Islamic Monetary Economics: Insights from the Literature

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Chapter 3
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3.1 Introduction

Monetary economics is the economics of the money supply, demand, prices, and interest rates and their impacts on the economy. It focuses on the monetary and other financial markets, the determination of interest rate, the extent to which these affect the behavior of the economic units, and the implications of that influence in the macroeconomic context (Handa 2009). The literature of monetary economics is perhaps the oldest part of literature of economics as a whole, with contribution stretching back to the Greek era (O'Brien 2007). Monetary system has been evolving since the beginning of human civilization. However, managed money is a new phenomenon, which has gained prominence after the collapse of the Bretton Woods system in August 1971. There is no possibility of finding precedence for managed money in the days of the Prophet (peace be upon him) or in early Islamic history. Monetary management is neither existent nor needed under the gold standard, which was predominant during that time. A number of questions are, therefore, continually raised about the monetary system that a Muslim country may adopt (Chapra 1996).

The re-emergence of Islamic economics and finance, especially Islamic banking in the middle of the last century, has motivated economists to develop a comprehensive theoretical framework of modern Islamic monetary economics. As *riba*,[1] literally interest rate, is prohibited in Islam, a viable alternative is required. The early writings of Maududi[2] on *Sud* (interest) have motivated many economists to rethink about

[1] The Quran (Al-Rum, 30:39; Al-Nisa, 4:161; Ali-Imran, 3:130 and Al-Baqarah, 2:275–9).

[2] Al-Maududi, A.A. (1961). *Sud* (interest).

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interest-free economic system and many renowned Muslim economists have come up with different *Shari'ah*-compliant instruments to solve this problem.[3] Two international seminars on monetary and fiscal economics of Islam were held at Jeddah and Islamabad in 1978 and 1980, respectively. Since then, the discourse on these themes coincides with the development of Islamic economics in general (Tahir 2013).

Early literature on Islamic monetary economics argues that money demand function in Islamic economics system would be stable as there is no interest rate and no room for speculative demand for money (Chapra 1985, 1996). However, some researchers argue that speculative demand would exist, as return on equity-based instrument is unstable, so demand for money would be also unstable (Khan 1996).

Although interest rate is not acceptable as a monetary instrument in Islamic economic system, a number of conventional monetary instruments are still available: changes in reserve requirements, overall and selective controls on credit flows, changes in the monetary base through management of currency issue, and moral suasion. Anwar (1987), Khan and Mirakhor (1989), and Khan (1996) attempted to develop interest-free economic model with the help of conventional IS-LM framework. The argument is that equity-based profit and loss-sharing instruments would work in interest-free economy and monetary policy would be effective. In addition, profit-sharing ratio, refinance ratio, public share of demand deposits, value-oriented allocation of credit, and *Qard Hasan* ratio have been recommended as distinctive Islamic monetary policy instruments in the literature. The field has lost its motivation since mid-1990s and no significant contributions have been made on theoretical development of monetary economics from Islamic perspectives since then.

Islamic banking has emerged as a viable counterpart of conventional banking system; especially in a crisis period, Islamic banks have performed better than conventional banks as the former enjoys higher capitalization and higher liquidity reserves (Beck et al. 2013; Hussain et al. 2015). Consequently, monetary transmission mechanism through Islamic banks has gained significant attention. While some economists argue that monetary policy will be less potent under Islamic banking system, others argue that if Islamic banks truly operate under profit and loss-sharing arrangement, monetary policy through bank credit channel would be effective.

The number of empirical studies on monetary policy from Islamic economics perspective is still very few, but recent attention from IMF has motivated few insightful publications (Cevik and Charap 2011; Kammer et al. 2015; Khatat 2016). Earlier empirical works confirm the stability of money demand function in interest-free economy (Darrat 1988), but the results are still not convincing and need further research in this field. On the one hand, some findings suggest that monetary policy works through Islamic bank channel (Sukmana and Kassim 2010; Basu et al. 2015; Zulkhibri and Sukmana 2017; Zulkhibri 2018), while others argue monetary transmission channel does not pass through Islamic banks (Zaheer et al. 2012). The mix results are not surprising as in most Muslim countries Islamic banks operate under dual banking system and financial developments are heterogeneous.

[3] Kurshid Ahmed, Nejatullah Siddiqi, Mohammad Uzair, Umer Chapra, Al-Jahri, Mohsin Khan, Muhammad Anwar, Fahim Khan, Abbas Mirakhor, and others have contributed in providing a foundational framework of Islamic economic system.

The remainder of the chapter is structured as follows. Section 3.2 discusses monetary evolution and early Islamic monetary policy. Section 3.3 analyzes empirical studies. Section 3.4 provides implications of the findings and Section 3.5 concludes.

3.2 Literature Review

3.2.1 A Brief History of Monetary Evolution and Early Islamic Monetary Policy

The monetary system that prevails in the world now has come into existence after passing through several stages of evolution. The monetary system that prevailed during the Prophet's (pbuh) days was essentially a bimetallic standard with gold and silver coins (dinar and dirham) circulating simultaneously. The ratio that prevailed between the two coins at that time was 1:10. This ratio seems to have remained generally stable throughout the period of the first four caliphs. However, such stability did not persist continually. The two metals faced different supply and demand conditions, which tended to destabilize their relative prices. During half of the Umayyad period (41/662–132/750), the ratio reached 1:12, while in the Abbasid period (132/750–656/1258), it reached 1:15 or less. In addition to this continued long-term decline in the ratio, the rate of exchange between the dinar and the dirham fluctuated widely at different times and in different parts of the then Muslim world (Chapra 1996). A structure of the brief evolution of money is given in Fig. 3.1.

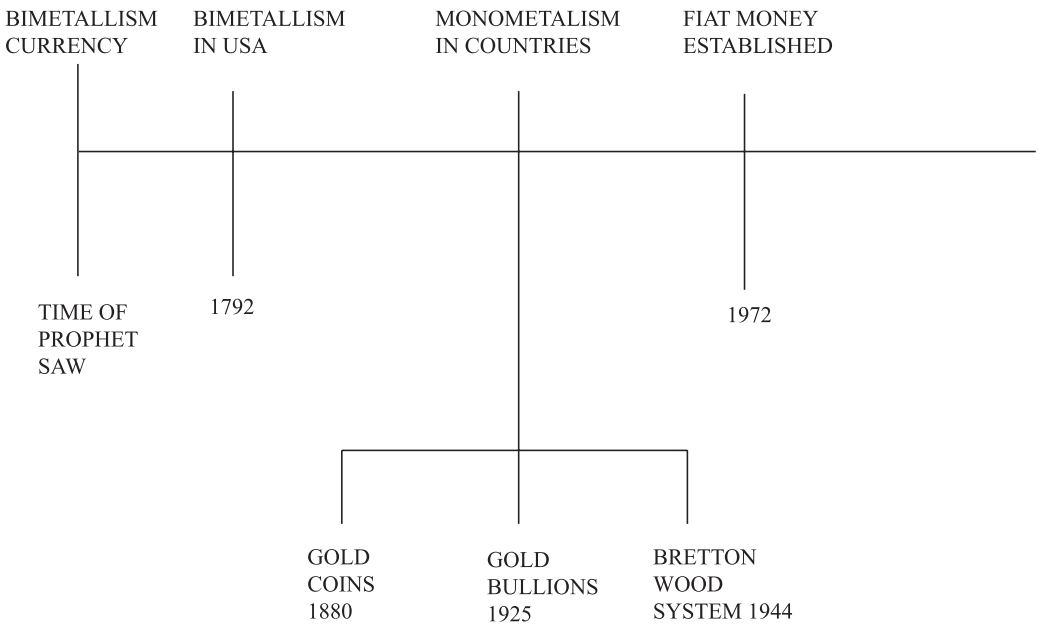

Fig. 3.1 Evolution of money over time (Source: Chapra 1996)

Is monetary policy a new phenomenon in Islam? To answer this question, we have to go back to the first Islamic state established by our beloved Prophet (pbuh) in Medina. In the early Islamic state, there was no basis for changes in the money supply through discretionary measure as there was no banking system and commodity money was extensively used instead. Moreover, credit had no role to play in creating money because i) credit was used only among few traders and ii) regulations governing the use of promissory notes and negotiable instruments were in such a way that the credit was not capable of creating money. Promissory notes or bills of exchange (draft) were issued for purchase of a real commodity or receiving an amount of money. These documents could not be issued merely for purposes of credit. After issuances of these documents, the creditor could sell the note but the debtor was not allowed to sell the money or commodity before receiving it (As-Sadr 1989). Therefore, there was no market for buying and selling of negotiable instruments, speculation, or use of money market fund. Thus, credit could not create money.

The above rule affects the equilibrium between the goods market and the money market based on cash transactions. In *Nasiah* or other Islamic legal transactions where a commodity is bought now but payment is made later, money is paid or received for commodity or an economic service. In other words, money is exchanged only in a trade, which creates real value added in economy, that falls under the framework of Islamic legal criteria. Other transactions such as gambling and usury were prohibited by Islam. As a result, the equilibrium between money and goods circulation in the economy was always maintained. Considering the relative stability of velocity of money in any given period, we can conclude that the volume of money in the economy was always equal to the value of goods produced.

Like current monetary policy instrument, open market operation, buying and selling of the negotiable instrument by the *Bayt al-Mal* (the central bank) was not used in the early Islamic period (As-Sadr 1989). Interest rate regulation, increasing or decreasing the rate of interest on loans made by banks, was not available because of prohibition of *riba* in Islam. Legal system governing, savings, investments, and trade have provided mandatory devices for the execution of monetary policies, which guaranteed an equilibrium between money and goods and prevented the diversion of savings away from real investment and creation of real wealth in the society. Giving spiritual and religious rewards for work and all other types of legitimate economic activities and participation of the companions of the Prophet(pbuh) themselves in trading and agricultural activities had increased the worth of these activities in the eyes of Muslims (As-Sadr 1989).

3.3 Islamic Monetary Economics: Equity vs. Interest Rate

The re-emergence of Islamic economics, especially Islamic banking in the middle of the last century, has motivated economists to develop a comprehensive theoretical framework of modern Islamic monetary policy. Considerable amount of literature on the subject matter has emerged. Ariff (1982) conducted some preliminary

observations on the working of monetary policy in an interest-based economy and the possibilities in an interest-free economy. The three main goals of Islamic monetary policy are (i) economic well-being with full employment and optimum rate of economic growth, (ii) socioeconomic justice and equitable distribution of income and wealth, and (iii) stability in the value of money (Chapra 1985). First and third goals are covered in conventional monetary policy, but the second goal has added new dimension in the theory of Islamic monetary policy.

Stream of literature has flowed and economists proposed different Islamic monetary policy theories but two views were dominant: on the one hand, use of conventional tools available for conducting monetary policy only rejecting interest rate-based instruments and, on the other hand, use of equity-based profit and loss-sharing securities to conduct monetary policy in addition to other *Shari'ah*-compliant available tools.

Naqvi (1981) argues that an equity-based economic system is unstable. This is because equity financing, in contrast to interest financing, makes the return on investment unstable. Hence, an element of uncertainty is introduced into the investor's expectations. Therefore, to hedge against the probability of a loss, ways and means must be found, through some kind of deposit insurance scheme, to guarantee the normal value of deposits. Otherwise, not only the banking system but also the entire economy will become highly unstable (Naqvi 1981). Moreover, in an interest-free economy, people would save and invest optimally only if forced to do so by the state.

By supporting the argument provided by Naqvi (1981), Kuran (1986) argues that prohibition of interest is unenforceable in a large heterogeneous society. Equity-based profit and loss-sharing contracts constitute a beneficial instrument in the absence of a well-functioning stock market; they do not prevent relatively risk-averse individuals' need to lend for interest. He further argues that not all banks would be content with lending to firms on a profit-sharing basis or that firms would necessarily desire to borrow on this basis.

On the other hand, Zarqa (1983) argues that the uncertainties facing any real investment (whether common to all business or specific to the given enterprise) are there, regardless of how it is financed. Equity financing does not change the level of uncertainty; it only redistributes the consequences of uncertainty over all parties to a business. Debt financing, in contrast, relieves the financier from uncertainty by shifting it on to the real investor (equity holder) who then alone bears the entire risk of the enterprise. He also argued that, equity financing, by spreading the same risk over more heads, would promote stability. Each party can absorb its modest share of a loss without significantly upsetting its normal activities or defaulting on its obligations, hence no panic reactions are generated among other business units. Regarding deposit insurance, it has little to do with interest vs. equity financing. Rather, it has to do with fractional reserve banking system, which always faces the risk of a panicky run on the banks – with many depositors asking to exchange their deposits for cash on short notice. The author argues that elimination of interest, especially when coupled with other institutional features of an Islamic economy, tends to enhance stability.

Islamic financial system can adjust relatively faster to shocks than would the traditional system (Khan 1986). Henry Simons (as cited in Khan 1986) argued that interest-based banking system is unstable and leads to financial crisis and proposed 100 percent reserve banking and equity-based financial system. Khan (1986) proposed a theoretical model of interest-free banking and concluded that in equity-based banking system that excludes predetermined interest rates and does not guarantee the nominal value of deposits, shocks to asset positions are immediately absorbed by changes in the values of shares (deposits) held by the public in the bank. Therefore, the real values of assets and liabilities of banks in such a system would be equal at all points in time.

The debate on stability of interest-free economic system has been going on. A group of researchers have tried to develop a tentative framework of Islamic monetary policy starting from money demand and supply, Islamic financial system, and IS-LM framework to explain interaction of monetary policy and real sector.

3.4 Demand and Supply of Money in Islamic Monetary System

A well-behaving and stable money demand function is required by almost all theories of macroeconomic activities and particularly for the smooth operation of an effective monetary policy. An unstable function undermines the monetary policy, which becomes a source of economic disturbance.

Demand for real money balances depends on the level of real income and the expected return, conventionally interest rate, on financial assets. First, this is so because individuals hold on to money to finance their expenditures, which, in turn, depend on their income. The demand for money depends also on the expected return on the financial assets. The higher the expected return on the financial assets, the less worthwhile it is to just hold on to money. Khan (1996) argued that this part of demand for money might not be directly speculative demand. There is a demand for meeting the short-term borrowing needs of others. With the importance attached to *Qard Hasan* and with the embarrassment attached to not helping in a brother in need, the Islamic environment would motivate everyone to keep some cash to meet the short-term borrowing needs of others.

Khan (1996) also states that the speculative demand for money would also exist in interest-free economy, as the expected rate of return will be more volatile than the fixed interest rate and hence give rise to a greater urge to speculate. Though speculation will always be on expected rate of return, it can always be translated into the profit-sharing ratio prevailing in the market. Thus, the higher the profit-sharing ratio, the lower the speculative demand for money and vice versa. Moreover, there is some institutional control on speculative demand for money in the form of *Zakah*. Finally, he argued that speculative demand for money would be overshadowed by altruistic demand for money.

Chapra (1992) argues that Islamic economic system tries to regulate money demand by a strategy that relies on a number of instruments: (a) a socially agreed filter mechanism, (b) a strong motivating system to induce the individual to render his/her best in his/her own interest as well as in the interest of society, (c) restructuring of the whole economy with the objective of realizing the *Maqasid* (aim) in spite of scarce resources, and (d) a positive and strong goal-oriented role for the government.

The above given elements of the Islamic economic system may not only help minimize the instability in the aggregate demand for money but also influence the different components of money demand in a way that would promote greater efficiency and equity in the use of money. The relatively greater stability in the demand for money in an Islamic economy may also introduce greater stability in the velocity of circulation of money. The demand for money in an Islamic economy may thus be represented by the following equation (Chapra 1996):

$$M_{\mathrm{d}} = f\left(Y_{\mathrm{s}}, S, \pi\right)(1) \tag{3.1}$$

where Y_{s} represents goods and services that are related to need fulfillment and productive investment and are in conformity with the values of Islam; S represents all those moral and social values and institutions (including *Zakah*) that influence the allocation and distribution of resources and that can help minimize M_{d} not only for conspicuous consumption and unproductive investment but also for precautionary and speculative purposes; and π represents the rate of profit or loss in a system, which does not permit the use of the rate of interest for financial intermediation.

It can be argued (normative in nature) that the profit rate alone is the determining factor in the performance of a portfolio in interest-free economic system. Investors do not need to rebalance their portfolios as there is no ex ante interest rate change. Chapra (1992, 1996) argues that there would be no speculative demand for money in interest-free system.

After successfully stabilizing money demand and maintaining general well-being and development of common people, the most important questions of, firstly, how to bring aggregate money supply into equilibrium with such money demand and, secondly, how to bring the allocation of this money supply in conformity with the needs of goal realization without using coercion arise. The first question attains further significance as the two most important instruments of monetary management in the capitalist economy, discount rate and open market operations in interest-bearing government securities, would not be available in an Islamic economy (Chapra 1996).

However, Khan and Mirakhor (1989) argue that open market operations could be conducted with securities that do not bear a fixed rate of return. In line with that, Kia and Darrat (2007) restated that even though under the profit-risk-sharing banking system, the central bank will lose one of its monetary policy tools, i.e., interest rate, but can rely on a more powerful tool, i.e., to control money supply. In other words, the central bank can target monetary aggregate. The central bank can keep the money supply at its optimal level. At this level, the stable money demand allows the

central bank to always operate at the optimum money supply where the consumer surplus is maximized. Assuming demand for money is stable, Friedman (1969) shows that the optimum level of money supply can be achieved when the interest rate is zero.

3.5 Framework of Interest-Free Monetary Policy

Khan and Mirakhor (1989), in their seminal paper on Islamic monetary policy, developed a theoretical model of an Islamic financial system by generalizing the standard IS-LM model to study the effects of monetary policy on the macroeconomic variables of an Islamic economy. They argue that monetary change in money supply and using the flow of *Mudarabah* financing as an intermediate objective would work equally and affect economic variables. For example, an expansionary monetary policy would reduce rates of return and increase output.

Islamic economy rejects the concept of a predetermined interest rate and permits an uncertain rate of return based on trade and profits, and banks in an Islamic economy can strictly operate only on some type of profit and loss-sharing basis. There are a number of alternatives proposed by Islamic scholars that satisfy such requirements. Most importantly, there is a question of how monetary policy would be expected to operate in an interest-free economy as interest rate-based monetary instruments are unavailable, and therefore, suitable substitutes would have to be found if monetary policy is to continue to play a role in Islamic economies.

In addition open market operations could be conducted with securities that do not bear a fixed rate of return. They also pointed out that the monetary authorities also have the possibility of directly changing the rates of return on both deposits and loans by altering the ratios in which the banks and the public are expected to share in the profits and losses that are associated with the transactions, i.e., the profit-sharing ratios. Through performance of its regulatory, supervisory, and control functions, as well as its lender-of-last-resort role, the central bank can continue to exert substantial influence on the financial system.

This is still a somewhat controversial issue as there are certain scholars who believe that it would be inappropriate for the central bank to unilaterally change a contractually determined ratio (Chapra 1992, 1996). Other writers have argued in favor of regulating profit-sharing ratios to achieve the goal of monetary stability, provided such actions affect only new deposits and not existing ones (Khan 1986). Hasan (1991) raised a number of questions against certain aspects of Khan and Mirakhor's model and the conclusions drawn from the same. The rate of return (r) the banks receive on loans must in some way be related, as Khan and Mirakhor hold, to the rate (rb) the banks pay on their liabilities. But even with the simplifying assumptions of operational and other costs of bank being zero, r and rb could not be equal. If one can show that $rb < r$, the conclusions of the models could be questionable as the whole exercise was hinged on the equality of these two rates. The equality of the two rates was just not possible under a "two-*tier Mudarabah*"-based banking system.

Another important theoretical contribution was made by Khan (1996) in which he developed a model of income determination, growth, and economic development in an interest-free economy. It was emphasized that growth in the Islamic economy can be manipulated on the supply side by mobilizing human resources through peculiar nature of Islamic financial system. With the help of the model, the author shows that Islamic financial system generates an implicit macro framework that leads the economy toward full employment and then sustains it to further growth and development.

The conventional IS-LM framework was used to link a simple income determination model to growth in the economy, but the framework was developed under the assumptions of an Islamic economy. The author particularly highlighted the investment and money demand functions in an interest-free economy to link this to the process of economic development. According to this model, investment is the function of profit-sharing ratio in an interest-free economy and relationship between profit-sharing ratio and investment is negative; moreover, mathematical model shows the profit-sharing ratio is negatively correlated with output.

The summary of other notable contributions in early Islamic monetary policy is as follows. Khan (1986, 1992) focused on the financial side and presented a macroeconomic model in order to establish that monetary policy would work in an interest-free economy in the same way as in interest-based economy but with better speed of adjustment economy in disequilibrium situations. Non-guarantee of the deposits provides the main ground for his argument.

Khan and Mirakhor (1994) highlight the *Mudarabah*-mode deposit mobilization and lease financing instruments that might be available in the Islamic financial system. They point out that apart from the Islamic banking system, there would also be primary, secondary, and money markets. There are great similarities between their thinking and what is available in conventional economics. The instruments like *Mudarabah* and *Musharakah* certificates are expected to have *Shari'ah* legitimacy. They regard macroeconomic stability, characterized by price stability, and viable balance of payment position as the chief goals for monetary policy. As for monetary policy, their conclusion is as follows: monetary policy of an Islamic state takes place in a framework in which all conventional tools normally available in a modern economy are at the disposal of the monetary authorities with the exception of the discount rate and other policy tools that involve interest rate. All other tools, namely, open market operations (where equity shares rather than bonds are traded) and credit policies, can be as effective in an Islamic system as they are in the conventional system. Additionally, the authorities in an Islamic system can utilize reserve requirements and profit-sharing ratios to achieve changes in the stocks of money and credit (Khan and Mirakhor 1994).

A good deal has been written on goals of Islamic monetary policy and conventional instruments suitable for Islamic economic system, and unique Islamic monetary instruments have also been proposed since the developments in the Islamic finance from the late 1970s and onward. By analyzing the literature, we show the key Islamic monetary policy instruments in Fig. 3.2.

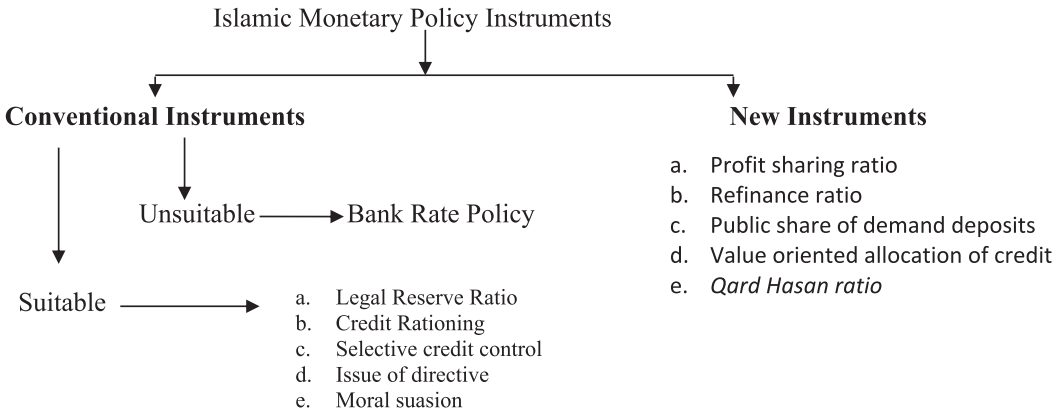

Fig. 3.2 Islamic monetary instruments (Source: author's own illustration)

3.6 Empirical Literature on Islamic Monetary Economics

Although Islamic banking and finance have progressed significantly in the last four decades, we have not seen much Islamic monetary policy theories after a remarkable work was done in the 1980s and 1990s. In the following section, some empirical evidence supporting the earlier Islamic monetary policy theories, interest-free money demand, and role of Islamic banks in monetary transmission mechanism will be discussed briefly.

Kia and Darrat (2007) have studied profit-sharing banking systems by modeling money demand behavior in Iran. They have estimated demand for M1 and profit-sharing deposits over the period 1966–2001. It is found that the demand equation for profit-sharing deposits is particularly stable and policy invariant in Iran despite numerous policy and non-policy shocks.[4] They argue for profit-sharing banking system and suggest that profit-sharing monetary aggregates are credible instruments for monetary policy-making. Their findings support well with theoretical evidence (Chapra 1992, 1996; Khan 1986) indicating that the profit-loss-sharing banking scheme insulates the monetary system from interest-rate exposure risk and minimizes financial instability.

In one of the few earlier empirical works, Darrat (1988) examines empirically whether the absence of interest-bearing financial assets from the Tunisian economy would enhance (or hamper) the stability of her financial system. Non-interest money supply is defined as currency in the hands of the public plus their demand deposits at commercial banks. As is typically the case in most developing countries, all demand deposits in Tunisia are non-interest bearing. On the other hand, interest-bearing money supply is defined as the public's time and savings deposits at commercial banks. He uses time series data from 1960 to 1984 for Tunisia as the case study as he argued cross-sectional data from several Islamic countries would lead to biases due to heterogeneity. The results suggest that non-interest monetary assets

[4] In Iran, the rate of profit on partnership and the markup on sale finance are administered.

exhibit better stability than interest-bearing. Interest-free monetary system has a structurally stable public demand for financial assets. The growth of non-interest-bearing aggregate adheres more closely to movements in the monetary base than does the growth of interest-bearing aggregate.

Many economists have looked into the effectiveness of monetary transmission mechanism under Islamic banking system. Sukmana and Kassim (2010), by using the co-integration test, impulse response functions, and variance decomposition analysis for Malaysia during the period from January 1994 to May 2007, find that both Islamic banks' financing and deposit play important roles in the monetary transmission process in the Malaysian economy. In particular, both Islamic deposit and financing are shown to be statistically significant in linking the monetary policy indicator to the real output. The results also imply that ensuring the stability of the Islamic financial institutions is just as important as that of the conventional counterpart to achieve an effective transmission of monetary policy in the economy. They also find that Islamic deposit is a very important source of financing and a heavy reliance on deposit to some extent is not healthy for the Islamic banks. They recommend the Islamic banks to raise fund other than deposit. One of the solutions would be to develop the Islamic money market which could provide the Islamic banks with an alternative source of funding.

Cevik and Charap (2011) study the empirical behavior of conventional bank deposit rates and the rate of return on retail Islamic profit and loss-sharing (PLS) investment accounts in Malaysia and Turkey. They found them co-integrated and a significant positive correlation, and that conventional bank deposit rates Granger-cause returns on PLS accounts. There could be many plausible explanations, but they argue mainly on moral hazard and ex post information asymmetry in PLS instruments; lengthy due diligence, not appropriate or cost-effective for short-term financing needs; lack of secondary markets for PLS-based financial products that complicate liquidity and credit risk management at Islamic banks; and intense competition. They conclude that participatory financing requires the development of Islamic money markets and the modernization of regulatory frameworks. It is also important for assessing the impact on monetary policy transmission.

Cevik and Teksoz (2013) examine the effectiveness of monetary policy transmission in the Gulf Cooperation Council (GCC) countries. They find the interest rate and bank lending channels appear to be effective in transmission, while exchange rates do not play an important role due to the pegged exchange rate regimes. They argue that bank lending tends to increase with monetary expansion and that the impact of monetary policy shocks typically depends on the propagation mechanism. Moreover, the effectiveness of interest rate and bank lending channels depends largely on the bank balance sheets. They further argue that the issuance of *Shari'ah*-compliant securities, *sukuk*, in local currency in recent years helped to sterilize surplus liquidity from the interbank money markets. They conclude that strengthening financial intermediation and facilitating the development of liquid domestic capital markets would advance the effectiveness of monetary transmission mechanisms in the GCC countries.

Zaheer et al. (2012) find that Islamic banks in Pakistan, even though similar in size like conventional small banks, behave like large banks during contractionary monetary policy and continue lending irrespective of their liquidity positions. Therefore, they argue that monetary policy would be less potent if Islamic banks grow in size and their current asset-liability structure remains intact. Basu et al. (2015) argue that Islamic and conventional banks in the Gulf Cooperation Council (GCC) are segmented and Islamic banks have excess liquidity, which deters their growth. They ask for concerted efforts to build Islamic liquid interbank and money markets, which are crucial for monetary policy transmission through the Islamic financial system. They argue that it can be achieved by deepening Islamic government securities and developing *Shari'ah*-compliant money market instruments.

With the rapid development of Islamic banking, the importance of Islamic monetary policy framework has gained importance but still not enough empirical literatures to support the distinctiveness and effectiveness of it. The non-availability of data hinders the process but current review shows that Islamic monetary policy could work effectively with comprehensive Islamic economic framework and Islamic banks can play vital role in monetary transmission mechanism. In addition to other legal and regulatory issues, the lack of financial intermediation and non-existence of *Shari'ah*-complaint financial instruments hold back the development of Islamic banking system.

3.7 Implications

At the advent of global financial crisis, conventional monetary policy has failed to regulate the money market and the consequence of which has been observed in the global financial market. Even though there are only two countries, Iran and Sudan, that operate under interest-free economic system, emergence of Islamic banking and finance in many Muslim and non-Muslim countries compels us to develop interest-free monetary policy framework. Most importantly, many Muslim-majority countries have been suffering from higher inflation and unemployment, which create output instability and hinder the equitable economic growth. To overcome this, sustainable monetary policy is required.

Comparative analysis shows that Islamic monetary policy can adopt many conventional instruments, which are in line with the *Shari'ah* guidance such as legal reserve ratio, credit rationing, selective credit control, issue of directive, and moral suasion. As interest rate, the key tool of conventional monetary policy regulation, is prohibited in Islamic economic system, the need for sustainable alternative is the order of the day. However, Khan (1995) argued against complete elimination of interest by a legal decree and favored free market forces to bring the interest rates down to zero. Khan further stresses on providing incentives for the use of equity over debt financing. He proposes the following policy measures: (i) reducing reserve requirements to increase supply of loanable funds; (ii) enforcing unlimited liability; (iii) gradual decline in interest to make investments in debt-based instruments less

lucrative and shift loanable funds toward equity-based instruments; (iv) allowing dividend as a tax-deductible expense; and (v) providing fiscal incentives to non-leveraged firms and disincentives to leveraged firms. At the same time, some researchers argue to eliminate fractional reserve banking and impose 100% reserve requirements for demand deposits (Khan and Mirakhor 1989, 1994). In post-crisis scenario, there is an interesting development in many developed countries where nominal interest rates hit almost zero or close to zero, the so-called Zero Lower Bound. Consequently, many central banks have started experimenting with unconventional monetary policy instruments, and some countries even go beyond zero and impose negative interest rates. It clearly shows that interest rate has lost its importance as a major monetary policy instrument and it is high time to seek for viable alternative instrument.

From theoretical analysis, we have observed many economists propose equity-based profit-sharing instruments for conducting open market operations and control deposit level of Islamic banks. However, conducting monetary operations through *Shari'ah*-compliant instruments is challenging; for example, Iran and Sudan are facing the same problem (Kammer et al. 2015). To this end, it is necessary to adapt monetary policy instruments and spur the development of Islamic interbank markets. In addition to weakening the transmission channel for monetary policy, the scarcity of instruments also forces Islamic banks to hold higher unremunerated reserves, affecting their ability to compete with conventional banks. *Sukuk* issued by governments appear to be suitable collateral for monetary operations in the context of Islamic banks as currently practiced in Sudan and Iran (Hussain et al. 2015).

3.8 Conclusion

Islamic monetary economics have been evolving for the last four decades or so. While an Islamic economics system appears viable in theory, as well as to some extent in practice, significant obstacles and problems remain. Some of these include the following: lack of or non-existence of floating rate assets for Islamic banks, interbank market, *Shari'ah*-compliant short-term financial instruments, fiscal dominance, foreign relationship banking, and others.

Monetary policy of an Islamic state takes place in a framework in which all conventional tools normally available in a modern economy are at the disposal of the monetary authorities with the exception of the discount rate and other policy tools that involve an interest rate. All other tools, namely, open market operations (where equity shares rather than bonds are traded) and credit policies, can be as effective in an Islamic system as they are in the conventional system. Additionally, the authorities in Islamic system can utilize reserve requirements and profit-sharing ratios to achieve changes in the stocks of money and credit, although there is still some dispute among Muslim scholars on the appropriateness of these particular measures.

The role of Islamic banks in monetary policy transmission mechanism is still somewhat controversial, but empirical investigations have been going on. To restate

one of the principal goals of Islamic monetary policy is to ensure macroeconomic stability, characterized mainly by price-level stability. The establishment of a stable macroeconomic environment is a prerequisite for increased savings, investment, and foreign capital inflows, all of which are central to the growth process. Without macroeconomic stability, economic growth can falter and cannot be sustained. The other objectives of the Islamic society, such as a more equitable distribution of resources and income, providing useful employment, improving living standards and the quality of life, and the alleviation of poverty, are unlikely to be met.

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