Money Demand

In Fisher's quantity of money theory and Keynes's money demand theory, the demand for money depends on income. The higher the income, the greater the desire for cash. People with higher income level will be likely to spend more, vice versa. It implies that if income increases, prices soared, which increase the demand for money (Nopirin, 1990).

2.2.2. Social Values to the Demand of Islamic Money

According to (Chapra, 1996), the equation of money demand explains one variable that has not been used in the theory of money demand is the variable social values.

$$Md = f, (Ys, S, \pi) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (1)$$

The Ys variable shows goods and services that meet the needs and productive investments that are in harmony with Islam. While S explains moral and social values (including in the case of *zakah*, *infaq*, *shadaqah*) which will affect the allocation and distribution of resources, which will affect money demand that is not used for conspicuous consumption (excessive consumption, Content and speculation) and π is the return of *shari'ah*.

2.3. Hypothesis and Analysis Model

The hypothesis of this study is that there is a strong influence of Real GDP, social values, currency, current accounts, *mudaraba* savings, *mudaraba* deposits and *shari'ah* returns on long-term demand for Islamic M_2 in Indonesia. The VECM model used in this research is as follows:

$$[\Delta lnM_1IS_t] = \begin{bmatrix} \Delta lnPDBR1_{t-1} \\ \Delta lnS2_{t-1} \\ \Delta lnRS3_{t-1} \end{bmatrix} + \begin{bmatrix} a_{11} \\ a_{21} \\ a_{31} \end{bmatrix} \times \beta_{11}\beta_{21}\beta_{31} \begin{bmatrix} PDBR1_{t-1} \\ lnS2_{t-1} \\ RS3_{t-1} \end{bmatrix} \dots\dots\dots\dots\dots \quad (2)$$

III. METHODOLOGY

3.1. Research Approach

The research employed quantitative approach for data analysis purpose. This study uses secondary data obtained from Indonesian Bank Indonesia Economic Statistics and Finance (SEKI-BI), Bank Indonesia *shari'ah* banking statistics (SPS-BI), data Publication of *shari'ah* return in *Shari'ah* Bank revenue distribution report in Indonesia, *Zakah*, *Infaq* and *Shadaqah* Annual Report on Indonesia National *Amil Zakah* Agency (BAZNAS) during the period of January 2011 to December 2015.

3.1.1. Identification of Variables

According to Sugiyono (2012), a variable is an attribute, nature or value of people, objects, or activities that have a certain variation set by researchers to learn and draw conclusions. The present study formulates 8 variables, which are Islamic M_2, Real GDP, social values, currency, *wadi'ah* current accounts, *mudaraba* saving, *mudaraba* deposit and *shari'ah* return.

Some of the variables used in this study are:

A. The demand for M_1 money (M_1), the Islamic bases money supply in the narrow sense consists of currency and demand deposit (*wadi'ah* current account). This study fails to differentiate Islamic-based money from the conventional one because of the element of currency money in M_1IS.

B. The demand for M_2 money (M_2), the Money supply in a broad sense consisting of M_1IS plus *mudaraba* saving and *mudaraba* deposits. Similar to previous variable, this variable cannot be distinguished between the criteria of true money according *to shari'ah* because of the element of currency In M_2IS.

C. Currency (C), money circulating both metal or paper in the community (outside commercial banks) and ready to spend, at any time issued by the central bank. This variable is also unable to distinguish the money according to Islamic and conventional law.
D. *Wadi'ah Giro* Account (WGA) or *Wadi'ah* current accounts, a checking account in which the contract of deposit with the condition of the receiver of the deposit is responsible for the value of money.
E. *Mudaraba* Saving (MS) is a third-party deposit in Islamic bank withdrawals may be made at any time or several times in accordance with the agreement.
F. *Mudaraba* Investment Deposit (IMD) is a third-party deposit in an Islamic bank which requires a grace period between depositing and withdrawing funds to be paid.
G. Real Gross Domestic Product (GDP), is the value of GDP which deflated with CPI rate for the year 2011, but in this research, GDP has not been separated from conspicuous consumption.
H. Social Values (S), the level of allocation and distribution of social resources. In this study, the data used are *zakah, infaq* and *shadaqah* data which is the estimated data of *zakah* income, acquired from *National Amil Zakah Agency* (BAZNAS).
I. Islamic Bank Returns (IBR), consisting of Islamic Bank Rate Equivalent in Indonesia.

3.2. Method or Estimation Technique

VECM (Vector Error Correction Model) is an econometrics analysis tool which can be used to find out the short-term behavior of a variable to its long term as a result of permanent shock. It is also a form of terrestrial VAR, because the data form is not stationary but cointegrated. Hence, VECM can also be said to be a non-stationary VAR form but has a cointegration relationship. The term cointegration is also often referred to as error because the deviation of long-run equilibrium is gradually corrected by partial serial obtained from short-term adjustments (Gujarati and Porter, 2003).

3.2.1. Stationary Test

Time series data is stationary if stochastic data indicates a constant pattern over time or there is no growth or decrease in data, roughly the data must be horizontal along the time axis.

VAR with the p order and the variable n of the independent variables at time t can be modeled as follows:

$$Yt = A0 + (A1yt - 1) + (A2yt - 2) + \cdots + (Apyt - p) + \varepsilon t .... \quad (3)$$

3.2.2. Determination of Optimal Lag Level

In specifying the VAR model, it is necessary to select a variable and specify the number of hoses used in the model. The optimal lag determination in VAR analysis

is very important because of the endogenous variables in the system of equations will be used as exogenous variables (Enders, 2004).

3.2.3. Cointegration Test

Methods for testing the presence of co-integration that may be used include the Engle-Granger cointegration method and the Johansen cointegration method. In this research used Johansen cointegration method to obtain a long-term relationship between variables in the model. Johansen cointegration method is used to see the long-term relationship between variables that have been through the integration process and stationed on the same degree that is at first difference.

Johansen's cointegration method is different from the Engle-Granger method which is usually used for one equation only. Cointegration occurs when independent variables and dependent variables are a trend (time series) so that each is not stationery (Winarno, 2007), cointegration can also lead to a pseudo-regression.

3.2.4. General Model Vector Error Correction Model (VECM)

In cointegration test stage, if there is cointegration between variables or rank cointegration (*r*) more than zero then analysis of vector error correction model can be done. VECM model of order *p* and rank *r* are written as:

$$\Delta yt = A0 + \pi yt - 1 + \sum (i = 1)^{(p-1)\Delta i \Delta yt - 1 + \varepsilon} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ (4)}$$

3.2.5. Impulse Response Function Analysis (IRF)

The IRF analysis method is used to determine the response of an endogenous variable to the shock of a particular variable and can also be used to view shocks from one variable to another, otherwise, it can be seen how long the influence of those variables occurs. Firdaus (2004) argues that the shock given to a variable not only directly affects the variable but also transmitted to all other endogenous variables through the dynamic structure (lag) in the VECM system.

3.2.6. Analysis of Variance Decomposition (VD)

VD is used to analyze and calculate how big the effect of certain variables random shock to endogenous variables. In addition, the analysis yields information about the relative importance of each random innovation or as strongly as the composition of the role of the variable to the other variables in the VECM model.

IV. RESULTS AND FINDING

4.1. VECM Estimation Results

The long-term VECM estimates result that in the long run the real GDP significantly affects M_2 at a significant level of 5%. The result is obtained because of the value of coefficient PDBR equal to 0,115210 and value from t-statistic equal to [-4.10658]

bigger than t-table value [2,67373]. It is known that when the real gross domestic product level increases by 5% then M_2 will also increase by 0.115210%.

At 5% significant level, Islamic Bank Returns (IBR) have a significant effect on M_2 in the long-term. The result is obtained because the coefficient value of IBR is -0.115103 and the value of t-statistic are [5.90614] which is bigger than t-table value [2.67373]. It can be seen that when the RS level increases by 5% then M_2 will decrease by 0.115103%.

At 5% significant level, the *mudaraba* saving rate significantly affects M_2 in the long-term. The value of the exchange rate coefficient is -3.628907 and the value of t-statistics of [10.1366] are greater than the t-table value of [2.67373]. It can be seen that when the *mudaraba* savings rate increases by 5% then M_2 will decrease by 3.628907%.

Currency (C) shows that at 5% significant level, it has a significant effect on M_2 in the long-run. The value of currency coefficient is 2.236932 and the value of t-statistic is [-5.83477] which is bigger than t-table value [2.67373]. It can be seen that when the currency rate increases by 5% then M_2 will increase by 2.236932%.

Social values (ZIS) show that in the long-term it does not significantly affect M_2 at 5% significant level. The coefficient value of social values is -0.043322 and the value of t-statistics of [1.79746] are smaller than the t-table value of [2.67373]. It can be seen that when the level of social values increases by 5% then M_2 will decrease by 0.043322%.

The *wadi'ah* current account (WGA) also shows that in the long term it significantly affects M_2 at a significant level of 5%. The value of *wadi'ah* current account coefficient is 1.484324 and the value of t-statistics of [-9.45759] is bigger than t-table value of [2.67373]. It can be seen that when the *wadi'ah* current account rate increases by 5% then M_2 will increase by 1.484324%.

Mudaraba deposits (IMD) show that in the long term it has a significant effect on M_2 at 5% significant level. The value of *mudaraba* deposit coefficient is -1.428190 and the value of t-statistic of [-7.34586] are bigger than t-table value of [2.67373]. It can be seen that when the *mudaraba* deposit rate increased by 5% then M_2 will increase by 1.428190%.

In the short-term, there is only one variable that has a significant effect on M_2. Social values (ZIS) show that in the short-term it has a significant effect on M_2 at a significant level of 5%. The result was obtained because the Real GDP coefficient value was -0.011822 and the value of t-statistic of [2.89492] was bigger than t-table value of [2.67373]. It can be seen that when the level of the real gross domestic product increases by 5% then M_2 will decrease by 0.011822%.

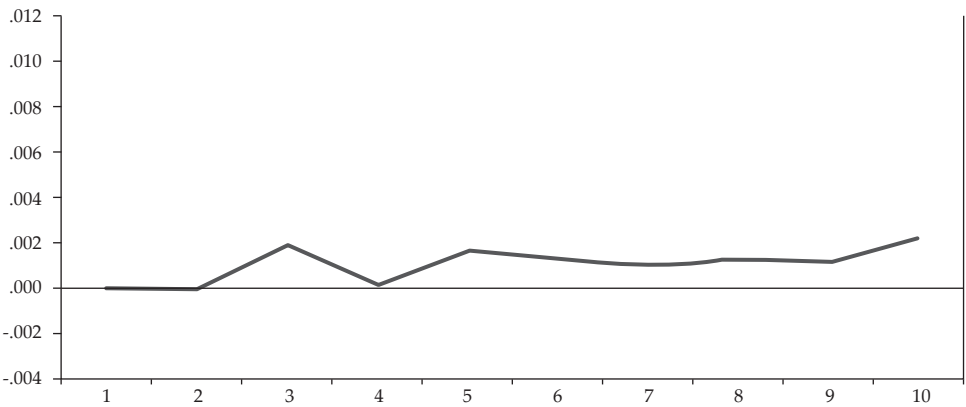### 4.1.1. Results of Impulse Response Function (IRF)

Figure 1.
Response of M2 to Gross Domestic Product

Overall, M_2 responds to the variable of Real GDP volatile. The first and second periods show that M_2 does not respond to the shock of Real GDP variables. In the third period, M_2 began to respond to a real positive shock of Real GDP variables indicating that an increase in real GDP of 1 SD responded with an increase of M_2 0.001901 SD. The positive response generated by the shock of real GDP variables was also obtained in the fourth period with a standard deviation rate of 0.000119 SD. In the fourth to the tenth period, Real GDP variables experienced an increase of 1 SD responded with an increase of M_2 in the range of 0.002216 SD.
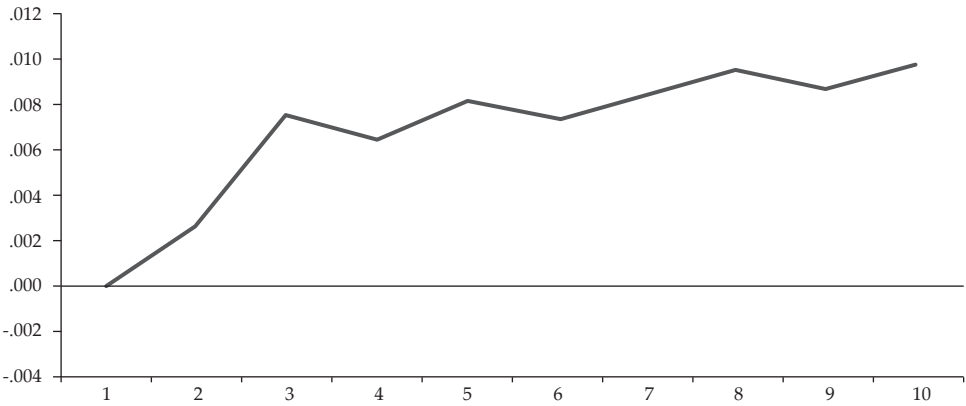

Figure 2.
Response of M2 to Social Value

Overall, M_2 responds to the variable of Real GDP volatile. M_2 shows no response on the shock of Real GDP in the first and second periods. In the third period, M_2 began to show its response, which indicates that an increase of 1 SD in Real GDP is responded with an increase of M2 0.001901 SD. The positive response was also shown in the fourth period with a standard deviation rate of 0.000119 SD. In the fourth to the tenth period, Real GDP experienced an increase of 1 SD responded with an increase of M_2 in the range of 0.002216 SD.
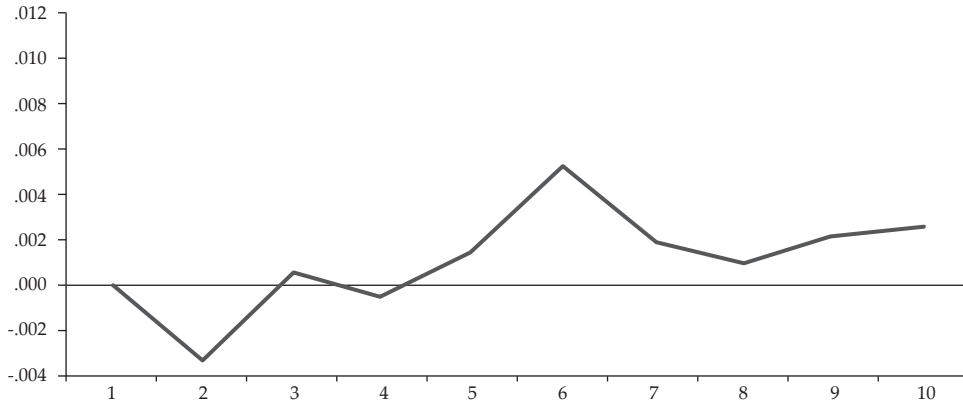

Figure 3.
Response of M2 to Currency

Overall, M_2 responds to volatile currency variable shocks. In the first period, M_2 has not responded to the shock of currency variables. In the second period, M_2 responded negatively to the shock of currency. A decrease in SD of currency will affect M_2 by -0.003292 SD. The third period shows a positive response from M_2 to currency variables. An increase in the currency of 1 SD will be responded with an increase of M_2 by 0.000527 SD. The fourth period indicates that M_2 responds negatively to negative currency money shocks. The addition of currency of 1 SD will be responded with a decrease of M_2 of -0.000527 SD. In the fifth, to final period M_2 responds positively to currency variables. The addition of currency of 1 SD will be responded with an increase of M_2 in the range of 0.002636 SD.
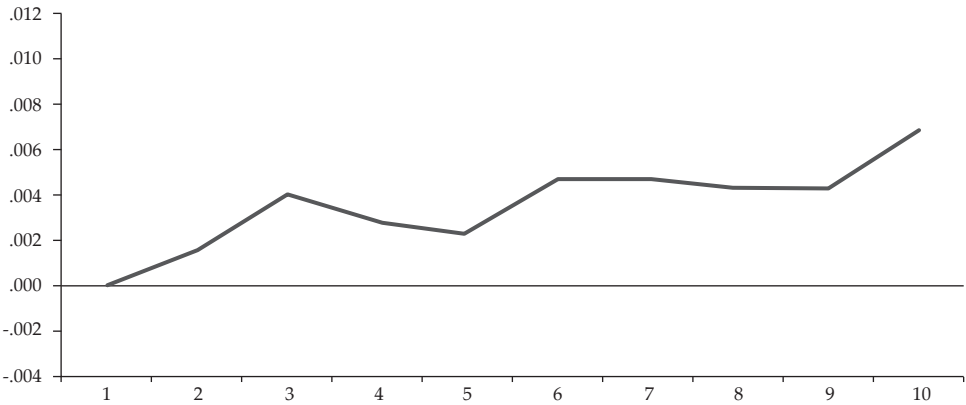
Figure 4.
Response of M2 to *Wadi'ah* Current Account (WGA)

Results Impulse response from shock *wadi'ah* current account variable to M_2 overall in response fluctuate. At the beginning of the M_2 period has not responded to the shock of the *wadi'ah* current account variable. In the second period, M_2 responds to *wadi'ah* current account variable positively. The addition of 1 SD on the variable *wadi'ah* current account will be responded with an increase in the M_2 variable of 0.001494 SD. The third period to the end of the period indicates that M_2 responds to the positive variable of the *wadi'ah* current account positively. The increase of 1 SD *wadi'ah* current account variable will be responded with an increase in M_2 ranging from 0.006745 SD.
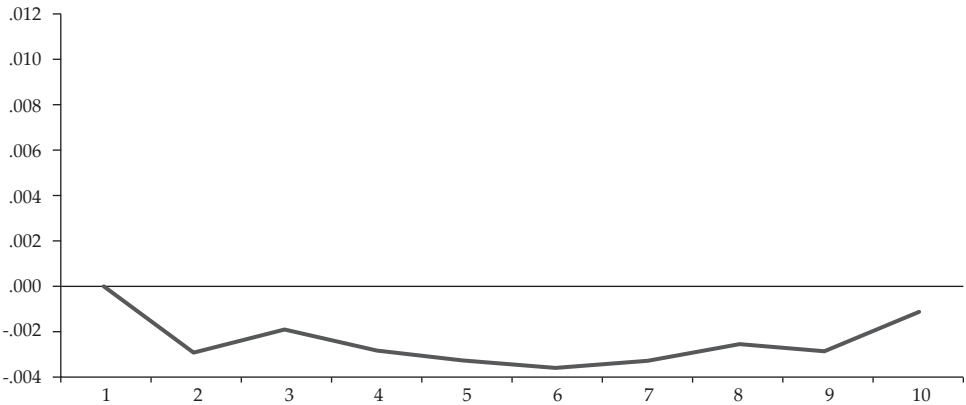

Figure 5.
Response of M2 to Mudaraba Saving

Overall, the impulse response from the shock of *mudaraba* saving account variable to M_2 tend to fluctuate. At the beginning of the period, M_2 has not responded to the shock variable *mudaraba* saving account. In the second period, M_2 responds negatively to negative *mudaraba* saving account variables. The addition of 1 SD to the *mudaraba* saving account variable will be responded with a decrease in the M_2 variable of -0.002902 SD. The third period to the end of the period indicates that M_2 responds to the *mudaraba* saving account variable remained negatively. Each addition of *mudaraba* saving account variable of 1 SD will be responded with a decrease of M_2 ranging from -0.001174 SD.
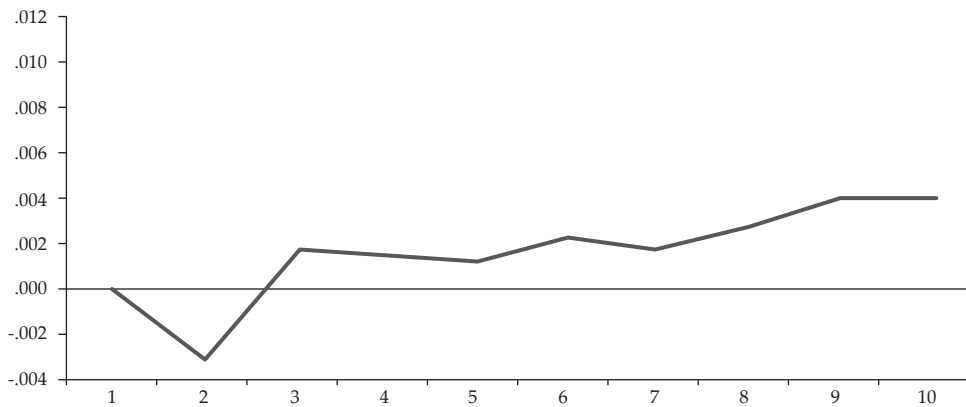

Figure 6.
Response of M2 to Mudaraba Deposit

Overall, the impulse response from shock variable of *mudaraba* deposit to M_2 tend to fluctuate. At the beginning of the period, M_2 has not responded to the shock variable *mudaraba* deposit. In the second period, M_2 responds negatively to negative *mudaraba* deposit variables. The addition of 1 SD on the *mudaraba* deposit variable will be responded with a decrease in the M_2 variable of -0.002627 SD. The third period until the end of the period indicates that M_2 responds *mudaraba* deposit variable positively. Each addition of *mudaraba* deposit variable of 1 SD will be responded with an increase of M_2 around 0.004199 SD.
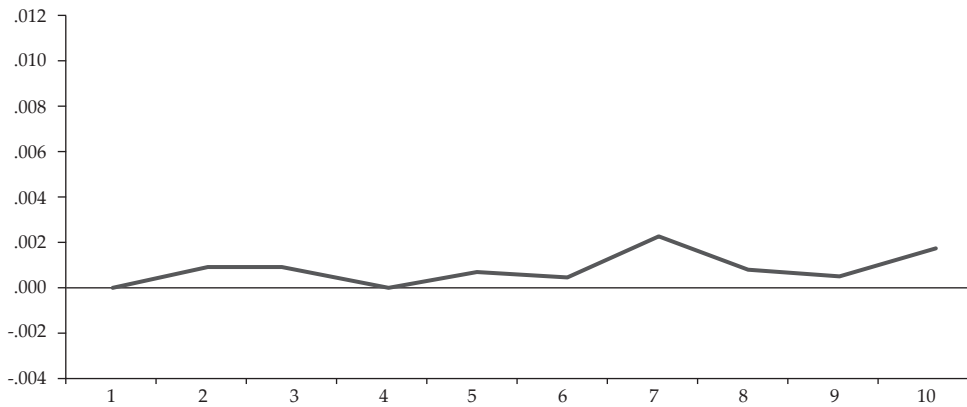
Figure 7.
Response of M2 to *Shari'ah* Return

The result of impulse response from *shari'ah* variable return shock to M_2 had a fluctuate trend. At the beginning of the period, M_2 has not responded to shock *shari'ah* return variables. In the second period, M_2 responds to the positive return of *shari'ah*. An addition of 1 SD on *shari'ah* return variable will be responded with an increase in M_2 variable of 0.000771 SD. The third period until the end of the period indicates that M_2 responds to *shari'ah return* variable positively. Each addition of *shari'ah return* variable of 1 SD will be responded with the decrease of M_2 around 0.001168 SD.

4.1.2. Results of Variance Decomposition (VD)

The shock contribution given by the level of Real GDP to M_2 in the second period was 0.000979%. The number increased in the third period to 1.297229% and decreased again in the fourth period to reach 0.928560%. In the subsequent period, it reached 1.219548% and continued to fluctuate until 1.129816% in the tenth period.

The shock contribution given by the *shari'ah return* rate (ER) to M_2 in the second period amounted to 0.334050%. The number increased in the third period to 0.386196% and climbed down to 0.275717% in the fourth period. It then increased and reached 0.620399% in the tenth period.

Furthermore, from the variance decomposition results, it can be seen that the contribution of a shock given the level of *mudaraba* (MS) savings against M_2 in the second period is 4.734082%. The number reached a low-point of 4.280010% in the third period and continued to fluctuate until the tenth period, in which it reached 4.720255%.

The shock contribution given by the currency rate (C) to M_2 in the second period amounted to 6.092944%. The number decreased in the third period to 3.995397%. In the fourth period, it declined again by 2.919807% and kept fluctuating until it reached 3.978020% in the tenth period.

The contribution of a shock given the level of social values (ZIS) to M_2 in the second period amounted to 3.375400%. The number escalated in the third period by 20.17299%. In the fourth period, it increased to 23.73097% and kept climbing up until it reached 33.88359% in the tenth period.

The shock contribution given by the *wadi'ah current account* rate (WGA) to M_2 in the second period is 1.255695%. The number increased to 6.608922% in the third period. In the fourth period, it increased to 6.672198%. In the fifth period, it decreased to 6.025329%. Afterwards, the shock contribution had an upward trend and reached 10.72240% by the 10th period.

The shock contribution given by the *mudaraba* deposit rate (IMD) to M_2 in the second period was 3.880510%. The shock contribution increased to 3.989503% in the third period. In the subsequent period, the shock contribution decreased to 3.460324%. Afterwards, the shock contribution kept climbing up and reached 5.042793% by the 10th period.

4.2. Discussion

In the long-term, Real GDP significantly affected the demand for Islamic money. Cash money and the demand for Islamic money are positively correlated in the long-term. Demand deposits significantly and positively influenced the demand for Islamic money in the long-term. *Mudaraba* savings have a significant negative effect on the long term on the demand for Islamic money. *Mudaraba* deposits have a significant positive effect on long-term demand for Islamic money. *Shari'ah* returns have a significant negative impact on long-term demand for Money in Indonesia.

V. CONCLUSION

Based on the estimation result of VECM, real GDP, currency, *wadi'ah* current account, *shari'ah* return, *mudaraba* deposit *and mudaraba* saving account in long-term have a significant effect on Money demand in Indonesia, but social values variable significantly influenced the Money Demand (MD) in the short-term.

The results of Impulse response shows that changes to real GDP responded volatile but tend to be positive to M_2. Changes in social values responded positively fluctuating to M_2. Changes to currency are responded volatile to M_2, tend to be positively responded. Changes in *wadi'ah current account* are also responded fluctuating by M_2 which is more likely to be a positive response. Changes in *mudaraba* saving account are responded volatile by M_2 which is more likely to be negative. Changes in *mudaraba deposit* responded fluctuating by M_2 positively. Changes in *shari'ah* returns are responded fluctuating by M_2 positively. Meanwhile, the result of variance decomposition shows that the biggest contribution in influencing variation change in M_2 is from social values variable.

REFERENCES

Adiwarman, A. K. (2007). *Ekonomi Makro Islami*, Edisi II, Jakarta: Raja Grafindo Persada.

Bahmani-Oskooee, M. and Y. Wang (2007). How stable is the demand for money in China?. *Journal of Economic Development 32*(1), pp. 21.

Bank Indonesia. (2012). Statistik Ekonomi dan Keuangan Indonesia. Uang Beredar dan Faktor yang Mempengaruhinya. Jakarta: Bank Indonesia.

Bank Indonesia. (2012). Statistik Perbankan Syariah. Bank Indonesia, Jakarta: Bank Indonesia.

Chapra, M. U. (1996). Monetary Management in An Islamic Economy. *Islamic Economic Studies, 4*(1), pp. 26.

Choudhury, M. A. (1997). Theory and practice of Islamic political economy. MA Choudhury, Abdad, MZ & Salleh, MS, pp. 3-39.

Enders, W. (2004). Applied econometric time series, by walter. *Technometrics 46*(2), pp. 264.

Firdaus, M. (2004). *Ekonometrika Suatu Pendekatan Aplikatif*. Bumi Aksara. Jakarta.

Gujarati, D. N. and D. C. Porter (2003). *Basic Econometrics*. 4th, New York: McGraw-Hill.

Ḥifẓurrab (2006). *Economic Justice in Islam: Monetary Justice and the Way Out of Interest (Riba)*, AS Noordeen.

Hwang, J.-K. (2002). The demand for money in korea: Evidence from the cointegration test. *International Advances in Economic Research 8*(3), pp. 188-195.

Iswardono, S. (1993). *Uang dan Bank*. Yogyakarta: BPFE-Yogyakarta, pp. 458.

Karim, A. (2002). *Ekonomi Mikro Islami*, Cet. I. Jakarta: The International Institute of Islamic Thought Indonesia.

Karim, A. A. (2006). *Sejarah Pemikiran Ekonomi Islam*. PT Raja Grafindo Persada.

Mankiw, N. G. (2003). *Macroeconomics*, Ed. 5, Harvard University, Edisi Indonesia.

Nopirin, P. D. (1990). *Ekonomi Moneter*, Buku 2: Yogyakarta: BPFE.

Prawoto, N. (2010). Money Demand: A Study On The Indonesian Influential Factors. *Economic Journal of Emerging Markets 2*(3), pp. 223-236.

Sugiyono, P. (2012). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Cetakan Ke-15, Bandung: Alfabeta 124.

Widodo, A. (2015). Faktor-Faktor Makroekonomi yang Mempengaruhi Permintaan Uang di Indonesia. *JESP: Jurnal Ekonomi & Studi Pembangunan 16*(1), pp. 63-72.

Winarno, W. W. (2007). *Analisis Ekonometrika dan Statistika dengan Eviews*. UPP STIM YKPN, Yogyakarta, 2011.

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