

# An Analysis of Cashless Society for Monetary Policy in Perspective of Islam

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## ABSTRACT

The increasing use of non-cash financial instrument (cashless society) is observable from the increase of money supply. Previous researches found a positive relationship between the total of money supply and inflation. In its effort of stabilizing price and inflation, Bank Indonesia uses interest rate transmission mechanism of monetary policy. Interest rate was selected because it concerns more about price in financial market for real market economic activities. In addition, any increase in money supply can enhance economic growth. The objectives of this study are to analyze the relationship between cashless society and inflation through interest rate transmission mechanism of monetary policy and to analyze economic growth in from the perspective of Islam. The instruments of cashless society used in this study are Bank Indonesia's Real Time Gross Settlement value, Bank Indonesia's National Clearing System value, and card payment growth. Interest rate transmission mechanism of monetary policy uses the yields of Bank Indonesia Certificates Sharia, Islamic Interbank Money Market, Third Party Funds, financing, consumption, and GDP to measure economic growth. Using VECM, this study finds that cashless society does not directly affect inflation. However, it can affect interest rate transmission mechanism of monetary policy and GDP. In Islam, the use of non-cash money is regulated similarly to the use of cash money, and sharia principles have been used in the monetary policy.

**Keywords:** *Cashless Society, Interest Rate, Inflation, Islamic Monetary.*

## 1. INTRODUCTION

The use of cash as a means of transaction in this digital era is reduced by the use of digital money. The community is gradually shifting to non-cash transactions. According to Worthington [1], such community is called as cashless society. Non-cash payment system makes people easy in making transaction. Jati [2] revealed that non-cash payment technology using cards makes people more consumptive. Its efficiency, which is felt by the community, increases the economy, and it indirectly enhances state revenues through Gross Domestic Product (GDP) calculations.

Kartika and Nugroho [3] found that the volume of electronic money transactions in ASEAN-5 countries increases. GDP, money supply (M1), and velocity of money have a positive and significant relationship with electronic money transactions. Nugroho and Basuki [4] added that the increase in GDP and interest rates was accompanied by an increase in inflation. Money supply and inflation in Indonesia are controlled by Bank Indonesia through monetary policy. The purpose is to stabilize the country's currency, price of goods, and

inflation. Interest rate transmission mechanism of monetary policy was selected because it emphasizes the importance of price in financial market for real market economic activities.

Changes in BI rate affect deposit rates and bank lending rates. Cashless society uses non-cash payment indicators related to credit consumption and deposits in the community. In this case, BI rate in fact influences money circulation in cashless society through deposit and credit rates. Nguyen [5] stated that the increasing money supply is M2, where components of cashless society are contained in it. The increase in M2 is accompanied by an increase in inflation. Amrini et al. [6] also stated that money supply has a positive impact on inflation, while interest rates have a significant negative effect on inflation. Likewise, Langi et al. [7] stated that BI interest rates have a positive and significant effect on inflation, but money supply only has an insignificant positive effect on inflation.

Cashless society also needs to be studied from the perspective of Islam. Using Malaysian setting, Omar et al. [8] saw a different perspective regarding the influence of the original function of money in Islam on electronic

payment system. Sugianto et al. [9] used Islamic monetary instruments in forms of Bank Indonesia Certificates Sharia (SBIS) and Islamic Interbank Money Market (PUAS) against inflation. The descriptions above show that studies about the relationship between cashless society and inflation through interest rate transmission mechanism of monetary policy are still low in number. Interest rate transmission mechanism of monetary policy functions as an indirectly tested mid-variable between cashless society and inflation. It is something new and has never been tested before. In addition, the researchers also added the relationship between cashless society and GDP-measured economic growth. Islamic reviews are also needed given the lack of researches related to the function of non-cash money in the Islamic perspective. Based on the gap, the researcher tried to enrich the literatures with this empirical research entitled *An Analysis of Cashless Society for Monetary Policy in the Perspective of Islam*.

### **1.1. Cashless society**

Since its coinage cashless society has not been exactly defined. Worthington [1] defined cashless society as the time when people begin to have difficulty using cash, and they use non-cash electronic payments as they are easier to hold and more efficient. Bank Indonesia's term of less cash society means that people use less cash in daily transactions, and most transactions shift to non-cash transactions [10].

### **1.2. Monetary policy**

Bank Indonesia is the only institution with the authority of regulating monetary policy, which aims to achieve and maintain rupiah stability. The purpose of stabilizing rupiah is to achieve stability in goods and service prices as reflected in inflation rate. Therefore, Bank Indonesia set inflation as the main target of monetary policy framework (Inflation Targeting Framework/ITF) by adopting a free-floating exchange rate system.

Bank Indonesia has the authority of carrying out monetary policy by setting monetary targets (such as money supply or interest rates) in order to maintain inflation rate as set by the government. Monetary control uses instruments such as open market operations, discount rate determination, minimum mandatory reserve determination, and credit or financing regulation. In addition, Bank Indonesia can carry out monetary control based on principles of sharia [11].

In order to achieve the predetermined inflation target, Bank Indonesia conducts A forward-looking policy, where the changes in monetary policy stance are evaluated to see its appropriateness. The stance is

reflected by the determination of policy interest rates (BI 7DRR/BI rate). The mechanism of BI 7DRR changes is called as transmission mechanism of monetary policy, which occurs through interactions between the Central Bank, banking and financial sector, and real sector. There are several ways of changing BI 7DRR to influence inflation rates; they are interest rate, credit, exchange rates, asset prices, and expectations.

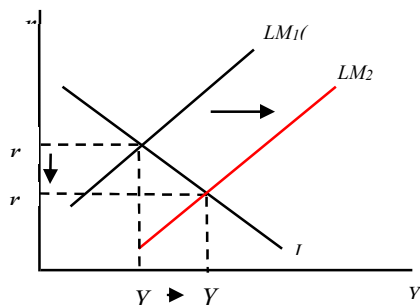
Interest rate transmission mechanism of monetary policy is expected to influence money market's interest rates, deposit rates, and bank lending rates. In the end, changes in interest rates affect output and inflation (Bank Indonesia: Monetary Policy framework). The variables of interest rate transmission mechanism of monetary policy used in this study are the yields of SBIS, PUAS, third party fund (DPK), and financial sector financing. Consumption and GDP are used to measure economic growth in the real sector, and inflation is the final target.

### **1.3. The Relationship between Cashless Society with Interest Rate Transmission Mechanism of Monetary Policy**

Non-cash payment instruments used in this study are Bank Indonesia's Real Time Gross Settlement (BI-RTGS) transaction value, Bank Indonesia's National Clearing System (SKNBI) transaction value, and Card-Based Payment Instrument (APMK) growth, whose usage is measured. Money supply can be controlled through interest rate transmission mechanism of monetary policy. John Maynard Keynes developed a model of aggregate demand called as the IS-LM model, where IS is "investment" and "saving", whose curve expresses what happens to goods and service market, and LM is as "liquidity" and "money", whose curve shows what happens to money demand and supply. Interest rate is a variable that connects the two parts of IS-LM model because it affects investment and money demand [12].

On IS curve, the relationship between interest rate and investment states that interest rate is the rate of loans used to fund investment, and reduction in interest rate increases planned investment, and vice versa. LM curve represents the relationship between interest rate and income level to balance money supply and demand using the theory of liquidity preference [12]. Expansive monetary policy can influence LM to increase money supply by, for example, buying Bank Indonesia Certificates (SBI). Government's purchase of SBI reduce interest rate, so people will divert their deposits to other investments that have a greater profit than the declining interest rate. As a result, income increases and the curve shifts downward. Contractionary monetary policy runs the opposite [12]. Transmission mechanism of monetary policy is related to the increase in money

supply in IS-LM model. As an example, in expansionary monetary policy, refer to the figure 1.



**Figure 1.** Curve of Expansive Monetary Policy in IS-LM Model (Source: Gregory Mankiw (2006))

The curve indicates that, assuming that the price is constant, the increase in money supply shifts the LM curve to the right (bottom). Money market responds to it by decreasing the interest rate from  $r_1$  to  $r_2$ . Low interest encourages investment in the increased goods market, so income increases from  $Y_1$  to  $Y_2$ .

#### 1.4. Theoretical Framework

Based on the previous researches and theoretical review, the instruments of cashless society in forms of the transaction value and volume of BI-RTGS, SKNBI, APMK can affect inflation through interest rate transmission mechanism of monetary policy because the four variables are either directly or indirectly related to interest rate. The theoretical framework of this study is as follows.

## 2. METHODS

This descriptive research uses Vector Auto Regression (VAR)/Vector Error Correction Model (VECM). This research uses time series data, from which parameters from the effect of variable changes on other variables, as well as correlations between variables, are obtained. Using Eviews 9.0, this study aims to analyze the effect of a variable on other variables, or how a variable affects others [13].

The instrument of this research is cashless society variables; they are BI-RTGS value, SKNBI value, and APMK growth. The middle variable instruments of interest rate transaction mechanism of monetary policy are SBIS, PUAS, DPK, and financing returns. Consumption and GDP are used to measure economic growth, and inflation is the final target.

This study uses the monthly data of Indonesian Economic and Financial Statistics (SEKI) during the 2009-2017 period obtained from the official websites of

Bank Indonesia and Indonesia Statistics (BPS). The GDP data requires interpolation from quarterly to monthly. All data were processed in E-views 09 and analyzed using Vector Auto Regression (VAR)/Vector Error Correction model (VECM). The results of the analysis show the relationship between cashless society, the middle variable (interest rate transmission mechanism of monetary policy), and the final variable, i.e. inflation.

## 3. RESULTS AND DISCUSSION

All variables of this study were passed on to VECM analysis because they are not stationary. VECM test shows the significance of the effect of a variable's lag, which is obtained from optimum lag test. Based on the optimum lag test, this study uses lag 5 in conducting VECM analysis.

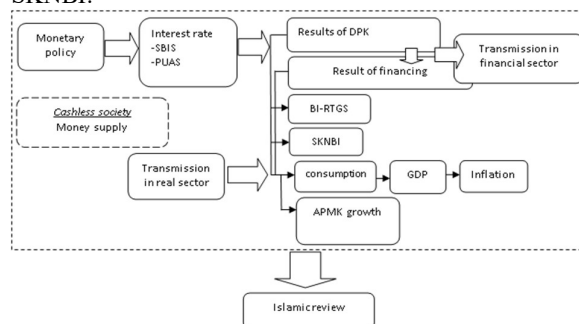
The significance test was done by comparing the  $t$  statistics of the VECM estimate with the  $t$  table at the significance level of 5%. The  $t$  table value of 1.98447 was obtained from  $n-k$ , which is  $df(0.05;108-10)$ . The result of VECM test on cashless society variables can be read through the following modeling.

$$dNILAI\_BI-RTGS = 2,66944dDPK(-4)$$

BI-RTGS is positively and significantly influenced by lag 4 DPK ( $2.66944 > 1.98447$ ), which means that one percent deposit increase in the previous four months will increase the current month's BI-RTGS for 839,210 billion IDR.

$$dNILAI\_SKNBI = 0$$

SKNBI is not statistically and significantly affected by all independent variables. Any previous month's variable changes do not affect the current month's SKNBI.



**Figure 2.** Chart of Cashless society theoretical framework for interest rate transmission mechanism of monetary policy.

$$\begin{aligned} dPERTUM\_APMK = & -2.10518dDPK(-4) - \\ & 3.75627dINFLASI(-1) + 2.21907dKONSUMSI(-4) - \\ & 1.98856dNILAI\_BI-RTGS(-1) + 3.53408dNILAI\_BI- \\ & RTGS(-3) - 4.77061dPERTUMB\_APMK(-1) - \end{aligned}$$

4.37382dPERTUM\_APMK(-2) –  
3.58569dPERTUMB\_APMK(-3) –  
3.22895dPERTUMB\_APMK(-4) + 2.61189dPUAS(-1)  
+ 2.55274dPUAS(-2) + 2.60173dPUAS(-3) +  
2.45722dSBIS(-5)

APMK growth is negatively and significantly affected by lag 4 DPK (-2.10518 > -1.98447), which means that one percent deposit increase in the previous four months will decrease the current month's APMK for 5.37 percent. APMK growth is also negatively and significantly influenced by lag 1 inflation (-3.75627 > -1.98447), and it is positively and significantly influenced by lag 4 consumption (2.21907 > 1.98447).

In addition, APMK growth is negatively and significantly influenced by lag 1 BI-RTGS value (-1.98856 > -1.98447), and it is positively and significantly influenced by lag 4 BI-RTGS value (3.53408 > 1.98447).

The APMK growth is negatively and significantly influenced by lag 1 APMK growth (-4.77061 > -1.98447), negatively and significantly influenced by lag 2 APMK growth (-4.37382 > -1.98447), influenced by lag 3 APMK growth (-3.58569 > -1.98447), and influenced by lag 4 APMK growth (-3.22895 > -1.98447).

APMK growth is also positively and significantly influenced by lag 1 PUAS (2.61189 > 1.98447),

positively and significantly influenced by lag 2 PUAS (2.55274 > 1.98447), positively and significantly influenced by lag 3 PUAS (2.60173 > 1.98447), and influenced by lag 5 SBIS (2.45722 > 1.98447),

Theoretically, the effect of expansive monetary policy on money market is illustrated by LM curve. The increase of M also increases M/P real money balance because the P price level is fixed in the short term. The theory of liquidity preference shows that any real money balance increase in each income decreases interest rate, so the LM curve shifts down. Thus, the increase in money supply decreases interest rate and increases income [14].

The relation with expansionary monetary policy is that the central bank conducts Open Market Operations by purchasing SBIS instruments to influence interest rate decrease. The decline of interest rates becomes the benchmark for PUAS, so yields from DPK and financing also decline, and money supply increases. Therefore, the increased use of non-cash money decreases interest rate and increases income, which finally increases consumption (GDP).

On the contrary, contractive monetary policy is carried out to absorb the excess of money supply. Excessive money supply increases inflation [15]. Contractive monetary policy can be concluded that,

**Table 1.** Table of Vector Error Corrections Model (VECM)

Dependent Variable	Error correction				
d(DPK)	d(inflasi-3) 0,348250 [2,78446]	d(APMK-1 growth) -0,42948 [3,25243]	d(APMK-2 growth) -0,044396 [3,01159]	d(APMK-3 growth) -0,048081 [3,18904]	d(APMK-4 growth) -0,036219 [2,80581]
d(inflation)	d(inflation-1) 0,343259 [2,43449]				
d(consumption)	d(DPK-3) 18463,39 [2.22827]	d(DPK-5) 19414,44 [2.38128]	d(inflation-3) -13724,72 [-2,82616]	d(inflation-4) 10126,38 [2,25075]	d(consumption-1) 0,901319 [6,96928]
	d(consumption-3) -0,886891 [-8,51983]	d(consumption-4) 0,718379 [4,41798]	d(financing-2) -10926,88 [-2,68135]	d(financing-5) -6953,402 [-2,00979]	d(PUAS-1) -20426,26 [-2,06204]
	d(PUAS-2) -18123,53 [-2,06268]	d(SBIS-1) 12763,67 [2,39935]	d(SBIS-2) 6452,655 [2,05821]		
d(value_BI-RTGS)	d(DPK-4) 839210,7 [2,66944]				
d(value_SKNBI)	-				
d(PDB)	d(value_BI-RTGS-5) -0,079384 [-3,04013]	d(value_SKNBI-3) -0,003562 [-4,75741]	d(value_SKNBI-4) -0,002560 [-2,81461]	d(PDB-1) 0,451284 [2,90204]	d(PDB-3) -0,654814 [-7,73373]

	d(PDB-4) 0,309329 [2,444448]	d(PUAS-1) -174308,3 [-2,19765]			
d(financing)	d(consumption-4) 1,53E-05 [2,28325]				
d(APMK growth)	d(DPK-4) -5,379989 [-2,10518]	d(inflation-1) -5,743202 [-3,75627]	d(consump-tion-4) 0,000137 [2,21907]	d(value_BI-RTGS) -3,14E-06 [-1,98856]	d(value_BI-RTGS-4) 4,58E-06 [3,53408]
	d(APMK-1 growth) -0,929966 [-4,77061]	d(APMK-2 growth) -0,951848 [-4,37382]	d(financing_AP MK-3) -0,798092 [-3,585569]	d(APMK-4 growth) -0,615316 [-3,22895]	d(PUAS-1) 2,61189 [2,61189]
	d(PUAS-2) 8,527529 [2,55274]	d(PUAS-3) 8003409 [2,60173]	d(SBIS-5) 1,894679 [2,45722]		
d(PUAS)	d(DPK-1) -1,031548 [-2,45154]	d(DPK-2) -0,986673 [-3,31357]	d(DPK-3) -0,858973 [-2,74173]	d(DPK-4) -1,003545 [-3,94855]	d(DPK-5) -0,890159 [-2,88764]
	d(inflation-5) 0,411610 [2,64819]	d(value_BI-RTGS-3) 3,90E-07 [3,13106]	d(value_SKNBI) -1,15E-08 [-2,88979]	d(value_SKNBI-4) 9,21E-09 [2,14375]	d(PDB-1) 2,29E-06 [3,11957]
	d(PDB-3) -8,69E-07 [-2,17390]	d(financing-1) 0,389459 [2,61517]	d(financing-2) 0,482023 [3,12834]	d(financing-3) 0,361899 [2,15705]	d(financing-4) 0,454348 [2,82932]
	d(financing-5) 0,303246 [2,31813]	d(APMK-1 growth) 0,074882 [3,86258]	d(APMK-2 growth) 0,078076 [3,60747]	d(APMK-3 growth) 0,050545 [2,2 8343]	d(PUAS-1) 0,769822 [2,05536]
	d(PUAS-2) 0,840451 [2,52982]	d(PUAS-3) 0,817074 [2,67080]	d(PUAS-4) 0,586690 [2,19541]	d(SBIS-1) -0,448678 [-2,23070]	d(SBIS-2) -0,341416 [-2,85948]
d(SBIS)	d(PDB-4) -2,17E-06 [-2,20099]	d(SBIS-2) -0,443035 [-2,25236]			

Source: VECM result

when a central bank conducts an Open Market Operation by selling SBIS instruments, interest rates will increase. It becomes the benchmark for PUAS to increase yields from DPK and financing, so money supply is absorbed.

In the financial sector, the variables of cashless society are BI-RTGS value and SKNBI value. The lag 3 BI-RTGS positively and significantly influences PUAS and APMK growth.

BI-RTGS is a large-value transaction which usually takes place between banks. Increased transactions in this system indicate increased money market activity. In contractionary monetary policy, money supply absorption activities can be carried out when interest rates increase. Increased interest rates affect the increase of PUAS yields [16]. This encourages people to put their in deposit accounts expecting a high rate of return.

Hence, the increase in BI-RTGS value is positively associated with PUAS due large-amount transfer transactions from savings (real sector investment) to deposit account (DPK).

The lag 1 BI-RTGS has a significant negative effect on APMK growth, confirming the theory. BI-RTGS is an urgent and large-value transfer system, which includes transactions in Interbank Money Market (PUAB), stock exchanges, government, foreign exchange, and settlement of clearing results [17]. Thus, a lot of money is absorbed and circulates in the financial sector, while the use of APMK is the real sector commonly used for the payment of small-figure consumption; it can cause a negative relationship between BI-RTGS and APMK growth.

The lag 5 BI-RTGS negatively and significantly affects GDP. This is theoretically correct because BI-RTGS value is included in the financial sector that follows SBIS and PUAS, which also influence yields from deposit and financing and, thereby, reduce consumption interest as well as decreases GDP.

The lag 4 DPK positively and significantly affects BI-RTGS. This is theoretically correct. Whenever the yields from DPK increase, the value of BI-RTGS transaction will also increase. Increased DPK yields encourages people to save their money in deposit accounts, so transactions through BI-RTGS system increase.

The lag 1 SKNBI negatively and significantly influences PUAS, contradicting the existing theory, because if PUAS yield increases, SKNBI value also increases since its value is included in the financial sector. However, in 2017, it was found that Bank Indonesia recorded overnight JIBOR interest rates continue to decline. Overnight JIBOR, or PUAB, is one of banking liquidities. If JIBOR rate decreases, slackening liquidity will be indicated [18]. Thus, there is a possibility that SKNBI value transactions increases when PUAS interest rate decreases.

The lag 2 SKNBI value has a significant and positive effect on PUAS. This confirms the existing theory that, when PUAS yield increases, SKNBI value will also increase because the money is absorbed in banking environment.

The lag 3 and 4 SKNBI values have a significant and negative correlation with GDP. This is theoretically appropriate because SKNBI value is in financial sector. If SBIS and PUAS increase, the yields from DPK and financing also increase, as does the value of SKNBI, which thereby reduce consumption. Declining consumption will later reduce GDP. However, SKNBI value itself is not influenced by any variable.

The lag 1 to lag 4 APMK growth has a significant and negative effect on DPK. This confirms the theory that APMK growth is negatively related to DPK yields, where people use their funds for consumptive purposes using APMK instruments, so people's tendency to save in deposit accounts decreases.

APMK growth is also influenced by several variables: lag 4 DPK and lag 1 inflation, which are negatively and significantly related. This confirms the theory that increases of DPK yields attract more people to save in deposit accounts, which will indirectly reduce the use of APMK for consumption, decline APMK growth. This also applies if inflation increases since it can reduce APMK usage due to the increasing price of goods during inflation.

In addition, APMK growth is also positively and significantly influenced by lag 4 consumption, lag 3 BI-RTGS values, and lag 1 PUAS. Consumption confirms the theory that consumption increase leads to the higher APMK growth because APMK instrument is used for consumption activities. The lag 3 BI-RTGS value also positively and significantly affects APMK growth. This contradicts the existing theory because BI-RTGS is included in the financial sector, but there is a possibility that the final transaction on APMK instrument uses interbank BI-RTGS system.

The lag 1 PUAS significantly affects APMK growth. The lag 1 to 3 APMK growth positively and significantly affects PUAS. This contradicts the existing theory. PUAS yield increases should affect yields from deposits and financing so that interest in consumption through APMK decreases.

The lag 1 to 4 APMK growth negatively and significantly affects the current-month APMK. This illustrates that the increase in previous-month APMK growth reduces the current-month APMK growth.

The description shows that cashless society in forms of APMK growth, BI-RTGS value, and SKNBI value influence all variables except SBIS, financing returns, consumption, and inflation. Cashless society also does not have any direct influence on the ultimate goal, inflation. It is only influenced by the lag 1 inflation 1. However, some independent variables of inflation directly influence cashless society.

Cashless society in forms of BI-RTGS value and SKNBI value has a significant and negative effect on GDP, which means that it confirms the existing theory. However, APMK growth has no effect on GDP because APMK growth has a low contribution to GDP growth.

Cashless society is included as a legal payment instrument used by the public. Therefore, it is recognized as money. The concept of money in Islam is different from the concept of money in conventional economics. In Islamic economics, money is not capital. In conventional economics, money and capital is interchangeable: capital is money, and money is capital [19].

According to Islam, capital is private goods, but money is a public goods. Money has a flow concept, then it settles in one's ownership (stock concept), so it becomes private goods [20].

Cashless money has the same function with currency in general. It is widely known that cashless society is non-cash money with the absence of currency; settlement system between banks or other electronic money will suffice. This is different from currency ownership which, if not used, will settle in one person's possession. In case

of cashless society, even though the owner does not use his money, it remains in his account and revolves around the money market for demanding needs. Thus, it can be said that the use of cashless society has met the criteria of flow concept and public goods concept.

According to Islam, interest is forbidden, so is its use in financial instruments. Therefore, Bank Indonesia as the central bank provides a place for Moslems to use financial instruments complying with sharia, where SBIS substitutes SBI, PUAS substitute PUAB, DPK yields substitutes deposit rates, and financing yields substitutes loan interest.

Bank Indonesia's monetary policy also aims at benefitting and prospering people, as in the thinking of a Moslem economic figure, Umer Chapra [21]. Efforts such as increasing money supply were influenced by the of bank loan and monetary expansion [22].

In addition, through discount rate, people can help the government in development while expecting high returns.

Reserve requirement is the minimum amount of funds that must be maintained by banks every day. It aims at increasing the flexibility of liquidity management by banks, encouraging banks' intermediation function, and supporting the efforts of deepening financial markets.

Moral appeal is also carried out by the central bank in the face of inflation and the weakening exchange rate against Dollar. As in the weakening of Rupiah due to the global crisis, Bank Indonesia asked the public not to panic, increase the use of rupiah, and reduce imports.

The explanation above explains that Bank Indonesia has taken many monetary policies based on Islamic principles and provided sharia-based monetary instruments such as Bank Indonesia Certificates Sharia (SBIS), Islamic Interbank Money Market (PUAS), third party funds (DPK) commonly known as bonds, and financing (loan). As a result, monetary policy that uses SBIS, PUAS, DPK yields, and financing yield is quite stable and does not cause inflation.

#### 4. CONCLUSION

The conclusion of this study is that cashless society in forms of BI-RTGS value, SKNBI value, and APMK growth do not directly influence inflation. However, they are to several variables in interest rate transmission mechanism of monetary policy, in both financial and real sector. The variables of cashless society, BI-RTGS value and the SKNBI values, are related with GDP, which indicates economic growth through interest rate transmission mechanism of monetary policy. Furthermore, APMK growth in real sector does not

influence GDP, indicating that APMK growth does not affect economic growth.

Islamic view on cashless society is that the use of non-cash money is the same as the use of cash, which must follow the flow and public goods concept. In regards to monetary policy, Bank Indonesia's benchmark interest rates may be used by Islamic banks as a reference in determining yields. Indonesian monetary policy has applied Islamic characteristics, as stated by Umer Chapra. Bank Indonesia has facilitated Moslems to have safe transactions using sharia-compliant monetary instruments. The instruments do not directly affect inflation. With the possibility that this research might be used as a consideration for making similar research, the researcher suggests the use of more samples for VECM test because long-term analysis may deepen the analysis. In addition, the holders of monetary policy authority should pay more attention to all Islamic financial instruments.

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