Whither Islamic Finance? Risk Sharing in An Age of Crises

Mirakhor, Abbas

2010

بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

Whither Islamic Finance? Risk Sharing in An Age of Crises

Dr. ABBAS MIRAKHOR
Former Executive Director, International Monetary Fund (IMF)
2ND Visiting Scholar, Securities Commission Malaysia – University of Malaya Visiting Scholar Programme 2009
1st Holder INCEIF Chair of Islamic Finance, 2010

Paper presented at the Inaugural Securities Commission Malaysia (SC) – Oxford Centre for Islamic Studies (OCIS) Roundtable
"Developing a Scientific Methodology on Shariah Governance for Positioning Islamic Finance Globally"
March 15, 2010

"We face the question of whether the Islamic Law of Contract is resourceful enough to cover the vast variety of contemporary commercial contracts, or whether it only contemplates some limited form of transactions that were practised in early Muslim Communities. How should the Muslim scholar face the commercial reality of the market-place of the present day and age? ….. our approach to new commercial transactions should be guided by either the legitimate public interest (maslahah) which they serve or the manifest harm that can be perceived in them ….. we do not welcome change for its sake, of course, but nor do we forsake it merely for the sake of conforming to outdated juristic contracts. The Shariah provides us with the necessary tools (maslahah being one of them) and if the change that is needed can be effected within its parameters, then it must surely be attempted and secured ….. to neglect the broader instruction of shariah on the Principle of Permissibility (ibahah), for example, and the parallel principle that Prohibitions can only be established by means of decisive evidence, is simply unjustifiable ….. since the Shariah prohibits riba and all interest-based transactions, it has left the door wide open to speculative enterprise ….. Risk-taking and speculation are integral to the Islamic modes of commerce such as mudarabah and musharakah, yet the system emphasises the widest diffusion of risk and reward through the whole of society."

Professor Dr. Mohammad Hashim Kamali (2002):
Islamic Commercial Law, Kuala Lumpur,
Ilmian Publishers, pp. xxi; 206-210.

"The calculus of *masalih* and *mafasid* has been an essential tool of Islamic jurisprudence since the earliest days. Behind that calculus stands the Islamic view of life, the purpose of honoring human kind by laying the resources of the universe at their disposal so that life is sustained for all, and the Command from Allah that wealth should be shared equitably. Measures that increase inequality in the distribution of wealth and lead to its concentration do not qualify in that framework. The same applies to the strategy of risk-shifting, i.e. debt finance, as compared to risk-sharing involved in Islamic modes of finance."

Dr. Mohammad Nejatullah Siddiqi (Feb.1, 2007)
in a position paper presented at
The Workshop on Tawarruq: A Methodological Issue
in Shariah-Compliant Finance.

"No matter how successful Islamic banking is today, we must confess that a contemporary model of Islamic banking is not exactly the "first best" that we were hoping for – one that can unleash the goodness of the Islamic economic system, its capacity for equity, stability and growth. So far, Islamic banking is the product of financial engineers trying to design structures that can deliver the same economic outcome of conventional banking products while meeting requirements of Shari'a-compliance. The end result is the mere modification of an already existing system to meet contraints. It cannot be argued that this is not permissible according to the Shari'a, for it is. However, one can contend that it is only second best and that it is even "negative" in that it only considers "legalistic" limitations by observing the constraint of haram. A "first best" then would be "positive". On the one hand, it would encompass the macro objectives of the Islamic economic system, while on the other, result from the natural evolution of the system itself rather than being imposed or imported from outside."

Dr. Mohamed A Elgari (Feb. 1, 2007)
in a position paper presented at
The workshop on Tawarruq: A Methodological Issue in Shari'a-Compliant Finance.

"Shari'ah, as authentically derived from its sources of Al-Quran, Al-Sunnah, Al-Ijma' and Al-Ijtihad, has ordained that both categories of Contracts of Profit-sharing and Contracts of exchange are permissible (mubah or jaiz) subject to the elements and conditions of each individual contract. These are Hudud Allah ….. or the Limits set by Allah swt for Muslims. Any bank or financial institution is free to choose to implement any form of contract from either categories for any of its operations in accordance with its own circumstances, and in keeping with the Quranic doctrine of "mutual willingness" of the two contracting parties as well as the doctrine of personal freedom of choice to enter into any form of contract ….. so long as the contract is allowed by Shari'ah. Any bank or financial institution that operates within these Limits of Allah is then in complete compliance with Shari'ah, and is "Islamic" irrespective of whether it liberally implements the contract of exchange."

Dato' Dr. Abdul Halim Ismail (1989)
in The Deferred Contracts of Exchange: Al-Quran in Contrast with the Islamic Economists' Theory on Banking and Finance, presented at Closed Workshop At the National Level on Thoughts Relating to the Islamic Economic System Based on Shari'ah,
Kuala Lumpur, Malaysia.

" ….. the issue of how Shari'ah can support the development of equity-based financing is an issue that affects the growth of the industry, we have been very much biased toward debt-based financing, which is compliant by any standard. But moving forward, we should couple it with equity-based financing, because debt and equity are complementary to each other."

Sheikh Dr. Daud Bakar
Chairman, ISRA Council of Scholars in an interview,
ISRA Bulletin, vol. 02/April 09.

"The challenge we now face is to enable a transition from a Shari'ah-compliant to a Shari'ah-based approach. A Shari'ah-based approach represents holding to the spirit as well as the letter of Shari'ah, and

looks to finance genuine economic activity with a more authentic model. It represents an attempt to capture the essence of Islamic economic ethics which, to me, is built on fairness, risk sharing, and an investment orientation."

Mr. Iqbal A Khan (Feb. 1, 2008):
Perspective on Tawarruq presented at
The Workshop on Tawarruq: A Methodological Issue in
Shari'ah-compliant Finance.

"For Islamic finance to move forward, we have to review how we practice Islamic finance ….. Currently, Islamic finance assessment is compliance-based ….. compliance is not a problem, but we must ask ourselves, is that enough?"

Dato' Mohd Razif Abd. Kadir
Deputy Governor, Bank Negara Malaysia
ISRA Bulletin, vol. 02/April 09.

"The restriction of applicable Shari'ah interpretation is probably the reason why there are many among the world's nearly 2 billion Muslim who are poor and destitute, as they have no access to appropriate financial solutions that they need."

Badlisyah Abdul Ghani
in Islamic Banker issue no. 160-161, May/June 2009.

" ….. if finance is a derivative of the real economy, no financial structure is strong unless the real economy is strong. We cannot allow monetary theory to dazzle us away from the common sense fact that finance must serve the real economy, rather than drive it."

Andrew Sheng (2009)
in From Asian to Global Financial Crisis, p.400.

"We recognise how the Islamic financial system of the past had for several centuries operated in an efficient, organised and ethical culture surrounding market and transactions. However, the implicit institutional arrangements that had developed and allowed the system to flourish were not formalised: Conventions and practices were not codified; roles and accountabilities not explicitly defined; and contracts were enforced purely through self and collective discipline. Borders expanded and practices became more uniform but the system never produced institutions and other organisations that provided the kind of stewardship needed to sustain these arrangements for the longer term. Hence, the relative decline of Shari'ah-based finance over the past several hundred years amid the rise of the tractional banking system. In order for Islamic finance to respond to global needs, we need to constitute renewal (tajdid) in our practices. History does not often present people with the same opportunity twice; however, we are fortunate and should not miss this opportunity to establish a strong regulatory and institutional foundation for modern Islamic finance. We must learn from the past and continue to improve ourselves and our capabilities.

Dato' Dr. Nik Ramlah Mahmood
in Islamic Finance Asia, Dec. 2009/Jan. 2010, pp. 54-55, an excerpt from a keynote presentation on "The Era for Tajdid (Renewal)" delivered at The 6th Kuala Lumpur Islamic Finance Forum 2009.

Whither Islamic Finance? Risk Sharing in an Age of Crises

1. Introduction.

The cover of a recent issue of Islamic Finance Asia shows a bewildered person facing a fork in the road with a two-way sign. The right-hand side of the sign points to "Asset-Based Avenue" and the left-side points to "Asset-Backed Boulevard". The caption reads: "Which Way?" Aside from some subtext messages of this imaginative presentation of the conundrum of the current state of securitisation, the substance of the cover story reflects a general uncertainty about the future direction of Islamic finance. Insightfully, the writer of the cover story, Nazneen Halim, suggests: "Islamic finance is undergoing some sort of schizophrenia. Perhaps this is characteristic of every nascent market, but the underlying issue is not the structures and big numbers in all its technical glory, but rather a simple question of whether or not market players are ready to bear the risk that comes with the rewards" (Dec. 2009/Jan.2010 issue, p.4). This is the essence of comments of leading scholars and practitionairs quoted above pointing to a gap between the actual and ideal paradigm of Islamic finance.

Arguably, the ideal Islamic finance paradigm points to a full-spectrum menu of instruments serving a financial sector imbedded in an Islamic economy in which all rules of market behaviour prescribed by Islam are fully operational (Iqbal and Mirakhor, 2007; Chapra, 2000). As indicated in the quotations above from Dr. Nejatullah Siddiqi and Prof. Dr. Kamali, the essential function of that spectrum would be spreading and allocating risk among market participants rather than allowing it to concentrate among the borrowing class. Islam proposes two sets of risk-sharing instruments: (i) mu'amelat risk-sharing instruments in the financial sector, and (ii) redistributive risk-sharing instruments through which the economically more able segment of the society utilize in order to share the risks facing the less economically able segment of the population. As will be argued here, the second set of instruments are used to redeem the rights of the less able in the income and wealth of the more able. These are not instruments of charity, altruism or beneficience. They are instruments of redemption of rights and repayment of obligations.

The spectrum of Islamic finance instruments runs the gamut between short-term liquid, low-risk financing of trade contracts to long-term financing of real sector investment. The essence of the spectrum is risk sharing. At one end, the spectrum provides financing for puchase and sale of what has already been produced in order to allow further production. At the other end, it provides financing for what is intended or planned to be produced. In this spectrum there does not seem to be room provided for making money out of pure finance where instruments are developed that use real sector activity only as virtual license to accommodate what amount to pure financial transactions. There are duyun and Qardh Hassan that are non-interest based but only to facilitate real sector transactions in terms of consumption smoothing for those who have experienced a liquidity shock. This is a case when a financier shares liquidity risk with the firms or consumers for whom the risk is materialised or who use non-interest borrowing as an insurance against liquidity shocks.

It may be argued plausibly that in a modern complex economy, there is need for a variety of ready-to-use means of liquidity, and so long as instruments being developed are, in the judgement of Shari'ah scholars (specifically fuqaha), permissible where is the harm? Usually, this argument starts with the reasoning that financial instruments that serve short-term, trade-oriented transaction contracts, such as murabaha, are permissible. From here, the argument

goes that any instrument with connection, no matter how tenuous, to the real sector transactions is also permissible. It is worth noting that transaction contracts permissible in Islam and the financial instruments intended to facilitate them are not the same thing. Islamic real sector transactions contracts ('Uqud) that have reached us are all permissible. However, it is possible that a financial instrument designed to facilitate a given permissible contract may itself be judged non-permissible. As the proliferation of derivative instruments in the period of run up to the global financial crisis demonstrated, the number of financial instruments that have some relation, even if only nominal, to a real sector transaction is limited only by the imagination of financial engineers. This is the essence of the theory of spanning developed in finance in the early 1970s which led to the design and development of derivatives. It is possible that a financial instrument may have weaker risk-sharing characteristic than the Islamic transaction contract it intends to serve.

So long as the fuqaha have not developed a self-regulating organisation that perhaps licenses and quality controls Shari'ah advice, non-fuqaha can only raise questions and issues of concern. It is, however, important to suggest that if Islamic finance is all about risk sharing, then the risk characteristics of a given instrument needs to become paramount in decisions. One reason, inter alia, for impermissibility of the contract of Al-Riba is surely due to the fact that this contract transfer all, or at least a major portion, of risk to the borrower. It is possible to imagine instruments that on their face are compatible with the no-riba requirement, but are instruments of risk transfer. An example would be a sovereign ijarah sukuk backed by the assets subjects of ijarah but credit-enhanced by other means, say collateral. All costs taken into account, such a sukuk may well be more expensive and involve stronger risk transfer characteristic than a direct sovereign bond. Clearly, a judgement call needs to be begged of the financiers and financial engineers when they design and develop an instrument to consider its risk-sharing characteristic. This is a call with which fiqh alone should not be overburdened. Financiers and financial engineers should assure of the risk-sharing characteristics of intruments they present to fuquha for approval. InshaAllah, fiqh will catch up with modern finance as well as with the intricacies of risk and uncertainty. At the present, fiqh can give only a binary response: Yes, no; halal, haram. It is not clear how much finance, risk, and uncertainty expertise are brought to bear on these binary decisions. Or if fiqh has the capacity at the present to make suggestions on how instruments could be improved in terms of their risk sharing.

It appears that at the present, the energies of financiers and financial engineers are focussed on the design and development of instruments to accommodate the low-end of time and risk-return, liquid transactions. Without effort at developing long-term investment instruments with appropriate risk-return characteristics, there is a danger of emergence of path-dependency where the market will continue to see more – albeit in greater variety – of the same. That is more short-term, liquid and safe instruments. This possibility should not be taken lightly. After all, as mentioned earlier, since early 1970s finance has been quite familiar with the theory of spanning. According to this idea, an infinite number of instruments can be "spanned" out of a basic instrument. This is what led to the explosion of derivatives which played an influential role in the recent global financial disaster. At one point it was estimated that in 2007, the total financial instruments, mostly derivatives, in the world was 12.5 times larger than the total global GDP. Similar development could be awaiting Islamic finance if the ingenuity of financial engineers continues to serve the demand-driven appetite for liquid, low risk, and short-term instruments. In that case, the configuration of Islamic finance would have failed to achieve the hopes and aspirations expressed in the above quotations from leading scholars and market participants.

In this context, the aim of this paper is to explore potential path of progress in developing full-spectrum Islamic finance. In the next section, it will be argued that all Islamic transaction contracts ('uqud) are risk sharing contracts. Next, in Section III, the paper will explore ways and means of creating sufficiently strong impetus for widening and deepening the present menu of instruments toward longer time, higher risk-return, investment-oriented instruments. It will argue that governments can create the energy and the incentives within the private sector in this direction by first developing a vibrant and efficient equity market. Such a market will serve to stake out the higher end of the spectrum of Islamic finance instrument menu. Incentives will then allow the private sector to develop risk-sharing instrument in between the low and high end of time, risk-return profile of the menu. In section IV of the paper will address principles and methods underlying the legal, regulatory, supervisory infrastructure as well as economic policies needed to organise such an equity market in Section IV. Finally, Section V will summarise and conclude the paper.

2. Islamic Transaction Modes and Risk Sharing

The starting point of this discussion is verse 275 of Chapter 2 of the Quran, particularly the part of the verse that declares contract of Al-Bai' permissible and that of Al-Riba non-permissible. Arguably, these few words can be considered as constituting the organising principle – the fundamental theorem as it were – of the Islamic economy. Much has been written by Muslim economists about this verse. As an example, Dr. Abdul Halim Ismail presented a comprehensive paper, in this context, in 1989. He chose to rely on well-known interpreters of the Quran on this verse, as well as on verses 282 of Chapter 2 and 29 of Chapter 4. After presenting the views of the interpreters, Dr. Ismail then gave his own hermeneutics, i.e., his personal-professional view, of the verses based on interpretations. The result was the following conclusions: (i) Al-Bai' is a contract covering all types of exchange except those prohibited by the Shari'ah; (ii) in this contract "a given quantity of a commodity or service is exchanged for a given quantity of a commodity (including money) or service"; (iii) the delivery of a commodity being exchanged can be spot or deferred; (iv) both Al-Bai' (contract of exchange) and Al-Tijarah (contract of trade) "connote contract of exchange" and are synonimous; (v) the spectrum of contracts of exchange covered include cash sale at one end and mudharabah and musharakah at the other; (vi) in between are salam sale, sale on order, leasing, cost plus and deferred sale (Ismail, 1989, pp. 22, 33, 38, 42).

A number of observations can be made regarding the above conclusions. First, as Dr. Ismail exphasises, all Islamic contractual forms, except spot exchange, involve time. From an economic point of view, time transactions involve a commitment to do something today in exchange for a promise of a commitment to do something in the future. All transactions involving time are subject to uncertainty and uncertainty involves risk. Risk exists whenever more than one outcome is possible. Consider for example a contract in which a seller commits to deliver a product in the future against payments today. There are a number of risks involved. There is a price risk for both side of the exchange; the price may be higher or lower in the future. In that case the two sides are at risk which they share once they enter into the contract agreement. If the price in the future is higher, the buyer would be better off and the price risk has been shed to the seller. The converse is true if the price is lower. Under uncertainty, the buyer and seller have, through the contract, shared the price risk. There are other risks that the buyer takes including the risks of non-delivery and quality risk. The seller, on the other hand, also faces

additional risks including the risk that the price of raw material may be higher in the future, and transportation and delivery cost risk. This risk may also be lower. Again, these risks have been shared through the contract. The same argument applies to deferred payment contracts. Second, it may appear that spot exchange or cash sale involves no risk. But price changes post-completion of spot exchange are not unknown. The two sides of a spot exchange share this risk. Moreover, from the time of the classical economists it is known that specialisation through comparative advantage provides the basis for gains from trade. But in specialising, a producer takes a risk of becoming dependent on other producers specialised in production of what he needs. Again, through exchange the two sides to a transaction share the risk of specialisation. Additionally, there are pre-exchange risks of production and transportation that are shared through the exchange. It is clear that the other contracts at the other end of the spectrum of Islamic contracts, i.e. mudharabah and musharakah, are risk sharing transactions. Therefore, it can be inferred that by mandating Al-Bai', Allah swt ordained risk-sharing in all exchange activities.

Third observation is that it appears that the reason for prohibition of the contract of Al-Riba is the fact that opportunities for risk sharing are non-existence in this contract. It may be argued that the creditor does take risk – the risk of default. But it is not risk taking per se that makes a transaction permissible. A gambler takes risk as well but gambiling is haram. Instead what seems to matter is opportunity for risk sharing. Al-Riba is a contract of risk transfer. As Keynes emphasised in his writing, if interest rate did not exist, the financier would have to share in all the risks that the entrepreneur faces in producing, marketing and selling a product. But by decoupling his future gains, by loaning money today for more money in the future, from all activities of the entrepreneur, the financier transfers all risks to the entrepreneur. Fourth, it is clear that by declaring the contract of Al-Riba non-permissible, the Quran intends for humans to shift their focus to risk sharing contracts of exchange. One of the conclusions in Dr. Ismail's paper summarised above, however, suggests that, based on the three interpretations considered in the paper, trade and exchange are the same. As Dr. Ismail suggests, the terms Al-Bai' (exchange) and Al-Tijarah (trade) appear in a number of verses. In at least one verse (verse 37: chapter 24) they appear together. Question arises why should the Quran use two words to refer to the same transaction contract? The reason for the question is that among the many miracles of the Quran, its eloquence (fasahah) and its superlative, profound rhetoric (balaghah) are well known. Both of these characteristics require efficiency, meaning that the Quran uses minimum number of words to convey complex ideas yet produces beautiful, eloquent and profound composition. It would seem out of character for the Quran to use two words particularly in one verse (as in verse 37: chapter 24) to mean the same thing. Consulting major lexicons of Arabic language reveals that Al-Bai' (exchange) and Al-Tijarah are not the same. These sources suggest, based on the Quran itself (verse 16: chapter 2; 254:2; 111: 9; 29-30:35; and 10-13:61), there is a major difference between contracts of exchange (Al-Bai') and trade (Al-Tijarah). Trade contracts are always entered into with expectation of making a profit (ribh). In a contract of exchange on the other hand, there is a possibility of gain but there is also the probability of a loss (khisarah). (See, for example, Al-Tahquiq Fi Kalamat Al-Quran Al-Karim; Lisan Al-Arab; Mufradat Alfaz Al Quran, Arabic Lexicon, among others).

It appears – and Allah knows best – that it can be inferred from the above discussion that there are two types of contracts involving time; (i) contracts over time (or on spot) involving trade in which there is expectation of gain; and (ii) contracts over time involving exchange in which there is expectation of gain or loss. The latter must refer also to contracts of investment with uncertain outcome in terms of gain or loss. This, of course, does not mean that mudharabah

and musharakah could not be used for longer-term trade in expectations of profits to be shared and for long-term investment as was the case for centuries in the Muslim world as well as in Europe in the Middle Ages. Borrowed from Muslims and known as commenda in Western Europe, mudharabah became quite popular as means of financing long-term trade and investment (Mirakhor 1983 and Al-Hassani and Mirakhor, 2003; Brouwer, 2005; Fischell, 1933; Udovitch, 1970, a, b, 1967). Lopez (1976) suggests that there is a consensus among Medieval historians that the commenda was of the highest importance and contributed greatly to the fast growth of trade and investment which led to economic change and growth in Europe. Commenda's contribution to industrial development of Ruhr Valley in Germany and in building railroads in Europe were particularly pronounced. Therefore, what needs emphasis is that Al-Bai' covers long-term investment contracts that allow the growth of employment and income and expansion of the economy. The focus of Al-Tijarah and all its financing instruments is trade of commodities already produced. In effect, Islam meets the financing needs of trade as well as the requirements of resource allocation, investment, production, employment, income creation, and risk management.

Given the above, major economic implications follow. First, as the definition of Al-Bai' indicates, it is a contract of exchange of property. This means that the parties to exchange must have property rights over the subjects of contract antecedent to the exchange. Second, exchange requires a place for the parties to complete their transactions, meaning a market. And, markets need rules of behaviour to ensure an orderly and efficient operation. Third, the contract of exchange requires trust among the parties that the terms and conditions of exchange are enforced. Fourth, there must be rules governing the distribution of proceeds post contract performance. These are rules that govern the redemption of the rights of those who are not parties to the contract directly but who have acquired rights in the proceeds because, one way or another, they or their properties have contributed to the production of what is the subject of exchange. These implications are discussed below.

2.1. Property Rights

Briefly, the Principles of Property rights in Islam include: (i) Allah swt has created all property and He is the ultimate owner; (ii) resources created by Allah swt are at the disposal of all humans to empower them to perform duties prescribed by the Creator; (iii) while the ultimate ownership is preserved for the Creator, humans are allowed to combine their physical and intellectual abilities with the created resources to produce means of sustenance for themselves and others; (iv) the right of access to resources belongs to all of mankind universally; (v) humans can claim property rights over what is produced through their own labour or transfers through gift giving, exchange, contracts, inheritance or redemption of rights in the produced property; (vi) since created resources belong to all humans, the inability of a person (physical, mental or circumstances) to access these resources does not negate the individual's right to these resources; (vii) these rights have to be redeemed – this establishes the rule of sharing with the less able; (viii) sharing is implemented through redistributive mechanisms, such as zakah, which are redemption of rights and not charity; (ix) since work and transfers are the only sources of property rights claims, all sources of instantaneous property rights creation, such as theft, bribery, gambling and riba are prohibited; (x) unlike, the conventional system of property rights, Islam imposes strict limits on the freedom of disposing of property; there is no absolute freedom for the owner to dispose of property as there are rules against extravagance, waste, destruction of property or its use in prohibited transactions; (xi) property rights must not

lead to accumulation of wealth as the latter is considered the life blood of the society which must constantly circulate to create investment, employment, income and economic growth opportunities; and (xii) once the principles governing property rights are observed, particularly the rule of sharing, the owner's right to the remaining property, cleansed of others' rights, is inviolate.

It is through its rules of property rights that Islam envisions economic growth and poverty alleviation in human societies. The latter is accomplished through the discharge of the obligation of sharing derived from the property rights principles which envision the economically less able as the silent partners of the more able. In effect, the more able are trustee-agents in using resources created by Allah swt on behalf of themselves and the less able. In contrast to property rights principles of the conventional system, here property rights are not a means of exclusion but of inclusion of the less able in the income and wealth of the more able as a matter of rights that must be redeemed. In the conventional system, rich help the poor as a demonstration of sympathy, beneficence, benevolence and charity. In Islam, the more able are requird to share the consequences of the materialisation of idiosyncratic risks - illness, bankruptcy, disability, accidents and socio-economic disadvantaged - for those who are unable to provide for themselves. Those who are more able diversify away a good portion of their own idiosyncratic risks using risk-sharing instruments of Islamic finance. The economically well off are commanded to share risks of those who are economically unable to use the instruments of Islamic finance. It can be argued plausibly that unemployment, misery, poverty and destitution in any society are prima facie evidence of violation of property right rules of Islam and/or non-implementation of Islamic instruments of risk sharing. In Islam the risks that would face the future generations are shared by the present generation through the rules of inheritance. These rules break up the accumulated wealth as it passes from one generation to another to enable sharing risks of a larger number of people.

2.2. Contracts and Trust

Basically, a contract is an enforceable agreement. Its essence is commitment. Islam anchors all socio-political-economic relations on contracts. The fabric of the Shari'ah itself is contractual in its conceptualisation, content and application. Its very foundation is the primordial covenant between the Creator and humans (see verses 172-173: chapter 7). In an unambiguous verse (152:6), the Quran urges the believers to fulfill the covenant of Allah. This is extended to the terms and conditions of all contracts through another clear verse (1:5) in which believers are ordered to be faithful to their contracts. The believers are ordered to protect faithfulness to their covenants and what has been placed in trust with them as a shepherd protects sheep (8:32; also 34:17; 172:2; 91-92:16). Thus, believers do not treat obligations of contracts lightly; they will take on contractual obligations only if they intend fully to fulfill them; hence, their commitments are credible.

Contracts are means of coming to terms with future risks and uncertainty. They allocate risks by providing for future contingencies and set obligations for each party and each state in the future as well as remedies for breech of contracts. Generally, there are three motives for entering into a contract: sharing of risk, transfer of risk, alignment of incentives, or to minimise transaction costs. Mudharabah, musharakah, and the purchase of equity shares are examples of risk sharing. Entering into an insurance contract is an example of transferring risks for a fee to those who can better bear them. To align incentives one party (usually the principle) enters into a

contract with another (an agent) through which incentives are created for the latter to take actions that serve their joint-surplus maximisation objective (Hart and Holstrom, 1987). Contracts that are designed to reduce transaction costs are usually aimed at establishing stable, long-term relationship between parties in order to avoid exante information, search and sorting costs as well as expost bargaining costs (Kenny and Klein, 1983; Goldberg, 1985).

There is an organic relationship between contract and trust. Without the latter, contracts become difficult to negotiate and conclude and costly to monitor and enforce. When and where trust is weak, complicated and costly administrative devices are needed to enforce contracts. Problems are exacerbated when, in addition to lack of trust, property rights are poorly defined and protected (Sheng, 2009). Under these circumstances, it becomes difficult to specify clearly the terms of contract since transaction costs – that is search and information costs, bargaining and decision costs, contract negotiations and enforcement costs – are high. Consequently, there is less trade, fewer market participants, less long-term investment, lower productivity and slower economic growth. Weakness of trust creates the problem of lack of credible commitment which arises when parties to an exchange cannot commit themselves or do not trust that others can commit themselves to performing contractual obligations. Empirical research has shown that where the problem of lack of commitment exists and is significant, it leads to disruption in economic, political and social interaction among people. Long-term contracting will not be possible and parties to exchange opt for spot market or very short-term transactions (see for example Keefer and Knack, 2005). Considering these issues, one can appreciate the strong emphasis that the Quran [as well as the Messenger (sawaws)] has placed on trust, trustworthiness (see verse 27, chapter 8 and 57:4) and on the need to fulfill terms and conditions of contracts, covenants, and promises one makes. These rules solve the problem of credible commitment and trust, thus facilitate long-term contracts. To illustrate the importance of trust, consider the role of complete contracts in the neoclassical theory of competitive equilibrium (Arrow, 1972). A complete contract fully specifies all future contingencies relevant to the exchange. In the real world a vast majority of contracts are incomplete. This requirement, therefore, is considered too stringent and unrealistic. Not only ignorance about all future contingencies make writing complete contracts impossible, even if all future contingencies are known, it would be nearly impossible to write a contract that can accommodate them all. However, if the parties to a contract trust each other, they can agree to enter into a simple contract and commit to revising its terms and conditions as contingencies arise.

2.3. Markets

A major reason for contract of exchange is that the parties to the contract wish to improve upon their own pre-contract welfare. For this to happen, parties must have the freedom to contract. This, in turn implies freedom to produce which calls for clear and well-protected property rights to permit production and sale. To freely and conveniently exchange, the parties need a place to do so, i.e., a market. To operate efficiently, markets need rules of behaviour and clear unambiguous rule-enforcement mechanisms to reduce uncertainty in transactions. Markets also need free flow of information. To reinforce the efficieny of market operations, trust has to be established among participants, transaction costs to be minimised, and rules established to internalise externalities of two-party transactions. Andrew Sheng (2009, p.8) suggests that: “Succeessful markets all share three key attributes: the protection of property rights, the lowering of transaction costs and the high transparency”. To achieve these

attributes, preconditions and infrastructures are needed including: (i) freedom of market participants to enter and exit the market, to set their own objectives within the prescribed rules, to employ ways and means of their own choosing to achieve their goals, and to choose whomever they wish as their exchange partner; (ii) an infrastructure for participants to access, organise and use information; (iii) institutions that permit coordination of market activities; (iv) institutions to regulate and supervise the behaviour of market participants; and (v) legal and administrative institution to enforce contracts at reasonable costs.

Both the Quran and Sunnah place considerable emphasis on the rules of behaviour. Once instated in Medinah, as the spiritual and temporal authority, the Messenger (sawaws) exerted considerable energy in operationalising and implementing the property rights rules, the institutions of the market, the rules of exchange and contracts as well as rules governing production, consumption, distribution and redistribution. He also implemented rules regarding the fiscal operations of the newly formed state as well as governance rules. Specifically regarding markets, before the advent of Islam trade had been the most important economic activity in the Arabian Peninsula. A number of dynamic and thriving markets had developed throughout the area. Upon arrival in Medinah, the Messenger of Allah organised a market for Muslims structured and governed by rules prescribed by the Quran, and implemented a number of policies to encourage the expansion of trade and strengthen the market. Unlike the already existing market in Medinah, and elsewhere in Arabia, the Prophet prohibited imposition of taxes on individual merchants as well as on transactions. He also implemented policies to encourage trade among Muslims and non-Muslims by creating incentives for non-Muslim merchants in and out of Medinah. For example, travelling non-Muslim merchants were considerd guests of the Muslims and their merchandise were guaranteed by the Prophet against (non-market) losses. The market was the only authorised place of trade. Its construction and maintenance was made a duty of State. As long as space was available in the existing one, no other markets were constructed. The Prophet designated a protective area around the market. No other construction or facility was allowed in the protective area. While trade was permitted in the area surrounding the market in case of overcrowding, the location of each merchant was assigned on a first-come, first-served basis but only for the duration of the trading day (Mirakhor and Hamid, 2009).

After the conquest of Mecca, rules governing the market and the behaviour of participants were institutionalised and generalised to all markets in Arabia. These rules included, inter alia, no restriction on inter-regional or international trade, including no taxation of imports and exports; free movement of inputs and outputs between markets and regions; no barrier to entry to or exit from the market; information regarding prices, quantities and qualities were to be known with full transparency; every contract had to fully specify the property being exchanged, the rights and obligations of each party to the contract and all other terms and conditions; the state and its legal apparatus guaranteed contract enforcement; hoarding of commodities were prohibited as were price controls; no seller or buyer was permitted to harm the interests of other market participants; for example, no third party could interrupt negotiations between two parties engaged in negotiations in order to influence the outcome in favour of one or the other party to negotiations; short changing, i.e. not giving full weights and measure, was prohibited; sellers and buyers were given the right of annulment depending on circumstances. These rights protected consumers against moral hazard of incomplete, faulty or fraudulent information. Interference with supply before market entrance was prohibited as they would harm the interests of the original seller and the final buyer. These and other rules – such as trust and trustworthiness as well as faithfulness to the terms and conditions of contracts – reduced

substantially transaction costs and protected market participants against risks of transactions (Mirakhor and Hamid, 2009).

From the earliest period of operations of the Medinah market, the Prophet appointed market supervisors whose job was to ensure rule compliance. It is reported that often the Prophet himself would enter the market and exhort participants to rule compliance. He would often urge market participants to self regulate in compliance with the all-important behavioural rule incumbent on Muslims: commanding righteous behaviour in compliance with rules prescribed by Allah swt and forbidding unrighteous acts resulting from non-compliance. These rules of market behaviour, once observed would meet the requirements of a "successful market" suggested by Andrew Sheng (2009) and others (Macmillan, 2001). For much of their economic history Muslims continued to structure their markets in accordance with these rules. Historical, political and social circumstances led to the neglect of traditional market structure to the point that when the anthropologist, economic historian, Clifford Geertz, studied the operations of the market in one Islamic country in the late 1970s, he concluded that information in the bazaar "is poor, scarce, maldistributed, and intensely valued. The level of ignorance about everything from product quality and going prices to market possibilities and product costs is very high, and much of the way in which the bazaar functions can be interpreted as an attempt to reduce such ignorance for someone, increase it for someone, or defend someone against it" (Geertz, 1978). Geertz went on to illustrate the significant transaction costs, especially information and search costs, in the bazaar he had studied. The damage to the economy due to malfunctioning markets can be quite serious. Failure to maintain markets as ordered by Allah swt and organised by His Messenger as well as to provide ways and means of their evolution into the present time may well be one reason for the economic stagnation and atrophy Muslim societies experienced for such a long time. Also, the lack of operational Islamic institutions and rules of market behaviour, including trust, trustworthiness, and faithfulness to the terms and conditions of contracts, may well explain the slow emergence of equity-sharing instruments of Islamic finance.

3. Uncertainty, Risk and Equity Markets

Uncertainty is a fact of human existence. Humans live on the brink of an uncertain future. Uncertainty stems from the fact that the future is unknown and therefore unpredictable. Uncertainty if severe enough can lead to anxiety, decision paralysis and inaction. Lack of certainty for an individual about the future is exacerbated by ignorance of how others behave in response to uncertainty. Yet, individuals have to make decisions and take actions that affect their own as well as others' lives. Making decision is one of the most fundamental capabilities of humans; it is inexorably bound up with uncertainty. Facing an unknown, and generally unknownable future, individuals make decisions by forming expectations about pay offs to alternative courses of action. They can do so using subjective estimates of pay offs to actions based on personal experiences. Alternatively, the person can use known probability techniques to form an expectation of returns to an action. Either way, the expected outcomes will form an expression in terms of probability of occurrence of consequences to an action. In other words, uncertainty is converted into risk. Risk, therefore, is a consequence of choice under uncertainty. Generally, "even in the most orderly societies the future is by no means certain. Even if an individual or orgnisation has defined goals they must reflect their attitude toward risk. In some cases risk may be evaluated statistically ….. when a population is large enough, some odds can be calculated with fair accuracy as is exemplified by some calculations in

life insurance area. In general, however, many of the aspects of uncertainty involve low probability or infrequent events" (Shubik, 1978, p.124). This makes decisions difficult and actions risky. Risk exists when more than one outcome is possible. It is uncertainty about the future that makes human lives full of risks.

Risk can arise because the decision maker has little or no information regarding which state of affairs will prevail in the future, the person, nevertheless, makes a decision and takes action based on expectations. Risk can also arise because the decision maker does not or cannot consider all possible states that can prevail in the future. In this case, even if the decision maker wants to consider all possible states of the future, there is so much missing information that it is impossible to form expectations about pay offs to various courses of action. This situation is referred to as "ambiquity". If severe enough, this type of uncertainty leads to reluctance or even paralysis in making decisions. People adopt various strategy of "ambiquity aversion". One strategy is to exercise patience and postpone making decisions until passage of time makes additional "missing" information available. The Quran has many references to the need for patience so much so that in a number of verses it is said that: "Allah is with those who are patient" and "Allah loves those who are patient".

Question may arise how can existence of uncertainty and its overwhelming influence in human life be explained within the context of Islamic thought? Why is life subjected to so much uncertainty necessitating risk taking? Since Allah swt is the Creator of all things why create uncertainty? A full discussion of possible answers is beyond the task of this paper. Suffice it to say that in a number of verses the Quran makes reference to the fact that this temporary existence is a crucible of constant testing, trials and tribulations (see for example verse 155: chapter 2 and 2:76). Not even the believers are spared. In verse 2 of chapter 29 the Quran asks: "Do humans think that they will be left alone when they say: we believe, and they therefore will not be tested?" The fact that this testing is a continuous process is reflected in verse 126 of chapter 9: "Do they not see that they are tried every year once or twice? Even then they do not turn repentent to Allah, nor do they remember." (see also verse 155: chapter 2). To every test, trial and tribulation in their life-experience, humans respond and in doing so they demonstrate their measure of being self-aware and Allah-conscious. If the response-action is in compliance with the rules of behaviour prescribed by the Supreme Creator, that is it is "Ahsanu 'Amala", the "best action" (verse 7: chapter 11), meaning completely rule compliant, then the trial becomes an occasion for self development and strengthened awareness of Allah swt. Even then, uncertainty remains. No one can be fully certain of the total pay off to one's life within the horizon of birth-to-eternity. Muslims are recommended not to ever assume they are absolutely certain of the consequences of their action. They are to live in a state of mind and heart suspended between fear (khawf) of consequences of their actions and thoughts, and the hope (raja') in the Mercy of the All-Merciful Lord Creator. All actions are risky because the full spectrum of future consequences of action is not known. The Quran refers to this idea of uncertainty by suggesting that " … at times you may dislike a thing when it is good for you and at times you like a thing and it is bad for you. Allah knows and you do not." (verse 216: chapter 2)

3.1. Risk Sharing

It follows from the above discussion that it would be difficult to imagine the idea of testing without uncertainty and risk. Statistician David Bartholemu (2008) asserts that: "It could be plausibly argued that risk is a necessary ingredient for full human development. It provides

the richness and diversity of experience necessary to develop our skills and personalities (p.230). He speculates that: "The development of human freedom requires that there be sufficient space for that freedom to be exercised. Chance seems to provide just the flexibility required and therefore to be a precondition of free will" (p.200). Further, he suggests that: " … we value our free will above almost everything; our human dignity depends upon it and it is that which sets us apart from the rest of the creation. But if we are all individuals free, then so is everyone else, and that means the risks created by their behaviour, foolish or otherwise, are unavoidable. To forgo risk is to forgo freedom; risk is the price we pay for freedom (pp. 239-240). While life and freedom are gifts of the Supreme Creator to humans, and uncertainty and risk are there to test and try humans to facilitate their growth and development, humans are not left unaided to face the uncertainty of life and suffer its consequences. Prophets and Messengers have brought guidance on how best to make decisions and take actions to mitigate the risks of this life and to improve the chances of a feliticious everlasting life. Islam, in particular, has provided the ways and means by which uncertainties of life can be mitigated. First, it has provided rules of behaviour and a taxonomy of decisions – actions and their commensurate pay offs. Complying with these rules reduces uncertainty. Clearly, individuals exercise their freedom in choosing to comply or not with these rules. That rules of behaviour and compliance with them reduce uncertainty is an important insight of the new institutional economics. Rules reduce the burden on human cognitive capacity, particularly in the process of decision making under uncertainty. Rules also promote cooperation and coordination (Mirakhor, 2009). Second, Islam has provided ways and means by which, those who are able to, mitigate uncertainty by sharing the risks they face by engaging in economic activities with fellow human beings through exchange. Sharing allows risk to be spread and thus lowered for individual participants. However, if a person is unable to use any of the means of risk sharing because of poverty, Allah swt has ordered a solution here as well: the rich are commanded to share the risks of the life of the poor by redeeming their rights derived from the Islamic principles of property rights.

Individuals in a society face two types of risks. The first is the result of the exposure of the economy to uncertainty and risk due to external and internal economic circumstances of the society and its vulnerabilities to shocks. How well the economy will absorb shocks depends on its resilience which will in turn depend on the institutional and policy infrastructures of the society. How flexibly these will respond to shocks will determine how much these risks impact individual lives when they materialise. The second type of risk individuals face relates to the circumstances of their personal lives. These include risks of injuries, illness, accidents, bankruptcies or even change of tastes and preferences. This kind of risk is referred to as idiosyncratic risk. When idiosyncratic risks materialise, the shock to individuals' income can play havoc with their livelihood. This is because often the level of their consumption that sustains them is directly dependent on their income. If their income becomes volatile so will their livelihood and consumption. Engaging in risk sharing can mitigate idiosyncratic risk and allow consumption smoothing by weakening the correlation between income and consumption such that should these risks materialise, and the shock reduces income, consumption and livelihood of the individual do not suffer correspondingly.

Instruments of Islamic finance allow risk sharing and risk diversification through which individuals can mitigate their idiosyncratic risks. On the other hand, mandated levies, such as zakah, are means through which the idiosyncratic risks of the poor are shared by the rich as an act of redemption of the former's property rights in the income and wealth of the latter. Other recommended levies, beyond those mandated, such as Sadaqat and Qardh Hassan, too play the same role. They help reduce the poor's income – consumption correlation. In other words, the

poor are not forced to rely on their low level (or no) income to maintain a decent level of subsistence living for themselves and their families. It is possible that at some point in time even these levies can be instrumentalised to be included in the full-spectrum Islamic finance menu of instruments for risk sharing. In the event, Islamic finance becomes a risk manager of the society. Its instruments of risk sharing will help blunt the impact of economic shocks, disappointments and suffering on individuals by dispersing their effects among a large number of people. It will have instruments of finance available for all classes of people to allow them to reduce their idiosyncratic risks and smooth their consumption. It will ensure that innovators, entrepreneurs, small and medium size firms have access to financial resources without the need to take all risks on themselves or, alternatively, abandon productive projects altogether. It will have instruments of insurance that not only provide protection against health and accident risks but also insure against risks to livelihood and home values to protect people's long-term income and livelihood. Such a full-spectrum Islamic finance can then truly be said to have "democratised finance" without tranferring risks of any venture to a particular class or to the whole society. This would be in sharp contrast to the results of the "democratisation of finance" project which led to the recent global financial crisis of the conventional system in which the risks of financial innovations were shifted away from financiers. Consequence was that while the gains of this "democratisation of finance" project were privatised, its pain were socialised (Sheng, 2009).

3.2. Stock Market

If there is validity to the impression that Islamic finance is all about risk sharing, then the first-best instrument of risk sharing is a stock market "which is arguably the most sophisticated market-based risk-sharing mechanism" (Brav, et.al., 2002). Developing an efficient stock market can effectively complement and supplement the existing and to-be-developed array of other Islamic finance instruments. It would provide the means for business and industry to raise long-term capital. A vibrant stock market would allow risk diversification necessary for management of aggregate and idiosyncratic risks. Such an active market would reduce the dominance of banks and debt financing where risks become concentrated creating system fragility (Sheng, 2009).

Idiosyncratic risks impact the liquity of individuals when they materialise. With an active stock market individuals can buffer idiosyncratic liquidity shocks by selling equity shares they own on the stock market. Firms too can reduce their liquidity risk through active participation in the stock market. As well, they can reduce risk to the rate of return to their own operation – such as productivity risk – by holding a well-diversified portfolio of shares of stocks. Thus incentives are created for investment in more long-term, productive projects. Importantly, by actively participating in stock market, individuals and firms can mitigate the risk of unnecessary and premature liquidation of their assets due to liquidity and productivity shocks (Pagano, 1993). Moreover, an active and vibrant stock market creates strong incentives for higher degree of technological specialisation through which the overall productivity of the economy is increased. This happens because without sufficiently strong risk sharing in the financial system through the stock market, firms avoid deeper specialisation fearing the risk from sectoral demand shocks (Saint-Paul, 1992).

The reason stock markets are such effective tool of risk sharing is because each share represents a contingent residual equity claim. Particularly in case of open corporations, their common

stock are "proportionate claims on the pay offs of all future states" (Fama and Jensen, 1983). These returns are contingent on future outcomes. Stock markets that are well-organised, regulated and supervised are efficient from an economic point of view because they allocate risks according to the risk-bearing ability of the participants. A solution to problem of how best to allocate the risks of the economy was provided by the famous Arrow-Debreu model of competitive equilibrium (1954; see also Arrow, 1972). According to this model, efficient risk sharing requires that the risks of the economy are allocated among participants in accordance with their "respective degree of risk tolerance" (Hellwig, 1998).

An economy in which there are contingent markets for all commodities – meaning that there are buyers and sellers who promise to buy or sell given commodities "if any only if" a specified state of the world occurs – is called an Arrow-Debreu economy. In such an economy, it is the budget constraint of the participants that determines how much of each contingent commodities at prices prevailing in the market they can buy. Since these commodities are contingent on future states, they are risky. Therefore, the budget constraint of individuals determines the risk-bearing ability of each market participant. Arrow himself recognised that requiring such a market is unrealistic. "Clearly, the contingent commodities called for do not exist to the extent required, but the variety of securities available on the modern markets serve as a partial substitute" (Arrow, 1972). Such securities are referred to as Arrow Securities. They are contingent securites; they promise a certain amount of money to be delivered if a given state of the world obtains and nothing otherwise. Use of Arrow Securities whose pay offs could be used to purchase commodities would reduce the number of markets required while replicating the efficiency of risk allocation of complete contingent markets. Associated with complete markets are complete contracts. These are agreements contingent on all states of nature. In the real world, not all contracts can cover all future contingencies. Therefore, they are said to be incomplete contracts and may indicate inefficiencies in exchange. However, as suggested above, optimal contracts can be devised provided there is mutual trust between the parties to the contract. That would be a simple contract with provisions for modification of terms and conditions should contingencies necessitate change.

Not all Arrow Securities would satisfy shari'ah requirements as some may well represent contingent debt contracts to deliver a fixed predetermined amount of money if a given state of world occurs. These may not, therefore, represent an ownership claim either. Shares of common stock of open corporations do meet these requirements. They are residual ownership claims and receive a proportionate share of net returns contingent on future outcomes. Arrow-Debreu model had other assumptions – such as no transaction costs and full information – which are also violated in the real world. Arrow recognised this limitation as well. He suggested that the model "is as much a normative ideal as an empirical description. It is the way the actual world differs from the criteria of the model which suggests social policy to improve the efficiency with which risk-bearing is allocated" (Arrow, 1972, p.127), meaning that government action may become necessary "to improve the efficiency with which risk-bearing is allocated." Moreover, Arrow emphasised that the model is about efficient allocation. It does not and cannot mean optimal distribution. It is possible to have an efficient economy but poor distributional results. The need for government intervention to correct for "the way the actual world differs from the criteria of the model" has echos in a large body of research that focuses on these deviations, for example market-failure literature, and suggests ways and means of correcting these shortcomings with government policy actions (see for example, Stiglitz, 1989: Ardnt, 1998).

Analogously, it can be argued that the actual operation of Islamic finance market differs from its ideal. In essence, there is a market failure; missing markets in equity sharing. Again, parallel to the above discussion, it can be argued that there is now ample room to recommend strong government policy action to create an incentive structure for the Islamic finance market to complete the spectrum of its instruments. The market has developed an array of short-term, liquid and reasonably safe instruments which are considered shari'ah compatible. This was not the case some thirty years ago. In a sense, there was a financial market failure. There was a missing market for Islamic instruments for which there was substantial demand. It took considerable commitment of resources and credibility on the part of governments, notably Malaysia, to organise this missing market to meet existing demand.

From a historical perspective, late 1970s and early 1980s, represent the beginning of the age of Muslim awakening. Perhaps with the passage of time private sector would have organised the missing market of Islamic finance on its own. It appears, however, likely that progress may not have been as rapid as it has been without government intervention. Of the paradigms of government actions to create this market, by far the most successful has been the Malaysian Paradigm. Characteristics of this paradigm included not only the top-down push by the government but also other ingredients that had to be put in place for the venture's success. The most important of these ingredients were human capital, regulatory structure and financial infrastructure to allow the emergence of Islamic banks. (One of the most important regulatory devices that created an effective impetus to the development of Islamic finance in Malaysia was the "no leakage rule". This rule required that the financial resources mobilised by the Islamic banking window had to be utilised in empowering financially Islamic contracts only). The success of this effort in a relatively short span of three decades of the Malaysian paradigm recommends it strongly as an appropriate framework for future progress. Specifically, this paradigm would suggest that the same kind of intense dedication and commitment could successfully generate the ways and means of pushing the agenda of Islamic finance forward in terms of developing medium – to – long-term instruments of investment risk sharing. This way government's commitment of resources and credibility could energise innovations and development of the needed instruments. In this context, one strategy would be for governments to develop the long-term, high-return, riskier end of the spectrum of instruments of risk sharing, i.e. stock market. This would create the needed incentive for the private sector to design and develop instruments in-between the short-term liquid end of the market on the one hand and the stock market on the other.

3.3 Advantages and Disadvantages of Stock Markets

A large number of theoretical and empirical studies over the recent decades have focussed on the investment-employment-growth benefits of stock markets (see the reference list in Askari, et.al., 2010). When risk is spread among a large number of participants through an efficient stock market, closer coordination between the financial and real sector is promoted as well as better sharing of the benefits of economic growth and financial system stability. Risk transfer through debt instruments, in contrasts, along with high leverage, weakens the link between the financial and real sector thus posing a threat to financial sector stability. Especially as the growth of pure financial instruments, i.e., those with little connection to real assets, far out-paces the growth of the real sector activities a phenomenon emerges called decoupling (Menkoff and Tolkorof, 2001) or financialisation (Epstein, 2006: Palley, 2007) whereby finance no longer is anchored in the real sector. The result is financial instability leading to frequent

bouts with crises. Reinhard and Rogoff (2009) have recently demonstrated the high frequency occurences of crises in the history of the conventional system. All too often financial sector crises have required large government interventions and massive bail outs. Thus, while private financiers enjoy the gains of robust pure financial innovations, that ultimately lead to decoupling, the society at large suffers the pain of saving the real sector from the vagaries of financial sector crises. This is what Andrew Sheng (2009) called, privatising the gain, socialising the pain.

Aside from the fact that, through risk sharing, stock markets become an effective instrument of financing long-term investment they have an added benefit of being an instrument which individuals and firms can use to insure against liquidity and productivity shocks. While some individual idiosyncratic risks can be mitigated through purchase of insurance policies, such as health, life, and accident, there are potentially a large number of unforeseen, therefore unpredictable, personal or family risks that are not as of yet insurable and for which no insurance policy can be purchased; eg. risks to a person's livelihood. An individual can buffer against uninsurable risks by buying shares of stocks in good times and selling them when and if a liquidity shock is experienced. Similarly, stock markets can be used to diversify the risk of shock to asset returns. Firms too can use the stock market as a buffer against liquidity and productivity risks. These insurance functions of stock market create motivation and incentives for investing in projects that have higher returns (are more productive) but lower liquidity.

Empirical studies have demonstrated that countries with robust stock markets rely more on equity and long-term financing and less on banks and short-term debt. Firms place greater reliance on external capital than on internal funds. With a strong stock market, venture capitalists can recoup their capital investment in a project through initial public offerings thus promoting faster roll over of venture capital to make it available more frequently to finance other productive real sector projects. Not only can individuals and firms benefit from existence of a vibrant and robust stock market that provides risk sharing opportunities, countries too can benefit from risk sharing with one another. A large body of empirical research in recent years in the area of international risk sharing has demonstrated that there are gains to be made by countries when they trade in each other's securities. For example, a 2005 study shows the welfare gains to be made by the ten East Asian countries through sharing risk among themselves and separately with the OECD. The study (Kim, et.al., 2005) considered risk sharing in the case of these countries between 1970-2000 and found low levels of risk sharing among the countries themselves and between them and the OECD. Indonesia and Malaysia had the lowest level of risk sharing and therefore the largest potential welfare gains from improving the sharing of risk between them and other East Asian countries. The magnitude of gains was even higher through increased risk sharing with OECD. These results could likely replicate in other areas and regions.

Question arises as to why is international risk sharing so low? This question is one researchers have been trying to explain in recent years along with another related puzzle called the equity premium puzzle that has been attracting attention since it was first formulated in 1985 by two researchers, Mehra and Prescott. It refers to a significant differential existing between stock market returns and the rate of interest paid on a safe bond (US Treasury bonds) over an extended period of time. Economic theory would assert that the differential should not exist. Capital should have left debt instruments and moved into equities until the rates equalised. Hence, the puzzle to be explained is: why this high differential continues to persist. Over the years the study, originally using US date, has been replicated in a number of countries with the same results. The differential cannot be explained by the existing theory of behaviour under

risk. Researchers have used varieties of utility functions and risk characteristics, but the puzzle remains largely unexplained. Similarly, there has been attempts to explain the low international risk-sharing puzzle but formal modeling has not been fruitful. It is suspected that reasons which explain low participation in domestic equity market, hence the emergence of the equity premium puzzle, are the same factors that could explain the low international risk-sharing puzzle. The prime candidate is low trust level and, a related factor, cost of entering the market.

Equity markets that are shallow also have limited participation. Empirical evidence (Guiso, et.al., 2005; Erbas and Mirakhor, 2007) suggests one reason for low participation of population in stock market is the fact that people generally do not trust stock markets. Low level of trust, in turn, is explained by institutional factors and education. Moreover, high transaction costs – especially information and search costs as well as the high cost of contract enforcement – are crucial factors inhibiting stock market participation. These factors too stem from the institutional (rules of behaviour) framework in the economy. Stiglitz (1989) suggests that disadvantages of equity finance stem from two informational problems; (i) adverse signalling effect, which leads good companies not to issue as much equity shares for fear that it may signal poor quality, and (ii) an adverse incentive effect problem which suggests that equity finance weakens the incentive for the entrepreneurs to exert their maximum effort for highest possible joint return. This happens because once the project is financed, the entrepreneur knows that net returns have to be shared with the financier and therefore may not be motivated to work as hard as when the returns would not have to be shared. While the idea has intuitive appeal, empirical evidence does not support it.

Allen and Gale (2007), on the other hand, suggest a more plausible and empirically stronger reason why stock market participation is limited. They argue it is because of the costs involved. These include: (i) information costs; (ii) enforcement costs; and (iii) costs due to weak governance structure of firms and markets. Their analysis concludes that if these costs are prohibitively high, firms leave the equity market and resort to debt financing through banks (pp. 101-115). But banks are highly leveraged institutions that borrow short (deposits) and lend long. This maturity mismatch creates potential for liquidity shocks and instability. And, perhaps to different degrees, even in the case of banks, there are information problems that lead to market failures such as credit rationing which paralyse the opportunity for risky but potentially highly productive projects because they are rationed out of the market. There are two conflicting views of the behaviour of banks in financing of projects. Stiglitz (1989) suggests that to protect their financial resources, banks generally discourage risk taking. Therefore, there is an inherent agency conflict. The entrepreneur (agent) is interested in the high end of the risk-return distribution. The bank (principle) on the other hand, interested in safety, is concerned with the low end of the risk-return distribution. This, Stiglitz assets, "has dilatorious consequences for the economy". He further suggests that "from a social point of view equity has a distinct advantage: because risks are shared between the entrepreneur and the capital provider the firm will not cut back production as much as it would with debt financing if there is down turn in the economy" (Stiglitz, 1989, p.57). In contrast to Stiglitz assertion that banks concentrate on the lower end of the risk-return distribution for safety reason, Hellwig (1998, p.335) argues that there is an oft-neglected informational problem of banks he refers to as "negative incentive effects on the choice of risk inherent in the moral hazard of riskiness of the lending strategy of banks". This risk materialised dramatically in the period leading up to the recent financial crisis (see Askari, et.al., 2010; Sheng 2009).

4. Conditions for a vibrant, robust stock market.

Allen and Gale (2007) suggest that a successful, deep, and active stock market requires that information, enforcement, and governance costs to be eliminated or at least minimised. Once this happens, the cost of entry into equity market becomes low and "there is full participation in the market. All investors enter the market, the average amount of liquidity in the market is high, and asset prices are not excessively high" (p.115). As mentioned earlier, if the Islamic rules of market behaviour – such as faithfulness to the terms and conditions of contracts, trust and trustworthiness – are in place in a society, the informational problems and transaction costs, governance, and enforcement issues either would not exist or would be at low levels such as not to create deterence to stock market entry. There is, however, a paradigm gap between what Islam teaches and the actual behaviour in the market. For this reason, actions governments take and the institutions they create to remedy the deficit in informational, enforcement and governance behaviour to reduce the cost of participation in stock markets have to be stronger and more comprehensive than exist today. These policies, actions and institutions should have the competence, efficiency and enforcement capabilities such that they can elicit the kind of behaviour the results of which replicates or closely approximates those expected if market participants behaved in compliance with Islamic rules. Such actions, policies and institutions would include, inter alia; (i) policies to create a level playing field for equities to compete fairly with debt-based instruments; this means removing all legal, administrative, economic, financial and regulatory biases that favour debt and place equity holding in a disadvantage; (ii) creating positive incentives for risk sharing via the stock market; (iii) investing in massive public education campaign to familiarise the population with the benefits of stock market participation; the kind of campaign that the Prime Minister Thatcher's Government ran in the UK which increased stock market participation substantially in a short span of time; (iv) investing in human capital to produce competent, well-educated and trained reputational intermediaries – lawyers, accountants, financial journalists and shari'ah scholars – which means investing in the creation of world class business and law schools; (v) limiting leverage (including margin operations) of non-bank financial institutions and the credit-creation ability of banks through prudential rules that effectively cap the total credit the banking system can create; (vi) developing strong and dynamic regulatory and supervisory system for the stock exchanges that not only continuously monitor the behaviour of markets and participants but stays a few steps ahead of those with penchant and motivation to use regulatory arbitrage to get around rules and regulations; (vii) finding ways and means of regulating and supervising reputational intermediaries or, at least, mandating that they become self regulating to ensure minimisation of false reporting or misreporting under threat of liability to market participants; (vii) ensuring completely transparent and accurate reporting of the day's trade by all exchanges; and (ix) instituting legal requirements for the protection of the rights of minority shareholders.

Above policies and actions are not exhaustive by any means, but even this incomplete list will help reduce the cost of market participation, invest the market with credibility and reduce reliance on debt financing. Black (2001) asserts that just one element of the above list, legal protection of minority shareholders' rights gives countries large stock market capitalisation, larger minority shareholder participation in the stock market, more publically listed firms relative to the total population, less concentrated ownership, higher dividend payout and lower cost of capital. Black also believes that a country will have the potential of developing a vibrant stock market if it can assure minority shareholders of good information about the true value of businesses the listing companies are engaged in, and that there is sufficient legal, regulatory and supervisory protection against company self-dealing transanctions such as insider trading.

Lack of good information about firm's true values and the existence of possibility of company self dealing create the problems of moral hazard and adverse selection. Both problems can be addressed by legal rules and procedures as well as by existence of efficient and credible public and private institutions that monitor the stock market and companies listed on the stock exchange. These laws and institutions can assure investors of the honesty of dealings by firms and of the full transparency and accuracy of reporting and information. Extensive laws regarding financial disclosure; securities laws with strong sanctions of imposing risk of liability (to investors) on accountants, lawyers, firms' insiders, investment bankers in retaliation for false reporting, fraudulent, misleading information or faulty endorsements can be powerful tools of dissuading all concerned from temptation of defrauding investors by false reporting and misleading information. Requiring reputational intermediaries to be licensed by regulators and revoking licenses or imposing heavy fines and initiating criminal proceeding against misbehaviour weakens the incentive structure for abuse of reporting, endorsing, and information processes. Strong listing standards which stock exchanges enforce fully through imposition of heavy fines or even delisting of companies that violate disclosure rules would discourage false information from reaching investors. Existence of an active, dynamic, well-informed financial press can be valuable in creating a culture of disclosure. A strong, independent, and dynamic regulatory agency would be needed to monitor and supervise the stock market and behaviour of its participants and promote aggressively a culture of transparency by requiring prompt and accurate reporting on all trades in the market. Finally, it bears repeating that government must invest considerable resources on development of world class business and law schools to ensure competent source of supply of human capital to reputational intermediaries.

While the above policies and institutions are crucial in reducing the cost of participation in stock markets and thus promoting widespread risk sharing, governments need to do more: they must lead by example. They could become active in markets for risk sharing. Generally, governments do share risks with their people. They share risks with individuals, firms and corporations through the tax and spending policies. They are silent partners. They also share risk of life of the poor and disadvantaged through social expenditure policies. They share the risk of the financial system through monetary policy and deposit guarantee. They could choose to finance part of their budget, at least development spending, through risk sharing and direct ownership of development projects with their citizens. This way they would reduce the debt burden on the budget. This reduction in government borrowing reduces the burden on monetary policy as well. Governments undertake public goods projects because the characteristics of these goods – importantly indivisibility and non-exclusivability – prohibit their production by the private sector and therefore are undertaken by governments. However, their social rate of return is substantial and much higher than private rates of return. A recent popular proposal suggests that these projects should be undertaken jointly with the private sector, hence the Public Private Partnership (PPP) label. The proposal has a number of problems – market distortion, informational and governance problems being just three of these.

Financing a portion of governments' budget through the stock market has advantages some of which are summarised here. First, it can energise a stock market – provided that all preconditions, in terms of human capital, legal, administrative and regulatory framework – are met and helps strengthn the credibility of the market. Second, it deepens and broadens the stock market. Third, it demonstrates that stock markets can be used as a tool of risk and financial management. Fourth, it reduces reliance of budget on borrowing thus imparting

greater stability to the budget and mitigating the risk of "sudden stops". Fifth, it has positive distributional effect in that the financial resources that would normally go to service public debt can now be spread wider among the people as returns to the shares of government projects. Sixth, it enhances the potential for financing of larger portfolio of public goods projects without the fear of creating an undue burden on the budget. Seventh, it makes the task of monetary management simpler by limiting the amount of new money creation. Eighth, it promotes ownership of public goods by citizens. This should have a salutory effect on maintenance of public goods as it creates an ownership concern among the people and to some extent mitigate "the tragedy of commons". Ninth, it has the potential of strengthening social solidarity. Tenth, it also has the potential to promote better governance by involving citizens as share-holder-owners of public projects. Eleventh, it provides an excellent risk-sharing instrument for financing of long-term private sector investment. Twelfth, it is also an effective instrement for firms and individuals to use to mitigate liquidity and productivity risks. Thirteenth, by providing greater depth and breadth to the market and minimising the cost of market participation, governments convert the stock market into an instrument of international risk sharing as other countries and their people can invest in the stock market. Finally, it will help demystify Islamic finance and will create an environment of cooperation and coordination with international finance.

The design of risk-sharing instruments to be issued by governments is not difficult. These instruments can be traded in the secondary market if the shareholders experience a liquidity shock. Their rate of return can be structured as an index of return tied to the rate of return to the stock market. If the domestic stock market is not deep, then an index of regional and/or international stock market returns can be included. The argument is that since social rate of return to public goods are much higher than to privately produced goods and services, the investment in public goods should have a rate of return at least as high as the return to the stock market to promote efficient resource allocation. Of course since governments are usually less risky, the rate of return to government-issued shares has to be adjusted downward to take account of governments' risk premium. Depending on the country and the interest rate its government pays on borrowed money, it is not likely that the rate of return it would pay to holders of equity shares it issues – adjusted for the credit rating of the government reflected in lower risk – would be any higher than the rate interest. Even in the unlikely event that a few basis point higher have to be paid, the trade off is worthwhile considering the positive contributions the instrument would make to the economy and the society.

5. Conclusions

A healthy debate is in progress regarding the future direction of Islamic finance. This paper is a modest, and not very original, contribution to that debate. It suggests a way forward that all countries have to follow any way to develop an effective financial system. The paper has argued that risk sharing is the objective of Islamic finance. Theoretical and empirical research has shown a robust link between the strength of the financial system and economic growth (Askari, et.al. 2010). This research has also demonstrated the crucial role that stock markets pay in the strength of the financial system. Stock markets are also an effective instrument of international risk sharing as well as a tool of individual and firm risk management. Therefore, developing countries are working toward organising stock markets. This paper argues that active involvement of governments in creating a vibrant and efficient stock market and their participation in that market through equity-financing a portion of their budget can create the

incentives and motivation for further development of more effective risk-sharing instruments of Islamic finance.

The progress of Islamic finance over the last three decades is well recognised. In the course of its evolution thus far, the market has developed an array of short-term, liquid, low-risk instruments. Instruments of liquidity are needed in the market as are instruments of long-term investment. What concerns scholars and market participants – such as Dr. Siddiqi, Dr. Elgari and Mr. Iqbal Khan – is that very little or no effort is spent developing instruments that can serve the long-term, less liquid, more risky, higher-return investments that have greater potential for generating employment, income and economic growth. There is a strong perception that Islamic finance is focussing on developments of relatively safe instruments with debt-like characteristics promising maximal return with minimal risk in the shortest possible time. It is thought that this is what is driving Islamic finance. Currently, this is a major apprehension. Concentrating market energies on these types of instrument has possible detrimental effects. There is the possibility of repeatedly reinventing the same short-term, liquid, safe instruments with only a small difference in fine tuning, slicing and dicing risk for purpose of product differentiation. Theory of spanning which provided the analytic basis for development of the derivative market assures that this process can be never ending. The theory argues that one basic instrument can be spanned into an infinite number of derivatives. If the resources of the market are taken up by investment in these type of instruments, the economy is deprived of financing for long-term investment on risk-sharing basis.

There is a perception that the demand-driven market values safety, and this is the reason why longer-term riskier Islamic finance instruments are not being developed. There is an anecdotal example. Ms. Raja Teh Maimunah Raja Abdul Aziz, the Global head of Bursa Malaysia Islamic Markets narrates that in a conversation about Islamic long-term investment with her one-time "boss" she was told "we are Arabs, we are traders. I buy a sack of rice today for US$1; I want to sell it tomorrow for US$1.50 if I can. I don't want to hold it any longer than I need to" (Islamic Finance Asia, Dec. 2009/Jan. 2010, p.21). While the market should have instruments to meet short-term, low risk, and liquid trade financing demand, it would be unfortunate if the future evolution of Islamic finance focuses only on short-termism at the cost of neglecting investment needs of the real sector. In that case, Islamic finance could not "unleash the goodness of Islamic economic system, its capacity for equity, stability and growth" as stated by Dr. Elgari. While instruments developed so far emphasise safety, the recent crisis in the conventional system as well as the turmoil in the sukuk market demonstrate that no one instrument is immune to risk and that it is unrealistic to perpetuate a myth that safety with high returns in financial markets is possible. There is always risk. The question is how to allocate it to those who are in the best position to bear it and how to build system resilient to absorb shocks eminating from materialisation of risk. The answer must surely lie in a system that provides a full-spectrum menu of risk sharing instruments.

A related concern is that by focussing solely on short-termism, there is the possibility of emergence of path dependency. Economic changes generally occur in increments. Growth of markets and capital formation are path dependent. That is, later outcomes are partly a function of what has inspired in the earlier rounds of economic and financial exchange (Sheng, 2009). Once path-dependency sets in, change becomes difficult. At times, path dependency is exacerbated by insularity and silo mentality generated by a perception that all is well with an established way of doing things therefore no change is required. There is a concern that such path dependency may well emerge that conveys a message that short-termism, safety and

liquidity is all there is to Islamic finance. The thrust of this paper's modest contribution is that this is not so. Islamic finance is more about risk spreading and risk sharing. It suggests that, for those who are able to participate in the financial sector, Islamic finance provides risk sharing through mua'malat. For those unable, due to poverty, to utilise instruments of Islamic finance to mitigate risk, financially able are commanded to share the risks of the less able through the redistributive instruments prescribed by Islam. Thus the financially more able have to share the risks to the life of the poor not as an act of charity but as a duty of redeeming a right of the less able; a right that is a direct result of the property rights principles of Islam.

It can be argued that one must not lose sight of the fact the Islamic finance is a new industry. After centuries of atrophy, it has begun operating at a noticeable level of commercial significance only recently. In the process, it is competing against a path dependent financial system centuries old. It is making a serious attempt to return to its roots but systematically and within the framework of present day economic, social and financial reality as Dr. Nik Ramlah Mahmood implies. This would suggest that in time, Islamic finance will develop a full-spectrum menu of instruments to serve all risk-return appetites. This paper, without contradicting this argument, suggests a way forward by arguing for government intervention to develop a vibrant and active stock market that can energise and accelerate progress going forward. This can be justified on many grounds but, importantly, empirical evidence has shown a strong and robust relationship between financial development, including an active stock market, and economic growth. Arguably, the stock market is the first-best instrument of risk sharing. Developing an active and efficient stock market can promote international as well as domestic risk sharing which render the economy and its financial system resilient to shocks. Moreover, the paper suggests that lack of available equity instruments within the menu of Islamic finance instruments is akin to a market failure; a strong ground for government intervention. Additionally, the paper suggests that the introduction of Islamic finance at the global level represents a remedy for the failure of financial markets to meet a strong demand for Islamic instruments. It took a top-down, government commitment, dedication, and investment of resources, particularly in the case of Malaysia, to correct this market failure. Once again, government intervention can remedy the current failure of the market to develop long-term, more risky, higher return equity instruments. Some 65 years ago Domar and Musgrave (1944) argued that "if the government fully shared in gains and losses, it can actually encourage risky investment" (Stiglitz, 1989). This governments can do by developing a stock market with characteristic of low cost entry to ensure the widest possible participation by investors. In doing so governments could also ensure that stock markets would have limitations on short selling and leverage operations by establishing market-based regulatory measures. Creating such a stock market would represent a leap forward by providing an effective instrument for domestic and international risk sharing and long-term equity investment. The paper suggests that government can enhance the credibility and appeal of the stock market by financing part of its budget through issuing equity shares that would be traded in the market. It can also mount a public information campaign to educate the population regarding the risk sharing characteristics of the stock market. This strategy has been adopted elsewhere with considerable success. Islamic finance has developed instruments to serve the low end of the time-risk-return profile of its transactions menu. Such a stock market will serve the high end. The intermediate space of the menu can then be left for the private sector to complete. InshaAllah Ta'ala.

References and Background Reading

Adrian, T. and Shin, H.S., 2008, "Liquidity and Leverage, "Federal Reserve Bank of New York, Staff Reports, no. 328.

Aiyagari, S.R. (1994), Uninsured Idiosyncratic Shock and Aggregate Saving, Quarterly Journal of Economics, vol. 109, no. 3, 659-684.

Albuquerque, R., 2003, "The Composition of International Capital Flows: Risk Sharing Through Foreign Direct Investment, "Journal of International Economics, vol. 1, no. 2, pp. 353-83.

Alesina, A. and La Ferrara, E., 2002, "Who Trusts Others?" Journal of Public Economics, vol. 85, pp. 207-2234.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., and Sayek, S., 2005, "How Does Foreign Direct Investment Promote Economic Growth: Exploring the Effects of Financial Markets on Linkages," NBER Working Paper No. 12522 (Cambridge, MA: National Bureau of Economic Research).

Al-Isfahani, Al-Raqib, 1992, "Mufradat Alfaz Al Quran," Dar Al-Qalam (Damascus).

Allen F. and D. Gale (2007), Understanding Financial Crises, Oxford University Press.

Allen, F. and D. Gale (1994), Financial Innovations and Risk Sharing, Cambridge: The MIT Press.

Al-Liban, I., 1967, "Islam is the First Religious System to Recognize the Right of the Poor to the Wealth of the Rich," The Islamic Review, August.

Al-Mustafaoui, Sh. Hassan, 1995, Al-Tahquiq Fi Kalamat Al-Quran Al-Karim (Tehran: Ministry of Islamic Culture and Guidance).

Anderson, J.N.D. and Coulson, J.J., 1958, "The Moslem Ruler and Contractual Obligations, "New York University Law Review, vol. 33, no. 7, November.

Arndt, H.W. (1998), "Market Failure" and Under Development, World Development, vol. 16, no. 2, 219-229.

Arrow, K.J. (19771), Essays in the Theory of Risk-bearing, Chicago: Markham Publishing Company, pp. 1-43; 121-133, pp. 239-266.

Arrow, K.J. and Debreu, G., 1954, "The Existence of an Equilibrium for a Competitive Economy," Econometrica, vol. XXII, pp. 265-90.

Ashraf, N., Iris, B., and Nikita, P., 2005, "Decomposing Trust and Trustworthiness," Working Paper (Department of Economics, Harvard University).

Askari, Hossein, et.al. (2009), New Issues in Islamic Finance and Economics, Singapore: John Wiley and Sons (Asia).

Askari, Hossein, et.al., (2010), Globalization and Islamic Finance, Singapore: John Wiley and Sons (Asia).

Askari, Hossein, et.al. (2010), The Stability of Islamic Finance. Singapore: John Wiley and Sons (Asia).

Bailey, W., Mao, C.X., and Sirodom, K., 2007, "Investment Restrictions and the Cross-Border Flow of Information: Some Empirical Evidence," Journal of International Money and Finance, vol. 26.

Balgati, B., Demitriades, P., and Law, S.H., 2007, "Financial Openness and Institution: Evidence from Panel Date," Paper presented at the Conference on New Perspectives on Financial Globalisation, sponsored by the Research Department (Washington, DC: International Monetary Fund).

Baltensperger, E., 1978, "Credit Rationing: Issues and Questions," Journal of Money, Credit and Banking, vol. 10, no. 2, May, pp. 170-83.

Bar, A. et.al. (2008), Risk Sharing Relations and Enforcement Mechanisms, Paper # 294, The Center for the Study of African Economies Working Paper Series.

Bartholomeu, D.J. (2008), God, Chance and Purpose, Cambridge University Press.

Beck, T. and Levine, R., 2004, "Legal Institutions and Financial Development," in C. Menard and M. Shirley (eds.), Handbook of New Institutional Economics (Dordrech, The Netherlands: Kluwer).

Beck, T., Demirguc-Kunt, A., and Levine, R., 2007, "Finance, Inequality and the Poor," Journal of Economic Growth.

Bekaert, G., Harvey, C.R., and Lundblad, C.T., 2001, "Emerging Equity Markets and Economic Development," Journal of Development Economics, vol. 66, pp. 465-504.

Beugelsdijk, S., H. de Groot and A. van Schaik, 2004, "Trust and Economic Growth: A Robustness Analysis," Oxford Economic Papers 56, pp. 118-134.

Black, B., 2000, "The Core Institutions that Support Strong Securities Markets," The Business Lawyer, vol. 55.

Black, Bernard S. (2000), The Legal and Institutional Preconditions for Strong Securities Markets, UCLA Law Review, vol.48, 781-855.

Blonski, M., and Probst, D., 2001, The Emergence of Trust, Mimeo, University of Mannheim.

Bockelmann, H. and C. Borio (1990), Stability Properties of an Equity-Based Financial System, De Economist, 138, NR.4.

Brav, A. et.al. (2002), Asset Pricing with Heterogeneous Consumers and Limited Participation: Empirical Evidence, Journal of Political Economy, vol. 110, no. 4, pp. 793-824.

Broner, F.A. and Ventura, J., 2006, "Globalisation and Risk Sharing," NBER Working Paper no. 12482 (Cambridge, MA: National Bureau of Economic Research).

Brouwer, M. (2005), Managing Uncertainty through Profit Sharing Contracts from Medieval Italy to Silicon Valley, Journal of Management and Governance, 9:237-755.

Bushman, R.M. and Piotroski, J.D., 2005, "Financial Reporting Incentives for Conservative Accounting: The Influence of Legal and Political Institutions," Journal of Accounting and Economics.

Calderon, C., Chong, A., and Galindo, A., 2002, Development and Efficiency Economic Development and Cultural Change (University of Chicago), pp. 189-204.

Chapra, M.U., 2000, The Future of Economics: An Islamic Perspective (Leicester, UK: The Islamic Foundation).

Chapra, M.U., 2007, "Challenges Facing the Islamic Financial Industry," in M.K. Hassan and M.K. Lewis (eds.), Handbook of Islamic Banking (Cheltenham, UK: Edward Elgar), pp. 325-60.

Chapra, M.U., 2006, "Financial Stability: The Role of Paradigm and Support Institutions," in T. Khan and D. Muljawan (eds.), Islamic Financial Architecture: Risk Management and Financial Stability (Jeddah: IRTI).

Cho, Y.J., 1986, "Inefficiencies from Financial Liberalisation in the Absence of Well-Functioning Equity Markets," Journal of Money, Credit and Banking, vol. 17, no. 2, pp. 191-200.

Choudhry, N.N. and Mirakhor, A., 1997, "Indirect Instruments of Monetary Control in an Islamic Financial System," Islamic Economic Studies, vol. 4, no. 2.

Çizakça, Murat. A Comparative Evolution on Business Partnerships. The Islamic World and Europe, with Specific Reference to the Ottoman Archives (Leiden: Brill, 1996).

Çizakça, Murat. A History of Philanthropic Foundations (Istanbul: Bogazici University Press, 2000).

Çizakça, Murat. Islamic Capitalism and Finance: Origins, Evolution and the Future, forthcoming.

Claessens, S. and Perotti, E., 2006, "The Links between Finance and Inequality: Channels and Evidence," Background Paper for the World Development Report 2006 (Washington, DC: The World Bank).

Claessens, S., 1995, "The Emergence of Equity Investment in Developing Countries – Overview," The World Bank Economic Review, vol. 9, pp. 1-17 (Washington, DC: The World Bank).

Clementi, G.L. and MacDonald, G., 2004, "Investor Protection, Optimal Incentives, and Economic Growth," Journal of Economics, August, pp. 1131-75.

Dollar, D. and Kraay, A., 2002, "Growth Is Good for the Poor," Journal of Economic Growth, vol. 7, no. 3, September, pp. 195-225.

Domar, E.D. and R.A. Musgrave (1944), Proportional Income Taxation and Risk Taking, Quarterly Journal of Economics, LVI (May, 1944).

Epstein, G., 2002, "Financialization, Rentier Interests, and Central Bank Policy,: www.umass.edu/per/finagenda.html#alphalist.

Epstein, G.A., (2006), Financialization and the World Economy, Edward Elgar.

Erbas, N. and Mirakhor, A., 2007, "The Equity Premium Puzzle, Ambiguity Aversion and Institutional Quality," IMF working Paper (Washington, DC: International Monetary Fund).

Fama, E.F. and M.C. Jensen (1983), The Agency Problems and Residual Claims, Journal of Law and Economcs, vol. XXVI, pp.327-349.

Fergusson, L., 2006, "Institutions for Financial Development: What Are They and Where Do They Come From?" Journal of Economic Surveys, vol. 20, no.1, pp. 27-69.

Fischel, w., 1933, "The Origin of Banking in Medieval Islam, Journal of the Royal Asiatic Society, pp. 339-52 and 568-603. Also published in Islamic Culture, vol. XIV (Cairo: Bureau of Compilation, Translation and Publication).

French, K.R. and Poterba, J.M., 1991, "Investor Diversification and International Equity Markets," American Economic Review, vol. 81, no. 1, pp. 222-26.
Frisch, D., and J. Baron. "Ambiguity and Rationality." Journal of Behavioral Decision Making 1 (1988): 149-57.
Fukuyama, F., 1996, Trust, the Social Virtues and the Creation of Prosperity (Free Press Paperbacks).
Geertz, C., 1978, "The Bazaar Economy: Information and Searching Peasant Marketing," American Economic Review, vol. 68, no. 2, May.
Gelos, R.G. and Wei, S-J., 2002, "Transparency and International Investor Behavior," NBER Working Paper No. 9260 (Ambridge, MA: National Bureau of Economic Research).
Goitein, S.D., 1955, "The Cairo Geniza as a Source of the History of Muslim Civilization," Studia Islamica, pp. 168-97.
Goitein, S.D., 1964, "Commercial and Family Partnerships in the Countries of Medieval Islam," Islamic Studies, vol. 3, pp. 318-19.
Goodhart, C., 2004, Financial Development and Economic Growth: Explaining the Links (New York: Palgrave Macmillan and British Association for the Advancement of Science Books).
Guiso, L., et. al., 2005, "Trusting the Stock Market," NBER Working Paper no. 11648 (Cambridge, MA: National Bureau of Economic Research).
Guiso, L., Sapienza, P., and Zingales, L., 2004, "The Role of Social Capital in Financial Development," The American Economic Review, vol. 94, no. 3.
Habachy, S., 1962, "Property, Right, and Contract in Muslim Law," Columbia Law Review I, vol. 62(3).
Halaissos, M. and Bertaut, C., 1995, "Why Do So Few Hold Stocks?" The Economic Journal, vol. 105, no. 432, pp. 1110-29.
Hassan, M.K. and lewis, M.K. (eds.), 2007, Handbook of Islamic Banking (Cheltenham, UK: Edward Elgar).
Heiner, Ronald A. "The Origin of Predictable Behavior." American Economic Review 73 (1983): 560-95.
Hellwig, M. (1998), Banks, Markets, and Allocation on Risks in an Economy, Journal of Institutional and Theoretical Economics (JITE), vol.154, no.1, pp.328-345.
Henisz, W.J., 2000, "The Institutional Environment for Economic Growth," Economics and Politics, vol. 12, pp. 1-31.
Henry, J.E. (1997), Property Rights, Markets and Economic Theory, Review of Political Economy, vol. II, no. 2.
Henry, P.B., 2000, "Stock Market Liberalization, Economic Reformation Emerging Market Equity prices," Journal of Finance, vol. 55, no. 2, p. 529-64.
Hoff, K. and J. Stiglitz (1990, Modern Economic Theory and Development, World Bank, October.
Hong, H., Kubik, J.D., and Stein, J.C., 2004, "Social Interaction and Stock-Market Participation," Journal of Finance, vol. 54, no. 1, February, pp. 137-63.
Honohan, P., 2006, "Financial Sector Policy and the Poor: Selected Findings and Issues," World Bank Working Paper no. 43 (Washington, DC: The World Bank).
Huberman, G. and Kandel, S., 1987, "Mean-Variance Spanning," Journal of Finance, vol. 42, no. 4, pp. 873-88.
Huberman, G. Kandel, S., and Strambaugh, R.F., 1987, "Mimicking Portfolios and Exact Arbitrage Pricing," Journal of Finance, vol. 42, no. 1, pp. 1-9.
Ibn Mandhoor, 1984, "Lisan Al-Arab," Nashr Adab (Qum, Iran).
Ibn Umar, Yahya, 1975, Ahkam al-Suq, al-Sharikah al-Tunisiyyah li al-Tawzi, Tunisia.
Imamuddin, S.M., 1960, "Bayt Al-Mal and Banks in the Medieval Muslim World," Islamic Culture, January.
Iqbal, Z. and Mirakhor, A., 2007, An Introduction to Islamic Finance: Theory and Practice (Singapore: John Wiley and Sons).
Ju, J. and Wei, Sh-J, 2006, "A Solution to Two Paradoxes of International Capital Flows," IMF Occasional Paper no. 178 (Washington, DC: International Monetary Fund).
Kamali, Mohammad Hashim, (2002), Islamic Commercial Law, Kuala Lumpur: Islamiah Publishers.
Kamali, Mohammad Hashim. The Dignity of Man: An Islamic Perspective. Kuala Lumpur: Ilmiyah Publishers, 2002.
Khadduri, M., 1977, "Property: Its Relation to Equality and Freedom in Accordance with Islamic Law," in Carl Wellman (ed.), Equality and Freedom: Past, Present, and Future, Franz Steiner, Verlag GmBH, Wiesbaden, Germany.

Kim, S., et.al. (2005), Regional Versus Global Risk Sharing in East Asia, Asian Economic Papers 3:3; pp. 195-201.
King, R.G. and L. Ross (1993), Finance and Growth: Schumpeter Might be Right", Quarterly Journal of Economics, 108(3), pp. 717-38.
Kister, M.J., 1965, "The Market of the Prophet," Journal of the Economic and Social History of the Orient, January.
Klir, G.J., Uncertainty and Information. Hoboken, New Jersey: John Wiley and Sons, 2006.
Knack, S. and P. Keefer, 1997, "Does Social Capital Have an Economic Payoff: A Cross-Country Investigation," The Quarterly Journal of Economics, November, pp. 1288-1251.
Kose, A., Prasad, E., and Terrones, M., 2007, "How Does Financial Globalization Affect Risk Sharing? Patterns and Channels" (Washington, DC: International Monetary Fund).
Lane, E.W., 2003, An Arabic-English Lexicon (Lahore: Suhail Academy).
Levine, D.P., Knowing and Acting: On Uncertainty in Economics, Review of Political Economy, vol. 9, no. 1, pp. 5-7.
Levine, R. and Zervos, S., 1998, "Stock Market, Banks and Economic Growth," American Economic Review, vol. 88, pp. 537-58.
Lewis, K.K., 1996, "Consumption, Stock Returns, and the Gains from International Risk-Sharing," NBER Working Paper no. 5410 (Cambridge, MA: National Bureau of Economic Research).
Lieber, A.E., 1968, "Eastern Business Practice and Medieval European Commerce," Economic History Review, 2nd Series, vol. 21, pp. 230-43.
Lorenz, E. (1999), Trust, Contract and Economic Cooperation, Cambridge Journal of Economics, 23, 301-351.
Magill, M. and M. Quinzii (1998), Incentive and Risk Sharing in a Stock Market Economy, Working Paper, University of Southern California.
Mazzoli, M. (1998), Credit, Investment and the Macroeconomy, Cambridge University Press.
McMillan, J. (2002), Reinventing the Baazar: A Natural History of Markets, London: W.W. Norton.
Mehra, R. 2003, "The Equity Premium: Why Is It A Puzzle?" Financial Analysts Journal, pp. 54-69.
Mehra, R. and Prescott, E.C., 1985, "The Equity Premium: A Puzzle," Journal of Monetary Economics, vol. 15, pp. 145-61.
Mehra, R., 2006, "The Equity Premium in India," NBER Working Paper No. 12434 (Cambridge, MA: National Bureau of Economic Research).
Menkoff, L. and N. Tolksorf (2001), Financial Market Drift: Decoupling of the Financial Market from the Real Economy? Heidelberg-Berlin: Springer-Verlag.
Mirakhor, A (2009), Islamic Economics and Finance: An Institutional Perspective, IIUM Journal of Economics and Management, vol.17, no.1.
Mirakhor, A. and Iqbal, Z., 1988, "Stablization and Growth in an Open Islamic Economy," IMF Working Paper no. 22.
Mirakhor, A. and Iqbal, Z., 2007, "Profit-and-Loss Sharing Contracts in Islamic Finance," in M.K. Hassan and M.K. Lewis (eds.), Handbook of Islamic Banking (Cheltenham, UK: Edward Elgar), pp. 49-63.
Mirakhor, A., 1990, "Equilibrium in a Non-Interest Open Economy," IMF, published in Journal of King Abdulaziz University: Islamic Economics (1993), vol. 5, pp. 3-23.
Mirakhor, A., 2003b, "Muslim Contribution to Economics," Paper presented at the Annual Meeting of the South-Western Economic Association, March 1983 and reproduced from Essays on Iqtisad (Maryland: Nur Publications, 1989; republished New York: Global Scholarly Publications).
Mirakhor, Abbas, and Idris Samawi Hamid. Islam and Development: The Institutional Framework. New York: Global Scholarly Publications, 2009.
Musa, M.Y., 1955, "The Liberty of the Individual in Contracts and Conditions According to Islamic Law," Islamic Quarterly.
Palley, T.J., 2007, "Financialization: What It Is and Why It Matters," Working Paper no. 252 (Annandale-on-Hudson, NY: The Levy Economics Institute).
Pegano, M. (1993), Financial Markets and Growth: An Overview, European Economic Review, 37, 613-622.
Power, D., and Epstein, G., 2003, "Rentier Income and Financial Crises," Working Paper no. 57, (Amherst, MA: Political Economy Research Institute, University of Masachusetts).
Rayner, S.E., 1991, The Theory of Contracts in Islamic Law, Graham and Trotman, London.

Reinhart, C. and K. Rogoff (2009), This Time is Different: Eight Centuries of Financial Folly, Princeton University Press.
Saint-Paul, G. (1992), Technological Choice, Financial Markets and Economic Development, European Economic Review, 36, 763-781.
Saltuk, O. (2002), Risk Sharing, Risk Shifting and Optimality of Convertible Debt in Venture Capital, Department of Economics, Southern Methodist University, Texas.
Sheng, Andrew (2009), from Asian to Global Financial Crisis, Cambridge University Press.
Shiller, R.J. (1993), Macro Markets, Oxford: Clarendon Press.
Shiller, R.J. The New Financial Order: Risk in the 21st Century. Princeton, New Jersey: Princeton University Press, 2003.
Shleifer, A. and Wolfenson, D., 2002, "Investor Protection and Equity Markets,' Journal of Financial Economics, vol. 66, pp. 3-27.
Shubik, M. (1978), On the Concept of Efficiency, Policy Science, 9, 121-129.
Siddiqi, M.N., 1985, Partnership and Profit-Sharing in Islamic Law (Leicester, UK: The Islamic Foundation).
Siddiqi, M.N., 2001, Economics, An Islamic Approach (Islamabad: Institute of Policy Studies; Leicester, UK: The Islamic Foundation).
Siddiqi, M.N., 2006, "Shariah, Economics and the Progress of Islamic Finance: The Role of Shariah Experts," Seventh Harvard Forum on Islamic Finance, Cambridge, Massachussets, April 21.
Smith, S.C. (1988), On the Incidence of Profit and Equity Sharing, Journal of Economic Behaviour and Organisation, 9:45-58.
Smithson, M. Ignorance and Uncertainty: Emerging Paradigms. New York: Springer-Verlaq, 1989.
Stiglitz, J. (1089), Financial Markets and Development, Oxford Review of Economic Policy, vol. 5, no. 4.
Stiglitz, J.E. and Weiss, A., 1981, "Credit Rationing in Markets with Imperfect Information," American Economic Review, vol. 71, no. 3, pp. 333-421.
Stultz, R. 1999a, "International Portfolio Flows and Security Markets," in M. Feldstein (ed.), International Capital Flows (Chicago: Chicago University Press).
Stultz, R., 1999b, "Globalization, Corporate Finance, and the Cost of Capital," Journal of Applied Corporate Finance, vol. 12, no. 3, pp. 8-25.
Tesar, L.L., 1995a, "Evaluating the Gains from International Risk-Sharing," Carnegie-Rochester Conference Series on Public Policy, vol. 42, June, pp. 95-143.
Tobin, J. (1984), On the Efficiency of the Financial System, Lloyds Bank Review, no. 153, 1-15.
Udovitch, A.L., 1962, "At the Origins of the Western Commenda: Islam, Israel, Byzantium?" pp. 198-207.
Udovitch, A.L., 1967, "Credit and a Means of Investment in Medieval Islamic Trade," Journal of the American Oriental Society, vol. 87, no. 3, July-September, pp. 260-64.
Udovitch, A.L., 1970a, "Commercial Techniques in Early Medieval Islamic Trade," in D. Richards (ed.), Islam and the Trade of Asia, pp. 37-62.
Udovitch, A.L., 1970b, Partnership and Profit in Medieval Islam (Princeton University Press).
Ul-Haque, N. and Mirakhor, A., 1999, "The Design of Instruments for Government Finance in an Islamic Economy," Islamic Economic Studies, vol. 6, no. 2.
Uslaner, E.M., 2008, The Moral Foundation of Trust, University of Maryland College Park, MD, 20742.
Van Wincoop, E., 1999, "How Big are Potential Welfare Gains from International Risk Sharing?" Journal of International Economics, vol. 47, February, pp. 109-235.
Van Wincoop., E., 1994, "Welfare Gains from International Risk Sharing," Journal of Monetary Economics, vol. 34, October, pp. 175-200.
Weiss, W.M., 1989, The Baazar: Markets and Merchants of the Islamic World, Thames and Hudson, London.
Zak, P. and Knack, S., 2001, "Trust and Growth," The Economic Journal, vol. III, April, pp. 295-321.
Zarqa, M.A., 1984, "Islamic Distributive System," Journal of Research in Islamic Economics, vol. 2, no. 1.
Zarqa, M.A., 1991, "Rules of Exchange in Islamic Fiqh: An Introduction for Economics," Journal of Research in Islamic Economics, vol. no. 3, pp. 35-70.