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ANALYSIS ON THE RELATIONSHIP OF ISLAMIC MONETARY INSTRUMENT WITH TOTAL FINANCING OF ISLAMIC BANKING IN INDONESIA

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Abstract--This study aims to analyze the relationship between Islamic monetary instruments with the total financing of Islamic banking in Indonesia. Application of dual monetary system in Indonesia has given birth to Bank Indonesia Certificates Sharia (SBIS) as a monetary instrument complementing Bank Indonesia Certificates (SBI), which are used by conventional banks. The linkage between SBIS and financing lies in the amount of financing and the impact on the amount of investment. This study uses Vector Auto Regression (VAR) methodology using the Stata. Variables used in this research are SBIS and total financing. Result of testing showed that the monetary instrument SBIS has hubunga causality with total financing and SBIS also has long-term influence on the total financing in Indonesia.

Keyword: Instruments of monetary policy, Bank Indonesia, Certificates Sharia (SBIS), Financing

I. INTRODUCTION

Bank is a financial institution that has an important influence on the economy. Bank is a facility provided by the government to provide public convenience in the transaction or other berekonomi activities. Act 21 of 2008 states the bank is a business entity that collects funds from the public in the form of deposits from the public and distributes it to the public in the form of credit or other forms to improve the living standard of the people. Indonesia has two types, namely Islamic banking and conventional banking. Islamic banking has shown rapid development. According to data from *Global Islamic Financing Report*, Indonesia is now the fourth country with the best sharia development potential. Conventional banking and Islamic banking rely on customer deposits as the bank's chief financial resources (Haron Wan Azmi, 2005). Furthermore, the funds from the customer will be channeled to borrowers of funds via credit or financing. The bank has the intermediary function of collecting funds from those who have surplus funds and to earmark these for those who need funds. Islamic banking in Indonesia has become one of the pillars of the national economy with the enactment of Law 21 of 2008 to encourage the development sharia. There has been progress development of more than 65% of its assets in the last five years (Hasan, 2014:109).This reflects the important role of Islamic banks. Islamic economic vision is to achieve economic justice and the achievement of equitable distribution of income among the community and, of course, contribute to the economy. Conventional economic use of interest rates as an instrument of monetary policy is forbidden in the Islamic economic system. This is because interest is usury, which requires additional unilaterally and usury itself is prohibited in Islam, according to the QS Al Baqarah, verse 276-278.

In Bank Indonesia (2009), BI policies and instruments are in place to maintain the stability of the financial system. Law No. 23 of 1999 concerning Bank Indonesia as amended by Act No. 3 of 2004 states that the principal task of the central bank as a monetary authority is to plan and make a monetary program, which is essentially doing policy planning in controlling the money supply. Duties and functions of BI in Law No. 3 of 2004 conducts monetary control in certain ways, including the possibility of monetary policy implementation based on Islamic principles. To achieve stability in the rupiah Indonesian monetary policy, the central bank uses monetary policy, either directly or indirectly, so as to affect the monetary aggregates (money supply).

Application of dual monetary system in Indonesia has given birth to Bank Indonesia Certificates Sharia (SBIS) as a monetary instrument complementing Bank Indonesia Certificates (SBI), which are used by conventional banks. SBIS based on securities are short-term sharia principles in rupiah currency issued by Bank Indonesia in order to improve the effectiveness of monetary mechanisms with Islamic principles. Bank Indonesia Certificates Sharia began to be

used as a monetary instrument after 2008, replacing the role of Bank Indonesia Certificates Wadiah (SWBIs). As monetary instruments, SBI and SBIS have their own transmission lines to the real sector where this instrument will affect the amount of financing and credit to the real sector peyaluran. The linkage between SBIS and financing lies in the amount of financing and the impact on the amount of investment. However, the authors are interested in examining the causal relationship between the two. Therefore, the researchers are interested in conducting research on "Analysis of Monetary Instruments relationship with Total Financing of Sharia Islamic Banking in Indonesia".

II. LITERATURE REVIEW

A. Conventional Monetary Economic Theory

Implementation of monetary policy in achieving the final goal (of price stabilization) can be carried out using two approaches: the approach price and quantity approach. Monetary policy with a single goal, namely, the stabilization of the price control of the rate of inflation), generally uses price approach. However, monetary policy with multiple objectives, which, in addition to the stabilization of prices, are also of economic growth, expansion of employment opportunities and the balance of payments, generally uses the quantity approach (Siamat, 2005).

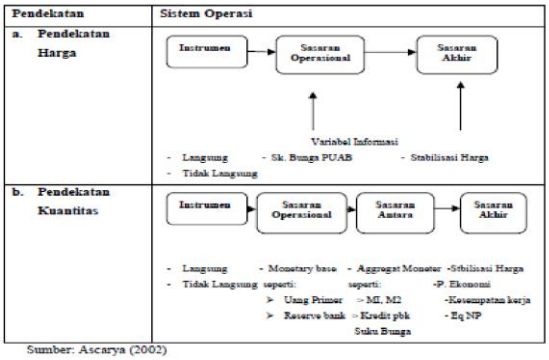

Figure 1. Framework Approach Price and Quantity Monetary Instrument

Figure 1. The above presents a general framework between price and quantity approach. In an effort to achieve operational objectives, the central bank requires a variety of instruments. So, broadly, Ascarya (2002 in Bayuni, 2010) distinguishes the instruments into three different ways, namely:

1. There are several instruments which can affect the operational objectives and are divided into instruments directly or indirectly; direct instrument is an instrument of monetary control that can directly affect the desired operational target by the central bank. This direct control can be done by direct policies issued by the Central Bank or by affecting the balance sheets of commercial banks. According to Ascarya (2002 in Bayuni, 2010), his control is called direct because there is a *'one to one'* correspondence relationship between instruments and operational targets, whereas indirect instruments are instruments of monetary control that can indirectly affect the desired operational target by the central bank. This control is an attempt to control monetary aggregates by influencing the Central Bank's balance sheet
2. According to the financial market, it is divided into market-oriented or not oriented to the market
3. It is divided according to discretion in the Central Bank or the market participants

B. Theory of Islamic Monetary Economics

In the direct instrument, according Astiyah et al. (2006), the Central Bank can apply policy instruments based on Islamic principles, namely:

• The Bank-by-Bank Ceiling
That is a policy in which the Central Bank determines the maximum amount of credit for each of the banks.
• Statutory Liquid Ratios
That is a development policy that is implemented by requiring banks to put part-owned funds in certain types of assets, such as government bonds.
• Direct Credits
Namely the Central Bank's policy to finance certain sectors by using Central Bank funds channeled through commercial banks.

C. Islamic Banking and Finance

The development law on Islamic banking began in the Act No. 14 of 1967 on Banking, The Law explains that is not possible to do business with Islamic principles. In 1992, Act No. 7 of 1992 on Banking was passed, which describes the business activity with Islamic principles, but with the name of the bank with the profit-sharing system. Law No. 10 of 1998 Concerning Banking contains more details on Islamic banking and the conversion of the bank's name sharing system into a bank with Islamic principles. In 2008, Islamic banking had its own law, namely Law No. 21 of 2008 Concerning Sharia Banking. In addition to the Act, the law on Islamic banking is also based on the Qur'an and Hadith. For example, the principle of mutual assistance in the operations of Islamic banks is based on the Qur'an Surah Al-Maidah, verse 2, "And please-help you in the (working) virtue and piety, and do mutual assistance in sin and transgression, and ye fear Allah, Allah is severe in punishment Amat. (QS. Al-Maidah / 5: 2, the Ministry of Religious Affairs, 1998: 199-200). According to Law

No. 21 of 2008 Concerning Islamic Banking, finance is the provision of funds or claims equivalent form:

a. transactions for the results in the form of *profit* and Musharaka;

b. leasing transactions in the form *of Ijarah* or lease purchase in the form *Ijarahof bits muntahiyah* Tamlik;

c. sale and purchase transactions in the form of *murabaha* receivables, *greetings* and istisnaa;

d. lending and borrowing transactions in the form of receivables *qardh*; and

e. renting transaction services in the form of *Ijarah* for multiservice transactions based on agreements between the Islamic Bank and / or Sharia (Sharia) and another party requiring the party financed and / or given the facility of funds to repay the money after a certain period exchange, *ujrah*, without reward or profit sharing.

According to Antonio (2007:160), financing is one of the bank's main tasks, namely providing facilities for the provision of funds to meet the needs of the parties, which are *deficit units.*

A. Previews Research

Astiyah et al. (2006) studied the *Integrated Monetary Policy in Dual Banking System* and the study concluded with the permissibility of interest in Islamic economics, the implementation of monetary policy in the Islamic economy tended toward *targeting quantity.* Ramadan (2012) said that conventional monetary instruments. Represented by SBI rates and Islamic monetary instrument, represented by SBIS, significantly affect SME financing through Islamic banking and conventional banking line of credit from conventional banks; SBI has a significant negative correlation with SME loans. Likewise, SBIS have a negative correlation to the financing of SMEs. Banks will be more interested in allocating funds in the SBI or SBIS when there is an increase in *return.* This is what causes the amount of disbursements channeled to the SME sector to decline.

According Bayuni (2010) in *SBI and SBIS Analysis of Monetary Magnitude in Dual Monetary System in Indonesia*, the results showed no significant effect between the SBI and the stability of the monetary aggregates SBIS total. Another study conducted by Rusydiana (2009) concluded that the higher the Indonesian bank SWBIs were set, the lower the financing committed by Islamic banking. In addition, there is a negative relationship between Islamic finance and SBI.

B. Conceptual Framework

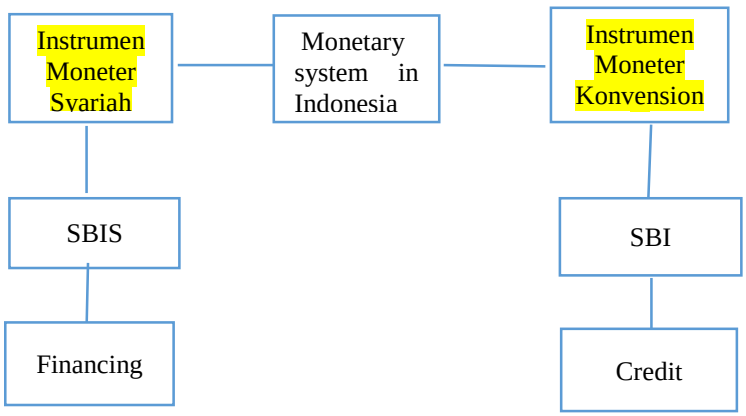

Figure 2.2 Conceptual Framework

From Figure 2 above can be seen one of the monetary instruments. In the conventional system, Bank Indonesia Certificates Sharia (SBIS) will be used as a proxy for monetary policy and, therefore, changes in the interest rate of SBI is expected to make an impact on loan interest rates. In other words, if SBI interest rate is used as a barometer for determining the deposit interest rate, then interest rates will respond to changes (Muslim, 2008). In the Islamic system, the higher the SBI will cause a decrease in Islamic finance, and vice versa. This is due to the Central Bank raising interest rates, which will lead to conventional banks raising interest rates, both lending and deposits.

III. Research Methodology

A. Research Method and Sources of Data

This research used quantitative method. The data used in this research are secondary data in the form of monthly *time series* data obtained from Statistics Islamic Banking at Bank Indonesia (SPSBI) 2008-2013.

B. Estimation Method

Problems in this study will be analyzed using *Vector Autoregression.* Simply put, VAR describes the causal relationships (kausalistis) between the variables in the system, by adding *intercept.* According to Ascarya (2009 in Bayuni, 2010), this method was developed by Sims in 1980 with all the endogenous variables in the model (determined in

the model) so that this method is referred to as a model ateoritis (unfounded theory).

IV. Results and Analysis

A. Stationarity Test Results

The table in annex 1 experience shows that some variables are stationary at the level of *level* and the other are stationary at the level of *the first difference.* Therefore, this model can be followed on VAR estimation of *the first difference* model criteria, *AIC minimum.* All models have a value of t-statistic greater than the value of *Mackinon Critical Value* of 5%, so that the variable inflation is stationary. Variable financing is downgraded to the level of the first difference. The results are as follows:

Dickey-Fuller test for unit root Number of obs = 23

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-7.355	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.0000

Source: Output Data Stata

As for variable SBIS, this is also lowered to the level of the first difference. The results are as follows:

Dickey-Fuller test for unit root Number of obs = 23

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-6.427	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.0000

Source: Output Data Stata

B. Determination of *Lag* Optimum

Testing phase *lag* optimum is very useful for eliminating autocorrelation in the VAR system. So, with the use of *lag* optimal it may prevent reappearance of autocorrelation problems. In models *Difference* LNPL, SBIS experience optimum point at *lag* one, which can be seen in the following figure:

Selection-order criteria
Sample: 2008q3 - 2013q4 Number of obs = 22

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-35.7474				.106029	3.43158	3.45495	3.53077*
1	-31.063	9.3688	4	0.053	.099961*	3.36936*	3.43946*	3.66692
2	-30.3904	1.3452	4	0.854	.137004	3.67185	3.78868	4.16778

Endogenous: lnp lnsbis
Exogenous: _cons

Source: Output Data Stata

C. Cointegration Results with Johansen

Cointegration test results based *trace statistics* and showed a long-term relationship between the variables of total financing by SBIS. Results can be seen in the following figure:

Johansen tests for cointegration
Trend: constant Number of obs = 23
Sample: 2008q2 - 2013q4 Lags = 1

maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	2	-60.87351	.	28.0769	15.41
1	5	-51.008505	0.57592	8.3469	3.76
2	6	-46.835038	0.30435		

Source: Data Output Stata Sports

D. Test Results Greger

Greger Causality Test is used to test the causality between variables. The test results are shown in the following figure:

Granger causality Wald tests

Equation	Excluded	chi2	df	Prob > chi2
lnp	lnsbis	6.1829	2	0.045
lnp	ALL	6.1829	2	0.045
lnsbis	lnp	.20895	2	0.901
lnsbis	ALL	.20895	2	0.901

Source: Data Output Stata

From the above data, it shows that in the total financial effect on variable SBIS, SBIS but did not have effect on the total financing.

E. Discussion

Based on these results, it can be concluded that there is a pattern of causal relationships between variables with SBIS total financing in Indonesia. The rate of increase in total financing annually affects the amount of SBIS annually. And, vice versa, SBIS increase each year did not affect the total financing annually. From the perspective of Statistics Islamic Banking in the Financial Services Authority the increase of numbers in financing can be seen from the following table:

Table 1
Composition of *Mudaraba*, *Musharaka* and *Murabaha*

Akad	2010	2011	2012	2013	2014
Mudharabah	8.631	10.229	12.023	13.625	14.354
Rasio	12,66%	9,96%	8,15%	7,40%	7,20%
Musyarakah	14.624	18.960	27.667	39.874	49.387
Rasio	21,45%	18,47%	18,76%	21,66%	24,78%
Murabahah	37.508	56.365	88.044	110.565	117.371
Rasio	55,01%	54,91%	59,66%	60,05%	58,88%

Source: Statistics Islamic Banking (SPS) in June 2015

Based on Table 1, it can be seen that, from the years 2010-2014, financing by Islamic banks is always increasing. An increase in the amount of financing will certainly affecting against SBIS in the long term. As monetary instruments, SBI and SBIS have their own transmission lines to the real sector where such instruments will affect the amount of financing and credit to the real sector distribution. Schematically, the transmission of monetary policy through bank credit lines is as follows:

Ekspansi kebijakan moneter : cadangan dan deposit bank ↑ ⟹
ketersediaan pinjaman dari bank ↑ ⟹ Investasi(I) ↑ ⟹
Output (Y) ↑

According to Miskhin (2009 in Ramadan, 2012), monetary policy through credit lines aimed at encouraging investment on the *supply* side is represented by the bank as an intermediary. Important implications for monetary transmission through the credit channel of monetary policy are that the presence of the greater effect will be felt by smaller companies which depend on bank loans, while large companies can anticipate to seek capital sources other than banks, namely, through stock or bonds. The summed total may affect the long-term financing to SBIS and both have a causal relationship. The higher the SBI will cause a decrease in Islamic finance, and vice versa. Rusydiana (2009) concluded that the higher SWBIs Indonesian bank is set, the lower the financing committed by Islamic banking. In addition, there is a negative relationship between Islamic finance and SBI. If the Central Bank raises interest rates, this would trigger conventional banks to raise interest rates, both lending and deposits, and this will affect the competitiveness of Islamic banking to decline and become less competitive.

Bank Indonesia holds OPT as one of its policies in influencing financial stability. The instruments used in the OPT are SBI for conventional banking and SWBIs / SBIS for Islamic banking. Both of these instruments can be used by the banks when subjected to excess or deficiency. The facility can help smooth the banks to meet liquidity and can be used as a means of allocating funds in Indonesian banking. In the OPT, businesses use short-term financial instruments, such as SBI and the interbank market, for conventional banking, and SBIS for Islamic banking. The results of the estimation indicate that the instrument SWBIs / SBIS positively affect total financing extended by Islamic banking. The same thing happens with satisfied instruments which also have significant positive effect on total financing extended by Islamic banking in Indonesia in the long term. However, unlike the SBI to finance Islamic banking it is positive and not significant, which means that, in both the short and long term, SBI did not affect the total financing extended by Islamic banking in Indonesia.

F. Conclusion

Based on the research concerning Sharia Monetary Analysis Instruments' relationship with Total Financing of Islamic Banking in Indonesia, it can be concluded that there is a causal relationship between the total financing by SBIS and there is a long-term relationship between financing by SBIS and Islamic banking in Indonesia.

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