J. KAU: Islamic Econ., **Vol. 6**, pp. 3-21 (1414 A.H./1994 A.D.)

Monetary Management in an Islamic Economy

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ABSTRACT. In an Islamic economic system financial and monetary relations have to be organized and conducted in a manner which precludes the use of interest in any form. Profit and profit sharing being permitted, a wide range of contracts are available to entrepreneurs and financiers. There are other permitted transactions to cover situations where profit sharing is not applicable. Currently we have two models of Islamic banking, the two-tier *Mudarabah* model which endorses fractional reserve banking and the other which opts for 100% reserves against demand deposits. No reserves are required against investment deposits. It is desirable to develop instruments that can provide the investors with sufficient degree of liquidity, security, and profitability. In a Stock market operating in accordance with Islamic rules disposition of investable funds would be made on the basis of profit prospects of the enterprises. Monetary policy and central banking will seek to evolve financial institutions and instruments that facilitate efficient mobilization of savings and allocation of resources consistent with the objectives of Islamic economy. All conventional tools normally available in a modern economy will be at the disposal of Islamic monetary authorities with the exception of those involving the use of interest.

I. Introduction

The Islamic economic system is based on a collection of rules which affect economic behavior and outcomes. The primary source of these rules is the *Shari'ah*, customarily translated as "the Law". In addition, there are institutions and rules which are the results of decisions taken by legitimate authorities in pursuit of economic policies to further the aims of an Islamic society. The adoption of these sets of economic rules and institutions are expected to lead to a dynamic and growing economy, without which the higher objectives of Islam cannot be achieved. Muslims consider an economy to be "healthy" when its rules, institutions, organizations, and operations, as well as the behavior of the individual and society, are in conformity with the *Shari'ah* (Al-Sadr 1979).

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The role of money and monetary management in an Islamic economy must necessarily fit into the framework of the overall economic system defined by Islam.(1) While the fundamental sources of Islam - the Qur'an and the Sunnah - do not provide any direct or detailed guidance on the management of money, they are unequivocal in their condemnation of interest (riba). As such, financial and monetary relations in an Islamic system have to be organized and conducted in a manner which precludes the use of interest in any form(2). It is this restriction that makes monetary management in an Islamic system differ in a very basic and important way from that in a conventional capitalist system.

The purpose of this paper is to describe a financial system that would be consistent with the precepts of Islam, with a view to deriving the appropriate framework for the conduct of monetary and financial policies. Central to this analysis will obviously be the exclusion of interest from financial transactions. In Section II the reasons for the prohibition of interest are discussed. The Islamic financial system is described in Section III, focusing on the banking system, as well as the primary, secondary, and money markets. Section IV covers monetary policy and central banking in an Islamic economy. Section V concludes by outlining the role of the state in monetary management, and discussing some of the problems that need to be resolved for an Islamic financial system to develop and flourish.

II. The Prohibition of Interest

The prohibition of interest in Islam is not based on economic theory but on fundamental religious sources which view the charging of interest as an act of injustice. However, concerted attempts have been made to explain the law and rationalize its application. Early Muslim scholars considered money as a medium of exchange, a standard of value, and a unit of account but rejected its function as a store of value for which money could be sought as an end in itself. Money was considered as an "intermediary" among assets and a "mirror", which, just like a ruler or a judge, passes judgment on and reflects the value of other commodities. Thus, hoarding money was considered an act of injustice because it was "exactly like imprisoning a ruler where his ruling cannot be reached." Lending with interest was prohibited because "whoever uses money in *riba* practices becomes ungrateful and unjust" since money is "not created to be sought for itself but for other objects." And since "hoarding money is injustice, it is meaningless to sell money for money except to take money as an end in itself which is injustice (AI-Ghazali 1955).

Recent Muslim scholars, however, place the major emphasis of their explanation of the prohibition on the lack of a satisfactory theory of interest(3). They see modern theories of interest as attempts to rationalize the existence of an institution which has become deeply entrenched in modern economies. To the argument that interest is a reward for savings, they respond that such payments could only be rationalized, from an

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(1) For a description of the principal elements of the Islamic economic system, see Khan and Mirakhor (1993).

(2) There has been some controversy in the past on whether *riba* refers to interest or usury or whether a distinction can be made between real and nominal interest rates, with *riba* only referring to the former. However, by now there is broad consensus that *riba* covers all forms of interest.

(3) See, for example, Abu Saud (1980), Uzair (1982), Siddiqi (1982, 1983). Chapra (1985). and Ahmad (1987).

economic standpoint, if savings were used for investment to create an additional capital and wealth. But the answer to the question of whether there is an increment of wealth corresponding to the savings of the individual seldom depends on what he does with the money he saves by refraining from consumption. He may hoard it or use it to buy a financial asset without there being an increment of capital wealth created as a result of his saving. When an individual saves, his saving gives rise to creation of an asset or a debt. But, as a rule, he has no power to decide which it will be. According to these scholars, in the absence of simultaneous increment of new investment, either a debt is created or an asset will change hands, but there will be no increment to wealth. Hence, the mere act of abstention from consumption should not entitle anyone to a reward.

To the argument that interest is justified as productivity of capital. Muslim scholars respond that although the marginal productivity of capital may enter as one factor into the determination of the rate of interest, interest per se has no necessary relation with capital productivity. Interest, they argue, is paid on money, not on capital, and has to be paid irrespective of capital productivity. In distinguishing between interest as a charge for the use of money and a yield from the investment of capital, it is argued that it is an error of modern theory to treat interest as the price of, or return for, capital. Money is not capital, not even representative capital. It is only "potential capital" which requires the service of the entrepreneur to transform the potentiality into actuality; the lender has nothing to do with the conversion of money into capital and with using it productively.

To the argument that interest arises as an inevitable consequence of the difference between the value of capital goods today and their value in the future, Muslim scholars respond that this only explains its inevitability and not its rightness. It explains why borrowers are willing to pay interest and why lenders are able to exact it. While they do not deny the difference of valuation between present and future goods, they argue that a theory of interest based upon this notion is abstract to the point of unrealism. The so-called "pure rate of interest," resulting from the time factor in valuation may never enter into the calculation of the suppliers of funds and it seldom, if ever, is paid as such. The reason for its unrealism is that when forced into a position of identifying the "pure rate of interest" the theorists always refer to the rates of return on "riskless assets", such as those paid on government securities or the rate of return on debentures of highly successful corporations. This, they argue, is a rate on debt and not on capital assets. In the case of most successful companies' debentures, such rates are determined on the basis of long-term success of these businesses, and if these corporations face difficulties and their profits decline, the "pure rate" ceases to exist, because their debentures are no longer considered "riskless." Hence, the "pure rate of interest" is only a theoretical construct and does not exist in reality as a return to capital assets. What is referred to as a "pure rate" is a return on debt, and its existence is contingent upon past and current profits. Even if the basis for time preference is the difference between the value of commodities this year and the next, Muslim scholars argue, it seems more reasonable to allow next year's economic conditions to determine the extent of the reward.

In summary, Muslim scholars maintain that when a person loans money, the funds are either used to create a debt or an asset (i.e. through investment). In the first case, there is no justifiable reason why the lender should receive a return. Nor is there a justification, whether from the point of view of the smooth functioning of the economy, nor from the point of view of any tenable scheme of social justice, for the state to attempt to enforce the unconditional promise of interest payment regardless of the use made of the borrowed money.

If, on the other hand, the money is used to create additional capital wealth, the question is raised as to why should the lender be entitled to only a small fraction (represented by the interest rate) of the exchange value of the utilities created from the use made of his loaned-out money. Justice demands that he should be remunerated to the extent of the involvement of his financial capital in creating the incremental wealth.

It is important to note that Islam has no objection to profit as a return to entrepreneurial effort and to financial capital; in fact. such profit is encouraged. Only the identification of money with capital and the justice of interest as reward for the mere act of refraining from present consumption is denied by the Muslim scholars. An amount of money advanced for the purpose of trade and production can be contracted to receive a share of the profit, because its supplier becomes part-owner of capital, sharing in the risks of the enterprise and is thus entitled to receive a share of the profits of the firm. He is a partner in the enterprise and not a creditor. There is all the difference between an ordinary shareholder-who is one of the proprietors of the enterprise, liable for its debts to the extent of his investment receiving a dividend only when a profit is earned- and a creditor who is a debenture holder, lending money without the risk of owning and operating capital goods and claiming interest irrespective of the profit or less position of the enterprise. The creditor runs a risk, but this risk is not related to the profit of the enterprise but rather to the solvency of the borrower.

Islam permits a wide freedom in establishing contracts, assuming that the terms of the contract are not in violation of the *Shari'ah*, and approves any agreement based on the consent of the parties involved, so long as the shares of each are contingent upon uncertain gains. This aspect of the arrangement is crucial, since the *Shari'ah* condemns even a guarantee by the working partner merely to restore the invested capital intact, not only because it removes the element of uncertainty needed to legitimize the bargain for possible profits, but also because the lender will not be remunerated to the extent of the productivity of his financial capital in the resulting profit. This is considered an injustice. If capital wealth created is have a higher value a year hence, then the lender (as a partner in the enterprise) should be rewarded for the contributions his financial capital has made in creating the additional wealth.

In forbidding interest and encouraging the earning of profit, Islam recognizes that interest arises from a loan of money, while profit arises from an investment of financial capital combined with entrepreneurial effort. Lending per se does not necessarily imply investment of additional capital, either simultaneously or subsequently. Not does it, by and of itself, create an asset unless the borrower invests it successfully. In this case the lender is entitled to a reward, but if, and only if, he has shared in the uncertainty of profit and loss of the enterprise.

An alternative explanation of the law prohibiting interest and a justification of its application is based on Islam's position on individual property rights and obligations and its conception of economic justice.[(4)] Islam recognizes two types of individual claims to property: (a) the property that is a result of the combination of individuals' creative labor and natural resources; and (b) property whose title has been transferred by its owner as a result of exchange, remittance of rights to other's in the owners property, outright grants by the owner to those in need, and, finally, inheritance.

Money represents the monetized claim of its owner to property rights created by assets that were obtained either through (a) or (b). Lending money, in effect, is a transfer of this right and all that can be claimed in return is its equivalent and no more. Interest on money represents an unjustified creation of instantaneous property rights: unjustified because interest is a property right claimed outside the legitimate framework of individual property rights recognized by Islam; and instantaneous because as soon as the contract for lending upon interest is concluded, a right to the borrower's property is created for the lender.

It is clear that money lent is used either productively in the sense that it creates additional wealth, or unproductively, in the sense that it does not lead to the creation of incremental wealth by the borrower. In the latter case, since no additional wealth, property, or asset is created by the borrower, the money lent cannot claim additional property rights since none are created. In the former case, that is, when it is used in combination with the creative labor of the entrepreneur to create additional wealth. it can also not claim any right to the incrementally-created wealth because the lender, when loaning his money, does not bargain for a portion of this incremental wealth but for a fixed return, irrespective of the outcome of the enterprise; he in fact transfers the right to his property to the borrower.

On the other hand, when the financial capital of the lender is used in partnership with the creative labor of the entrepreneur, the lender's right to his property is not transferred and remains intact, thus making him a co-owner of the enterprise, and his money, which represents past productive labor, has a claim and a right in the product it helps create. Again, investment with risk is consistent with Islamic principles, while lending without risk of principal and return is not.

III. The Islamic Financial System[(5)]

To accord with the restriction against interest, and consistent with the encouragement of trade and profits, the *Shari'ah* has developed two forms of business of financial arrangements: *Mudarabah* and *Musharakah*. Under the provisions of *Mudarabah*, surplus funds are made available by a single lender to the entrepreneur to be invested in a productive enterprise in return for a predetermined share of the profits earned. Financial losses are borne exclusively by the lender who does not have a role in the management of the enterprise. The borrower loses only the time and effort invested in the venture. This profit-sharing arrangement, therefore, effectively places human capital on par with financial capital. In *Musharakah*, there is more than a single contributor of funds. All parties invest in varying proportions, have the right to participate in the management of the enterprise, and the profits (or losses) are shared in

(4) See Khan and Mirakhor (1993)

(5) For more details, see the papers contained in Ariff (1982) and Khan and Mirakhor (1987).

some relation to their respective capital contributions. This arrangement corresponds closely to an equity market in which shares in a firm can be acquired by the public, banks, and even the government.

In transactions where profit sharing is not applicable other modes of financing can be employed which include the following:[(6)]

· ***Qard al-Hasanah (beneficence loans)***

These are zero-return loans that Muslims are encouraged to make to those who need them. Financial organizations that provide these loans are permitted to charge the borrower a service charge to cover the administrative costs of handling the loan so long as the charge is not related to the amount or the maturity of the loan.

· ***Bai' Mua`jjal (deferred-payment sales)***

This mode allows the sale of a product on the basis of deferred payment in installments or in a lump-sum payment. The price of the product is agreed on between the buyer and the seller at the time of the sale and cannot include any charges for deferring payments.

· ***Bai' Salam or Bai' Salaf (purchase with deferred delivery)***

In this transaction the buyer pays the seller the full negotiated price of a product that the seller promises to deliver at a future date. This type of transaction is limited to products whose quality and quantity can be fully specified at the time the contract is made, such as agricultural and manufactured products.

· ***Ijara (leasing)***

In this transaction, a person leases a particular product for a specific sum and specific period of time. He can also negotiate for lease-purchase of the product, where each payment includes a portion that goes toward the final purchase and transfer of ownership of the product.

· ***Jo'alah (service charge)***

This is a transaction in which one party undertakes to pay another a specified sum of money as a fee for rendering a specific service in accordance with the terms of the contract negotiated between the two parties. This arrangement facilitates transactions such as consultations, fund placements, and trust activities.

· ***Cost-plus sale***

In this transaction the seller informs the buyer of his cost of acquiring or producing a product and then a profit margin or a mark-up on the cost is negotiated between the buyer and the seller. This method is now very standard in Islamic financial transactions.

The above list is by no means exhaustive. The freedom of contracts under the *Shari'ah* provides the parties with considerable flexibility, making it possible to establish a virtually open-ended variety of forms of financial transactions and instruments. The only constraints are that the contract not include interest and that both parties are fully informed of the details of the contract.

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(6) For a more detailed discussion of the various modes see Council of Islamic Ideology (1980).

A system that excludes interest raises a number of theoretical and practical questions. One of the most important of these is how banks and financial markets will function. It is to these questions that the paper now turns, dealing first with banks and then with the other financial markets.

(1) Banking system(7)

Banks in the Islamic system, although constrained to carry out their operations without the payment or receipt of interest, perform the same essential functions as they do in the conventional system. That is, they act as administrators of the economy's payments system and as financial intermediaries. The need for them in the Islamic system arises precisely for the same reason as that in the traditional interest-based system. Their role in a general sense is the exploitation of the imperfections in the financial markets. These imperfections include imperfect divisibility of financial claims, transactions costs of search, acquisition, and diversification by the surplus and deficit units, and existence of expertise and economies of scale in monitoring transactions. Financial intermediaries in the Islamic system can reasonably be expected to exhibit economies of scale with respect to these costs as their counterparts do in the traditional system. Through their ability to take advantage of these imperfections, they alter yield relationships between surplus and deficit financial units and thus provide lower costs to the deficit units and higher returns to the surplus units than would be possible with direct finance.

Just as in the interest-based system, Islamic financial intermediaries transform the liabilities of business into a variety of obligations to suit the preferences and circumstances of the surplus units. Their liabilities consist of deposits, and their assets consist mainly of primary financial securities in the capital market. These banks have to be concerned, just as their counterparts in the traditional system, with decisions relating to such issues as the nature of their objective functions, portfolio choice among risky assets, liabilities and capital management, reserve management, the interaction between the asset and liability side of their balance sheet, and the management of off-balance sheet items - such as revolving lines of credit, commercial letters of credit, and bankers' acceptances. Moreover, as asset transformers, these institutions become risk evaluators and serve as filters to evaluate signals in a financial environment with limited information. Their deposit liabilities serve as a medium of exchange, and they possess the ability to minimize the cost of transactions that convert current income into an optimal consumption bundle.

One major difference between the two systems is that, due to prohibition against interest and the fact that the banks will have to rely primarily on profit-sharing, Islamic banks will have to offer their asset portfolios of securities in the form of "mutual fund" type packages for sale to the investor-depositors(8). In contrast to this system, the banks in the interest-based system keep title to the portfolios they originate. These assets are funded by banks through issuing deposit contracts, a practice that results in solvency and liquidity risks since their asset portfolios and loans entail risky payoffs and/or costs

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(7) For more detailed discussions see Siddiqi (1983) and Iqbal and Mirakhor (1987)

(8) The portfolios could contain risky open-ended securities (stocks and shares) or closed-end securities (for specified time periods).

of liquidation prior to maturity, while their deposit contracts are liabilities that are often redeemable instantaneously at par.

In the Islamic system, there will also be greater interdependence and closer relationship between investment and deposit yields, since the banks can primarily accept investment deposits on the basis of profit-sharing and can provide funds to the enterprises on the same basis. Due to the fact that the return to liabilities will be a direct function of the return to asset portfolios and also because assets are created in response to investment opportunities in the real sector, the return to financing is removed from the cost side and relegated to the profit side, thus allowing the rate of return to financing to be determined by productivity in the real sector Thus, in the Islamic system there is a much tighter link between the rates of return in the real and financial sectors than in the capitalist system.

Since the 1980s, a number of economists have been concerned with developing analytical models of banking in an Islamic environment. Basically, these efforts have yielded two complementary models. The first model,[(9)] relying on the concept of profit-sharing, integrates the assets and liabilities sides of the balance sheet of the bank based on the principle called the *Two-Tier Mudarabah*. This particular model envisages depositors entering into a contract with a banking firm to share the profits accruing to the bank's business. The bank, on its asset side, enters into another contract with an agent-entrepreneur who is seeking investable funds and who agrees to share his profit with the bank in accordance with a predetermined percentage stipulated in the contract. The bank's earnings from all its activities are pooled and are then shared with its depositors and shareholders according to the terms of their respective contracts. Thus, the profit earned by the depositors are a percentage of the total banking profits. According to this model, the banks are allowed to accept demand deposits that earn no profit and may be subjected to a service charge. This model, though requiring that current deposits must be paid on the demand of the depositors, has no specific reserve requirement on the total liabilities of the bank, other than that it be positive. It further stipulates that the bank is obligated to grant very short-term interest-free loans to the extent of a part of the total current deposits (Siddiqi 1982).

The second related model divides the liability side of the bank balance sheet into two windows: one for demand deposits (transactions balances) and the other for investment deposits[(10)] . The choice of the window would be left to the depositors. This model requires banks to maintain 100 percent reserves against demand deposits, but stipulates no reserve requirement for the second window. This is based on the presumption that the money deposited as demand deposits are placed as Amana (safe keeping) and must be backed by 100 percent reserves, because these balances belonging to the depositors do not carry with them the innate right for the bank to use them as the basis for money creation through the fractional reserves process[(11)]. Money deposited in

(9) See, for example, Uzair (1982), Siddiqi (1982, 1983), and Chapra (1985).
(10) This model is due to Khan (1986), see also Khan and Mirakhor (1989) and Mirakhor and Zaidi (1991).
(11) The economic rationale for the 100 percent reserve requirement is contained in Khan (1986). Briefly, to minimize the possibility of banking crises and to protect the payments mechanism, there should be full backing of bank liabilities that have fixed nominal values, i.e., demand deposits. The value of investment deposits. on the other hand, would be directly linked to the value of the bank's assets, and a reserve requirement would not be necessary.

investment accounts, on the other hand, is placed with the depositor's full knowledge that his deposits will be invested in risk-bearing projects, and therefore no guarantee of value or return is justified. In this model, too, the depositors may be charged a service fee for the provision of the safekeeping services performed by the bank. Provisions of interest-free loans to those who may need them, according to this model, will have to be limited to the funds deposited in such accounts by the depositors who may consider that the banks may be better equipped for this purpose. No portion of the deposits in investment accounts will be required to be used for this purpose.

The second model corresponds closely to the understanding that the early Muslims had of banking and investment practices, which by the mid-eighth century A.D. had developed a variety of credit institutions and instruments such as checks (*Ruq'a*), document of debt transfer (*Hawala*), and bills of exchange (*Suftaja*). Banking services, including currency exchange transactions, were performed by the merchant bankers, and investment activities through profit-sharing were accomplished through direct finance. As it was understood by Muslim scholars and merchant bankers alike, a contract based on Islamic Law severely prohibited the use to which "the depository could put the deposited property" (Udovitch 1975, 19). This is contrary to the concept of deposits in the West, "where the depository not only kept the goods but also had a right to use them for a variety of commercial purposes" (Udovitch 1975, 19). The explanation of the position of the Islamic practices is straightforward. As mentioned earlier, the Islamic conception of property rights imposes severe restrictions on the use of someone's property placed in another's safe keeping. The notion of property rights is crucial to an understanding of the economic system of Islam and many of its rules of economic behavior can be explained in light of this notion. In fact the strong position that the early Muslim scholars took on such questions as the stability of the value of the currency, stability of prices, and debasement of currency can be explained as a result of their understanding of the Islamic concepts of property rights and of economic justice.[12] Whenever an action leads to the creation of instantaneous property rights claims for some members of the community on the property of the rest, without commensurate additional property being created to legitimize these claims, such actions are prohibited by Islam.

Both models consider the losses incurred as a result of investment activities by the banks as being reflected in the depreciation of the value of the depositor's wealth. However, both models see the probability of losses minimized through diversification of banks' investment portfolios and careful project selection, monitoring, and control. Clearly, the risk to depositors is less in the second model than in the first and is only applicable to investment deposits. But even so, the proponents of the first model have suggested loss-compensating balances built up by the bank out of its earnings in good times and deposit insurance schemes launched in cooperation with the central bank as a means by which such risks can be reduced. Additionally, and perhaps more importantly, what will mitigate against risks in the Islamic system is the fact that banks have direct and indirect control on the behavior of the agent-entrepreneur via explicit and implicit contracts. Banks can exert control through both the formal terms of their contract and, as conventional banks, through an implicit reward-punishment system in the sense of refusing further credit or the blacklisting of the agent-entrepreneur, and to the extent

(12) See Chapra (1985).

that the reputation of firms and that of its managers are important, they could be a strong deterrent to irresponsible behavior. The nature of the contract permits the banks to focus their attention on the probability of default and expected rate of return, and on the control of the firms in which they invest.

(2) Primary, secondary and money markets

It may be argued that with the division of the liability side of the balance sheet of the banking system into investment and demand deposits, wealth owners would channel only part of their savings into accumulation of physical capital and the remainder would be allocated to the accumulation of idle balances. This argument would require assumptions regarding the responsiveness of wealth owners to the rate of return, as well as an assumption that money and physical capital are viewed as competing assets. Although the first assumption's validity is an empirical question, the second assumption would not be consistent with the Islamic rule against hoarding and accumulation of money (i.e., keeping money idle without corresponding transactions demand for it). Moreover, these balances not only cannot earn any return, and in this sense are barren, but also, if kept for a full year, they become subject to a compulsory levy of 2.5 percent (*Zakat*), thus imposing relatively high opportunity costs on idle balances. There is, however, a possibility that since the alternative to idle balances is risk-bearing deposits it may make it worthwhile for the depositors to maintain a considerable portion of their savings in the form of either money or demand deposit balances, particularly if the conditions are conducive to the existence of a strong precautionary motive for liquidity purposes. There would therefore be an incentive in an Islamic system to develop short-term financial assets that would as sure the depositors of a sufficient degree of liquidity and security to allow them less reliance on money and demand deposits.

(a) Primary markets

Perhaps the most challenging issue facing the process of the implementation of the Islamic financial system is the development of risk instruments that can provide the investors a sufficient degree of liquidity, security, and profitability to encourage their holding. Proposals along this line rely on the development of instruments corresponding and parallel to the permissible forms of transactions. These include such instruments as *Mudarabah* and *Musharakah* certificates, short-term profit-sharing certificates, and leasing certificates (Al-Jahri 1987). Additionally, proposals have been made for development of specific instruments issued by the central bank as well as by the government, particularly relating to its specific investment projects. Generally, any instrument linked directly to real assets, and whose rate of return is variable and tied to the performance of the asset, is considered acceptable.

Islamic scholars have pointed out the necessity, desirability and permissibility of the existence of a stock market in the financial system of Islam in which the primary capital instruments such as corporate stocks can be transacted[13]. The conditions of the operations of these markets in accordance with the rules of Islamic law are much like those that must prevail in markets for goods and services[14]. Given that a proper

(13) See Metwally (1984).
(14) For a discussion of the rules of market behavior in an Islamic economy see Khan and Mirakhor (1993).

securities underwriting function is performed by some institutions in the system, for example banks, the firm could then directly raise the funds for their investment projects in the stock market which would provide them a second source of funding other than the banks.

A stock market operating strictly in accordance with Islamic rules is envisioned to be one in which the disposition of investable funds is made based on the profit prospects of the enterprises, in which relative profit rates reflect efficiencies between firms and in which profit rates (as signals coming from the goods market) are not distorted by market imperfections. Such a market might be expected to allocate invest-able funds strictly in accordance with expected investment yields, i.e., resources would be allocated to finance higher return projects. Stock markets would also be capable of improving the allocation of savings by accumulating and disseminating vital information in order to facilitate comparisons of all available opportunities, thus reflecting the general efficiency in resource allocation expected from a system that operates primarily on the basis of the productivity of investment.

(b) Secondary markets

The development of a secondary market is also essential to the development of a primary market(15). All savers, to some degree or another, have a liquidity preference. This liquidity preference although perhaps to a different extent and magnitude, will exist in an Islamic system as in any other system. To the extent that savers can, if necessary, sell securities quickly and at low cost, they will be more willing to devote a higher portion of their savings to long-term instruments than they would otherwise. Since the probability is high that primary securities in the Islamic system would be tied to the projects and management of particular enterprises, there are various risks that must enter into the portfolio decisions of the savers. The risks relating to the earning power of the firm and risk of its default are examples of such risks.

There is another type of risk that is closely tied to the secondary market for a given security issued by firms. If two securities are identical in all respects except that one has a well-organized secondary market while the other does not, an investor in the latter case runs the risk of being able to liquidate his security holdings only at a depressed price, as compared with the prices offered for the security with a market. Moreover, the degree of this marketability risk is directly related to factors such as the extent of the knowledge of the participants as well as the number of traders in the market, which determine the depth and the resilience of the secondary markets.

In an Islamic system, perhaps more than in any other, both the primary and secondary markets require the active support of the government and the central bank, not only in their initial development and promotion, but also in their supervision and control, in order to assure their compliance with the rules of the *Shari'ah*. Particularly in the case of the secondary markets, the traders and the market makers will need the support and supervision of central banks if these markets are to operate efficiently. For secondary

(15) The major differenec between a secondary market and a stock market is that in the former only primary financial instruments rather than claims corresponding to real assets will be trided. Ofeourse, to principle an efficient stock market that can handle financial instruments could easily serve as a secondary market as well.

markets to be able to transform an asset into a reliable source of cash for an economic unit whenever needed, it must be a dealer market in which there will be a set of position takers who will trade significant amounts of as sets. In the traditional interest-based system, these position takers are financed by borrowings from banks, financial intermediaries, and other private cash sources. Since in the Islamic system refinancing on the basis of debt is not permitted, reliable and adequate sources of funds must be provided by the central bank. Arrangements will need to be made through which the central bank can, at least partially, finance and fully supervise secondary markets.

(c) Money markets

In a traditional interest-based system, the money market becomes a means by which financial institutions can adjust their balance sheet and finance positions in these markets. Short-run cash positions, that exist as a result of imperfect synchronization in the payment period, become the essential requirement for the presence of money markets. A money market, in this case, becomes a source of temporary financing and an abode of excess liquidity in which transactions are mainly portfolio adjustments and no planned or recently-achieved savings need to be involved.

On the one hand, the liabilities that an economic unit emits are closely geared to the characteristics of its investment in an Islamic financial system. On the other hand, the liabilities that financial intermediaries emit are expected to have nearly the same distribution of possible values as the assets they acquire. Hence, given that debt instruments cannot exist, money market activities will have different characteristics than their counterpart in the interest-based system. As stated earlier, the existence of a poor money market combined with a poor structure of financial intermediation leads to a situation where money becomes more important as a repository of wealth than in a situation with more active financial intermediation. The existence of broad, deep, and resilient markets in which financial intermediary assets or liabilities can be negotiated is a necessary ingredient. Additionally, to the extent that money markets help lower the income elasticity of demand for cash and help investment projects to be financed, their importance in the Islamic financial system cannot be overlooked. Even in this system money markets will enable financial units to be safely illiquid, provided they have assets which are eligible for this market. In this system, too, the basic raw material for the money market is the existence of pools of excess liquidity. One principal activity of money markets in this system is expected to be arrangements by which the surplus funds of one financial institution are channeled into profit-sharing projects of another. It is conceivable that some banks may, at times, have excess funds available but no assets, or at least assets attractive enough in terms of their risk-return characteristics, on which they can take a position. But at the same time, there will be banks with insufficient financial resources to allow them to fund all available opportunities, or with investment opportunities requiring commitments of what the banks may consider excessive funds in order for them to take a position and for which they may prefer risk-sharing with surplus banks. In this case the development of an interbank funds market is clearly necessary. It may also be possible for some banks to refinance a certain position that they have taken by agreeing to share their prospective profits in these positions with other banks in the interbank funds market. Finally, since the investment portfolios of banks will contain equity positions of various maturities corresponding to the gestation periods of the respective projects, it is also possible that a subset of their asset portfolios composed of equity shares can be offered in the money market in exchange for liquidity.

Here too, effective and viable money markets in the Islamic system will require active support and participation by the government and the central bank, particularly in times when investment opportunities and the risk-return composition of projects and shortages of liquidity in the banking system may require a lender of last resort. Such money markets must be flexible enough to handle cash shortage periods for individuals banks based on some form of profit-sharing arrangement. The challenge for money markets, as well as for the secondary markets, in an Islamic financial system is the development of instruments that satisfy liquidity, security and profitability needs of the markets while at the same time assure compliance with the rules of the *Shari'ah*, i.e., provision of uncertain and variable rates of return on instruments with corresponding real asset backing.

IV. Monetary Policy and Central Banking

It is argued that the basic purpose of the state in an Islamic society is the preservation and strengthening of Islam through implementation and observance of the rules of the *Shari'ah* (AI-Sadr 1979). Hence, the role of the state in an Islamic society depends on the extent to which the behavior of individuals within the society correspond to the rules of the *Shari'ah*. At the same time, the preservation and strengthening of Islam requires an expanding economy, since poverty and destitution are considered as the greatest threat to its preservation.

It is a fundamental belief among Muslims that a healthy and growing economy is assured only if individuals and the society operate in accordance with the ordinance of Islam; and that it is the noncompliance with these rules which leads to economic problems. Although the degree of interference of the state in economic life is determined by compliance of society with these rules, Islam also imposes constraints on the degree to which the Islamic state may set goals and priorities or impose patterns of spending, taxation or other limitations upon the members of the society. Further more, the extent of operations of the economy and its units in compliance with the rules of the *Shari'ah* is a function of the degree of internalization of the value system of Islam and the extent of the existence of institutions which guarantee a smooth functioning of economic behavior in accordance with Islamic rules. Recognition of the importance of the institutional structures that are conducive to rule compliance makes it clear that the state must assume a leadership role in providing the legal-institutional framework in accordance with Islamic expectations in order that the economy can achieve its full potential. The legal and institutional setup which guarantees the structure of property rights and of contracts, for example, is necessary for the encouragement of investment. The understanding and internalization of Islamic rules regarding the rights of the poor in another's wealth, as another example, can reduce the extent of government's welfare role and thus its fiscal burden. In fact, in an Islamic system in which all necessary infrastructures are available and where all individuals have understood and internalized Islamic rules and values and behave accordingly, the role of the state in the economy is one of supervision and no more. But, of course, in the initial phases of implementation of the Islamic system, the state's burden is one of provision of the necessary institutional framework for making the Islamic rules of behavior operational.

The chief role of monetary policy and of central banking in an Islamic system is to take the lead in evolving financial institutions and instruments that facilitate efficient mobilization of savings and allocation of resources consistent with the economic development objectives of the Islamic economy. The central bank, in particular, must initiate and foster the development of primary, secondary, and money markets. Mere adoption of Islamic rules of finance will not necessarily create the impetus for financial and economic development where the shallowness of financial markets and lack of attractive financial instruments have created impediments to the saving-investment nexus and for the process of financial intermediation.

There are reasons to believe that the relationship between financial deepening and real growth of the economy would be strong in an Islamic economy where profit sharing can be expected to have significant positive influence on the saving-investment process. The positive relationship between expansion of financial markets and financial development on the one hand, and between financial development and economic development on the other, necessitates an active participation by the monetary authorities in evolving the financial infrastructure in the economy. For example, monetization of transactions in rural areas requires a wider geographical and functional penetration of the banking system. Through provision of such facilities and expansion of financial markets the central bank can both lower the cost and increase the availability of credit in the economy. Moreover, the prohibition against interest provides natural opportunities for the integration of financial markets. The monetary authorities, through the central bank, can take steps to foster competition between organized and unorganized markets on the basis of profit-sharing and rates-of-return in order to enhance the process of integration.

The extension and enforcement of Islamic regulations concerning contracts and property rights to financial and capital markets is needed to reduce uncertainties arising from the present structure of rights that tend to discourage private investment. Such actions would include imposition of legal sanctions on irresponsible behavior on the part of agent-entrepreneurs to the extent necessary to reduce moral hazard problems and to encourage lending on the basis of viability and profitability of investment projects rather than solvency, creditworthiness, or collateral strength of entrepreneurs. The reduction of uncertainty in contract and property rights structure is necessary, particularly in the early stages of adoption of the Islamic financial system, because prohibition of interest by itself creates a moral hazard problem embedded in principal-agent type contracts which lead to an increasing cost of monitoring (Khan 1987). Uncertainty in contract and property rights, combined with heavy costs, at least initially, of project appraisal, evaluation and monitoring may lead to a significant reduction in investment. In fact, it can be argued that the risk of adoption of an Islamic financial system, particularly in the initial stages, is not lower savings but lower investment, if the Islamic rules regarding contracts and property rights are not enforced. In the absence of legal protection, risk-averting bankers and savers may simply refuse to provide funds on the basis of profit-sharing arrangements. Alternatively, principals and agents may engage in the type of contrived contractual relationships that maybe Islamic only in appearance. The enforcement of Islamic rules regarding contracts and property rights would increase public confidence in capital markets, financial institutions, and in the process of financial intermediation. It is only then that the banks and other financial institutions can, through their direct involvement in profit-sharing with the real sector, become instruments of industrialization and development. This way the whole investment process would add to efficiency as real entrepreneurs would utilize savings rather than those whose only claim to enterprise is based on the ownership of savings. The increase in efficiency will in turn increase profits and a higher rate of return to savers.

The mobilization and financialization of personal savings and diversification of asset preference of households will require a more variable pattern of financial assets than exist in many Muslim countries today. It should be a function of the government to initiate and evolve new financial institutions and instruments which could satisfy and further stimulate demand for assets in the economy, and expose investment and savings to the price mechanism via financial intermediation, and thus increase the overall efficiency of the saving-investment process.

Performance of the above functions by the monetary authorities and the central bank should create sufficient inducements for financial and economic development in an Islamic economy. Additionally, however, Muslim scholars have stressed the need for policies to maintain the stability of the value of currency, and envisage an activist role for monetary policy towards this end; as well as in promoting full employment without inflation and achievement of an optimal rate of growth for the Islamic economy (Chapra 1985). They expect that these objectives can be achieved through the instrumentality of the central bank, via the utilization of appropriate monetary and credit policies.

Much of the effectiveness of monetary policy in an Islamic economy will depend on which of the two types of principal models of Islamic banking discussed in Section III will be adopted. Those favoring the adoption of the second model argue that its 100 percent reserve requirement feature would make the system more efficient because: (a) whereas any switch from high-powered money to deposit money and vice versa in the fractional reserve system creates an inherent instability, such a switch in the 100 percent reserve system will only change the composition of money, thus leaving the total supply constant; (b) in a fractional reserve system it is more costly to maintain or to increase the existing stock of real balances as a result of changes in money supply arising from deposit creation or from substituting deposit and cash; and (c) a 100 percent reserve allows the benefits of money creation to accrue to the whole society rather than a segment of it. Additionally, a property rights argument was also advanced, within the context of Islamic framework, in favor of a 100 percent reserve system. It is argued that such a system, by providing a stable financial system, contributes to the stability of the economy as a whole. By eliminating any difference between the monetary base and the money supply, thus making the money multiplier equal to unity, the 100 percent reserve forces the banking system to be fully liquid (Siddiqi 1983). The second model would preclude the central bank from using variation in the reserve ratios as a policy instrument (Khan 1986). The use of the reserve ratios as a policy instrument remains available to the authorities if the first model of Islamic banking is adopted.

The usual regulation, supervision and control functions of the central bank can be expected to be continued in the Islamic system. A further opportunity for enhancement of the control of the banking system is available to the central bank through its purchase of equity shares of not only the banks but also of other financial institutions. The necessity of the leadership role of the central bank in initiating and evolving primary, secondary and money markets has already been discussed. Through performance of these functions and its lender-of-last-resort role, the central bank can exert greater influence in the financial system. Moreover, opportunities will exist for the central bank to directly invest in the real sector on a profit-sharing basis, as well as to take equity positions in joint ventures along with other banks. The opportunity for the central bank to buy and sell securities in the financial markets may enable it to influence financial resource allocation further if that becomes necessary or desirable.

Furthermore, the suggestion has been made that the central bank can regulate profit-sharing ratios between banks and enterprises on the one hand and the banks and their depositors on the other (Siddiqi 1983). Besides the fact that the adoption of this suggestion may have resource allocation implications, it represents an imposition of unwarranted limitations on the freedom of contract and will have property rights consequences, particularly when it is remembered that according to the rules of the *Shari'ah*, the partners are responsible for losses to the extent of their financial involvement. The problem of inequity is clearly evident if. for example, the profit sharing rules imposed by the central bank require a lower return from profits than from the share in losses.

V. Conclusions

The role of the state in an Islamic economy is first to ensure that everyone has equal access to natural resources and means of livelihood. Second, to ensure that each individual has equal opportunity, including education, skills, and technology, to utilize these resources. Third, to ensure that markets are free to function with only essential supervision. Fourth, to ensure that transfer takes place from those more able to those less able in accordance with the rules of the *Shari'ah*. And, finally, that distributive justice is ensured for the next generation through the implementation of the laws of inheritance. The state is then empowered to design any specific economic policy that is required in order to guarantee the attainment of these objectives. Monetary management and policy in an Islamic economy has to thus be designed with the overall aims of the Islamic society and the duties of the state in mind.

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 Western 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, although there is still some dispute among Muslim scholars on the appropriateness of these particular measures.

The principal goal of monetary policy is to ensure macroeconomic stability, characterized in the main by price-level stability and a viable balance of payments position. 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. Basically, without macroeconomic stability economic growth can falter and not be sustained. Furthermore, without broad-based economic growth the basic structural and social transformations which make up the process of Islamic development will not occur, and 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.

While an Islamic financial system appears viable in theory, as well as to some extent in practice, significant obstacles and problems remain. Some of these include the following:

· Although it has been relatively easy to create a system in which deposits do not pay interest, serious difficulties have been encountered in introducing true profit-sharing arrangements on the lending side. So far it has not been possible to develop a system of contracts between borrowers and lenders that would keep the costs of monitoring at a reasonable level and eliminate the moral hazard problem when the lender and the investor have asymmetric information on the profitability of the investment. As a result, Islamic banks have relied primarily on mark-up and leasing operations, and most of the lending has been concentrated in short-term trade-related assets.

· Islamic banks are also at a disadvantage when it comes to short-term financial instruments. At present, for example, there is no equivalent of an interbank market in an Islamic system where banks could place overnight funds or borrow to satisfy temporary liquidity needs. There is clearly a pressing need to utilize experts in "financial engineering" to create instruments that would satisfy liquidity requirements and yet be consistent with Islamic rules.

· There is also as yet no acceptable way for governments to finance fiscal deficits other that through money creation, which in turn may be at variance with the objective of macroeconomic stability. While many suggestions have been made in this area, there remains considerable controversy on how this problem can be resolved.

· Another important issue facing Islamic banks is how to organize their relationships with foreign banks, and more generally, how to conduct international operations. This is, of course, an issue whose solution requires the creation of financial instruments which would be simultaneously consistent with Islamic principles and acceptable to interest-based financial institutions, including foreign banks.

The Islamic monetary system is evolving and solutions to the types of problems listed above will undoubtedly lead to further progress in the development of a full fledged system that can undertake a whole range of operations efficiently and effectively. Clearly this is a long agenda requiring considerable research and experimentation. At present such research is going hand-in-hand with practice, and the end result should be a financial system that would be efficient, and more importantly, support the basic objectives of Islam.

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الإدارة النقدية في اقتصاد إسلامي

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صندوق النقد الدولي – واشنطون دي سي

المستخلص : يتطلب النظام الاقتصادي الإسلامي أن تتم العلاقات النقدية والمالية على نحو يستبعد الفائدة الربوية بأية صورة. وتوفر إباحة الربح والمشاركة فيه مجموعة من العقود لرجال الأعمال وللممولين. وهناك عقود أخرى مباحة تناسب الحالات التي لا تنطبق فيها المشاركة في الربح.

لدينا نموذجان للأعمال المصرفية الإسلامية، أولهما هو نموذج المضاربة المزدوجة الذي ينسجم مع نظام الاحتياطي الجزئي. والثاني نظام الاحتياطي الكامل (مقابل الودائع تحت الطلب)، وهو لا يتطلب أية احتياطيات مقابل الودائع الاستثمارية. ومن المرغوب تطوير أدوات تعطي المستثمرين قدرًا كافيًا من السيولة والأمان والعائد. وينبغي في سوق للأسهم تعمل وفق الأحكام الشرعية أن يتم تصريف الأرصدة وفق توقعات ربح المشروعات. وتهدف أعمال المصرف المركزي والسياسة النقدية إلى تطوير مؤسسات وأدوات تسهل حشد المدخرات وتخصيص الموارد بكفاءة تنسجم مع أهداف الاقتصاد الإسلامي. وستكون جميع الأدوات المتاحة عادة في اقتصاد معاصر متاحة أيضًا للسلطات النقدية الإسلامية، باستثناء تلك التي تعتمد على استخدام الفائدة.