Progress and Challenges of Islamic Banking

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EXECUTIVE SUMMARY

Three decades have passed since the first Islamic bank began its operations in Mit Ghamr, Egypt, and more than a decade has passed since the Islamic Republics of Iran and Pakistan adopted a non-interest-based financial system. The growth of financial institutions, instruments, and transactions operating without interest has been impressive, from assets totaling a meager $5 billion in 1985 to a current level of approximately $100 billion. Today, Islamic banking is spreading and gaining acceptance in non-Muslim countries as well as Muslim ones. Equally important has been the growth of scholarly interest in the subject. The viability and feasibility of noninterest-based financial transactions, instruments, institutions and systems as well as the legitimacy of academic research in this area are no longer questioned. The objectives of this article are to (i) review the progress of Islamic banking and Islamic financial markets; (ii) present the fundamental principles of an Islamic financial...
The last three decades of developments in the theory and practice of Islamic banking can be divided roughly into three periods of (i) development of a conceptual framework (1950–1975), (ii) experimentation (1975–1990), and (iii) recognition (1990–present). In the first period, the efforts of Muslim scholars were concentrated basically on raising the consciousness of Muslims regarding the issue of Riba. Thus, considerable emphasis was placed on moral, philosophical and religious arguments against the institution of Riba; economic— theoretic arguments were given less prominence. The exception was the writings of Shaikh Mahmud Ahmad, who meticulously combed through nearly all the theories of interest developed since the time of Adam Smith to show that there had been no satisfactory explanation of the existence of a fixed and predetermined rate of return to financial assets.3 He went further, analyzing the writings of economists such as Keynes, Bohm Bowerk, Cassels, and Samuelson, and argued that an objective assessment would lead one to believe that all of these writers held a reasonably strong conviction that the existence of a fixed and predetermined rate of interest was an impediment to the process of economic growth and development. Khan (1986) noted that the abolition of interest-based transactions is not a subject alien to western economic thought. Fisher (1945), Simons (1948), and Friedman (1969), among others, have argued that the

2Prohibition of Riba, a term literally meaning an excess and interpreted as “any unjustifiable increase of capital whether in loans or sales” is the Islamic financial system’s central tenet.

3Shaikh Mahmud Ahmad (1972) and (1989): Toward the end of his life, he expressed his frustration at the failure of Islamic banks to implement a true interest-free model as he was of the view that “no significant device has been evolved by Muslims as a substitute for interest.” For further discussion, see Shaikh Mahmud Ahmad (1989).
current (one-sided liability) interest-based financial system is fundamentally unstable.

The ongoing research in the area of finance and contract theory was of considerable importance to the understanding of how financial markets work. A very simple but crucial insight of Muslim scholars made it possible to tie the developments in the modern theory of finance into Islamic banking, i.e., the notion that the prohibition against Riba meant the elimination of all fixed-fee debt contracts and that an Islamic financial system would have to be primarily equity-based. This led to the development of a model for an Islamic bank conducting business on a profit/loss-sharing principle.

The immediate intuitive response to the elimination of Riba (a fixed interest rate) was that without this mechanism there would be a financial market failure; the demand for loanable funds would be infinite while its supply zero, so that a financial system without an interest rate would be neither viable nor feasible. The challenge for Muslim scholars was to demonstrate that such would not be the case by building on the works of earlier Muslim scholars on profit-sharing-based banking. While the concept of profit-sharing-based Islamic banking emerged clearly as the dominant substitute for interest-based banking by the end of the 1970s, much of its analytic underpinnings and theoretical justifications were developed in the 1980s.

During the second period of experimentation, private commercial institutions based on principles of profit/loss-sharing as conceptualized by earlier Islamic scholars were established. Islamic banking received further endorsement in the mid-1980s when the Islamic Republics of Iran and Pakistan adopted banking systems that eliminated interest and recognized them constitutionally. As demand for Islamic instruments grew and Islamic institutions held their ground, several prominent Western financial institutions realized the potential and entered the market by playing the role of financial intermediaries for Islamic banks that lacked technical know-how. Western institutions helped Islamic banks place funds and expand their deposit base while accessing wider markets.

By the end of this period, Islamic financial institutions were successful in building a solid deposit base and maintaining a relatively sound track record in such a way that the concept of interest-free banking became a practical alternative. It is important to note that much of the growth during this period was led by the initiatives of private sector institutions and was not state-sponsored. In fact, the
performance of banks in countries where banking is officially on a non-interest basis has been rather disappointing. 4

During the third period of recognition, Islamic financial institutions have gained confidence and relative credibility in domestic and international capital markets. Islamic banks are in a process of standardizing instruments and accounting procedures. Moreover, they have begun offering services directly to the investors and have realized the significance of introducing innovative products.

DEVELOPMENTS IN ISLAMIC ECONOMIC THEORY5

Research in Islamic economics has led to a better understanding and formulation of fundamental principles governing the economic system and how different economic agents interact according to the rules defined by Islam. It is argued that adherence to these rules will lead to effective compliance, reduce informational asymmetry and moral hazard, and ensure equitable property rights and well supervised, fair and, and efficient markets.

The Islamic economic system is based on rules specified both for the individual and the society. Adherence to these rules of conduct assures an Islamic society of economic growth and development.6

4One of the following sections discusses the reasons for such poor performance.
5For detailed description of the Islamic economic system see Mirakhor (1989a), Khan and Mirakhor (1992), and Mirakhor (1995).
6The necessary and sufficient conditions for a society to have economic growth and development are embedded in Quran 7:96 implying a set of rules of just conduct in the economic sphere.

"And only if the people of towns had believed and were ever conscious of Allah (S.W.T) surely we would have opened for them blessings from the heaven and earth, but they rejected and we seized them (gave them) of what they used to earn" (Quran 7:96).

This verse is symmetrical. Rule compliance brings blessings in the form of growth and development while noncompliance with the rules of conduct laid down by Allah (S.W.T), the Law Giver brings the opposite. While on the first reading of this verse it may not appear so, this verse contains the Islamic theory of economic growth and development. But like all abstract theories it must be explained. The first part of the verse stipulates the rule that believers adhering to Law will qualify for the blessings collectively as a society, as the verse refers to the people of towns—covering any human collectivity. This is an important element of the verse because it has reference to the fact that Islam is a call to the collectivity and is the first religion that has given the collectivity an independent corporate personality and identity and which will be judged on its own merits or demerits. The final judgment of the individual actions will have two dimensions, one as the individual and the other as a member of the collectivity. Unity and social cohesion is so central among the objectives of the Quran for mankind that it can be argued that all conducts prohibited by Islam are those that, if committed, ultimately will lead to social disintegration. And, conversely, all righteous conducts prescribed by Islam are those that lead to social integration, cohesiveness and unity.
PROGRESS AND CHALLENGES OF ISLAMIC BANKING

The rules are prescribed by Islamic law (Shariah) based on rules in the Quran, operationalized by the Sunnah and extended to new situations by Ijtihad. The feature differentiating the Islamic economic system from a conventional system is that the ultimate source of rules is not the society but "the Law Giver"—Allah (S.W.T).

The freedom to enter into contracts and the obligation to remain faithful to their stipulations has been so emphasized in Islam that a characteristic which is supposed to distinguish a Muslim is his faithfulness to the terms of his contracts. In the Shariah, the concept of justice, faithfulness (called Amanah, whose antonym is khiyanah meaning betrayal, faithlessness, and treachery), reward, and punishment are linked with the fulfillment of obligations incurred under the stipulation of the contract. Throughout the legal and intellectual history of Islam, a body of rules constituting a general theory of contracts—with explicit emphasis on specific contracts, such as sales, lease, hire, and partnership—were formulated based on the Shariah. Contracts are considered binding and their terms are protected by the Shariah, no less securely than the institution of property. This body of rules established the principle that, in matters of civil and economic dealings, any agreement not specifically prohibited by the Shariah was valid and binding on parties, and could be enforced by the courts which were to treat the parties to a contract as completely equal.

The rules of the Shariah cover resource allocation, production and exchange, and the distribution of resulting income and wealth. Full compliance with these rules ensures not only economic development and growth but also economic justice. The rules ensure that justice prevails at all stages—before production takes place, during the exchange and in the resulting distribution of income and wealth. Therefore, the central aspect of the Islamic economic system is the emphasis placed on justice. The concept of justice (Adl) in Islam is multifaceted, it implies right as equivalent to fairness, putting things in their right place, equality, equalizing, balance, temperance,

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\[\text{Set of rules and laws governing economic, social, political and cultural aspects of Islamic societies are collectively referred to as Shariah. The core of Shariah laws originates from the rules dictated by the Quran and its practices and explanations rendered (more commonly known as Sunnah) by the Prophet Muhammad (PBUH). Further elaboration of the rules is provided by analogical as well as independent reasoning developed by scholars in Islamic jurisprudence within a framework of original sources (Quran and Sunnah) through the process of Ijtihad.}\]
and moderation. The notion of economic justice, and its attendant concept of distributive justice, is particularly important as an identifying characteristic of the Islamic economic system because rules governing permissible and forbidden economic behavior on the part of consumers, producers, and government, as well as questions of property rights and of production and distribution of wealth, are all based on the Islamic view of justice.

Justice before production is achieved by ensuring that all members of the society have equal opportunities with respect to access to and utilization of resources. This is done through the rules contained in Islam's property rights framework. The first axiom of this framework is that Allah (S.W.T.) is the Creator and the ultimate owner of all property. Man has been given only the right of possession of property during his lifetime in this world. The second axiom of Islamic property rights is that this right of possession is a collective right and individuals can only earn a priority in the use of these resources.

While a part of these resources is reserved for the exclusive possession of the collectivity, the remaining part can be utilized by individuals without the collectivity losing its initial right of possession. Islam has provided these rules without negating individual self-interest. At the same time its Law has provided methods and procedures whereby the interests of the community can be protected, should the individual find it utility-maximizing to violate the rules and thereby damage the interests of the society. Individuals are to use these resources with the full understanding that Allah's ultimate ownership and the collectivity's prior right of possession remain intact. This notion is referred to as the permanent, constant, and invariant ownership of Allah (S.W.T.) of all the resources, and by implication, that of prior right of possession of these resources by the collectivity.

This concept has at least two practical implications in that it creates a firm foundation for the collectivity's right of legislative mandate requiring transferring resources from those who are more able to those who are less able. That is, the individual uses these resources being fully aware that other members of the society that are unable to use them have a right to them and that he is using them in partnership with these other members. Therefore, the return from the use of these resources must be shared with these partners. All these rights must be redeemed from the results of their use. The sec-

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8The Shariah recognizes two ways in which individuals can have claim on private possession of property: (1) through their own labor and/or (2) through transfers. Before any work is performed on natural resources, all members of the society have equal rights to the resources and must, therefore, have an equal opportunity to access these resources.
ond implication is that while an individual’s possession of these resources and his share in the outcome is allowed, sanctioned, and protected by the Shariah, this can change when his use of them comes into conflict with society’s interest and well being.

Various levies are imposed on the production or income to redeem these property rights. What is extremely important to realize is that these levies can in no way be considered as charity. The fact that the general Quranic terms for these levies, such as Zakah and Sadaqah are translated as charity is an indication of this general misunderstanding. In fact, Zakah indicates a cleansing of the resulting production and income from the rights of others in them, i.e., Zakah purifies the product or income, resulting from an economic activity from the rights of others in the surplus; others being those that for one reason or another have been unable to partake in the acts of production or exchange.9

Concomitant with these individual private property rights, the Shariah imposes property responsibilities, including the obligation to share, as well as not to waste, squander, or use the property for purposes prohibited by the Shariah. Among other things, these obligations write the principle of sharing into the delineation of property interests and consider private ownership as a trust, or a duty, in order to affect sharing. Hence, private initiative and choice are recognized, but such recognition is not allowed to subvert the principle of sharing or to lead to a violation of societal rights. It is also important to recognize that while access to resources is made available to all with equal liberty and opportunity, if due to some circumstances, natural or otherwise, some individuals are unable to access these resources, their original claim to the resources remains inviolate. They must be compensated for these rights by those who have been given greater ability and opportunity to exploit these resources.

Justice in exchange is ensured by the Shariah through a set of rules governing the conduct of market participants. These rules must be internalized and adhered to by all participants before entering the market. Compliance with these rules by all participants ensures that all prices prevailing in the market will be fair and just. These rules cover Shariah-compatible sources of supply and demand

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9Consider, for example, the categories of the Zakah receivers named in the Quran. They are all those who have not been able to participate at all, or participate fully, in these processes, or if they have, for a variety of reasons, they have been unable to generate enough surplus to satisfy a minimum level of living.
for factors and products, just conducts by market participants; and a price-bargaining process free of factors prohibited by the Shariah. In this sense, market imperfection refers to situations in which one or more of these rules of just conduct is violated. Specifically, the rules of just conduct cover, inter alia, freedom of contract and the obligation to perform its stipulations; consent of parties to transactions; noninterference with supplies before entrance into the market; full access to the market by all buyers and sellers; provision of full information regarding the quality, quantity, and prices of factors and products to all buyers and sellers before the start of the bargaining process; and finally, provision of full weights and measures. The rules prohibit fraud, cheating, monopoly practices, coalition and combination among buyers or among sellers, underselling of products to gain market power, dumping actions, speculative hoarding of products, and bidding-up of prices without the intention to purchase.

Although provisions are made for full supervision (not control) of the market, as well as for corrective and, if necessary, coercive action by legitimate authorities, so as to ensure full compliance with and enforcement of the rules of just conduct, direct interference with the operations of the market, e.g., through price controls, is not permitted. In the market, coercion is limited to the enforcement of rules of just conduct which are applicable equally to all participants. Any interference with the conduct of the market beyond supervision of rule compliance, and coercion to that end if necessary, is considered unjust because such interference creates privileges benefiting some of the market participants at the expense of others.

It should be noted that all the rules of just conduct governing the market are mostly negative in that they prohibit unjust conduct. They do so in order to protect ascertainable domains within which the individual is free to act as he or she chooses. They do not confer rights on a particular person other than to assure his free participation in the market. They do, however, lay down conditions under which property rights may be acquired. Therefore, under the rules of just conduct governing the behavior of market participants, it is possible for one individual through a single just transaction to gain much and for another through an equally just transaction to lose all.

Finally, the strength of religious commitment determines the degree of rule-compliance, and therefore, the effectiveness of the institutions which govern an economic system. The stronger the people's commitment, the less is the divergence between the choices individuals make and those expected of them by the institutions. Hence, the cost of enforcement of contracts and rules

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of conduct is reduced. In an ideal Muslim society, there will be no divergence between what institutions expect of individual choices and the actual choices. Information asymmetry and moral hazard will be minimized since a large part of uncertainty is eliminated with rule compliance. The remaining risks will become ensurable.

DEVELOPMENTS IN ISLAMIC FINANCIAL THEORY

Whereas an Islamic economic system defines principles of exchange, production, distribution and consumption of economic resources so as to ensure a balanced and just system, Islamic finance, predicated on the prohibition of Riba, dictates the principles of capital mobilization, trading, funding, investment and payments. There is now a general consensus among Muslim religious scholars (fuqaha) and economists that the prohibition against Riba extends to interest. At least four characteristics define the prohibited interest rate: (a) it is fixed ex ante; (b) it is tied to a time period and the amount of the principal; (c) its payment is guaranteed by the borrower regardless of the outcome of the transaction for which the money was borrowed; and (d) the state apparatus sanctions and enforces its collection.

One implication of the prohibition of Riba is that it virtually eliminates all debt financing and debt instruments as they exist in conventional banking; to replace them, the Shariah holds the view that individuals have a wide freedom of contract. Therefore, the contracting parties are free to engage in any transaction not prohibited by the Shariah. This flexibility makes possible a virtually open-ended menu of various modes of financial transactions, instruments and contractual forms so long as contracts do not contain any element of Riba or gharar. The latter can operationally be said to exist if one (or both) of the contracting parties is in possession of some information regarding the subject of the contract and withholds that information from the other party. Incidentally, this definition brings the concept of gharar close to the notions of asymmetric information and moral hazard of contract theory.

Historically, Muslim religious scholars (fuqaha) did not define a priori the various methods of riba-free transactions available today.

10Gharar can be defined as a situation when either party to a contract has information regarding some element of the subject of the contract that is withheld from the other party or the subject of the contract is something over which neither party has control. Classic examples include transactions involving birds in flight or fish not yet caught.

More modern examples include transactions whose subject is not in the possession of one of the parties and there is uncertainty even about its future possession.
The practice was that the contracting parties would decide on a particular mode, and the fuqaha would then rule on its permissibility. Muslim economists often insist that, in order to become Islamic, a financial system must replace the interest rate mechanism with a profit-sharing mechanism. This is, of course, only the economist's inference. The position of the Shariah, as stated earlier, is that any transaction is permissible so long as it does not contain any element of Riba or gharar.

It thus follows that it may be possible to develop a variety of non-profit-sharing methods of financial transactions that meet the basic requirements of the Shariah. A prime example is the method of Qard alHassan (loans made without any expectation of financial rewards); other methods include, among others, Morabaha (cost-plus financing) and Salam (forward sale) transactions. Hence, from the perspective of Islamic law, if a financial system is not rendered un-Islamic if it operates primarily or even mostly with non-profit-sharing modes as long as these satisfy the requirements of the Shariah. This is a very critical and significant point as many critics of the current practices of Islamic banks contend that many of the transactions conducted by these banks, such as Morabaha, installment sales and the like, are not profit-sharing methods, and that these transactions resemble or are in effect the same as interest-based transactions. While the latter may be true (installment transactions, for instance, may indeed resemble interest-based transactions), the fact is that the former are sanctioned by the Shariah, whereas interest-based transactions, which may produce identical results, are not.

By prohibiting interest, Islamic injunctions do not imply that the opportunity cost of capital represented by an interest rate in a conventional system is zero. In an Islamic framework, the incentive for the firm to invest will solely depend on prospective profitability and therefore, a profit maximizing firm will continue investing until the marginal productivity of capital becomes equal to the opportunity

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11 Qard alHassan is an interest-free loan given mainly to please Allah (S.W.T.) and, therefore, must not include expectations of any returns, even of the principal. The intention has to be assistance to those who need a loan but cannot secure it and who may have no potential to return it.

The Quran encourages these types of loans by saying that the loan is made to Allah (S.W.T.), and suggests enormous rewards directly from Allah (S.W.T.); see for example Quran 73:20.

Morabaha is a contract sale between an Islamic bank and its client for the sale of goods at a price which includes a profit margin agreed on by both parties. Salam is a lending agreement in which the seller promises to deliver a specific product at a specified time in the future.
cost of capital; therefore the cost of capital in an Islamic system can be represented by the rate of return on alternate opportunities for investment of comparable risk.\textsuperscript{12} It has also been demonstrated that there is a rate of return in Islamic capital markets serving the opportunity cost of capital and that rate is driven by the rate of return in the real sector of the economy.\textsuperscript{13}

Theoretical models of a financial intermediary operating on Islamic principles can be grouped into two broad categories: two-tier mudaraba and two-window models. The two-tier mudaraba model is an arrangement whereby the Islamic bank enters into separate mudaraba contracts, on assets (with the users of funds) and liabilities (depositors) side.\textsuperscript{14} The entrepreneur agrees to share profits with the bank in return for the investment and the bank agrees to share (pass through) the profits with the depositors. In other words, the bank acts as a financial intermediary solely on the basis of profit-sharing both on the assets and on the liabilities side. The two-window model is also based on profit-sharing on the assets side but recognizes the need of depositors on the liabilities side who wish to choose between transaction deposits and investment deposits.\textsuperscript{15} This model divides the liability side of the bank balance sheet into two windows, one for demand deposits (transaction balances backed by 100 percent reserves) and the other for investment balances, with the choice of window to be left to the depositor. Since both models are based on profit-sharing, the losses incurred as a result of investment activities by the bank will be reflected in the depreciation of the value of the depositors' wealth, thus eliminating any assets—liabilities mismatch. However, both models see the probability of loss minimized through portfolio diversification, careful project selection, monitoring and control.

Systems in which the assets and liabilities of banks are acquired on a profit-sharing basis have given rise to important propositions. First, the real values of assets and liabilities would be equal at all points in time.\textsuperscript{16} In addition, the prospect of instantaneous equilibrium between the asset side of the banking system—driven mainly

\textsuperscript{13}Khan and Mirakhor (1987).
\textsuperscript{14}See Siddique (1980, 1982), Chapra (1985), and Uzair (1980).
\textsuperscript{15}Khan (1985).
\textsuperscript{16}It is synonymous to continuous marking-to-market both asset and liability portfolios.
by the real sector of the economy—and the liability side means that there must necessarily be a close and direct relationship between investment and deposit yields. Also, since the return to liabilities of the banking system is a direct function of the return to the asset portfolio of the system, and since assets are created in response to investment opportunities in the real sector of the economy, it is the real sector that determines the rate of return to the financial sector rather than the reverse.17

Furthermore, in an Islamic financial system the adjustment to shocks leading to banking crises and disruptions in the country’s payment mechanisms is faster than in the conventional system. There will also be no disruption in the intermediation process of the banking system, nor is there any reason to believe that the savings and investment process will be impaired. Indeed, savings and investment need not decrease, and if the rules of the Shariah regarding contracts—including full disclosure requirements—are observed, both will increase.18

Moreover, monetary policy can be effective in stabilizing the economy, and this has been shown in both closed and open economy models.19 In an open economy context, to the extent that external resources mobilized through profit-sharing models are channeled to productive investments, such investments can be expected to generate a stream of returns at least sufficient to repay the associated external liabilities. Also in an open economy context, there will be two-way capital flows; that is, there is no reason to expect only capital outflows, since net results will depend on the difference between domestic and external rates of return.

INTEGRATION WITH MODERN FINANCIAL THEORY

Rapid growth and expansion in domestic and international capital markets since the 1970s can be attributed to financial innovation as the result of advances in financial theory as well as in information technology.20 Research in agency theory, capital asset pricing theory, portfolio theory, options pricing theory, and efficient market theory led to the development of sophisticated instruments ranging from securitization to derivatives and to complex structured instruments.

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17 Mirakhor (1989b).
Increased international trade and the breakdown of the Bretton Woods system further contributed to high volatility in exchange and interest rates and saw a mushrooming of derivative products to combat market-based risk.

Developments in modern financial theory offer an enhanced understanding of the conditions under which investors, intermediaries and users of funds tend to prefer fixed-return debt contracts. Further, these theories provide ample support for the establishment of a system that operates on an equity basis instead of a predetermined interest rate. These theories are highly relevant to Islamic banking because they offer deeper understanding of conventional banking practices.

- The standard Modigliani—Miller theorem showed that the method of finance would be irrelevant to the capital structure of a firm under conditions of perfect capital markets, implying that for debt financing to be preferred over equity finance other factors such as taxes or other capital market imperfections would have to play a role.\(^{21}\) The existence of tax benefits for interest expenses provides an incentive for firms to enter into fixed debt contracts and an opportunity to lower their cost of capital.\(^{22}\)
- Modern portfolio theory highlighted the importance of risk diversification and showed how efficient portfolios could be constructed by diversifying non-systematic risk.\(^{23}\)
- The concept of capital market imperfection was more precisely defined in terms of *information imperfection* or *failures*. Concepts of asymmetric information, moral hazard, and adverse selection went a long way in explaining a large number of capital market phenomena as well as the behavior of capital market participants.\(^{24}\)
- Modern contract theory was developed which, inter alia, showed how contracts between principals and agents could be designed that would be compatible with desired results. Most important-

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\(^{21}\)Modigliani and Miller (1958), Miller (1977); Miller (1988) reexamines the discussion on capital structures according to the Modigliani—Miller proposition over the past three decades. Miller (1995) discusses the relevance of the standard Modigliani—Miller theorem to banking institutions.

\(^{22}\)The Argentine congress currently has a Tax Reform Bill under consideration that proposes the withdrawal of tax deductibility of interest payments for corporations.

\(^{23}\)Markovitz (1959) and Tobin (1958) did pioneer work on portfolio diversification. It was extended to Islamic banking by Mirakhor (1987) who showed that it is possible to construct an efficient portfolio when there are no risk-free assets.

ly, this literature stressed the importance of providing incentives for agents and that any incentive structure must have managerial rewards depending significantly on firm performance, rather than on fixed payoffs.\(^2\)

- The concept of arbitrage was extensively used to demonstrate that in an efficient market two instruments with identical risk—return characteristics could not have different prices. Financial engineering may therefore devise instruments that are priced fairly and efficiently by using alternative basic building blocks.

It is critical to understand why conventional banks exist, why they prefer to enter into debt contracts, and what disadvantages as well as advantages are associated with such contracts. Traditionally, the existence of banks in an economic system is justified by their ability to intermediate between the preference of lenders (investors/depositors) for short-term liquid assets and the preference of borrowers (entrepreneurs) for long-term illiquid liabilities by transforming maturities at a reduced aggregate cost of gathering and monitoring information on borrowers. Furthermore, banks play the crucial role of a screening device for the lending and allocation of credit. Asymmetric information literature suggested that banks, as intermediaries, not only save on duplicated monitoring costs, but also on indirect costs of transmitting information through signals. By diversifying risks across assets, banks are able to provide signals at a lower cost.

Monitoring is costly, especially if duplicated by individual investors. Ascertaining that an entrepreneur is creditworthy requires resources, and standing by that judgment by providing or guaranteeing credit entails risk taking. When there are information imperfections and financial markets are incomplete, particularly when secondary markets for claims issued by individuals and small companies are lacking and transaction costs are non-zero, banks emerge as financial intermediaries that specialize in the gathering of private information as well as the monitoring and enforcement of loan contracts.\(^2\) These results have an important implication. The more in-

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\(^2\)See Haque and Mirakhor (1987) for application to Islamic contracts.

\(^2\)Recent growth in equity markets of industrial countries has led to phenomenal expansion of the mutual funds industry which is providing efficient means of placing funds on the profit/loss principle. This growth can be attributed to decreased informational asymmetry and therefore increased informational efficiency in capital markets.

Technological advancements have further facilitated the dissemination of results of research and market sentiments to small investors.
complete the financial markets and the greater the information imperfections, the larger the need for banking institutions.\textsuperscript{27} Banking institutions become indispensable where capital markets do not exist or are very thin.

The question of why banks operate on a fixed-rate basis has been much harder to explain. Not only the fixed payoff but also related questions regarding financial repression need answers. Why require interest rate ceilings on bank liabilities and other controls and regulations such as noninterest bearing required reserves, control on asset portfolios, entry controls, and, finally, deposit insurance which does not adequately calibrate insurance premia to asset risks? The implicit understanding has been that without a fixed payoff and all other related controls and regulations, a highly competitive banking environment would result in risky bank asset portfolios as well as risky deposits and that this state of affairs was undesirable. Moreover, it is posited that since long-term investments are illiquid, their presence in bank asset portfolios makes bank runs more costly for everyone. This, however, does not explain why the presence of risky assets should precipitate bank runs.

If preferences are risk-neutral and the choice of risk level is unobservable, it would be an inefficient choice to sacrifice higher-mean asset payoffs.\textsuperscript{28} Consequently, if banks exist solely to save on transaction and monitoring costs in asset choice, there is no explanation of why their liability cannot or should not be all-equity. Diamond (1984, 1996) concludes that the best way to delegate monitoring is for the delegated monitor, i.e., the bank, to issue unmonitored debt, which will be subject to liquidation costs. He demonstrates that the optimal unmonitored financial contract between a borrower and lenders is a debt contract that involves positive expected deadweight liquidation costs, which are necessary to provide incentives for repayment.\textsuperscript{29} This also implies that the laws governing bankruptcy provide incentives and protections to financial institutions to issue unmonitored debt. Asymmetric information literature, however, explains that since debt-type contracts are reinforced by threat of bankruptcy and since fixed pay out commitments diversify the risk

\textsuperscript{27}Markets are considered incomplete when the sources of uncertainty affecting the fundamental asset/security are not spanned by traded securities. In other words, a full set of contingent claims on basic assets is not available in the market.

\textsuperscript{28}Cho (1986).

\textsuperscript{29}Diamond (1996).
of losses through early liquidation of illiquid assets, debt-type contracts dominate.

By the mid 1980s, economic and financial theory had demonstrated, however, that there were disadvantages in fixed-payoff contracts that dominated interest-based banking. First, these contracts create inefficient default or non-performance incentives. To overcome this risk, fixed-payoff contracts need the additional stipulation of the threat of bankruptcy and early liquidation of illiquid assets and/or collateral. Second, in the presence of asymmetric information, debt contracts suffer from adverse selection effects, (i.e., beyond a certain level of interest rates, lower quality borrowers are supplied credit) and from the moral hazard effect, (i.e., applicants undertake greater risks in reaction to the contract). These last two effects may be sufficiently strong to induce banks to increase their interest rates in effect to ration credit. Consequently, some groups may be excluded from the credit market although the expected returns of these groups' investment may be higher than those who receive credit. Equity finance, however, is free of adverse selection and moral hazard effects.30

Third, fixed-fee contracts create a fundamental conflict between the interests of the borrowers and those of the lenders. The borrowers consider the upper tail of the distribution of investment payoffs while the lenders are concerned about the lower tail of the distribution. In the case of equity finance the expected return to an equity investor would be exactly the same as the expected return to the project itself, thus avoiding the conflict of interest between lenders and borrowers that exists in debt-type contracts. Fourth, with fixed-fee contracts, the banks are primarily interested in safe and well-established borrowers, and new borrowers will find it difficult or expensive to obtain credit in order to finance their investment. Finally, in the down-phase of an economic cycle or as a result of unforeseen shocks, interest based banks may be forced into a liability-management mode where, in order to maintain their present deposits and

30Cho (1986). Suppose that the risk-neutral lenders (debt financiers) and potential shareholders (equity investors) have the same level of information on groups of firms, i.e., about the characteristics of the firms, their industry, the record of payment, bank relations, etc., but do not have information about the risk characteristics of individual members within groups. They can sort out among groups of borrowers those whose expected productivities are the same but can not sort them out within groups according to their degrees of riskiness. Under these conditions, the lenders (debt financier/banks) will ration out borrowers with lower payoff and high variations even though they are the most productive. Banks, unlike equity investors, will avoid financing new, productive group of borrowers who may be perceived to be risky even though the banks are risk neutral.

They may hurt economic growth by reducing opportunities to innovate and impeding industrial adjustment in developing countries.
attract additional depositors, they increase their deposit rates while their earnings decrease, thus leading to a banking crisis.

The discussion of modern financial theory in the preceding section leads to the conclusion that debt-type contracts should not dominate equity-type contracts in a world of perfect information, _ceteris paribus_. To demonstrate the superiority of debt-type contracts in the presence of imperfect information, when the need for monitoring arises, one needs additional assumptions, at least, regarding the risk preferences of lenders and borrowers, institutional setups and the incentive structure imbedded in the relationship of principals and agents. Generally though, it has been shown that efficient contracts require incentive compatibility in order to induce agents to deliver in accordance with the terms of the contract. It has been demonstrated that efficient contracts are possible with Islamic principles.\(^{31}\)

In summary, from a theoretical standpoint, there is no reason to suggest that an Islamic bank or an Islamic financial system cannot fulfill the basic tasks required of any financial intermediary or system. Indeed, it is possible to argue that, under certain circumstances, they can do better.

**ISSUES AND CHALLENGES**

Whereas theoretical developments have demonstrated the viability and practicality of an Islamic financial system, its implementation faces several challenges. It is critical to identify and meet the challenges if current growth is to be maintained and sustained for the long term. The major and the most immediate challenges are (a) to develop liquid secondary and money markets; (b) to develop a supervisory and regulatory framework for Islamic banks; (c) to develop instruments for effective monetary and fiscal policy; and (d) to standardize not only accounting and auditing but also the process of religious approval of new instruments and techniques. These challenges can be classified into two groups; (a) financial engineering challenges to apply principles of Islamic finance for further innovation and (b) challenges to make operation of the system more efficient, stable, and well integrated with international capital markets.

A financial engineering challenge is to introduce new _Shariah_ compatible products to enhance liquidity in the market and to offer

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\(^{31}\)Presley and Session (1994) demonstrate that a _Madarabaha_ contract between the manager of a project and a syndicate of investors may permit a more efficient revelation of any informational asymmetries between the two. See also Khan and Mirakhor (1987).
tools to manage risk and to diversify portfolios. Generally, the application of financial engineering techniques to Islamic banking will require a serious commitment of resources to understand the risk—return characteristics of each building block of the Islamic financial system and to offer new products with different risk—return profiles to meet the demands of investors, financial intermediaries, and entrepreneurs for liquidity and safety. The process of securitization to enhance the marketability, negotiability, and return of an asset is a prime candidate for financial engineering. With increased globalization, the degree to which a capital market is integrated and has linkages with other financial markets becomes a critical factor for its success. Such integration becomes seamless and transparent when financial markets offer both a wide array of instruments with varying maturity structures and opportunities for portfolio diversification and risk management. Financial engineering in Islamic finance will have to focus on the development of products that foster market integration and attract investors and entrepreneurs to the risk—return characteristics of the product instead of to whether it is Islamic or not.

Financial innovations are also needed to satisfy market needs at the two ends of the maturity spectrum, i.e., the extremely short-term money market and long-term investment. Money markets that are Shariah compatible do not exist at present and there is no equivalent of an Islamic interbank market where banks could place, say, overnight funds, or where they could borrow to satisfy temporary liquidity needs. Haque and Mirakhor (1998) suggest a model based on Shariah-acceptable principles to issue government paper in an Islamic economy. Successful development of such instruments could pave the way for establishing an interbank market. Although securitization of a pool of lease portfolios could also help develop interbank markets, the volume offered by securitization may not be sufficient to meet the demand. Furthermore, the markets are currently operating on limited traditional trade-related instruments for lack of the long-term investment instruments needed for economic development.

As impressive as the record of growth of individual Islamic banks may be, the fact is that they have so far mostly served as interme-

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33 Iqbal (1997).
diaries between the financial resources of Muslims and major commercial banks in the West. It has been a one-way relationship. There is still no major Islamic bank that has been able to develop ways and means of intermediating between western financial resources and the demand for them in Muslim countries. There is an urgent need to develop marketable Shariah-based instruments by which asset portfolios generated in Muslim countries can be marketed in the West. It also appears that individual Islamic banks face difficulties in placing their funds because they have preferred short-term, secured, low-return but liquid investments.

Operational challenges can be better understood when analyzed separately both at the micro level, i.e., setting up the financial institution on a profit-loss sharing principle, and the macro level, i.e., an economy-wide implementation of an Islamic financial system. While it has been relatively easy to create an Islamic bank where deposits do not bear interest, in reality, the asset portfolios do not contain sufficiently strong components based on profit sharing. The main reasons for this can be attributed to informational asymmetry due to inefficient markets resulting in costly delegated monitoring and a preference for short-term trade related transactions. Also, there is lack of legal and institutional frameworks that facilitate appropriate contracts as well as mechanisms to enforce them.

An operational difficulty facing Islamic finance is the availability of an equity-based benchmark or reference rate (reflecting the rate of return on the real sector) for pricing assets and evaluating portfolio performance or comparing various investment alternatives. In the absence of such a reference rate or benchmark, a questionable but common practice has been to use the London Inter-Bank Offer Rate (LIBOR) as a proxy. Recently, two models by Mirakhor (1997) and Haque and Mirakhor (1998) attempt to address this challenge which with further refinement can offer a workable solution. Mirakhor's model is based on the concept of Tobin's q theory of investment implying that a firm's cost of capital is a linear function of a firm's q—the ratio of market to replacement value of capital. The Haque–Mirakhor model proposes an economy-wide index, based on major indicators of the performance of domestic and international equity markets, to serve as a benchmark for issuing government papers. The suggested index is designed as a weighted average of the domestic stock market index, international equity returns, and the return on government development projects. Inclusion of both domestic and international indices makes it efficient in theory by elim-
inatating any arbitrage opportunity and discouraging speculative behavior.

Another operational challenge for Islamic banks is to standardize the process of introducing new products in the market. Currently, each Islamic bank has its own religious board examining and evaluating each new product without coordinating their efforts with other banks. Each religious board may have its preferences or adhere to a different school of thought. The process should be streamlined and standardized to minimize time, effort and confusion.\(^{34}\) There should be proper post-product audits by audit committees to make the institutions comply with the Shariah guidelines defined by the religious board. Some Islamic banks have already started using such audit committees.

The most important operational challenge of Islamic banking is in its system-wide implementation. At present many Islamic countries suffer from financial disequilibria that frustrate attempts at wholesale adoption of Islamic banking. Financial imbalances in the fiscal, monetary and external sectors of these economies cannot provide a fertile ground for the efficient operation of Islamic banking. Major structural adjustments, particularly in the fiscal and monetary areas, are needed to provide Islamic banking a level playing field. Additionally, a legal framework of property ownership and contracts is needed that would clearly specify the domain of private and public property rights and stipulate the legally enforceable rights of parties to contract in accordance with the Shariah.

An Islamic financial system can be said to operate efficiently if, as a result of its adoption, rates of return in the financial sector correspond to those in the real sector. In many Islamic countries fiscal deficits are financed through the banking system. To lower the costs of this financing, the financial system is repressed by artificially maintaining limits on bank rates. Thus, financial repression is a form of taxation that provides governments with substantial revenues. To remove this burden, government expenditures have to be lowered and/or revenues raised. Efficiency can be promoted by requiring that governments compete with the private

\(^{34}\)Informal discussion with practitioners reveals that religious boards sometimes become extremely rigid on minor technical matters and make the process of introducing new product difficult and lengthy, resulting in missed business opportunities.
sector when accessing the credit market, i.e., allowing the unification of rates of return to borrow by government and the private sector.

Massive involvement of governments in the economy makes it difficult for them to reduce their expenditures. Raising taxes is politically difficult. Thus, imposing controls on domestic financial markets becomes a relatively easy form of raising revenues. Under these circumstances, it is understandable why governments impose severe constraints on private financial institutions that can provide higher returns to their shareholders or depositors. However, these constraints make it very difficult for Islamic banks and other financial institutions to realize their full potential. For example, mudarabah companies that can provide higher returns than the banking system would end up in direct competition with the banking system for deposits that are used to finance fiscal deficits.

The efficiency of system-wide Islamic banking is seriously compromised by distortions in the economy. Pervasive government intervention and controls, inefficient and weak tax systems, financial repression, thin or nonexistent capital markets, the unavailability of a well-targeted and efficient social safety net, the lack of a strong supervisory and prudential regulatory framework in the financial system, and, finally, the deficiency of legal and institutional frameworks that provide Shariah-based definitions of property rights as well as the rights of the parties to contracts cannot encourage the efficient operation of an Islamic financial system. These distortions need to be eliminated to minimize waste and promote efficient resource allocation in any case. Their removal prior to or in conjunction with the adoption of Islamic banking can be expected to create the dynamics necessary for noninflationary and sustainable economic growth.

These distortions not only enhance the risks to price stability but also aggravate the risk and uncertainty surrounding contracts that do not promise a fixed nominal return. Since Islamic modes of transaction shift more risks to the investor, the investor needs credible government policies that maintain stable prices. It has now become clear that the choice of a monetary and fiscal policy regime determines the types of risks and uncertainty that the society bears. Individuals reduce the costs of risks and uncertainty associated with a given monetary or fiscal regime by refusing to share in the risks of projects and opting for safe, rather than risky, assets with fixed nominal payoffs, rather than returns that are outcome dependent.

It has now become clear that the choice of a monetary and fiscal policy regime determines the types of risks and uncertainty that the society bears.
It is unreasonable to assume that if provided with two instruments with similar risk characteristics but one with higher expected payoff, as is possible with Islamic instruments, investors would prefer the one with lower payoff. The problem is that in many Muslim countries participants have to be concerned not only with the risks of the financial transaction itself but with price stability affected by a plethora of government-induced distortions and inefficiencies. If, in addition to risks of the investment projects, the investor has to be concerned with the credibility of government policies, or arbitrary government decisions or distortions that threaten long-term price stability in the economy, he/she would be reluctant to invest in contracts that do not provide fixed nominal payoffs.

Muslim countries may, for legitimate reasons, opt for an Islamic financial system. For the economy as a whole to benefit fully from the operations of such a system, however, it is necessary that (a) government expenditures be fully rationalized; (b) revenues from taxation, and those derived from property legitimately placed within the government domain by the Shariah, be raised to meet the expenditure needs of the government; (c) the financial sector be liberalized to allow the returns to this sector to reflect returns to the real economy; (d) equity markets be developed to allow the financing of investment projects outside banking institutions; and, finally (e) the structure of the banking system be such as to allow strong banking supervision and prudential regulation commensurate with the risks involved in various transactions. To accomplish the last objective, the banking structure can be tiered in accordance with principal Islamic financial transactions.\textsuperscript{35}

It can be argued that risks involved in Musharakah (equity partnership) or Mudaraba financing are different from those involved in trade-type financing; therefore, prudential regulations of these transactions should be different. An appropriate regulatory framework for banking supervision in an Islamic environment should be designed to ensure that: (a) legal foundations for the supervision of Islamic banks are in place; (b) the treatment of investment and other risks takes into account the element of complexity that financing

\textsuperscript{35}It is not an accident that Islamic banking is making its most promising progress in Malaysia. This country has one of the least repressive financial systems, no fiscal deficits, low inflation, low interest rates, and a dynamic and vibrant equity market as well as a strong private sector. It is hoped that the recent contagion-related financial crisis in Malaysia will soon subside so that greater dynamism can be invested in the process of growth of Islamic banking in the country.
through the profit/loss sharing modes adds to the already difficult task of investment banking; and (c) adequate information is disclosed to allow the supervisory authorities to be effective and to enable the public to make reasonably informed investment decisions.\(^\text{36}\) It is also important to note that the capital adequacy ratios required of Islamic banks should take into account their distinctive features; they should not be treated exactly like other commercial banks. An appropriate regulatory framework for an Islamic financial system should aim at reinforcing the banks' operating environment, internal governance, and market discipline.

**CONCLUSIONS**

Islamic banking has established itself as an emerging alternative to interest-based banking and is gaining roots in both Muslim and non-Muslim countries. Research in Islamic economics and financial theory has further enhanced our understanding of Islam's vision of an economic and financial system. Developments in modern financial theory lead to the inference that, under certain conditions, notably those of relatively efficient and distortion-free markets, a financial system based on Islamic principles has the potential to be more efficient and stable than a fixed interest-based system.

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