

3. Islamic risk management and its role in defending from the Global Financial Crises: Useful practices for traditional banks

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Stability is a basic requirement for the proper functioning of the banking system and a key to its contribution to growth and development. During the 1980s, the failure of banks became a common phenomenon that preceded economic crises. Bank insurance funds in countries with deposit guarantee schemes have lost substantial amounts, causing the loss of taxpayers' money. The hope was that the crisis would be restricted to financial markets, with few repercussions on the real economies. This hope was shattered in September 2008 as the crisis entered an acute phase, with strong downward fluctuations in the stock markets and reduced rates of economic growth. Despite the financial crisis of 2008 is nearly five years behind us, yet its impact on financial markets persists. Financial institutions face a "New Reality" of lower returns, higher volatility and increased scrutiny from boards and regulators.

In the meanwhile, Islamic finance has been experiencing a rapid acceleration worldwide. According to reports, which conducted a worldwide survey of the development of Islamic financial institutions comparing to traditional financial institution during 2009, it shows a two-digit growth by the Islamic industry despite the severe impact of the global financial crises of 2008 and 2009. While Islamic financial institutions have successfully qualified the robustness test by exhibiting greater resilience during the recent global financial crises, regulatory regimes are under review in the wake of the financial crisis as regulators seek to bolster financial stability and avoid a repeat of the problems that led to the current situation.

The financial crisis has demonstrated the need for an integrated approach to risk management and one that encourages risk managers to think in terms of scenarios. In my research, I will discuss the challenges and opportunities of implementation the Islamic financial engineering methods that may assist conventional institutions facing in a changing market environment and frequent financial crisis.

Keywords: Islamic finance, financial crisis, risk-sharing, debt, interest, economic growth, stability

1. Introduction

The financial system has definitely played an active role in the accelerated development of the world economy, particularly the financial innovations: the revolution in information and communications technology. The system is, however, now infested by persistent and frequent crises. According to one estimate, there have been more than 100 crises over the last four decades (Stiglitz 2003, p. 54.). Not a single geographical area or major country, even though following sound fiscal and monetary policy, has been spared the effect of these crises. The prevailing financial crisis, which started in the summer of 2007, is more severe than any in the past and shows no sign of regress despite a coordinated bailout of three to four trillion dollars. It has seized-up money markets and led to a decline in property and stock values, bank failures, and nervous anxiety about the fate of the global economy and the financial system. This has created a feeling that there is something basically wrong with the system.

This gives an idea of the nature of issues under consideration for shaping new financial landscape. The environment within which today's financial institutions are operating is changing. By searching for a more enduring stable solution there was a consensus among researchers to restore the financial transactions to their basic function – to provide services that add value to the real economy. This, in fact, represents the core elements of Islamic Financial system. The basic framework for an Islamic financial system is a set of rules that govern economic, social, political, and cultural aspects of societies that lead to their ultimate welfare. The overall resurgence of fundamental Islamic values in today's world has manifested itself on the economic system as well, with a number of countries, including western countries, having adopted Islamic institution into their economic system. However, concerns remain regarding the compatibility of Islamic financial principles with the conventional performance metrics, particularly, whether socioeconomic goals can be reconciled with the goals of profitability and market share.

This paper is at the crossroads of two literatures. The first literature addresses the issue of “what went wrong” in the development of the global financial crisis, starting from 2007 so called “sub-prime” crisis and culminating in 2008 into an unprecedented halt of the financial system, a system that was precisely under regulations aiming at providing such systemic crisis. The financial crisis is analysed from multiple points of view, including conventional and alternative. Both of them argue that the interest-based economy is unstable and leads, sooner or later, to distortion of all sectors of economy. The second literature addresses the topic of Islamic financial system capabilities to adjust to major disturbances.

The paper is structured as follows. Section II discusses briefly the rationale for the causes of the global financial crisis. It ends up to a summary that crises are endemic to the interest based system. The third first sub-section will provide an extended model, that takes into consideration core elements that differentiate conventional and Islamic financial systems, to prove that the latter is more resistant to major financial shocks. The next sub-section of this paper will be focusing on the empirical analysis. The descriptive performance for each of the systems during the last few years in this analysis will also provided. The last section will cover the conclusion for this research, with some suggestion of whether a system that abolishes the payment and receipt of interest can be viable in the arena of contemporary economies.

In the light of these observations, the present paper presents the Islamic system contribution to the overall economic stability through examining the contemporary trends in Islamic risk management practices and assessing the compatibility of their inherent potential for developing into the conventional interest-based system.

2. Causes of the global financial crisis

2.1. Conventional and alternative View

"The whole world economy has just hit the wall and is in free fall"
Larry Brainard, Trusted Sources, 2008.

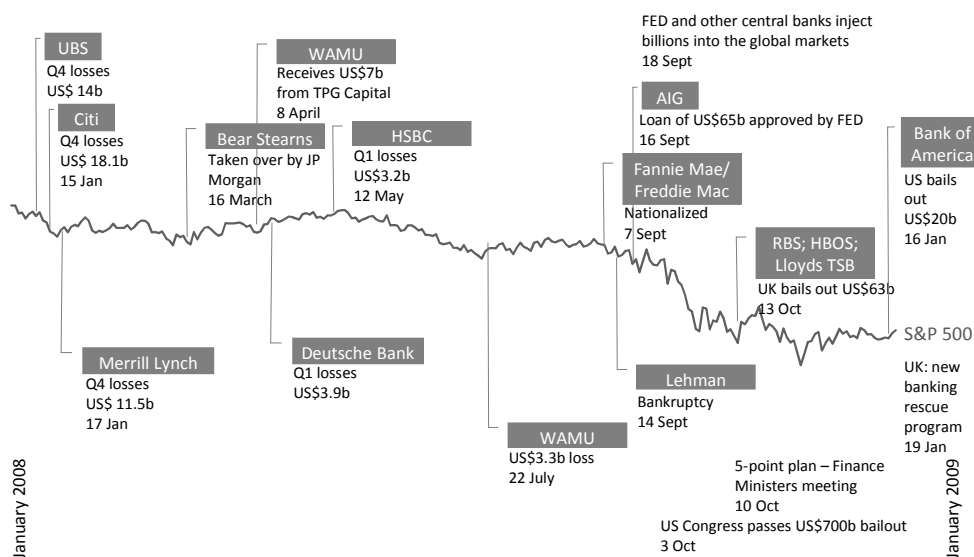
The whole world for the last five years has been in clutch of a financial crisis that swiped more than \$3 trillion of bailout and liquidity injections by governments to abate somewhat its intensity. It is said to be far more serious than any experienced since the Great Depression.

There is, hence, a call for a new architecture that could help minimize the frequency and severity of such a crisis in the future (Camdessus 2000, pp. 1. and 7-10., Stiglitz 2007, p. 3., Baily et al. 2008, p. 44.).

It is not possible to design such a new architecture without first determining the primary cause of the crisis. It began in the subprime mortgage market of the US financial system. "Sub-prime" refers to a segment of market where loans, referred to as "Ninja Loans" (no income, no jobs and no assets), were extended in the lending

frenzy to buyers with low credit score and poor income-earning prospects.¹ In the period of run-up to the crisis, the US and global economies displayed robust growth, which was expected to continue. Interest rates were low, liquidity was high and growing, financial innovations were proceeding at a rapid pace (especially in securitization and structure finance), complacency in the face of growing risk was deepening, and regulation and supervision were receding and weakening (Mirakhor–Krichene 2009). All of this created an incentive structure that encouraged excessive risk-taking in search of higher yields.

Figure 1. The financial landscape has experiences significant shifts with many institutions collapsing or requiring government capital support



Source: Factiva, Bloomberg, Ernst and Young Analysis (2013)

To encourage sub-prime borrowers, banks offered a 30-year mortgage with low or zero down-payment and low interest rates for the first 2-3 years, after which the loan would be reset at double-digit interest rates. Bank would then package these

¹ The Subprime borrowers comprised a riskier class, generally with a FICO credit score of less than 640 (a credit score developed by Fair Isaac & Company, ranging between 300 and 850, with a higher score indicating a better chance of repayment). For this class of borrowers to have access to credit, the mortgages would need to be structured differently and the underwriting standards would have to be substantially weaker.

mortgages and sell them to special purpose vehicle (SPV) subsidiary they had established to securitize them into mortgage-backed securities (MBS). Hundreds of MBSs packed in a bunch to be rearranged and transformed into newly innovated instruments called collateralized debt obligations (CDO). They were divided into high-rated tranches that paid low interest but with the higher security of being the first to be paid in the event of default, and lower-rated subordinated tranches that paid higher interest rates but with lower security of repayment. Further innovation made it possible for an SPV to use these CDOs as an underlying asset to allow another packaging into CDO-squared and repackaged again into CDO-cubed, the next layer of CDOs, to be dissected into various tranches and sold. In result, that created a greater distance between the original underlying MBS assets and every new layer of instruments, which were distributed and sold far to geographically dispersed buyers in the form of structured investment vehicles (SIVs).² To run effectively, some sort of credit rating system was needed to give confidence to the purchaser of these instruments that the underlying risks were sufficiently analyzed and fairly rated. For this purpose, the SPVs, and other issuers of structured security, would always select the rating agency that granted investment grade at least possible cost and avoid other cautious agencies.

There was another factor that enhanced the downward spiral of the recent crisis i.e. the marked-to-market accounting rules conducted by banks. By selling their assets to the SPVs they has established, the banks moved those assets off their balance sheets, which allowed them to expand their balance sheets and, at the same time pass the risks to the buyers of these assets. When the crisis hit, the guarantees forced these banks to bring the assets back on their balance sheet, thus contracting them, which led to reduced credit and worsening of the ongoing credit crunch. It is worth noting also, that while banks' leverage ratio was about 10, these non-bank institutions, lacking from regulatory supervisory framework, could have leverage ratio as large as 30.

A forth factor that has tended to provide a false sense of security is the "too big to fail" concept which provides an assurance to "big" banks that the central bank will come to their assistance and bail them out in case of any financial problem. Banks which are provided with such a safety net have incentives to take greater risk than what they otherwise would (Mishkin 1997, p. 62.).

In addition to all above reasons, there was a fault risk management system that ignored the possibility of a market crisis, which should have been very important risk in the sub-prime market. This is due to interrelationship between mar-

² For a full explanation of these instruments, see: „Credit Derivatives Explained”, prepared by Lehman Brothers' Structured Credit Research, available on the internet.

kets that when one market becomes liquidity constrained, the institutions are forced to sell assets (or positions) they hold in other markets, triggering asset sales by those highly leveraged non-bank institutions, producing this way a decline in asset prices in these other markets.

2.2. *Interest-based system and instability*

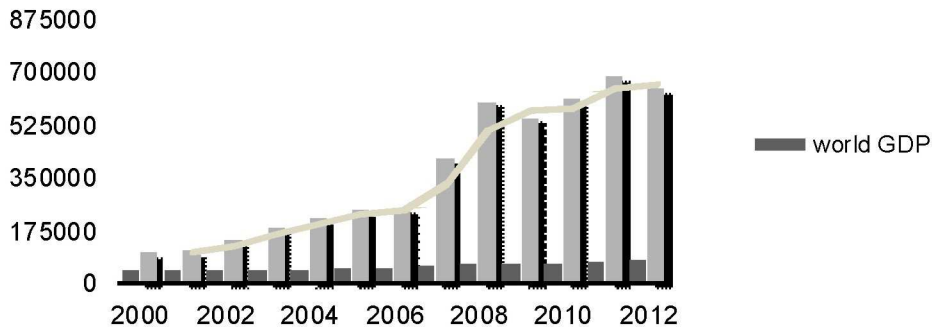
The alternative view of the financial crises sees that crises are endemic to the financial capitalism where prevailing mode of financing is the interest-based debt and credit contracts. The financial institutions make money off the interest rates they charge on the money lent. Borrowers, on the other hand, have three options to use this money to (i) finances new investments (which is obvious that this is the one mode to help the expansion of the economy) (ii) finances purchases of financial assets (iii) finances current consumption.

It is worth noting that, contrary to common belief, consumption today validates the debt obligations incurred for financing the past investments. Any fall in consumption represents a failure to validate payment obligations in the past. For validation past and present obligations, investment and consumption must grow. Debt, however, grows or declines for reasons other than those that cause investment in the real sector to grow. There is indirect connection between them through the interest rate mechanism. Banks, in fact, are not interested in real rate of return to an investment project but only, as the debt obligation is validated. To ensure that this will be the case, banks ask for collateral. Financial system becomes more sophisticated and innovations are much more needed to financialize as many commodities and real assets as possible. The financialization process, through interest-rate based system, transform equity in real assets into debt. The result was growing corporate debt-to-equity and household debt-to-income; income transfer from the real sector to the financial sector, where the orientation has been changed from saving-investment-production-export to borrowing-debt-consumption-import (Palley 2007).

This was evident when following the US economic indicators over the past three decades. Palley (2007) estimates that the total credit-to-GDP ratio grew from 140% to 328,6% of GDP between 1973 and 2005, while mortgage debt-to-GDP grew from 48,7% to 97,5% over the same period. Household debt-to-GDP grew from 45,2% in 1973 to 94% in 2005. The financialization process has also contributed, besides the expansion of debt, to adverse “changes in the functional distribution of income, wage stagnation, and increased income inequality” (Palley 2007). As the financial sector grows to dominate the real sector, layer upon layer of securitization, thins the connection between the two to the point where an inverted pyramid of debt is supported by a very narrow base of real sector output and assets (Mirakhor 2007). In 2006, the total world GDP was \$48 billion while the value of global financial as-

sets was \$140 billion (nearly three times more). As of 2007, the global liquidity market (80% of its liquidity composed of financial derivatives) was estimated to be 12,5 times as large as the global GDP (see Figure 2).

Figure 2. Derivative Market Vs. World GDP



Source: Bank for International Settlement

2.3. Keynes “*euthanasia of the rentier*” theory

In his books “*Treatise on Money*” and “*The general theory*”, Keynes did not believe that there is neither theoretical explanation nor economic justification for the existence of *ex ante*, fixed interest rate payment. He sees that the scarcity of capital gives the financial capital owners demand interest rates for their money. Thus, interest is the price for the use of money, it is not the yield of capital. According to him, there is a class in market economies that lives on interest income and finds advantage in holding liquid assets rather than risking their holdings in employment-creating investments. He agrees that interest encourages socially wasteful saving and discourages socially desirable investments. It creates a wedge between saving and investment, conditions under which the whole system becomes unstable. In terms of the concept of “own rate of interest” he suggests that any commodity in the spot market will have a rate of return (+,0,-) in the future market. He explained that the future is uncertain so the rate of return to assets could not be known *ex ante* (fixed). While, he emphasis, the marginal efficiency of capital (the rate of return on real sector investments) is determined within the real sector of the economy, the *ex ante* fixed interest rate is determined by psychological and institutional conditions.

Through his theory “*euthanasia of the rentier*” he stressed the importance to increase in the volume of capital until it ceases to be scarce so that the functionless investor will no longer receive a bonus. All savings, in this way, will be channeled into productive employment-creating investment.

2.4. Minsky “Financial instability hypothesis”

As did Keynes before him, Minsky considered interest-based financial system as inherently unstable and that dialectic forces of it would lead to disaster if left to its own devices. His major contribution is known as the “financial instability hypothesis” (Mirakhor–Krichene 2009, Mirakhor 1985). This hypothesis contains two main propositions; the first states that there are two financing structures: one promotes stability, the other instability. The second proposition states that, in the financial system of money capitalism, stability is not sustainable because, during prosperity, stability contains the seeds of its own instability. Minsky referred to this proposition as “stability is destabilizing”.

According to him, the system could be stabilized with “Big Government, as the effective employer of last resort” and “Big central bank, as the effective lender of last resort” and more important, imposing dynamic regulatory system.

2.5. Metzler’ model

Although the financial systems dominated by interest-based debt contracts seen as more prone to financial instability, few, if any, notable economists have proposed explicit debtless system. Such works had just been theoretically investigated to analyze their implications in practice. One of the earliest analytically models of a stock market economy was developed by Llyod Metzler (1951), who investigated the economic implications of an economic system in which private wealth is in only two forms” money (including demand deposits) and common stock, and that all common stock involves appropriately the same degree of risk. Metzler assumed that common stock is the only non-monetary asset of the banking system. The model further assumed that it is closed economy the labor supply and all means of production were produced at constant returns to scale. In this way, the interest-rate was merely based on the performance of the stock in the market and earnings from the investment activity. The concept of *ex post* interest rate, rather than an *ex ante*, is then applied. Since it assumed away the existence of debt instruments, the Metzler’ model was a reasonable first approximation of an Islamic financial system.

3. The Stability of Islamic Financial System

3.1. Theoretical consideration of the Islamic banking model

The Metzler model, mentioned above, was used and extended in new directions and further equilibrium models have been constructed to investigate the implications of

operations of an Islamic financial system, particularly as to the effects on the economy's capacity to adjust to disturbances, and on international capital flows (Khan–Mirakhor 1989, Mirakhor–Zaidi 1988, Mirakhor 1990). The uniqueness in such works that the stability characteristics demonstrated are generated within a conventional institutional framework and have proved to possibly, at least theoretically, envision a non-interest-based financial structure within a conventional system. However, a majority of relevant literature suggests (though using theoretical arguments rather than a formal empirical analysis) that Islamic banks³ pose risks to the financial system that in many regards differ from those posed by conventional banks and that those features should be taken into account while assessing Islamic Banks' contribution to stability in a financial system where they are operating. Some of these risks⁴ arise due to the unique nature of Islamic banks and are, particularly, associated with specific Islamic contracts and business model compliant with Sharia'. To understand some of these risks arising in Islamic banks, appendix II briefly examine the various items in their balance sheet.

Based on Metzler-Khan model, this system of investment deposits is quite closely related to proposals aimed at transforming the traditional banking system into an equity basis made. Since the nominal value of investment deposits is not guaranteed and will fluctuate according to the performance of the bank, any shocks to asset positions are absorbed by changes in the value of shares (deposits) held by the public. Therefore, an equity-based system of this type can respond more easily and rapidly in the face of the banking crisis. In the traditional banking system the bank is expected to guarantee the nominal value of the deposit, so that any shock can cause a divergence between the real value of assets and liabilities. If the bank cannot absorb losses through its reserves and borrowings from the central bank, this divergence may well result in instability and possible collapse of the payments mechanism. With the value of deposits directly linked to the earnings, and therefore assets, of banks, such a possibility is excluded from the Islamic banking system.⁵

Figure 3 shows differences when analyzing the way of breaking losses for conventional and Islamic banks. The expected loss in conventional bank is broken even from the profit made by a bank in that period; the unexpected loss is to a certain extent broken even from the bank capital while the amount above that level is refunded from the insurance or the bank go in bankruptcy. The Islamic banks, however, break even the expected loss from the provision income; the unexpected loss,

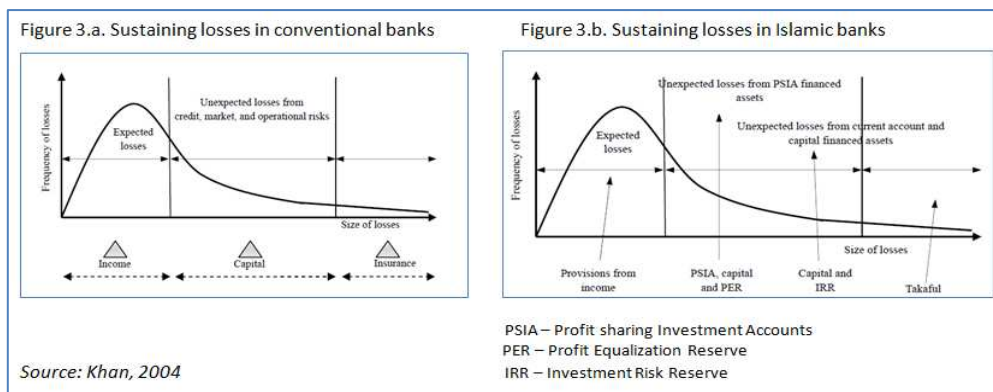
³ Appendix I provides an overview of the basic characteristics of the Islamic Banking.

⁴ Appendix III provides an overview of the Risk types that Islamic Banks face due to their unique nature.

⁵ For a formal analysis of the process, see Khan (1986).

to a certain of reliability, is refunded from the PSIA (if the unexpected loss was a result of investment into PSIA) or from capital (if such loss was due to other bank activities); while above that amount will be covered by the insurance, *takaful*.

Figure 3. Sustaining losses in conventional and Islamic banks



Source: Khan (2004), Kozarević et al. (2013)

From a theoretical standpoint, these features could make Islamic banks less vulnerable to risk than conventional banks. For example, Islamic banks are able to pass through a negative shock on the asset side (e.g. a *Musharaka* loss) to the investment depositors (a *Mudarabah* arrangement). The risk-sharing arrangements on the deposit side provide another layer of protection to the bank, in addition to its book capital. Also, the need to provide stable and competitive return to investors, the shareholders' responsibility for negligence or misconduct (operational risk), and the more difficult access to liquidity put pressures on Islamic banks to be more conservative (resulting in less moral hazard and risk taking). Furthermore, because investors (depositors) share in the risks (and typically do not have deposit insurance), they have more incentives to exercise tight oversight over bank management. Finally, Islamic banks have traditionally been holding a comparatively larger proportion of their assets than Conventional banks in reserve accounts with central banks or in correspondent accounts.⁶ So, even if Islamic investments are more risky than con-

⁶ Islamic banks operate couple of reserves, in addition to provision for loan losses (PLL). The profit equalization reserve (PER) is appropriated from the gross income of the murabaha for smoothing returns paid to the investment account holders and the shareholders. This reserve is deducted from both the shareholders and investment account holders. Note that while PER share of the bank (shareholders) is included in capital, the portion of the depositors is not. The investment risk reserve (IRR) is

ventional investments, the question from the financial stability perspective is whether or not these higher risks are compensated for by higher buffers.

3.2. Empirical analysis of systems performances

The development of the Islamic finance industry during the last three decades, starting from the introduction of Islamic Finance indices in conventional financial markets, followed by the financial innovations such as *sukuk* insurance, and last but not least, being successfully qualified the robustness test by exhibiting greater, than the conventional counterparts did, resilience during the recent global financial crises captured the attention of the global financial system.

As shown in a paper by (Kashyap et al. 2002), Islamic finance increased the potential pool supporting the system, and therefore providing extra liquidity, with the most important commodity in times of crises. This helped, with impetus of financial innovations, to increase the risk bearing capacity of economies, and thus, it improved the stability of the global economic system. In addition to their increment to the financial sector, it supported growth in real economy by creating much more access to financial resources for SMEs, entrepreneurs, firms and households, who were previously sidelined in financial system because of their religious, moral and ethical concerns.

However, despite of the development, it cannot be denied at all that Islamic financial institutions and economies suffered significant blows during the last financial crisis. Indonesia and Malaysia's losses in the East Asian Crisis; and the recent default of *sukuk* insurance market in Dubai, followed by numerous bankruptcy cases in the real economy, especially in the property development sector, are the very recent examples that Islamic finance might not be immune to the weaknesses of the global financial system (Asutay–Aksak 2011).

As a reflection of the arguments above, this section aims to address the implications of Islamic finance on the broader global economic system by investigating the sustainability of the theoretical benefits of such an introduction and development from both stability and growth sides.

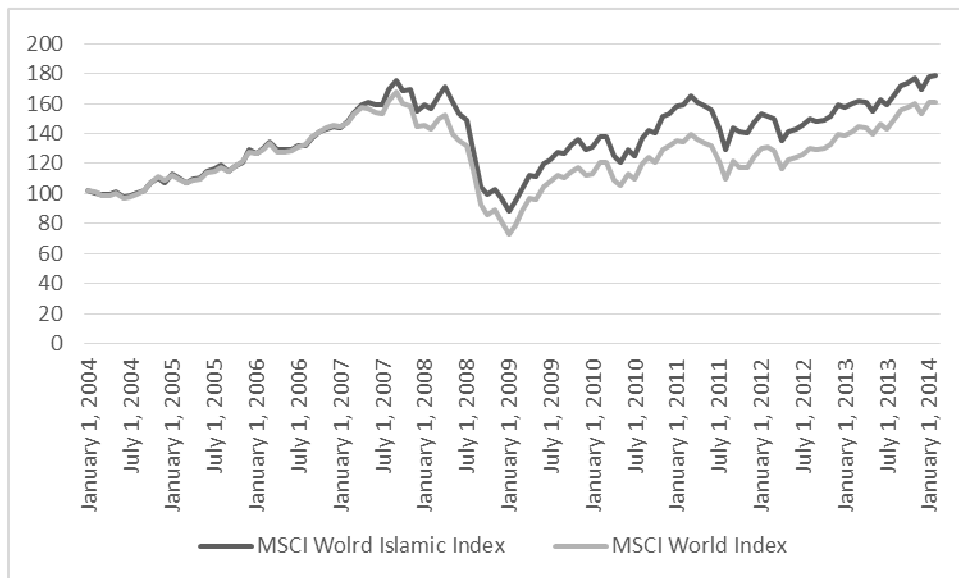
In order the possibly capture differences based on the theoretical business models and investment strategy differences, the contrast of daily volatility of conventional and Islamic stock indices is strongly recommended.

Figure 4 representing the performances of both conventional and Islamic finance in the financial market and shows that they have been very closely correlated

appropriated from the income of PSIA account holders only (i.e. after the deduction of the bank's share of the profit) to meet future losses on the investments financed by investment accounts.

to each other. As some preliminary studies suggest, one of the most important reasons of such correlation turned out to be the increasing debt-based murabahah instrument as a source of financing in the Islamic and finance industry, while their equity and asset based contracts remain marginal. This may imply a closer relation to the conventional markets.

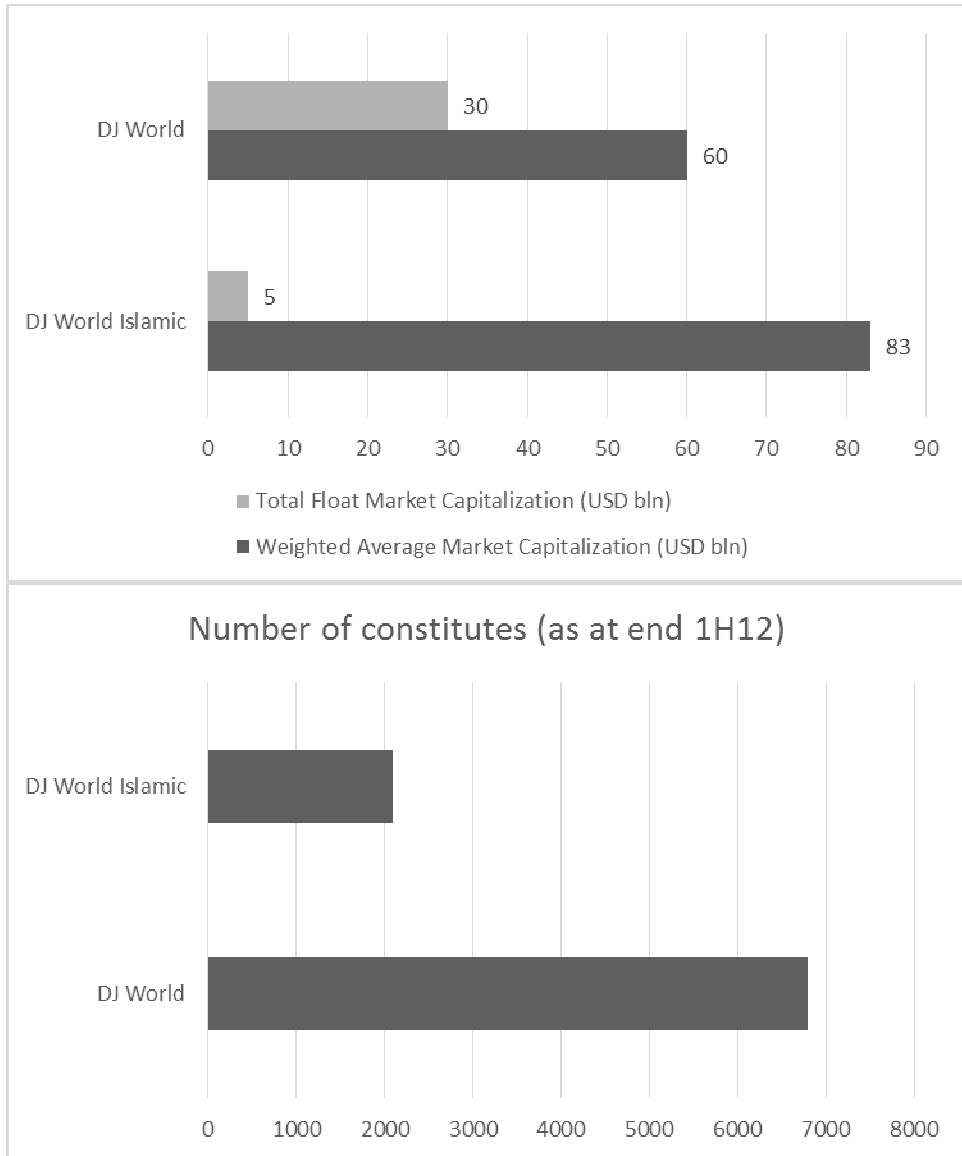
Figure 4. Selected Global Conventional and Islamic Equity Markets Indices



Source: MSCI

Hassan–Dridi (2010) provide contradictory evidence that the business model and investment strategies of Islamic banks differ from those of conventional banks. They report factors related to Sharia compliance and Islamic banks' business model helped them to contain the adverse impact on profitability in 2008 during the first phase of crisis; while weaknesses in risk management and corporate governance practices in some Islamic banks led to a larger decline in profitability compared to commercial banks in 2009, in the second phase. They also emphasize the importance of Sharia compliance requirements that limit the Islamic banks exposure to the kind of toxic instruments which turned the initial financial crisis into a global epidemic. In addition, they also suggest that the default of Dubai sukuk market in the wake of current crisis in a direct result of exceeding the concentration limits of the financial institutions in the markets, especially concentrated on real estate investments.

Figure 5. Market Capitalization and number of constitues (as at end – 1H12)



Source: Dow Jones

As the main aspirations of Islamic finance were to achieve an alternative economic paradigm, which requires risk sharing, stimulation of economic growth and prosperity, Asutay–Askak (2011) progress a step further and question the ability of Islamic finance to meet the requirements of the real economy in comparison to the means of conventional banks. They contrast the returns of the financial markets, both conventional and Islamic, with the growth of GDP of selected economies as an indicator of the aforementioned link. They found out that the correlation between the conventional markets and Islamic financial markets are much higher than the relation between the latter and the real economy. They suggest mimicking of conventional markets by Islamic markets. This can be a result of size disadvantages of Islamic finance (Figure 5), as well as the tendency of Islamic finance investors to use the conventional markets as a benchmark for their diversification.

As a result, it is evident that there was a strong need for Islamic finance and it was welcome warmly by Muslim investors throughout the world. After the phase of initial welcoming response, it can be suggested that Islamic finance has moved into being an integral part of the financial system, rather than creating its own line to address the glaring weaknesses of the current and financial system.

4. Conclusion

In the light of the arguments above, we can definitely assume that the Islamic financial system is capable of minimizing the severity and frequency of financial crises by getting rid of the glaring weaknesses of the conventional system. It institutes greater discipline by requiring the financier to share in the risk. It links the growth of debt to the growth of real economy by allowing credit for purchasing real goods and services, which the seller poses and buyer wishes to take delivery. It prohibits the sale of debt so the creditor would be more careful when evaluating the risk associated. Islamic banking, by the system of justice, can also reduce the problem of sub-prime borrowers and provide credit to them at affordable terms.

However, there are a lot of problems that the Islamic Finance industry should encounter. First, it is still in its infancy and shares a very small proportion of international finance, if comparing with conventional finance system. The greater use of debt-financing and marginal of equity-based financing mode is one of the fateful problems that Islamic Bank should analyze and face. Moreover, even in the case of debt-creating modes all the conditions laid down by the Sharia are not being faithfully observed. This is partly due to the lack of proper understanding of ultimate objectives of Islamic finance, the non-availability of trained personnel, the absence of a number of support institutions (in terms of their experience in risk minimizing, deal-

ing with moral hazard, principal/agent conflict of interest). The Islamic Finance system is thus not fully prepared to play a significant role, and substitute the conventional finance system, in ensuring the health and stability of the international system. It is, however, expected to get momentum in the coming few years so it can increase its share globally to be the main player in providing and sustaining health and stability of the global financial system.

Up to now, and since the current architecture of the conventional financial system has existed for a long time, it would be difficult for the international community to accept radical structural reform of the kind of Islamic finance system envisages. However, it would be better to adopt some elements of the Islamic system, which are also a part of the western heritage, that minimizes the severity of crises and ensures the stability within the global financial system. Chapra (2009), suggests:

- Increasing the proportion of equity in total financing and decreasing that of debt.
- Credit expansion must be linked to the real sector and does not promote destabilizing speculation and gambling.
- Leverage needs to be controlled. Credit should be limited to the ability of the borrower to repay.
- Transparency standard to be maintained. In the case of CDOs, it would be desirable to have the right of resource for the ultimate purchaser so as to ensure the lender has incentive to underwrite the debt carefully.
- The CDOs protective role should be confined to the original lender and cannot cover other purchasers who wish to wager on the debtor's default.
- Systematic and proper regulations and supervision over all financial institutions.
- Some arrangements, other than microfinance programs, should be made by governments to make credit more available for subprime borrowers at affordable terms.

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APPENDIX I. Brief introduction to Islamic Banking

- Islamic financial services, as name suggest, must be conformed to Islamic Religious practices and law. They are characterized by the prohibition of *riba*, as *ex ante* predetermined interest rate, due to the fact that it is unsocial and harmful. Instead, it encourages the profit-and-loss sharing arrangements (PLS), purchase and resale of goods and services for fees. In PLS modes, the rate of return is not known nor fixed prior to undertaking the transaction. In purchase-resale transactions, a mark-up is lawful and must be agreed between the two sides of contracts, based on a benchmark rate of return (such as LIBOR in conventional system, with one difference that it cannot be changed during the time of contract).
- The second feature of Islamic Finance is the prohibition of trading in financial risk (which is seen as a form of gambling).

APPENDIX II. The characteristics of the Islamic bank balance sheet

On the asset side of an Islamic bank, the investment tools are dominated by fixed-income modes of financing and to lesser extent profit-sharing instruments. On the liability side, Islamic banks have demand deposits or checking/current accounts and saving and investment deposits.

Using profit-sharing principle to reward depositors is a unique feature of Islamic banks. The returns on PSIA are state-contingent and neither the principal nor a return is guaranteed. The owners of PSIA participate in the risks and share in the bank's profit and losses. Investment accounts can be further classified as restricted and unrestricted (PSIAr and PSIAu respectively), the former having restrictions on, among others, withdrawals before maturity date.

APPENDIX III. Risk Types that Islamic Banks face

Some unique risks arising in Islamic banks that are relevant and should be included in the risk management system assessment are discussed below.

- Fiduciary Risk - when depositors/investors interpret a low rate of return as breaching of investment contract or mismanagement of funds by the bank. It can also take the form of causing a serious confidence problem due to inability of the Islamic bank to comply with the Sharia.
- Withdrawal Risk – When a bank may not be able to pay competitive rates of return compared to its peer group of Islamic banks and other competitors. To prevent withdrawal and systemic risks, the owners of the bank will need to apportion part of their own share in profits to the investment depositors.
- Treatment of PSIA as Capital – There is, however, need for caution in treating all PSIA as capital. Depositors with funds in PSIAu are risk averse and too

much downside in their returns can lead to withdrawals that can create systematic risks. Thus, to minimize the withdrawal and systemic risk, none or very small portion of PSIAu should be treated as capital. When assets are funded by PSIAr, however, larger part of it can use as capital.

- Risks in Islamic Financial Instruments – Market risks can be systematic arising from macro-sources, or unsystematic that are asset or instrument specific. This problem arises due to the asymmetric information problem as the banks do not have sufficient information on the actual profit of the firm. To manage the risks, there is a need to clearly understand the risks involved in the Islamic instruments.
 1. Limitations in using Instruments to Mitigate Risks – as they are prohibited by law.
- Operational Risks – direct or indirect loss – resulting from inadequate or failed internal processes, people, and technology or from external events. Non-standardization of contracts between countries and lack of Islamic statutes and courts that can enforce Islamic contracts increases the legal risks of using these contracts.