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ON THE FINANCIAL AND MORAL SUPERIORITY OF ISLAMIC FINANCE

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ABSTRACT

Evidence has been mounting that the interest-based debt financing regime is under increasing stress. The financial sector has assumed an independent identity delinking itself from the real sector. As a result, the system has become increasingly fragile and there is an unprecedented increase in the risks to global economy. This appears to be a demonstration of the validity of verses 275-276 of chapter 2 of Quran as it can be argued that this is the result of the existence of an *ex-ante* fixed rate of return in the form of 'interest'; turning debts into unmanageable and unsustainable super cycles. Empirical research suggests that the average debt-to-GDP ratio of the richest members of the G-20 will reach 120% mark by 2014 while by 2020 the U.S. and other major European centers would amass a ratio of at least 150%, with Japan and U.K. going to 300% and 200% respectively. Even more alarming is the projected interest rate path on their debts which would increase from 5% to 10% of GDP in all cases, and as high as 27% in U.K (BIS, 2010). It is difficult to see how this massive debt can be validated by the underlying productive capacity of the global economy, particularly when the state of global economic growth is anemic at best. The unprecedented levels of debt are creating debilitating fears of contagion and the possibility of an even bigger crisis (IMF, 2012). As a result, there is increasing uncertainty surrounding the survival of the system. Thus far the search for ways and means of reducing the instability of the system has focused only on improving regulatory/supervisory structure of financial system. Much less effort has been devoted to find a more suitable financing regime. The paper argues that Islamic finance, with its core characteristic of *interest-free risk sharing based financing,* may well serve better the global economic needs. Enshrined on the divine rules of Quran and Sunnah, the Islamic financial system is supported by a complimentary institutional framework that assures the financial as well as moral superiority. Before explaining 'risk sharing' based Islamic finance as a more reliant financing mechanism, it is important to first gain a brief understanding of the Islamic approach towards money and finance. Section two will provide, a succinct understanding of the Islamic position in distinguishing between capital, money, profit, and interest. Section threeexplains Islamic finance as a risk sharing and a rule based system and discusses the implications of the rules based mechanics that necessarily renders it more stable and superior. Section four establishes Islamic finance as a two tired systembased on a 100 percent reserve depository and safe keeping banking system and an equity based risk-sharing investment banking. Section five concludes the study.

KEYWORDS: Financial and Moral Superiority

INTRODUCTION

Islamic Approach to Money and Finance

Two different strands of thought have dominated the definition of capital: capital as physical good or real assets; and capital as a pool, or fund of money or financial assets (Askari et al., 2010 and Hasan, 2011). The notion of capital has been dealt extensively in Quran and Sunnah (see for example chapter 89 verse 20; chapter 24 verse 33 and chapter 3 verse

8). Islam recognizes capital as physical asset, whether produced or a natural resource. Capital as money fund also apply to Islamic finance where money capital is fully anchored by real capital and where overlap between profit and interest is non-existent (because interest is forbidden). The role of capital in economic growth is fully recognized by Islam. Capital is to be invested and not lent for consumption or speculative finance. The most efficient use of capital and admonition of wasting of capital are the basic principles of Islamic finance Askari et al., (2010). Growth cannot be achieved without capital accumulation. Investing in capital is the only way for achieving profits, growth and employment.

The distinction between physical and money capital has its counterpart in the concepts of profit and the rate of interest. While explaining the nexus between money, interest, capital and profit, Shaukat (2014) suggests that interest is the price for loaning money and not a return on it, loaning money is not necessarily investing money. It is thus money and loaning money that generates and drives interest while profit is solely a generation of capital when invested. Toutounchian (2002) argued "When money is converted into some form of capital or investable funds, any profit is legitimized else it is 'money begetting money". This he rendered as the essence of lending with interest.

In the conventional frame of thought, the notion of interest rate overlapped with the notion of profit. The clash of interest rates inevitably led to the theory of two interest rates in the writings of Marx, Thorton, Wicksell, Hasan and others. A distinction was made between the *market or money interest rate*, which can be directly influenced by monetary authorities and the availability of loanable funds, and the non-observed *natural rate of interest*, which equates saving and investment; "corresponding to capital market equilibrium" (Askari et al., 2010). In summary, they argued that if the market rate is below the natural rate, there will be bank credit expansion, commodity price boom and inflation. A speculative bubble invariably reaches a bursting stage and when the bubble bursts financial instability is the end result. However, if the market rate is above the natural rate, there will be a credit contraction and fall in commodity prices leading to recession.

Referring to the distinction between interest as a charge for money and a yield from investment of capital, Khan and Mirakhor, (1994: 5) assert: "it is an error of modern theory to treat interest as the price of, or return for, capital. Money is not capital, not even representative capital. It is only 'potential capital' which requires the service of the entrepreneur to transform the potentiality into actuality; the lender has nothing to do with the conversion of money into capital and with using it productively".

There is a general consensus among Muslim scholars in considering money as a medium of exchange, a standard of value, and a unit of account but they reject its function as a store of value for which money could be sought as an end in itself. Money was considered as an "intermediary" among assets that reflects the value of other commodities. It fulfils the double coincidence of wants (Hasan, 2011). "Hoarding money was considered an act of injustice because it was 'exactly like imprisoning a ruler where his ruling cannot be reached". Lending with interest was prohibited because "whoever uses money in *riba*practices becomes ungrateful and unjust" since money is not created to be sought for itself but for other objects (Al-Ghazali 1955; Khan and Mirakhor 1994).

Mirakhor and Krichene (2008: 5) while arguing that the chief characteristic of modern financial economies is the overwhelming presence of (interest bearing) credit system, conferred:

> In modern times, credit refers to an established debt relationship between a financial institution and its borrowing client. If, however, one considers credit as the provision of financial resources to facilitate investment and production, loan agreements based on interest rates are not the only means of credit

> relations. Such a relationship can be based on the provision of rewards, not on fixed money return on principal, as in a debt contract, but contingent on a project's outcome, i.e., the expected value of the project. In other words, the risks of the project are shared.

Different theories were advanced in order to explain interest in terms of the productivity of capital, abstinence, and time preference. Islam prohibits any form of giving and taking of interest/riba (see for example, chapter 2 verse 275-276). "The prohibition of interest in Islam is not based on economic theory but on fundamental religious sources which view the charging of interest as an act of injustice" (Khan and Mirakhor, 1994). A number of Islamic scholars[1] argue that there is not a single satisfactory theory justifying the rationale for the existence of interest rate[2]. As suggested above most arguments that appear to rationalize the giving and taking of interest are based on either 'abstinence/reward for saving, productivity of capital or on grounds of time preference. To the argument that interest is a reward for saving or abstinence, Islamic scholars argue that such payments could be rationalized only from an economic position,

> if savings were used for investment to create an additional capital and wealth. But the answer to the question of whether there is an increment of wealth corresponding to the savings of the individual seldom depends on what he does with the money he saves by refraining from consumption. He may hoard it or use it to buy a financial asset without there being an increment of capital wealth created as a result of his saving. When an individual saves, his saving gives rise to creation of an asset or a debt. But, as a rule, he has no power to decide which it will be. According to these scholars, in the absence of simultaneous increment of new investment, either a debt is created or an asset will change hands, but there will be no increment to wealth. Hence, the mere act of abstention from consumption should not entitle anyone to a reward (Khan and Mirakhor, 1994: 5).

The assertion is that when funds are used to loaning money, either a debt or an asset is created (if there has been an investment). If former is the case then there is no justification for a lender to receive a return or nor there is any justification for the state to impose an unconditional promise to pay interest (with a rationale for the smooth functioning of the economy, irrespective of how the borrowed sum is used). If on the other hand there has been an additional wealth creation, then why should the lender be entitled for a small fraction in form of interest rate. "It is then just that he/she should be remunerated to the extent of involvement of his financial capital in creating that incremental wealth" (Khan and Mirakhor, 1994: 5-6). To the argument which attempts to justify the charging of interest on grounds of productivity of capital, the Islamic position states that although this may enter as one factor in the determination of interest rate, interest per se has no direct relation with capital productivity. It is paid on money and not on capital. It has to be paid regardless of the productivity. To Keynes, had it not been to the existence of interest rate, the financier would have to share in all the

[1]Uzair (1982), Siddiqi (1982, 1983). Chapra (1985) and Ahmad (1987), Khan (1986), Khan and Mirakhor (1994), Mirakhor and Krichene (2008), Hamid and Mirakhor, (2009), Mirakhor (2010), Hasan (1992, 2008, 2011), and Askari et al., (2010) among others.

[2]To Mirakhor (2011a: 2-7), all, so called, theories of interest from the classical economists to contemporary finance theories explain interest rate as the price that brings demand for and supply of finance into equilibrium. This clearly implies that interest rates emerge only after demand and supply forces have interacted in the market and not ex-ante prices. In fact, in some theoretical models there is no room for a fixed, ex-ante predetermined rate of interest. For example, introducing such a price into the Walras or Arrow-Debreu-Hahn models of general equilibrium (GE) leads to the collapse of the models as they become over-determined.

risks that the entrepreneur faces in producing, marketing and selling a product. All the returns would necessarily be driven by the marginal productivity of the capital which in turn is generated from the real sector activities.

In reply to the assertion that interest arises as an inevitable consequence of the difference between the value of capital goods at present and in the future, Islamic scholars respond that this only explains its unavoidability and not its rightness. "It explains why borrowers are willing to pay interest and why lenders are able to exact it" (Khan and Mirakhor, 1994: 5). While they do not deny the difference between present and future valuation of goods (see Hasan, 1992 and 2011), they argue that a theory of interest based upon this notion is immaterial. The scholars maintain that even the rate of interest which theorists often refer to as return on 'riskless assets' is as a return on debt and not on capital assets; the existence of which is contingent upon past and current profits. "Even if the basis for time preference is the difference between the value of commodities this year and the next, Muslim scholars argue, it seems more reasonable to allow next year's economic conditions to determine the extent of the reward" (Khan and Mirakhor, 1994: 5).

As suggested earlier, while interest rate could be considered unequivocally as contractual income from loan capital, applicable both to consumption loan yielding no additional product and a production loan yielding additional product, profit is an ex-post concept that applies only to an enterprise in trade or production. Defined as residual concept, profits arise to the owner of the enterprise and may be seen to reward factors which are not accounted for in the computation of cost, such as entrepreneurship, risk and uncertainty. 'Profits' in Islamic finance stand unequivocally as reward to capital after allowing for capital amortization. They are distributed in form of dividend to the shareholders. It is important to note that there appears a general consensus among Muslim scholar suggesting that Islam has no objection to profit as a return to entrepreneurial effort and to financial capital (see, for example, Hasan, 2008 and 2011). Islam is not against profit but interest; in fact in Islam profit is encouraged. It is further argued that an amount of money advanced for the purpose of trade and production can be contracted to receive a part of profit because its supplier becomes part-owner of capital sharing in the risks of the effort and hence legitimizing any share in the accruing profits. He is partner in the firm and not a creditor.

There is a difference between someone who is a partner/ordinary shareholder in the firm−liable of all the firm's debt to the extent of his investment and receives only dividends at times of profit− with someone who is a creditor, loaning money without the risk of participating in the process of wealth creation, but claiming interest regardless of situation of profit or loss to the firm. "The creditor runs the risk, but this risk is not related to the profit of the enterprise, rather to the solvency of the borrower with the additional backing in form of collaterals or guarantees" (Khan and Mirakhor, 1994: 6). To Mirakhor (2011a) although the creditor does take a risk by loaning money i.e. the risk of default, but it is not risk taking per se that legitimizes any return; it is what is done after taking the risk. The risk(s) can be either transferred or shifted or the risk(s) can be shared. The former two has become the order of the day in the present interest bearing debt financial system. The later however, seems on the drive towards oblivion. As suggested by Mirakhor and Krichene (2008: 4-5):

> Much of the financial structure of modern economies consists of interest-based debt contracts. In a debt contract, a borrower promises to repay the principal plus an additional sum, the interest, over a stipulated time frame. This, in effect, cuts off the relationship between the project for which funds are needed and its financing since a debt contract establishes the legal right of a lender to receive more money in the future in exchange for a given amount of principal today—it is an exchange of spot money for more future money—regardless of the outcome of the project undertaken by the investor entrepreneur. Indeed,

if the risks of informational problems and associated monitoring costs are priced into the loan contract, then all risks are shifted to the entrepreneur.

Islamic finance, being based on sharing the risk of an activity rather than on interest rate driven debt contracts, contributes efficiently to capital accumulation and is immune to financial instability and speculation. As will be argued later, it is based on growth solely and allows no wealth redistribution via interest rate based debt contracts. It insulates an economy against banking failure and stock market crashes that have had a constant presence in the conventional system[3]. It will be argued that through its economic rules, Islamic finance precludes economic volatility because in this system the close relationship between the real and financial sectors pre-empts misalignment of rates of return to finance, the rates of real growth of the economy and net rate of profit. The underlying framework that renders such stability in the economy is based on risk taking and risk sharing.

ISLAMIC FINANCE IS RISK SHARING AND A RULE-BASED SYSTEM

Driven by the Quran and the Sunnah, the Islamic economic system is a rules-based system. There is network of prescribed rules that governs the socio-economic-political life of the society. Compliance with these rules renders the society a union of mutual support by requiring humans to share the risks of life. The adoption of these set of rules are expected to lead to a dynamic and growing economy, without which the higher objectives of Islam cannot be achieved (Shaukat et al, 2014). The objective of Islamic finance is to promote sustained growth and full employment thus contributing positively to poverty alleviation and, ultimately, to economic and social justice. The epistemological root of risk sharing, as the organizing principle of the Islamic financial system, is discernible from chapter 2 verse 275 of the Quran. This verse, in part, decrees that all economic and financial transactions are conducted via contracts of exchange (*al-bay'*) and not through interest-based debt contracts (*al-riba*). It can be argued that risk sharing – the crux of Islamic finance – serves as one of the most important desiderata of Islam i.e. the unity of mankind.

Since in the Verse the contract of exchange appears first and the prohibition of *riba* thereafter, it can be argued that requiring contracts to be based on exchange constitutes a necessary condition and "no-*riba*" the sufficient condition of existence of an Islamic financial system. Together, these conditions constitute the organizing principle of that system. The necessary condition (*al-bay'*) and sufficient condition (no *riba*) must be met for a contract to be considered Islamic. "A careful consideration of all the permissible contract modes that have reached us reveals them to be basically risk sharing contracts. The instruments designed to financially empower them must also be risk sharing instruments" (Mirakhor, 2010, 2011a, b).

Classical Arabic Lexicons of the Qur'an define contracts of exchange (*al-bay'*) as contracts involving exchange of property rights claims in which there are expectations of gains and probability of losses[4]. By entering into contracts of exchange, parties improve their welfare by exchanging the risks of economic undertakings, thus allowing division of labour and specialization (see Mirakhor, 2011a). The understanding of *al-bay'*, the exchange of one set of property rights

[3]For the proof of existence of a stable non-inflationary economy operating in a non-interest rate environment, see Mirakhor (1990, 1992).

[4]See, for example, Al-Tahquiq Fi Kalamat Al-Quran Al-Karim; Lisan Al-Arab; MufradatAlfaz Al Quran, Arabic Lexicon, among others. These sources define *al-bay'* as *"mubadalati al-maali bi al-maal."* In English this can be rendered as *"the exchange of one set of property rights claim for another."*

claim for another, as the necessary and "no-*riba*" as the sufficient condition has important implications. Exchange requires the freedom to contract for the parties involved and this implies freedom to produce, which then calls for well-protected property rights to allow and facilitate production. For exchange to take place, there is a need for markets and then for rules that govern behaviour of market participants. Rules need enforcement and regulation to keep the flow of information smooth thus reducing transaction costs.

Over the past three decades an important field of enquiry has developed in economics, called the 'New Institutional Economics' (NIE), that has made significant contribution to understanding how economic system function.

Most importantly, the NIE has focused on reasons why some economies perform strongly while others lag behind with substantial margins. The reasons, the NIE explains is the "institutional scaffolding" of the economy. NIE defines institutions as rules and norms governing economic behavior in the society. Accordingly how well the economy performs depends crucially on the rules governing economic behavior. Principles among these are: rule of law, well defined property rights, and a high degree of trust, efficient contract enforcement, and good governance.

An economic expertise-dominated view of the relevant verses of the Quran reveals a comprehensive set of rules governing the structure and operations of an economy; including rules that extend well beyond what the NIE would consider needed for a well-functioning economy. The Quran makes clear that the compliance with the prescribed rules is the guarantor of: better socio economic justice and cohesion, unity and order in any human collectivity and economic growth and stability (see for example chapter 5 verse 2; chapter 3 verse 103; chapter 8 verse 46). The promise made in the verse 96 of chapter 7 of the Quran (see also chapter 65 verse 2; chapter 65 verse 3; chapter 5 verse 65-66; chapter 12 verse 90' chapter 5 verse 66; chapter 8 verse 53; chapter 10 verse 9; chapter 2 verse 25; chapter 16 verse 97; chapter 24 verse 55; chapter 40 verse 40). Conversely all prohibited behavior are those that ultimately lead to social injustice and disintegration. Central among the rules that constitute the institutional frame work of an Islamic economic system are rules governing:

- Property Rights
- Contracts
- Market conduct
- Production and Exchange
- Distribution and redistribution

Property Rights in Islam

In this rule, there are sub-rules (i) The Quran makes it clear that all property (including natural resources as well as human physical and mental capabilities) belongs to Allah swt whose ownership never diminishes and remains always constant—thobatmelkiyyah of Allah swt: that is the immutability and constancy of ownership of Allah[5]. This is regardless of the transformation which may take place to change the form of property (see chapter 2 verse 29, 107; chapter 3 verse 26; chapter 5 verse 120; chapter 40 verse 16 as well as chapter 3 verse 180). By medium of agency (Khilafah), Allah swt has transferred his property rights to the entire humanity (chapter 2 verse 29; chapter 15 verse 21; chapter 35 verse 3). Therefore everyone is entitled to the resources (natural or human), which Allah swt has created. Humans are allowed to

[5]In all other systems, the anchor of Allah as the real owner of all the property is missing.

combine their labour with the created resources to produce means of sustenance for themselves and others (Hasan, 1988) [see also, for example, Al-Quran chapter 2 verse 60, 126; chapter 11 verse 61] provided they follow the rules that have been laid down for the use of His given properties to their benefits. This generates the second sub-rule within the property rights rule (ii) *all the humanity has rights in His property*. However, It maybe that not everyone in the society can actually have access or use these resources because some people for instance may have physical infirmity, they may have mental problems or may not have the opportunity. Nevertheless, that does not deny them the rights and the rights remain intact.

As a result, the more able access greater resources. However, this they do so knowing that other's shares are held in trust with them as 'Amanah' (Hasan, 1988). The less able are in effect silent partners to the more able who have greater access to resources because of greater capabilities (see chapter 2 verse 110; chapter 9 verse 60; chapter 73 verse 20; chapter 17 verse 26 and chapter 51 verse 19). *This originates the third sub rule (iii) no one can be denied the rights to property.* These rights must be redeemed, in kind or in monetary equivalence (see for example chapter 51 verse 19; chapter 24 verse 33; chapter 16 verse 71). This is the foundation of the rule of sharing ordained by the creator.

Once the basic rules of property rights have been laid, the next step is how these rights are gained. In Islam, there are only two ways in which individuals can gain legitimate property rights. (i) Individuals can gain property rights through a combination of their own creative labour and other resources or (ii) through transfer—via exchange, contracts, grants or inheritance—from others who have gained property rights title to an asset through their own labour (see chapter 53 verse 40; chapter 17 verse 26; chapter 24 verse 22; chapter 30 verse 38; chapter 4 verses 11-12). Fundamentally, therefore, work is the basis of acquiring rights to the property[6]. The next rule governing property rights forbid instantaneous property rights claim without commensurate work.

The exception is transfer via gifts from other who have gained legitimate property rights claim on the asset transferred. The prohibition covers theft, bribery, gambling, interest from money lent, or, generally, income and wealth obtained from sources and activities not permitted by Shariah (see for example chapter 5 verse 38; chapter 2 verse 188 and 275; chapter 5 verse 90). On the subject of how interest income from lent money violates the Islamic laws of property rights, it can be argued that in a riba transaction, a sum of money is loaned today for a larger sum in future. This is without the transfer of the property rights over the principal from the lender to the borrower. Not only does the lender retain property rights over the sum lent, but property rights over the additional sum to be paid as interest is transferred from the borrower to the lender the moment the contract of riba is entered into. To Khan and Mirakhor (1994: 7):

> Interest on money represents an unjustified creation of instantaneous property rights: unjustified because interest is a property right claimed outside the legitimate framework of individual property rights recognized by Islam; and instantaneous because as soon as the contract for lending upon interest is concluded, a right to the borrower's property is created for the lender. It is clear that money lent is used either productively in the sense that it creates additional wealth, or unproductively, in the sense that it does not lead to the creation of incremental wealth by the borrower. In the latter case, since no additional

[6]The concept of work in Islam (called *'amal)* is far broader and has different characteristics and objectives than that understood in the Western economic tradition. In Islam, work ethic is defined by the Quran itself, which mentions the word *'amal* in 360 verses. A closely related concept of *fi'l*(also translated as work) is mentioned in an additional 109 verses. All these verses stress the need for work and action by human beings (Islamreligion.com, accessed on 10, August, 2014 at 15:45).

> wealth, property, or asset is created by the borrower, the money lent cannot claim additional property rights since none are created. In the former case, that is, when it is used in combination with the creative labour of the entrepreneur to create additional wealth. It can also not claim any right to the incrementally-created wealth because the lender, when loaning his money, does not bargain for a portion of this incremental wealth but for a fixed return, irrespective of the outcome of the enterprise.

The others rules relate to the impositions and limitations on disposing a property over which legitimate rights are claimed. Property owners have a severely mandated obligation not to (i) waste (Israf), (ii) squander or destroy (Itraf), or use property opulently (Itlaf) or as means of attaining unlawful purposes. Once the rules governing property rights claims are observed and related obligations, including sharing and re-discharging property rights on the remaining part of income, wealth, and assets are held sacred, then no one has the right to force appropriations or expropriations (Askari et al., 2012).

Contracts

The next in line are the rules regarding the sanctity and enforcement of contracts in an Islamic financial system. The rule relates to the *"Faithfulness to the contracts"*. Islam forcefully anchors all social-political-economic relations on contracts. More generally the whole fabric of the divine law is contractual in its conceptualization, content and application. Its very foundation is the primordial covenant between the Creator and the humans (see also Al-Quran chapter 7 verses 172-173). The covenant imposes the obligation on humans to remain faithful to its affirmations that they recognize the supreme Creator as its Cherisher Lord.

In verse 152 of chapter 6 the Quran urges the believers to fulfil the covenant of Allah. This is extended to the terms and conditions of all contracts through another clear verse 1 of chapter 5 in which believers are ordered to be faithful to their contracts. They are ordered to protect faithfulness to their covenants and what has been placed in trust with them as a shepherd protects sheep (see chapter 23 verse 8; also chapter 17 verse 34; chapter 2 verse 2; chapter 16 verse 91-92; chapter 3 verse 61). So much so that the Quran has dedicated the longest verse on the importance of contracts and their fulfilment (see chapter 2 verse 282), thus believers do not treat obligations of contracts lightly. They will take on contractual obligations only if they intend fully to fulfil them[7]. Hence, their commitments are credible. Mirakhor (2011a: 16-17) confers that:

> 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 breach of contracts. Generally, there are three motives for entering into a contract: sharing of risk, transfer of risk, alignment of incentives, or to minimize transaction costs. 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. Considering these issues, one can appreciate the strong emphasis that the Quran [as well as the Messenger (saw)] has placed on trust, trustworthiness (see chapter 8 verse 27 and chapter 4 verse 57) and on the need to fulfil terms and conditions of contracts, covenants, and promises one makes. These rules solve the problem of

[7]This has implication for the cost and efficiency of transactions as it eliminates informational problems as well as moral hazards and adverse selection (see Mirakhor, 2011a,b).

credible commitment and trust, thus facilitate long-term contracts.

This brings to the discussion the post production end where there are other rules of market behavior. Rules regarding distribution and re-distribution, circulation of wealth, rules in relation to consumption behavior as well as ordainments for sharing risks.

Markets

The rules that govern the market relate to the appropriate behavior of all participants in the market. The Quran acknowledges the need for markets and affirms their existence, placing emphasis on contracts of exchange and trade. As a rule, the Quran places emphasis on market transactions based on mutual consent, therefore, based on freedom of choice and freedom of contract, which, in turn, requires acknowledgement and affirmation of private property rights. The model implemented by the Prophet (saw) operationalized the conception of exchange and trade as well as the use of market as a mechanism for this purpose. Thus in an Islamic economic system, market is only an instrument of the system and not the whole system itself; well supervised and well regulated. Supervised and regulated in terms of the rules that govern market behavior. The rules come from the life of the Prophet (saw). The rules include:

- No interference with supply;
- No interference with demand; and no interference in exchange transaction;
- Full access to the market by all buyers and sellers;
- Shariah approved sources of factors and products before they enter the market;
- Provision of full information regarding qualities, quantities and prices of factors of production and product to all buyers and sellers—before the start of price bargaining process;
- Provisions of full weights and measures; there is no hoarding of commodities, if two people in market are negotiating, third person cannot interject himself;
- "There is no 'Ghash' meaning there should not be any kind of misrepresentation of the product.
- No Gharar and a strict prohibition of speculative activities;
- "The freedom of annulment"i.e. 'Khiyarat'. There are various kinds of such freedoms provided to both parties (depending on the fiqh) to annul contracts.
- "Full and transparent Information". Everything about the product must be known and nothing should be hidden. Anyone who enters the market is informed fully of prices and products.
- "No collusion among the sellers or buyers"or else they will violate the rule of 'No Ghash'[8].

Among the other main reasons given in defense of the existence of interest bearing debt system are that of (i) 'Moral hazard' due to asymmetric information where one side of transaction has information which the other side does not

[8]It is important to note that for the economy to function well as per the rules of Islam, the whole nexus of these rules have to apply together. Any single violation of anyone of the above rules can and will creates severe frictions in the sound functioning of the economy as a whole.

have. (ii) 'Cost of monitoring'. For example if borrowing money is required, the creditor has a problem of trusting on the information which the borrower puts forward as a reason to borrow or even if he does not explain there is still a risk. Collateral is asked, worth more or less the amount borrowed and further if whatever profits are made, a fixed amount is asked over the principle when the money is returned. Because of moral hazard interest rate is justified. Then comes the cost of monitoring where even though the money is loaned, the creditor still worries and may need to monitor the activities of the borrower for the safe return of the loaned money (with interest). Since monitoring is costly, sometimes called as 'costly state verification', it is hard for creditor to verify the state or monitor. The monitoring is thus delegated called 'delegated monitoring'[9].

In an Islamic system, there would be no problem of 'Moral hazards. First, due to property rights protection as well as clear exchange of property rights alongside the rule of being 'faithful to contracts', the occurrence of moral hazard will be diminished if not completely cured. In fact adherence to all the rules discussed above assures against any mal-practices. All in all, any form of conduct leading to instantaneous property rights without commensurate equity created by individual's own labour is prohibited. This type of market that complies with the prescribed rules produces price for factors and outputs that are just as a result of free and informed bargaining process. The absence of the internalization of above rules makes contracts very costly to form, verify, negotiate, renegotiate and implement. "A further implication of the compliance with the above rule is the possibility of coming up with a contract where 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" (Shaukat and Alhabshi, 2015).

Rules Regarding Consumption

A further set of rules decouple the relationship usually assumed in the secular thought between consumption and income that as income grows so does consumption. For those who have internalized the Islamic economic rules, this is only true to a limited extent because there are limits to their consumption. That is, at low levels of income, consumption grows with income but after a threshold is reached, consumption levels off as additional income earned are channeled back to the economy through investment or transfers to more needy (see chapter 7 verse 31; chapter 25 verse 67; chapter 23 verse 64; chapter 17 verse 16; chapter 34 verse 34; chapter 17 verse 26-27). The limit on personal consumption is derived from the rules governing consumption behavior i.e. the rules prohibiting overspending (Israf), wasteful and destructive (Itraf) and ostentatious and opulent spending (Itlaf) [see chapter 2 verse 190, 195; 16 verse 97; chapter 4 verse 37; chapter 34 verse 34; chapter 17 verses 27-30].

Distribution and Re-Distribution

As mentioned earlier, due to the fact that some members of the society may be physically or otherwise unable to access resources to which they are entitled— as per the property rights rules of Islam (see chapter 6 verse 165; chapter 43 verse 23; chapter 16 verse 71), inequalities between income and wealth arise. The inequalities could also arise due to the presence of the idiosyncratic risks which when materialize play havoc with people's income and wealth. The most important economic institution that operationalizes the objective of managing any ensuing inequalities is that of the distribution/re-distribution rules of Islamic economic. The Islamic view holds that it is not possible to have many rich and

[9]The banks are the one to whom this delegation is made to as they have 'economies of scale' which is their job and they can get such information easily.

wealthy people who continue to focus all their efforts on accumulating wealth without simultaneously creating a mass of the economically deprived and destitute. The rich consume opulently while the poor suffer from deprivation because their rights in the wealth of the rich and powerful are not redeemed.

To Shaukat et al., (2014), *wide spread poverty is a prima facie evidence of rule non-compliance*[10]. To avoid this Islam—as mentioned above—prohibits excessive wealth accumulation and imposes limits on consumption after maintaining modest living standards. The surplus must be returned to the members of the society who, for a variety of reason, are unable to work. Further Mechanisms for redeeming the rights of the less able in the income and wealth of the more able are the network of mandatory and voluntary payments such as Zakat (2.5% on wealth), Khums (20% of income), and payment referred to as 'Sadaqat' (see chapter 9 verse 60; chapter 22 verse 41; chapter 2 verse 110, 261; chapter 34 verse 39; chapter 57 verse 18; chapter 73 verse 20).

Circulation of Wealth

Moreover, even after these rights are redeemed, the remaining wealth is not to be accumulated, as wealth is considered as the life blood of the economy and means of support to the society (see chapter 2 verse 254; chapter 29 verse 61; chapter 14 verse 32; chapter 16 verse 14; chapter 45 verse 13; chapter 22 verse 36-37; chapter 2 verse 180, 215; chapter 62 verse 10; chapter 16 verse 6; chapter 17 verse 70; and chapter 7 verse 32). Therefore, it must not be hoarded (see chapter 4 verse 37; chapter 34 verse 15-16; chapter 9 verses 34-36). This will have immediate implications for investment, capital formation, growth and development. As mentioned earlier, to allow a healthy circulation of wealth, the Islamic economic system envisions a financial system based on risk and return-sharing alongside the prohibition of interest bearing transactions in which rent is collected as a percentage of an amount of principal loaned for a specific time period. All this without the full transfer of the property rights over the money loaned to borrowers. When such transaction prevail in a system, the result is a culture of risk transfer and risk shifting and less risk sharing (Mirkahor and Shaukat, 2012, 2013). The overwhelming emphasis the Quran places on the contracts of exchange as the alternative to the interest rate-based debt contract is a clear instruction that the financial system must be structured on risk sharing rather than risk shifting or risk transfer.

Enhanced Coordination and Predictability

From the above discussion, it can be summarized that the institutional framework of the Islamic economy is composed of a collection of institutions−rules of conduct− to deal with allocation of resources, production and exchange of goods and services, and distribution/redistribution of resulting income and wealth. The main objective of these institutions is to achieve social justice and unity alongside economic prosperity. Important among their functions is the reduction in uncertainty for members of the society; allowing them to overcome the obstacles to decision making caused by paucity of information. Rules specify what kind of conduct is most appropriate to achieving just results when individuals face alternative choices and must take action. They impose restrictions on what the society's members can do without upsetting the social order on whose existence all members count. This also helps them in deciding on their own actions and forming their expectations of other's responses and actions when in situation of uncertainty or facing risks.

Risk and uncertainty are undeniable facts of life. As was discussed earlier, uncertainty stems from not only the

[10]For the effects for non-rule compliant societies see Al-Quran chapter 22 verse 55; chapter 21 verse 11; chapter 10 verse 13; chapter 18 verse 59; chapter 6 verse 6; chapter 16 verse 112.

lack of information but also from ignorance of knowing the response and behaviour of others under such conditions. The question arises as to why risk and uncertainty exist. This question becomes more acute for those who believe in the Supreme Creator of all things. Since it is believed that existence of risk and uncertainty is a source of difficulty for humans, a Creator-centric question also arises: why create risk and uncertainty for humans? Bartholoemu (2008: 230) argues that *"a plausible argument for the necessity of risk is that it serves as an important ingredient in the recipe of full human development. It provides the fertility and diversity of experience to develop our skills and personalities."*

The Qur'an, on the other hand, provides a more compelling explanation: humans are subjected to tests throughout their lives to allow them a sense of the degree to which they, individually and collectively, are rule compliant (see for example, chapter 2 verse 155; chapter 7 verse 130; chapter 76 verse 2; chapter 29 verse 2; chapter 9 verse 126; chapter 11 verse 7). Without risk and uncertainty, testing would not be possible. To ease the intensity of anxiety in dealing with tests and, therefore, reduce uncertainty and demand on humans' cognitive ability, compliance with the (economic) behavioral rules prescribed by Quran reduces risk and uncertainty.

The result is better coordination in society's behavior. It can be stated that such rule compliance while promoting coordination in actions, determines the degree of certainty in the formation of expectations, prevents conflict, reconciles differences, facilitates cooperation, promotes social integration and solidarity and strengthens social order. *The result is that the behavior of the society as a whole immediately becomes increasingly predictable in all aspects; making the system simple to manage and control.* As will be argued later, similar to the physics, the mechanics of a risk sharing system also provide the dynamics that warrants a much stable and progressive economic order.

Islamic Finance and Equity Financing

Considering the aspects of an Islamic financial system based on risk sharing, where there is no room for any return that is determined ex-ante to the contractual outcomes, independent of any profit or loss, the system becomes one that is based on no risk free assets, where all the financial assets are contingent claims (Mirakhor and Krichene, 2009). It can be stated that shares or equity issues of corporations appear to best fit the criteria. In a typical risk sharing arrangement such as equity finance, parties share the risk as well as the rewards of a contract. Assets are invested in remunerative trade and production activities. The return to assets are not known at the instant assets are invested, and is therefore a random variable making equities risky. In equity investment, the income is random and depends on the performance of the equity investment.

To Mirakhor and Krichene (2008), unlike a debt contract, shares of common stock of open corporations are not redeemable and the payoffs are contingent upon a certain state of occurrence; Akin to Arrow-Debreu securities. They are "proportionate claims on the pay offs of all future states" (Fama and Jense, 1983). "The notion of Arrow-Debreu securities is built on Adam Smith's idea of a decentralized market economy, supporting optimal risk sharing" Mirkahor (2010, 2011a, b). Thus, contingent payoff, non-redeemability, and risk sharing are characteristics that distinguish a sharing contract from a debt contract.

Risk sharing via equity financing is not novel to economic endeavors[11]. Historical accounts suggest that equity financing has been a centuries old phenomenon in the Muslim world as well as in Europe of the Middle Ages. Enterprises

[11]For a detailed Historical account of risk sharing based financing, see Askari et al., (2012) *" Risk sharing in Finance: The Islamic finance alternative".* John Wiley & sons.

were established with share ownership and were recorded as share owned or anonymous enterprise. Among the most used instruments were the 'mudaraba' and 'musharaka' partnership contracts. Borrowed from the Muslims and later came to be known as 'Commenda' and 'Maona', such financing modes were commonly used for financing long-term trade and investment in Western Europe (Brouwer 2005; Udovitch, 1970 and 1967).

Further historical research submit that Commenda's contribution to industrial development of Ruhr Valley in Germany and in building railroads in Europe were particularly pronounced" (Mirkahor, 2010: 13). Mirakhor (2003) while sighting the Goitein (1954, 1955, 1962, 1964, 1967) examination of Geniza records suggest that (i) trade in Middle Ages was both extensive and intensive, financed by risk sharing partnerships; (ii) partnerships were used in industrial, commercial and public administrative projects; (iii) trade were largely not based on cash benefits or legal guarantees, but on the human qualities, mutual trust and friendship. Given the recent times, venture capital firms in the Silicon Valley of the U.S are reaping enormous benefits from risk sharing/equity based financing[12].

It is often argued from those who favour debt financing that the unprecedented development particularly in the last fifty years is essentially an outcome of the capitalistic system, based on interest bearing debt financing. "To them the reduction, let alone elimination, of debt financing and bank money creation would reduce economic growth" (Askari et al., 2012). The latter is an empirical issue that needs careful estimation alongside considering the social cost and benefits under such a regime. However, while not denying the development and overlooking the aspect of sustainable development, question arises as to how much of the ensuing development has only been through debt financing. It can be safely argued that most of the advances that seemed to have changed the dynamics of the world—particularly in the technological arena—have been through risk sharing modes than debt financing (see Shaukat, 2014 and Taleb, 2012a, b). To Askari et al., (2012), "much of the assumed contributions of finance over the last 30 or so years, and thus debt financing and leverage, have only been a mirage", given also the pro tax and legal support. In Quran, Allah has ordained the believers, not to get discouraged by the apparent well-being of the non-believers (see chapter 43 verse 33-35).

While highlighting the growth benefits of a system predominantly based on equity financing, Toutouchian (2002) asserts that the world could have indeed seen much more growth and development had it resorted more on equity financing. Einaudi (2006) suggest "A modern market economy needs financial contracts. In theory these could all take equity form, and if they did economies would suffer less macroeconomic instability". Similarly, Taleb (2012) also argued that for a financial system to avoid fragility and the occurrence of black swans, the system needs to get rid of debt financing and resort to equity financing instead. With equity financing all stake holders will have more *skin in the game*. In other words, nobody should be in a position to have the upside without sharing the downside, particularly when others may be harmed. This would necessarily constrain and even diminish moral hazards and agency problems; aspects that will always be pervasive in a debt based system (see also Hellwig, 1998).

It is argued that risk sharing financing is trust intensive (Shaukat et al. 2014) and given the history of wars and

[12]According to Cybercities (2008), in 2008, Silicon Valley was the third largest high-tech centre (cyber-city) in the United States, behind the New York metropolitan area and Washington metropolitan area, with 225,300 high-tech jobs. The Bay Area as a whole however, of which Silicon Valley is a part, ranked first with 387,000 high-tech jobs. Silicon Valley has the highest concentration of high-tech workers of any metropolitan area, with 285.9 out of every 1,000 private-sector workers. Silicon Valley has the highest average high-tech salary at $144,800. [Cybercities 2008: An Overview of the High-Technology Industry in the Nation's Top 60 Cities].

crusades the world over, "the upheavals of the Middle Ages in the 14th and 15th centuries, including the Black Death, strife within the Church and between the Church and hereditary rulers" (Asakri et al., 2012: 248), there has been a breakdown in the required trust among and within the societies. This validates the existence of an economic order based on interest-based debt financing. It was assumed that such a system would provide the remedy for the lost trust, translating into better serving the economic needs. As argued by Einaudi (1934/2006), in the real world fixed debt contracts (and indeed fixed-wage contracts) have arisen to meet human desires for greater trust over future income than would be delivered in a world where all contracts took an equity form. Therefore we have debt contracts[13].

Question arises, if the deficiency of trust, among the societies, was among the main reasons for the dominance of debt financing, the functioning of such a system, requires even more trusteeship and the maintenance of that trust. The cycle of trust starts from the moment money is deposited in the banks, to the events when money is contractually loaned out, on interest. Further support is gained by government guarantees and deposit insurance schemes in safeguarding the deposits[14]. As can be discerned from the earlier chapters, it is the last two phases where an innate incentive structure is created that severely threatens and eventually collapses the societal trust in the system. Financial crisis and bank runs are a clear example. It can thus be concluded that the system ends up breaking down more trust than what it remedies for. It appears that had it not been for government guarantees, deposit insurance schemes as well as the supportive tax structures, the present interest bearing debt financing regime can barely survive[15] (Shaukat, 2014).

While comparing the features of debt and equity contracts, Stiglitz (1989) argues that from the perspective of the entrepreneur, equity has two related distinct advantages. Risk is shared with the provider of capital, and there is no fixed obligation for repaying the funds. Thus, if times are bad, payments to the providers of capital are suspended. The firm will not face bankruptcy, and will not be forced to take the extreme measures intended to stave off bankruptcy. 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 normally cut back production as much as it would with debt finance, if there is a downturn in the economy (see also Greenwald and Stiglitz, 1986).

In addition, debt contracts need to be continually rolled over: as a result new credit supply is vitally important to the economy. Equity instruments are typically permanent; they do not need to be continually replenished each year; an economy could function for a period with new equity issue markets completely closed. Debt contracts in contrast have finite terms. Without continual refinancing, many otherwise solvent firms would go bankrupt. Oscillations in new debt supply are therefore potentially far more harmful than oscillations in new equity supply (Turner, 2012). Mirakhor and Krichene, (2009) argue that "equity based finance is stable as assets and liabilities adjust to shocks; making the system

[13] Luigi Einaudi, *Debts*, in Luigi Einaudi, Selected Economic Essays, Palgrave Macmillan 2006. First published as *'Debiti'*, La ReformaSociale XLI, volume XLV No 1, January 1934.

[14]Government deposits insurance itself is an evidence of the fragility of trust. To stiglitz (1989) government deposit insurance lies at the heart of creating moral hazard problem since it implies as a free license to banks to take excessive risks. "Banks which undertake greater risk can offer greater interest rates to depositors, who can, with impunity, turn over their funds to the bank. These banks attract funds away from more prudent banks. A kind of Gresham's Law works with a vengeance". He further argues that this alongside debt friendly tax policies further impede governments to indulge in risk sharing through equity financing.

[15]According to (Askari et al., 2010: 84), "Based on historical evidence, each credit crash would wipe out more than 50 percent of conventional banks in the absence of government bailouts".

immune to banking crisis and disruptions in payments mechanism".

ISLAMIC FINANCE A TWO TIRED SYSTEM

Based on the above discussions—with risk sharing and no-riba based financing as its chief tenants[16], an Islamic financial system can be envisioned as a two-tier financial system:

- A 100 percent reserve depository and safekeeping banking system for domestic and international payments.
- Equity based risk-sharing investment banking that places real saving directly in private or public projects or indirectly via the stock market. Investors are shareholders.

The first sub-system keeps money deposits in trust and settles payments via clearing, withdrawals and other forms of payments. The second part of the system receives savings, which it invests in productive projects or in more liquid investment such as mutual funds or stocks. Depositors receive transferable or marketable shares that enable them to liquidate their investment if they chose to do so. Returns from the funds invested are ex-post and are distributed to the depositors as to the shareholders of equity capital. As a result, they share in profits and losses as well as in capital gains and losses. Islamic capital markets intermediate between saving units and investing units through risk sharing. They would include investment banking, stock markets, mutual funds, exchange-traded funds and other forms of intermediary risk-sharing institutions.

A number of influential scholars[17], in the past, proposed reforms that would abolish the credit system and replace it by an equity-based investment system. For instance, Walker (1873); von Mises (1953); Carrol (1965), Simons (1948);

Friedman (1969) and Rothbard, (1994), opposed fictitious credit creation by banks and favoured the creation of joint stock companies which use savings to buy equities. Among the most celebrated proposals along these lines was the plan formulated in the University of Chicago, 'Chicago Memorandum' in 1933 which called for 100% reserve money and for an equity-based investment system. Irving Fisher (1933) claimed the following advantages for this plan: (i) Much better control of a major source of business cycle fluctuations, sudden increases and contractions of bank credit and of the supply of bank-created money (ii) Complete elimination of bank runs. (iii) Dramatic reduction of the (net) public debt (iv) Dramatic reduction of private debt, as money creation no longer requires simultaneous debt creation.

A recent IMF paper titled "the Chicago Plan Revisited", studied the claims made by Fisher and others in favour of the Chicago Plan'. By embedding a comprehensive and carefully calibrated model of the banking system in a DSGE model of the U.S. economy. They found robust support for all of claims made in support of the proposed plan (Benes and Kumhof, 2012). Moreover, Kotlikoff (2010) also made a proposal on similar lines suggesting "Limited Purpose Banking". LBP would essentially transform all financial intermediaries with limited liability into mutual fund companies, with a single regulatory agency the "Federal Financial Authority" taking care of the regulatory and supervisory roles. LBP would maintain a close link between the real and the financial sector where the former will drive the later.

Askari et al. (2012: 11) in their book titled *"Risk Sharing in Finance"* suggest that:

[16]Although interest-free lending, called '*qardhassan'*, is permitted (see Askari et al., 2010 and Mirakhor and Shaukat, 2012, 2013 among others).

[17]See also Haque and Mirakhor, (1987); Khan and Mirakhor, (1989, 1994); Mirakhor et al., (2012, 2013); Mirakhor and Krichene, (2013) among others.

> One way to ensure the stability of the financial system is to eliminate the type of asset-liability risk that threatens the solvency of all the financial institutions, including commercial banks. This requires commercial banks to restrict their activities to two: (i) cash safe keeping; and (ii) investing clients' money as in mutual fund. Banks would accept deposits for safe keeping only (as, for example, in a system with a 100 percent reserve requirement) and charge a fee for providing this service and for check writing privileges. In their intermediation capacity, banks would identify and analyze investment opportunities and offer then to clients; they would charge a fee for this service much like a traditional investment bank. In this way the bank would not be assuming any asset-liability exposure, just a potential loss of some (but not all) of its capital, which would not endanger the bank's solvency. In other words, in such a financial system, there would be no debt financing by institutions, only equity financing; and there would be no risk transfer or risk shifting, only risk sharing.

A pivotal feature of the above dynamics is that the Islamic financial system is protected from un-backed credit expansion since banks do not contract interest bearing loans and do not create and destroy money[18]. It is thus assumed that in an Islamic bank there will be a maturity match between deposits and investment (with no need for asset and liability management). "Short-term deposits may finance short-term trade operations, with bank purchasing merchandise or raw materials and selling to others companies; liquidity is replenished as proceeds from sales operation are generated. For longer-term investment, longer-term deposits are used" (Askari et al., 2010). There is hence greater interdependence and close relationship between investment and deposit yields, since banks primarily accept investments on the basis of profit-loss sharing. The funds to the enterprise are also provided on the same basis (Khan and Mirakhor, 1994). An Islamic bank is a direct owner of the investment process. It identifies investments opportunities based on due diligence process and evaluates them to minimize risks; participates directly in the management, monitoring and execution of the trade and investment operation (see also Kazem, 1999). The funds are further released for the purchase of goods and services as required for the completion of these operations.

The above dynamics would in turn not only translate into a coordinated asset/liability maturity structure, but the real values of assets and liabilities −of financial institution− would be equal at all points in timesuch that the value of both sides of the balance sheet move simultaneously and in the same direction in response to changes in asset prices. In addition the prospect of instantaneous equilibrium between the asset and liability sides of the banking system, there would also be Asset/liability risk matching. While the individual financial institutions engaged in investment activities face the given risks, in and of themselves, these are not systemic and do not impact the overall stability of the financial system, as this system is immune to speculative mania, liquidity expansion, and instability of returns. The latter is due to the fact that there is no value or maturity mismatching between assets and liabilities of the institutions. If asset prices decline, so will the

[18]There is no credit creation out of thin air in Islamic finance. As discussed in previous sections, under conventional fractional reserve banking, deposits at one bank can be instantaneously loaned out or used to purchase a financial asset and become reserves and a basis for a new loan at a second bank. The credit multiplier is determined by the reserve requirement and could be high. In case of securitization and over-leverage, the credit multiplier is theoretically infinite, leading to violent asset and product price fluctuations.

liabilities, unlike what happens in a system dominated by interest-based debt contracts[19].

Due to the fact that the returns to liabilities will be a direct function of the asset portfolios and also assets are created in response to investment opportunities in the real sector, the return to financing is removed from the cost side and relegated to the profit side, thus allowing the rate of return to financing to be determined by productivity of the real sector[20]. Immediately, the system renders a tight coupling between the financial and the real sectors and the financial sector is found fulfilling its real aim i.e. *serving the real sector*. It will hence be the rate of return to the real sector drives the economic outcomes.

Given the importance of credit in the Western financial and economic model, if credit supply is constrained by increasing its price i.e. increasing interest rates, then a reverse of the above dynamics is achieved. High interest rates lower investments which in turn lower consumption leading to a build-up in inventories and lowering growth in national output. Fallout is an increase in unemployment. If the decline in employment is more pronounced, consumption and investment decline further which further affects the national output. "In case this decline continues for more than two consecutive quarters, then an economic recession is upon us" (Askari et al., 2010: 14).

It can be observed how the dynamics of the economy would change for better if it is driven by the rate of return to the real sector. The economic functioning will be in complete contrast to the present system. As suggested, there would be one to one mapping of both the real and financial sector where the increase in investments, consumption, employment and hence economic growth would be in direct proportion with the increase in the rate of return to the real sector. An ensuing feedback process further adds impetus to the growth cycle.

Question arises, since the system is driven by the rate of return to the real sector unlike by the interest rate mechanism, what if the rate of return will go down? Although this requires careful empirical investigation to prove, to Shaukat, (2015) it is hard to imagine if that would be the case in a growing economy. This is argued on the basis of the notion of the equity premium which is much more than the risk-free rate on, for example, government bonds[21]. Since the rate of return is tied to the real (domestic) sector, as well as the monetary and fiscal policy, in an Islamic risk sharing

system, are governed by the same rate, the expansion of finance is fully determined by real growth in the economy and not by unstable speculative finance or money creation by financial institutions.

Credit growth is tied closely to the expected growth rate of the real economy (Shaukat et al, 2014). Accordingly, an Islamic system would not be expected to experience deep boom and busts cycles. Moderate and brief booms and recession may be generated by good crops, productivity, technical change, or by adverse shocks. They cannot be generated by the financial system itself. Equilibrium in an Islamic economy thus structured will be stable and the rate of return to the financial sector will be fully aligned with the profit rate in the real sector of the economy (Krichene and Mirakhor, 2009).

[19]It is also to note that since interest rates are an economy-wide variable and therefore systematic, their risk does not get diversified away like other *idiosyncratic* risks of a stock would. This would also translate into a higher portfolio beta (see Bacha and Mirakhor, 2012).

[20]As discussed earlier such a notion was also backed by Keynes in the absence of interest rate mechanism.

[21] For a detailed discussion on the notion of 'Equity Premium Puzzles', See for example Mirakhor and Erbas (2007), *"The Equity Premium Puzzle, Ambiguity Aversion, and Institutional Quality: Implications for Islamic Finance"*.Journal of Islamic Economics, Banking and 38 Finance, Volume-6 Number-1.

It is also argued that in a system where banks not only has a direct stake in the investment, but also are fully involved in each step, the transaction costs will be extremely high; making the Islamic financial system more costly as a whole. This in turn will have dire consequences on the saving and investment dynamics; creating inefficiencies. However, studies have empirically shown that in fact the scenario will be completely opposite. The above may be true in the short-run but in a long-term view the system may not only prove less costly but more efficient and progressive. Banks and other financial institutions would resolve adverse selection and moral hazard problems by, for example, monitoring the activity of their partners. The cost of monitoring will be paid off by benefits of supervision which creates at least three advantages.

The first is the close monitoring of the conduct of the agent; to ensure that he is acting according to the terms of the contract. Second, stronger supervision provides greater knowledge of the market conditions under which the enterprise subject of the contract has to operate and this allows the supervisors greater ability to forecast further market developments. Finally, the stronger supervision provides broader knowledge of comparative advantages of the region or locality in which the resources are invested. This will make it possible to obtain better estimates of the return to further investment in the region under consideration[22].

There is almost a general 'consensus' particularly among the Muslim scholars on the financial stability's 'superiority' of an Islamic financial system based on equity and participatory modes of financing. Several attempts were made to model a profit and loss sharing banking system often using a variant of IS-LM or a related model of conventional macro/ monetary economics[23]. The essential message that all the above studies made centres around the greater role that should be given to risk-sharing in the world of finance as opposite to risk transfer and risk shifting that dominates the current shape of the financial system, "whether the reforms implemented are called the Chicago Plan, Limited Purpose Banking, or Islamic finance, the message is unified: the world needs a financial system that reduces risk transfer, risk shifting and debt financing in favour of risk-sharing and equity financing in order to create a financial system that contributes more to growth and minimizes instability" (Askari, 2012: 11).

As stated by Rogoff (2011), "We need to recognize that the real problems (in the financial system) are rooted in excessive concentrations of debt. If G-20 governments stood back and asked themselves how to channel a much larger share of the imbalances into equity-like instruments, the global financial system that emerged just might be a lot more robust than the crisis-prone system that we have now". He went further to point out: "perhaps scholars who argue that Islamic financial systems' prohibition on interest generates massive inefficiencies, ought to be looking at these systems for positive ideas that Western policymakers might adopt".

In consideration of the given growth and stability characteristics of risk sharing based financing, recently, a group of elite Shariah scholars as well as economic experts has passed two 'Declarations' (namely the Kuala Lumpur and the Jeddah Declarations) asserting that risk sharing based financing is the only way forward and that financing must move away from debt and rely more and more on equity financing. The declarations further suggested governments (particularly Islamic governments) to essentially adopt risk sharing modes when devising the monetary and fiscal policies. Similar conclusions were reached in IFFS (2013), asserting the adoption of risk sharing and equity financing and less reliance on

[22]See Sadr and Iqbal (2001) and Mirakor and Zaidi (1987) among others.

[23]See, for example, Khan (1986), Zaidi and Mirakhor (1987a, b), Zaidi and Mirakhor (1988), Mirakhor(1990/1993) and Mirakhor and Krichene (2013).

interest bearing debt.

CONCLUSIONS

From the above discussion, it can be concluded that Islamic finance, based on `No Riba and Risk Sharing based financing',has all the necessary ingredients to render the global economy more stable. The sources of this stability are the operational characteristics that remove major sources of volatility and instability. Among these characteristics are the following:

- Transparency, trust and faithfulness to terms and conditions of contracts;
- Driven mainly by the real sector of the economy, renders the prospect of providing instantaneous equilibrium between the asset and liability side of the banking system. As a result, the real values of assets and liabilities would be equal at all points in time, translating into a close and direct relationship between investment and deposit yields. Due to close relationship between finance and the real sector activities, the rate of return to the latter determines that of the former rather than the reverse.
- Asset/liability risk matching;
- A coordinated asset/liability maturity structure;
- asset/liability value matching such that the value of both sides of the balance sheet move simultaneously and in the same direction in response to changes in asset prices; and
- Limitations on credit expansion and leverage, naturally arising from the need for credit growth that is tied closely to the expected rate of growth of the real economy.

Most crucially, the sustainability of the economic stability is assured by the complimentary institutional framework provided by Quran and Sunnah. The nexus essentially renders Islamic finance superior to interest bearing debt finance, economically and morally. To khan and Mirakhor (1994), just the proper implementation of rules regarding property rights and contractual faithfulness could be enough to start increasing/enhancing public confidence in the functioning of Islamic finance;increasing efficiency and productivity.

> It is only then that the banks and other financial institutions can, through their direct involvement in profit-sharing with the real sector, become instruments of industrialization and development. This way the whole investment process would add to efficiency as real entrepreneurs would utilize savings rather than those whose only claim to enterprise is based on the ownership of savings. The increase in efficiency will in turn increase profits and a higher rate of return to savers (Khan and Mirakhor, 1994: 16-17).

One of the most vital arguments put forward in favor of globalization was that of improved risk sharing that would result from intensified human interaction across the world. On theoretical ground, this would mean expecting much greater degree of risk sharing between and among economies – resulting from greater freedom of movement of resources, and hence, providing a major source of consumption smoothing in the world economy. These developments were expected to lead to progress toward market completion, which means increasing the number of marketable securities to meet a large number of contingencies – a condition of optimal risk sharing posited in Arrow's (1971) conception. Or, at least, progress

could have been expected toward the design and use of Arrow's idea of having securities with pay-offs contingent on the performance of the underlying asset, for example, equity-based securities with close links to the real sector of the economy (Shaukat et al, 2014). Theoretical research has demonstrated sizeable potential welfare benefits of risk sharing[24]. However, empirical studies have shown only marginal gains in risk sharing from globalization. For example, a study by Kim et. al. (2005) has shown that even in the fast growing East Asia-10 countries risk sharing has not been as significant as would have been expected.

It appears that the contribution of the present configuration of the Islamic finance industry to the growth of the real sector has fallen well short of expectations so far. Perhaps the main reason has been the fact that the practitioners and financial engineers of this new asset class – growing within the conventional financial system – had to design instruments that resembled those prevalent in the host system without violating the "no-*riba*" sufficient condition. This meant creating instruments with tenuous relationship to the real sector to weaken the risk of Islamic financial transactions borne by market players. Moreover, the instruments designed by the industry have been by and large benchmarked to the Libor or closely related reference rates to make them more acceptable to large international banks and investors. Hence, the Islamic finance industry focused on portfolio behavior with strategy of asset concentration in short-term maturities and real estate in the medium-to-long-term maturities, thus replicating the vulnerabilities of the conventional system.

Aside from these problems, there is a risk of path dependency: the risk that the industry will continue following the same pattern of behavior because it has proven profitable thus far. This growing complacency and doing 'business as usual', runs the risk that path dependency will render deviations from the true practice of Islamic finance irreversible. This would mean continued development of debt-like instruments that are low risk but are devoid of risk-sharing elements – a vitally important element of Islamic finance. After all, finance is well aware of the theory of "spanning" – where one basic asset can span into an infinite number of derivative instruments. This theory served as the basis for the rapid development of debt-based derivative markets worldwide which eventually undermined the stability of global finance.

In general, the industry players in their defense argue that "our clients" are not interested in placing their funds at risk, thus discouraging us from risk sharing[25]. Apparently, this argument is unaware that, conceptually, there is a difference between risk taking and risk sharing. The former is prior to the latter. The risk of a given project in the real sector is determined in that sector; and one bears such risks before entering into the financial sector to seek financing. On the other hand, it is at the point of financing where the decision regarding the modality of financing – whether it will in the form of risk sharing, transfer or shifting – is made. The nature and magnitude of risk taken remains the same and immutable as it enters the financial sector at the stage of funds seeking.

Industry players display a further dimension of inertia in resisting risk sharing. This relates to the conceptual *"framing"* of Islamic finance. Framing refers to the fact that people's response to risky situation depends on how they form their perception of a given situation and that depends on how an event is formulated. People react differently to the same situation when it is framed in alternative formulation. Framing is closely related to the idea of *"prospect"* which

[24]See, for example, Van Wincoop (1999); Kim et. al. (2005); Lee and Shin (2008).

[25]Such arguments are a norm and were also pervasive in the recent International conference on Islamic Business, Islamabad, Pakistan (2012) as well as in a recent conference of security commission Malaysia (2011) held with the theme of Risk Sharing in finance.

refers to perception of gains or losses attached to decisions. The way prospects are framed can lead to inconsistent behavior; if the same objective outcome is framed differently in terms of gains and losses, people respond differently. Since losses, are given greater weight than corresponding gains, people are in general loss averse. If the outcome is framed either as a gain or loss, people prefer to choose gain. For example, the prospects of 10 percent loss and 90 percent gain can be framed focusing either on the probability of the loss or the expectation of the gain. It can be argued that a major reason for the inertia in the industry for resistance to progress toward risk sharing is due to the inability of the stakeholders and practitioners to first understand and then frame risk sharing prepositions correctly and effectively.

While the disappointment with the present performance of the Islamic finance industry is understandable, it should be noted that the industry has a short history in which it nevertheless has demonstrated remarkable growth. Perhaps it is this performance that has triggered evidence of growing interest in non-interest rate based finance. Indications are that emerging markets and developing economies are actively considering adoption of instruments of Islamic finance. Governments, particularly in Malaysia, have been major sources of support for the growth of Islamic finance. Few are leveraging the "first-mover" status of Malaysia in education, manpower training and instrument innovation in Islamic finance to introduce their own brand of risk-sharing method of financing. If these efforts succeed, perhaps even the benefits of emerging multiple growth centers in the global economy will be further enhanced with greater stability and resilience in supporting financial transactions through risk sharing (Shaukat et al, 2014).

REFERENCES

1. Uzair (1982), Siddiqi (1982, 1983). Chapra (1985) and Ahmad (1987), Khan (1986), Khan and Mirakhor (1994), Mirakhor and Krichene (2008), Hamid and Mirakhor, (2009), Mirakhor (2010), Hasan (1992, 2008, 2011), and Askari et al., (2010) among others.
2. To Mirakhor (2011a: 2-7), all, so called, theories of interest from the classical economists to contemporary finance theories explain interest rate as the price that brings demand for and supply of finance into equilibrium. This clearly implies that interest rates emerge only after demand and supply forces have interacted in the market and not ex-ante prices. In fact, in some theoretical models there is no room for a fixed, ex-ante predetermined rate of interest. For example, introducing such a price into the Walras or Arrow-Debreu-Hahn models of general equilibrium (GE) leads to the collapse of the models as they become over-determined[1]For the proof of existence of a stable non-inflationary economy operating in a non-interest rate environment, see Mirakhor (1990, 1992).
3. See, for example, Al-Tahquiq Fi Kalamat Al-Quran Al-Karim; Lisan Al-Arab; MufradatAlfaz Al Quran, Arabic Lexicon, among others. These sources define *al-bay'* as *"mubadalati al-maali bi al-maal."* In English this can be rendered as *"the exchange of one set of property rights claim for another."*
4. In all other systems, the anchor of Allah as the real owner of all the property is missing[1]The concept of work in Islam (called *'amal)* is far broader and has different characteristics and objectives than that understood in the Western economic tradition. In Islam, work ethic is defined by the Quran itself, which mentions the word *'amal* in 360 verses. A closely related concept of *fi'l* (also translated as work) is mentioned in an additional 109 verses. All these verses stress the need for work and action by human beings (Islamreligion.com, accessed on 10, August, 2014 at 15:45).

5. This has implication for the cost and efficiency of transactions as it eliminates informational problems as well as moral hazards and adverse selection (see Mirakhor, 2011a,b).
6. It is important to note that for the economy to function well as per the rules of Islam, the whole nexus of these rules have to apply together. Any single violation of anyone of the above rules can and will creates severe frictions in the sound functioning of the economy as a whole.
7. The banks are the one to whom this delegation is made to as they have 'economies of scale' which is their job and they can get such information easily.
8. For the effects for non-rule compliant societies see Al-Quran chapter 22 verse 55; chapter 21 verse 11; chapter 10 verse 13; chapter 18 verse 59; chapter 6 verse 6; chapter 16 verse 112
9. For a detailed Historical account of risk sharing based financing, see Askari et al., (2012) *" Risk sharing in Finance: The Islamic finance alternative"*. John Wiley & sons.
10. According to Cybercities (2008), in 2008, Silicon Valley was the third largest high-tech centre (cyber-city) in the United States, behind the New York metropolitan area and Washington metropolitan area, with 225,300 high-tech jobs. The Bay Area as a whole however, of which Silicon Valley is a part, ranked first with 387,000 high-tech jobs. Silicon Valley has the highest concentration of high-tech workers of any metropolitan area, with 285.9 out of every 1,000 private-sector workers. Silicon Valley has the highest average high-tech salary at $144,800. [Cybercities 2008: An Overview of the High-Technology Industry in the Nation's Top 60 Cities].
11. Luigi Einaudi, *Debts*, in Luigi Einaudi, Selected Economic Essays, Palgrave Macmillan 2006. First published as *'Debiti'*, La ReformaSociale XLI, volume XLV No 1, January 1934.
12. Government deposits insurance itself is an evidence of the fragility of trust. To stiglitz (1989) government deposit insurance lies at the heart of creating moral hazard problem since it implies as a free license to banks to take excessive risks. "Banks which undertake greater risk can offer greater interest rates to depositors, who can, with impunity, turn over their funds to the bank. These banks attract funds away from more prudent banks. A kind of Gresham's Law works with a vengeance". He further argues that this alongside debt friendly tax policies further impede governments to indulge in risk sharing through equity financing.
13. According to (Askari et al., 2010: 84), "Based on historical evidence, each credit crash would wipe out more than 50 percent of conventional banks in the absence of government bailouts".
14. Although interest-free lending, called '*qardhassan'*, is permitted (see Askari et al., 2010 and Mirakhor and Shaukat, 2012, 2013 among others).
15. See also Haque and Mirakhor, (1987); Khan and Mirakhor, (1989, 1994); Mirakhor et al., (2012, 2013); Mirakhor and Krichene, (2013) among others.
16. There is no credit creation out of thin air in Islamic finance. As discussed in previous sections, under conventional fractional reserve banking, deposits at one bank can be instantaneously loaned out or used to purchase a financial asset and become reserves and a basis for a new loan at a second bank. The credit multiplier is determined by the reserve requirement and could be high. In case of securitization and over-leverage, the credit multiplier is theoretically infinite, leading to violent asset and product price fluctuations[1]It is also to note that since interest

rates are an economy-wide variable and therefore systematic, their risk does not get diversified away like other *idiosyncratic* risks of a stock would. This would also translate into a higher portfolio beta (see Bacha and Mirakhor, 2012).

17. As discussed earlier such a notion was also backed by Keynes in the absence of interest rate mechanism.
18. For a detailed discussion on the notion of 'Equity Premium Puzzles', See for example Mirakhor and Erbas (2007), *"The Equity Premium Puzzle, Ambiguity Aversion, and Institutional Quality: Implications for Islamic Finance"*. Journal of Islamic Economics, Banking and 38 Finance, Volume-6 Number-1.
19. See Sadr and Iqbal (2001) and Mirakor and Zaidi (1987) among others.
20. See, for example, Khan (1986), Zaidi and Mirakhor (1987a, b), Zaidi and Mirakhor (1988), Mirakhor(1990/1993) and Mirakhor and Krichene (2013).
21. See, for example, Van Wincoop (1999); Kim et. al. (2005); Lee and Shin (2008).
22. Such arguments are a norm and were also pervasive in the recent International conference on Islamic Business, Islamabad, Pakistan (2012) as well as in a recent conference of security commission Malaysia (2011) held with the theme of Risk Sharing in finance.