SUGGESTED MODIFICATIONS IN CONVENTIONAL CENTRAL BANKING FOR AN ISLAMIC SYSTEM IN A TRANSITORY STAGE

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I. Introduction

Islamic central banks are similar to conventional central banks in that they are responsible for issuing currency and by acting as a banker to the government and commercial banks. Islamic central banks regulate commercial banks and act as lenders of last resort. The Islamic central bank is the primary institution responsible for implementing a country's monetary policy. Central banks, especially in less developed countries, aim capital investment to those areas in industry and the economy where there is a need, bearing in mind above all the general interests of the public.

The Islamic Republic of Iran and Pakistan both attempted to implement Islamic banking on a comprehensive scale, but their central banks, namely the Bank Markazi of Iran and the State Bank of Pakistan are still working on an interest-base similar to conventional central banks. Muslim scholars and economists have proposed a number of solutions to certain problems facing the Islamic central banks. Some of the problems encountered by the banks are discussed in this paper. The proposed solutions have not yet been implemented by the Bank Markazi of Iran or the State Bank of Pakistan.

Perhaps these solutions were not implemented because the Islamic bank authorities believe they are unworkable.
It has been suggested that the available instruments of monetary policy under the Islamic banking system can be modified in varying degrees depending on whether or not interest rates are involved. Instruments such as moral suasion and loan ceilings remain the same. Some instruments need partial modifications in order to make them consistent with the Shari'ah. These include liquidity ratio, finance priorities, orders and advices, and credit regulations. Other instruments, such as the discount rate and open market operations are in need of changes that make them in compliance with Islamic law.

This paper concerns the State Bank of Pakistan and may be of benefit to any Islamic system in a transitory stage such as the Pakistani system. Section two of this paper reviews in detail the service functions, either actual or suggested, of the Islamic central banks, and how they differ from those offered by their counterparts, the conventional central banks. Section three examines the general, selective, and direct instruments of monetary control used by the Islamic central banks. Any modifications, if needed, are outlined in order for these instruments to comply with Shari'ah.

II. Service Functions

The service functions of Islamic central banks are those needing no major policy decisions to be implemented. They are basic functions which central banks practice, and they are significant to commercial banks, to the government, and to the public.

1. Issuing Currency

Like most conventional central banks, Islamic central banks will issue currency notes. Some countries such as the United States and France have no minimum reserve requirements of gold and foreign exchange against their issued notes. Others, such as Switzerland and the United Kingdom require minimum reserves of gold if the notes issued exceed certain amounts. For example, in the United Kingdom there is a required reserve of 100% in gold for use against banknotes in excess of Pounds 2.65 billion. In Pakistan however, the State Bank of Pakistan is responsible for issuing currency notes (except for one rupee notes, rupee coins, and subsidiary coins). The amount representing the notes issued must be equivalent to the amount of assets. Not less than 30% is needed in the form of gold coins, gold bullion, and approved foreign currencies. The remaining assets are held in the form of rupee coins, rupee securities, and bills of exchange and promissory notes that are eligible for purchase by the Bank. On 13 December 1965, the level of currency backing was set at
a minimum of Rs 1200 million. Recently, the State Bank of Pakistan was required to maintain a minimum reserve requirement of 30% in gold or foreign exchange to be used against banknotes. In March 1989, the State Bank issued currency notes amounting to Rs 103,464 million, where Rs 98,940 million are currency in circulation. The amount of reserves in 1989 was Rs 29,874 million, which reflected about 29% of the issued banknotes that year. The gold amount was Rs 4,352 million and represented approximately 15% of the total reserve. Obviously, interest rate has no role where gold is concerned, but it is still important where foreign assets are involved.

Foreign assets, either held in the form of US T-bills or in the form of CD’s (certificates of deposit) at foreign banks, are assets which bear interest. According to the Shari’ah, foreign assets cause a legal problem when the Islamic central bank holds them because these assets are actually interest bearing items. In spite of that, the State Bank of Pakistan and the Bank Markazi of Iran still receive interest on their foreign assets. Although the central bank authorities in these two countries claim they have no choice but to accept the current situation, they must understand that the actions in this regard violate the Islamic law.

As a solution, the Islamic central banks could put their foreign assets in noninterest bearing forms such as checking accounts earning no interest. It seems the solution is clear, but the Bank Markazi of Iran and the State Bank of Pakistan are not willing to forgo the interest earned on their foreign balances.

2. Central Bank as Banker for Domestic Commercial Banks

Besides being as a lender of last resort for Islamic commercial banks (riba-free banks) in case of liquidity shortages, the Islamic central bank also provides other services such as holding most of their reserves and clearing checks for them. The central bank also plays a role in directing Islamic commercial banks to finance different sectors of the economy. Generally, conventional central banks charge a discount rate on loans to commercial banks. It has been suggested that the Islamic central bank could provide Islamic commercial banks with capital and participate in ventures on the basis of profit-and-loss sharing. Occasionally the central bank will provide short-term loans for economic projects through banks without charging interest (riba-free), such as financing exports.

In reality though, the Islamic banks in Pakistan and Iran are still using the conventional discount rate in lending to Islamic commercial banks. The Islamic commercial banks in Pakistan, for instance, pay a 10% interest fee
as a discount rate for the loans borrowed from the State Bank of Pakistan. Yet Islamic commercial banks charge an interest of 10.25% for loans provided to the government of Pakistan.\(^{(3)}\)

3. **Central Bank as Banker of Government**

Usually, federal and provincial governments are required to deposit their money with the central bank without receiving interest on these accounts. The central bank accepts government deposits and checks or drafts, undertakes the collection of checks and drafts drawn on other banks, and provides cash to the federal and provincial governments. The central bank debits accounts according to the amount of checks or vouchers drawn by the government and presents them for payment. The central bank can transfer government funds from one place to another and manages the public debt of both the federal and provincial governments.\(^{(4)}\)

In Pakistan, for instance, the State Bank provides all of the above through its offices at Karachi, Lahore, and Peshawar. However, in places where it does not have an office, the State Bank has appointed the National Bank of Pakistan\(^{(5)}\) as the agent to conduct government business. The State Bank charges commission from the government for services rendered and pays no interest on the balances. The work related to the government accounts is handled in the Public Accounts Department of the State Bank. Furthermore, the State Bank sells government treasury bills on tap or tender and National Prize Bonds. The State Bank makes interest-free advances to the federal as well as the provincial governments. These advances are repayable not later than three months, and are made with no collateral security. In addition, loans are granted to provincial governments against the collateral of federal government securities. Limits for such advances are occasionally fixed by the State.

4. **Central Bank as Banker for Foreign Central Banks**

The Islamic central bank is expected to deal with and retain accounts with foreign central banks as well as international financial institutions such as the World Bank, the Asian Development Bank, and the International Monetary Fund. These accounts usually bear interest. For example, the Pakistan account with the International Monetary Fund bears interest. Not only does it bear interest, but Pakistan also pays interest for using its rights of withdrawal when needed.\(^{(6)}\)

In reality, no solution has been found in order to free these loans from riba. It will be difficult, if not impossible, to find countries who will participate in projects based on the profit-and-loss sharing principles in another country. Some of the economic reasons for this are the high risk
of investment, the high cost of finding information about these projects, monitoring difficulties, and political instabilities.

III. Instruments of Monetary Control

Despite the importance of the previously mentioned operations, they do not constitute the essence of the Islamic central bank. The fundamental function of the Islamic central bank is to regulate the flow of money and credit in the public interest. The Islamic central bank has at its disposal a number of general and selective control instruments. As mentioned in the introduction, some of these instruments should not be changed, some should be modified, and some should be eliminated.

1. General Control Instruments

The techniques used by central banks to determine the country’s total money supply are called general controls because they affect financial conditions in general. That is, the use of these instruments does not distinguish among the various financial submarkets, such as consumer finances or business finances. Instead, changes in these instruments establish an overall framework of monetary ease or tightness for the economy. These instruments exert influence on the total quantity, availability, and cost of bank credit regardless of the directional distribution.

A. Cash Reserve Requirements

There is no doubt that the change in reserve requirements ratio has an effect on the ability of commercial banks to finance their customers, therefore, it is a major instrument in the monetary policy.

Currently, the two Islamic countries (Iran and Pakistan) stepping toward a complete Islamic banking system still apply the fractional reserves. The State Bank of Pakistan (the Islamic central bank) imposes a reserve requirement of 5% for demand and time liabilities on commercial banks.

Following suggestions from certain Western economists,(7) Mohsin Khan (1986) argued that Islamic banks should operate two windows for deposit transactions. The first window would be used only for transaction balances and would pay no interest on deposits. Such balances would have a 100% reserve requirement and would be entirely backed by certain safe securities, (e.g., U.S. Treasury bills). The 100% reserve requirement is suggested because balances would be made completely safe and would thus simultaneously satisfy the desires of risk-averse individuals. It could also prevent the danger of runs from interfering with the payment mechanism. The second window would be for investment deposits
whereby depositors would be treated as shareholders in the bank. No guarantee would be provided on the rate of return or on the nominal value of the share. However, no reserve requirement would be needed for these investment deposits.

For Mohsin Khan and other Muslim economists it seems that such a change clearly would be advisable. Different reserve requirements on different deposits based on the terms of maturity are already commonplace, and a 100% reserve requirement on one particular subset of deposits is not too radical a proposal. Furthermore, such a requirement would not be too complicated to achieve within current financial structures.

Muslim economists such as Jarhi (1985), and Kahf (1982) are in favor of 100% reserve requirements, and they believe the fractional reserve system is inherently unstable. They argue that the fractional reserve system could lead to changes in the total supply of money if and when people wish to convert their deposits into legal tender (or vice versa). Other Muslim economists such as Chapra (1985), Siddiqi (1983), and Khan (1986), emphasize the need for such policies to maintain the stability of the currency value, and hope these policies could promote economic growth and full employment. These goals could be accomplished by monetary and credit policies conducted by the central bank. These economists also feel that much of the effectiveness of monetary policy in an Islamic economy depends on the type of reserve requirement scheme actually adopted by Islamic banking. Under a fractional reserve system, monetary policy would operate the same way as the conventional banking system. However, under a 100% reserve system, monetary policy would be weakened because the central bank would be unable to change the reserve requirements. Muslim economists in favor of the 100% reserve requirement argue that it would make the system more efficient in two ways. First, a change from a monetary-base to deposit money (and vice versa) in the fractional reserve system creates an inherent instability, whereas a change under the 100% reserve system would change only the composition, thus leaving the total supply constant. Second, the fractional reserve system is more costly (in the sense of having less control over money supply) to maintain or increase the existing stock of real balances as a result of changes in money supply arising from deposit creation or substituting deposit and cash. The 100% reserve system could contribute to the stability of the economy as a whole.

The 100% reserve requirement used by the central bank will allow them more control over the money supply. This is because the 100% reserve system eliminates any differences between the monetary base and the
money supply. As a result, the central bank would have direct control over the money supply via its control over the monetary base. Therefore, changes in the monetary base engineered by the central bank would cause identical changes in the supply of money and thus the monetary policy would be stronger. Because of this, there would be less chance of bank failures and economic depression such as that which occurred in the United States in the 1930s. In other words, this system would eliminate, once and for all, the problem of bank failures, would lead to a reduction in the banking instability, and would increase control over the money supply by the central bank.

B. Liquidity Ratios

Under this arrangement, Islamic commercial banks are required to hold minimum required reserves against their deposit liabilities in the form of specified liquid assets, such as cash and government securities. Changing the ratio affects the Islamic commercial banks’ ability to finance the private sector. In Pakistan for instance, banking rules are established so that every bank in Pakistan is required to maintain in cash, gold, or unencumbered approved securities an amount not less than 35% of the total of its time and demand liabilities. The liquidity ratio ensures that the commercial banks’ holdings of approved government securities do not fall below the prescribed minimum. It limits the scope for commercial banks to liquidate their investments in government securities for financing credit expansion. This may be due to the huge deficit which faced Pakistan and forced the State Bank of Pakistan to sell a large amount of government securities. To avoid the problems of liquidating this large amount of securities, the State Bank imposed a liquidity ratio.

In less developed countries, liquidity ratios are used mainly as a mechanism to channel resources into the financing of government spending. In Islamic countries, this instrument can be used without major changes. It is possible to retain the liquidity ratio requirement as an instrument of monetary policy with the provision that the interest-bearing securities held in the portfolio of commercial banks must be replaced by such financial instruments as are permissible under Islamic law. However, there is no practical suggested replacement for interest-bearing securities.

C. Open Market Operations

Open market operations are those where the central bank is involved in the sale and purchase of securities, especially government securities, with commercial banks and other financial institutions. At times of heavy inflationary pressures, the central bank sells government securities, and in
times of depression the central bank buys government securities. However, the Islamic central banks of Pakistan and Iran seldom use open market operations because of the limited scope of the financial markets in these two countries. In Pakistan at present, there are only two stock exchanges in the country: one in Karachi (established in 1949) and the other in Lahore (established in 1971). There is a third stock exchange being formed in Islamabad. As of 31 October 1989, only 431 companies with a capital of Rs. 21,543.372 million were listed on the Karachi Stock Exchange.\(^{(9)}\)

In Pakistan, open market operations are not the main instrument of monetary management. These operations have been used sparingly as a conscious instrument of monetary policy. There were some substantial sales and purchases of government securities by the State Bank in certain years, but these operations were initiated by institutional investors and reflected the desire of the State Bank to provide marketability to government securities. The difficulty in open market operations can be traced to the conflict arising between the State Bank's role as a controller of credit and its desire to ensure reasonable stability in gilt-edged prices. In the absence of a large market, the State Bank was not able to sell or buy government securities and thereby could not exert the desired effect on the monetary situation without sharp fluctuations. These could undermine the growth and stability of the gilt-edged market.

In order to make this instrument adhere to Islamic law, Siddiqi (1983) and other Muslim economists suggested that the Islamic central bank could issue riba-free securities to replace the interest-bearing government securities.\(^{(10)}\)

They did not, however, explain the type of securities needed or in what form these securities should be. This suggested solution is not practical because the sale of such securities to Islamic commercial banks is impossible. These suggested securities bear no return and therefore, will not find Islamic commercial banks willing to lend money to the government freely. Because of the inexistence of these suggested riba-free securities, the State Bank of Pakistan has no choice except to continue issuing interest-bearing bonds. Yet, some ask why the Islamic central banks couldn't use zero-coupon securities. This is because the zero-coupon securities bear an interest which is the difference between their face value and the selling price. Today Islamic central banks are confined to countries that are less developed and have a very limited scope offered by the organized sector of the financial markets. Open market operations have very little use in these countries and there is no need for changes in these
instruments at the present time.

As an alternative solution, Islamic central banks could become involved in the purchase or sale of government institutions' shares instead of the purchase or sale of government bonds. The Islamic central bank can utilize an open market operation in equity shares instead of debt instruments. The equity instruments used in open market operations may include shares issued by government owned enterprises and profit-and-loss sharing contracts acquired by government owned financial institutions\(^{(11)}\) (e.g., the National Bank of Pakistan in the case of Pakistan). Open market operations, of course, require the development of secondary markets for these instruments. Islamic central banks can play a central role in promoting the development of these secondary markets by standing-by ready to buy and sell these instruments at fixed prices. If the increase in the liquidity of these instruments attracts more and more investors, individuals as well as financial institutions, to these markets, then, the expansion of these markets will pave the way for future use of open market operations as an instrument of monetary control. If, for example, the State Bank of Pakistan wants to increase the money supply, they could buy contracts (shares) from other financial institutions and increase reserves at the State Bank. If the State Bank wants to decrease the money supply, it could sell these shares back to private or government institutions. As time goes on, the State Bank could possibly create a market for these shares.

D. Discount Policy

The discount rate is the rate of interest imposed on commercial banks when they borrow from the central bank. Usually, when the discount rate increases, the volume of commercial bank credit decreases, and vice-versa. Discount policy affects the money supply through the discount rate. An increase in the discount loans adds to the monetary base and expands the money supply, or vice-versa. However, the discount mechanism is not permitted by the Islamic central bank. There is consensus among Muslim writers that profit-and-loss sharing mechanisms could be used instead. The Islamic central bank could control the profit ratios when it participates with Islamic commercial banks and other financial institutions in any venture. Changing the profit ratios of the Islamic central bank could then influence the marginal net profit. A rise in the ratio may lead to lower marginal net profit for Islamic commercial banks and other financial institutions. A decline in the ratio of the profit leads to higher marginal net profits. Hence, if the Islamic central bank wants to increase the money supply, it could reduce the ratio. This would work in the opposite way when
they wish to reduce the money supply.

2. Selective Control Instruments

Selective control instruments have an influence on the size and allocation of certain types of credit. These controls have their initial impact, directly or indirectly, on specific markets that some economists think are relatively insulated from the effects of overall monetary policy. These instruments are also designed to focus on trouble spots where demand may be excessive.

A. Selective Uses of General Control Instruments

General control instruments could be used selectively for specific purposes or to encourage the flow of credit toward desirable sectors in the economy. The Islamic central banks can determine profit ratios when they provide capital to Islamic commercial banks and other financial institutions by assigning different ratios of profit for different sectors of the economy. For instance, to encourage agriculture, the Islamic central bank could assign a high ratio of profit for those banks involved in financing ventures in the agricultural sector.

Also, the Islamic central bank could use the instrument of reserve requirements selectively if the government wanted to encourage certain sectors of the economy. They could allow Islamic commercial banks to include their loans (financings) to these sectors (for example, agriculture or exports sectors) as part of their reserves.

B. Finance Priorities

The central bank determines certain obligations for Islamic commercial banks in order to assure the availability of liquidity for different sectors in the economy. For instance, Pakistan currently determines certain goals for Islamic commercial banks, and these goals are related to short-term loans (financings) for industry, trade, agriculture, fixed investment in agriculture, and low income housing.

The Islamic central bank can comply with Islamic law by eliminating interest-based loans and replacing them with Mudarabah financing. The Islamic commercial banks will be asked to make liquidity available for financing certain sectors in the economy. Profits and losses in Mudarabah financing are calculated and distributed among the partners according to Mudarabah financing rules.

C. Moral Suaision

Moral suasion is defined as the communications or meetings between the authorities of the central bank and those of commercial banks. These
authorities discuss general issues and induce single, certain group, or whole systems of commercial banks to follow the policies set by the central bank.\(^{(12)}\)

Riba is not involved in this instrument, and therefore, the Islamic central bank can apply it without any change. This instrument is easier to administer in a branch banking system (as used in Pakistan) than with a multitude of independent banks. Hence, this instrument could be very powerful if implemented into the existing Islamic banking system.

3. Direct Control Instruments

These instruments are used by the central bank for many reasons. They could forward investments to certain sectors of the economy, impose limits on financial credit, ask commercial banks to make liquidity available for certain ventures, and direct commercial banks to set their rate of interest. But in the case of the Islamic central bank, it was suggested that the latter can be substituted by directing the Islamic commercial banks to instead set their ratio of profit.

A. Loan (Financing) Ceilings

Loan ceilings are used by the central bank as a device to limit the expansion of commercial bank credit. The central bank has the authority to fix ceilings on the bulk of loans, advances, and investments of commercial banks or to set limits on the increase in the total of such assets. For example, in Pakistan in January 1967, the State Bank directed commercial banks not to exceed the following ceilings on their loans: 50% of the landed cost of imported manufactured consumer goods, 85% of the landed cost of imported raw materials, and 75% of the market value of cotton yarn and cotton textiles. In late 1971, these ceilings were removed to stimulate the country’s economic activities. In 1973 credit ceilings were reimposed. Since then, the banks are given quarterly limits to which they can expand their credit. Since January 1974, separate credit restrictions were imposed to limit the financial credit in the private sector and the public sector, and to make sure credit expands at a safe level. This level is evaluated every year by the State Bank of Pakistan in light of the annual credit plan for production, investments, and expected development of the balance of payments.

However, in lieu of ceilings on the bulk of loans, Islamic central banks could impose ceilings on the bulk of financings (Mudarabah or Musharakah Financings) to the different sectors of the economy.

Any bank violating the ceilings is obligated to deposit to the Islamic central bank an amount of money equal to the amount above the ceiling. If
it does not do so, then it becomes liable to pay a penalty to the Islamic central bank. This method of financing control leaves practically no chance for bank financing to expand at a rate faster than that stipulated by the central bank.

B. Credit Regulations

Several central banks are given the power to control credit. They are given this power in order to organize credit for certain objectives for different sectors in the economy. In Pakistan, the State Bank is vested with wide powers to control advances by banking companies. Section 25 of the Banking Companies Ordinance 1962 empowers the State Bank to determine the policy regarding credit advances for general banking companies or by other banking companies in particular. The State Bank may also issue directives regarding the purposes for which advances may or may not be made, the margins to be maintained on secured advances, and the interest rates of interest to be charged on those advances. In order to be successful, this instrument must have certain controls whereby the central bank has authority over the entire lending sector to which they apply. If the central bank authority is only over the commercial banks and there are other lenders outside their control, there is a possibility that the central bank's control could be thwarted. The controls are difficult to administer and, therefore, there is a need to develop practical techniques which would ensure the success of credit controls.

This instrument can be used by the Islamic central bank with a little change in which to regulate financing instead of regulating credit.

C. Orders and Advice

Besides its credit control authority, the Islamic central bank can give orders to Islamic commercial banks to determine the total amount of capital a bank may provide when it decides to participate in a venture. It has also been suggested that the Islamic central bank could determine the minimum and maximum percentages of the profit-ratios instead of the rate of interest. The economic implication of this is that they would have more control over the supply of credit, the supply of money, and the directions of finances in the economy.

IV. Conclusion

This paper presented the most salient features of the Islamic central bank and how this system differs from the conventional central bank in its functions and use of monetary instruments. Although pure Islamic central banks do not yet exist, Muslim economists are beginning to design the general framework of such banks. They have presented a number of
suggestions and solutions for some of the problems which may be encountered by Islamic central banks. Pakistan and the Islamic Republic of Iran are the only two Islamic countries that are working toward "Islamizing" their banking system. But they have not yet implemented actual Islamic practices into their central banks. In fact, their central banks to a considerable extent are still operating along conventional lines.

From this discussion and analysis of Islamic central banks, it has been shown that the Islamic central bank would work similarly to a conventional central bank. Most of the responsibilities of the Islamic central bank would remain the same. Some of the functions of the conventional central bank would need to be modified to replace the interest that plays such a dominant role in these functions. When discussing the central bank there are many questions regarding certain functions and whether or not they are considered legal under the Islamic banking system. Some of these issues include: foreign currency assets, government securities, and loans provided by the central bank to commercial banks. All of these involve the common problem in Islamic law - namely - that of charging an interest rate. These issues were discussed and suggested solutions were presented.

Arguments were also presented regarding the monetary policy instruments used by the Islamic central bank, where they work without an interest mechanism. Instruments such as moral suasion do not need changing, whereas instruments such as liquidity ratios need some modification. Instruments such as discount rates need not to be eliminated, but to be modified and used in compliance with Islamic law (Shari'ah). As a solution, it was suggested that the discount mechanism can be modified by controlling the profit ratio. Open market operations are limited in these Islamic countries however. When the Islamic central bank needs to affect the size of the money supply, they become involved in the sale and purchase of parts of their contracts. To make this possible, these countries would have to develop a market for these shares.

The Pakistani government announced through the "Shari'ah Bill" earlier in 1991 that the entire banking system, including the State Bank, will be "Islamized" by 1994. How will the State Bank of Pakistan deal with these proposed operational features? The answer to that question is yet to be seen.
Notes:


2- Rs = Pakistani Rupee; $1 = Rs 25. (This is a flexible exchange rate, and this rate is for October 1991).


4- Pakistan is a federal government and is divided into four provinces. namely, Sind, Punjab, NW Frontier Province, and Baluchistan.

5- The National Bank of Pakistan was established in 1949 in the crisis conditions following the trade deadlock with India. Plans for its establishment were advanced in view of the critical situation which developed especially in the jute trade as a result of India's refusal to accept the exchange rate of the Pakistani Rupee. The bank played an important role in financing the jute trade in collaboration with the Jute Board so that the crisis was solved. In 1952, the National Bank of Pakistan took over the agency work of the State Bank of Pakistan to transact government business and manage currency chests at places where the State Bank did not have an office.

The National Bank of Pakistan has an authorized and paid-up capital of Rs 30 million divided into 3 million shares of Rs 10 each. Prior to nationalization, the government owned 25 percent of the capital and the remaining was held by others. Following nationalization, the capital held by others has been transferred and vested in the federal government.

6- Ibid: 308.


11-These kind of shares have been practically applied at small scales and within governmental framework in Jordan in the early 1990's. For more details, see:


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