Risk Management in Islamic and Conventional Banking

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Abstract

Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. This research identifies key risks associated with conventional and Islamic banking. This research recommends forming a frame work to address identified risks in order to ensure smooth and efficient running of these two different types of banking systems.

1 Introduction

Islamic banking has gained momentum and has been growing very fast at a double digit average annual rate of growth. Today, Islamic banking is not a negligible or merely temporary phenomenon but it is here to stay and there are signs that it will continue to grow and expand (Mohamed, 1988). At the moment, it is one of the fastest growing industries. Its size has grown tremendously from a mere few hundred thousand dollars in 1975 to reach hundreds of billions of dollars by 2005. The practice of Islamic banking is now not limited to only Arab and Muslim countries but has spread from East to West, all the way from Indonesia and Malaysia towards Europe and the Americas. Not only that, but the fact is that many conventional banks, including some major multinational Western

banks have also started using Islamic banking techniques. Al-Iqtisadiyah (2005) reported that the world have been witnessing a widespread of Islamic banks all over the five continents. Today, there are280 Islamic banks in 48 countries, whose total deposits have reached US$400 billion, in addition to 300 conventional banks, which opened branches, windows or provide Islamic financial products.

As the use of the interest rate in financial transactions is precluded, Islamic banks are expected to conduct operations only on the basis of profit-sharing arrangements or other modes of financing permissible under Islamic law. At present about 45 countries, encompassing most of the Muslim world has some type of Islamic banking or financial institutions. This development, which has gained momentum since the second half of the 1970s, has basically taken two forms. The first has been an attempt to establish Islamic financial institutions side by side with traditional banking. In such attempts, two types of institutions have evolved: Islamic banks, established mostly in Muslim countries, and Islamic investment and holding companies, operating in some Muslim but mostly in non-Muslim countries. In both cases, generally, the banking operations of Islamic banks are subject to specific regulations that apply to all banks. Examples of Islamic banks are the Faisal Islamic Banks in Egypt and the Sudan, the Dubai Islamic Bank, and the Jordan Islamic Bank. Examples of investment companies having either a national or an international mandate include the Darul Mal Al-Islami (Geneva), the Islamic Investment Company (Bahamas), and the Bah-rain Islamic Investment Bank. These institutions compete with conventional banks to attract deposits but without paying a predetermined interest rate and invest these funds wherever they find profitable investment opportunities. The majority of these

institutions were established through private initiatives (Khan and Mirakhor, 1990). This work analyse the risk management in Islamic and conventional financial institutions. Rest of this work has been organized as follows. In section 2, literature review is presented. Section 3, analyses risk management whilst conclusion and future work is covered in section 4.

2. Literature Review

In an Islamic system, banks, although constrained by the rules of the Shari a, essentially perform the same functions as those in conventional system; that is, they act as administrators of the economy's payments system and as financial intermediaries. They are needed in both systems for the same reason for the exploitation of imperfections in financial markets. This imperfection includes imperfect divisibility of financial claims, imperfe4ct information, transaction costs of search and acquisition, diversification by the surplus and deficit units, and existence of expertise and economies of scale in monitoring transactions. Financial intermediaries in an Islamic system can reasonably be expected to exhibit economies of scale with respect to these costs, as do their counterparts in a conventional system. Just as in the latter system, the Islamic depository financial intermediaries transform the liabilities of business into a variety of obligations to suit the tastes and circumstances of the surplus units.

Prohibition of interest and the fact that the banks have to rely primarily on profit sharing leads to a major difference between the two systems: Islamic banks have to offer their asset portfolio of primary securities in the form of risky open ended "mutual funds" type packages for sale to investor depositors, while banks in conventional system keep title to the assets portfolios they originate. Banks fund these assets by issuing deposit contracts, a

practice that results in solvency and liquidity risks, because the asset portfolio entail risky payoffs and costs of liquidation prior to maturity, while deposit contracts are liabilities that are often put able instantaneously at par (Iqbal and Mirakhor, 1987).

Islamic finance has been expanding strongly all over the world during the past few years and shows significant product innovation and sophistication. Shariah-compliant products have proven to be attractive and offer many opportunities - even for non-Islamic institutions. This is due to the fact that up to 50% of the total savings of the Muslim population worldwide are projected to be invested in a Shariah-compliant way within the next five years, making it an extremely fast-growing business worldwide and offering significant potential to traditional Islamic institutions and new entrants. Risk management is getting more attention all over the world due to the sub-prime crisis and for most Islamic financial institutions, risk management presents specific challenges. The Islamic capital market is reaching an important peak of sophistication: almost all conventional products can be readily replicated in a Shariah-compliant way, even the most complex structured products, which is not always desirable according to many experts in the industry (Kumar 2009). Therefore it holds importance to carry out a detailed study of the risk management practices/processes being carried out by Islamic and conventional banks.

3. Risk Management

Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability

and/or impact of unfortunate events or to maximize the realization of opportunities. Risks can come from uncertainty in financial markets, project failures, legal liabilities, credit risk, accidents, natural causes and disasters as well as deliberate attacks from an adversary. (Hubbard 2009) The process of risk management is a two (2) step process. The first is to identify the source of the risk, i.e. to identify the leading variables causing the risk. The second is to devise methods to quantify the risk using mathematical models, in order to understand the risk profile of the instrument. (Rozman, 2010)

Once a general framework of risk identification and management is developed, the techniques can be applied to different situations, products, instruments and institutions. It is crucial for Islamic banks (IBs) to have comprehensive risk management framework as there is growing realization among IBs that sustainable growth critically depends on the development of a comprehensive risk management framework (Greuning and Iqbal,2007).

The four important aspects of risk management processes are: (1) understanding risk and risk management; (2) risk identification; (3) risk analysis and assessment; and (4) risk monitoring. Thus, a robust risk management framework can help IBIs to reduce their exposure to risks, and enhance their ability to compete in the market (Iqbal and Mirakhor, 2007). As this research is based on the transition of Bank of Khyber from conventional to Islamic banking therefore, it is necessary to discuss the risks faced by both the Conventional and Islamic Financial Institutions.

3.1. Risk Faced by Financial Institution

Risk arises when there is a possibility of more than one outcome and the ultimate outcome is unknown. Risk can be defined as the variability or volatility of unexpected

outcomes. It is usually measured by the standard deviation of historic outcomes. Though all businesses face uncertainty, financial institutions face some special kinds of risks given their nature of activities. The objective of financial institutions is to maximize profit and shareholder value-added by providing different financial services mainly by managing risks. There are different ways in which risks are classified. One way is to distinguish between business risk and financial risks. Business risk arises from the nature of a firm's business. It relates to factors affecting the product market. Financial risk arises from possible losses in financial markets due to movements in financial variables (Jorion and Khoury 1996). It is usually associated with leverage with the risk that obligations and liabilities cannot be met with current assets (Khan and Ahmed 2001).

The risks that Financial Institutions (banks) face can be divided into financial and non-financial ones. Financial risk can be further partitioned into market risk and credit risk. Non-financial risks, among others, include operational risk, regulatory risk, and legal risk. The nature of some of these risks is discussed below.

3.1. 1 Market Risk

Is the risk originating in instruments and assets traded in well-defined markets? Market risks can result from macro and micro sources. Systematic market risk result from overall movement of prices and policies in the economy. The unsystematic market risk arises when the price of the specific asset or instrument changes due to events linked to the instrument or asset. Volatility of prices in various markets gives different kinds of market risks. Thus market risk can be classified as equity price risk, interest rate risk, currency risk, and commodity price risk. As a result, market risk can occur in both

banking and trading books of banks (Khan & Ahmad 2001). While all of these risks are important, interest rate risk is one of the major risk that banks have to worry about.

3.1.2 Interest Rate Risk

Is the exposure of a bank's financial condition to movements in interest rates. Interest rate risk can arise from different sources. Re-pricing risk arises due to timing differences in the maturity and re-pricing of assets, liabilities and off-balance sheet items. Even with similar re-pricing characteristics, basis risk may arise if the adjustment of rates on assets and liabilities are not perfectly correlated. Yield curve risk is the uncertainty in income due to changes in the yield curve (Crouhy et al 2000). Finally instruments with call and put options can introduce additional risks

3.1.3. Credit Risk

Is the risk that counterparty will fail to meet its obligations timely and fully in accordance with the agreed terms. This risk can occur in the banking and trading books of the bank. In the banking book, loan credit risk arises when counterparty fails to meet its loan obligations fully in the stipulated time. This risk is associated with the quality of assets and the probability of default. Due to this risk, there is uncertainty of net-income and market value of Equity arising from non-payment and delayed payment of principal and interest.

Similarly, trading book credit risk arises due to a borrower's inability or unwillingness to discharge contractual obligations in trading contracts. This can result in settlement risk when one party to a deal pays money or delivers assets before receiving its own assets or cash, thereby, exposing it to potential loss (Syed et al. 2008). Settlement risk in financial institutions particularly arises in foreign-exchange transactions. While a part of the credit risk is

diversifiable, it cannot be eliminated completely.

3.1.4. Liquidity Risk

Arises due to insufficient liquidity for normal operating requirements reducing the ability of banks to meet its liabilities when it falls due. This risk may result from either difficulties in obtaining cash at reasonable cost from borrowings (funding or financing liquidity risk) or sale of assets (asset liquidity risk). One aspect of asset-liability management in the banking business is to minimize the liquidity risk. While funding risk can be controlled by proper planning of cash-flow needs and seeking newer sources of funds to finance cash shortfalls, the asset liquidity risk can be mitigated by diversification of assets and setting limits of certain illiquid products (Salman & Amanat, 2008).

3.1.5. Operational Risk

Is not a well defined concept and may arise from human and technical errors or accidents. It is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and technology or from external events. While people risk may arise due to incompetence and fraud, technology risk may result from telecommunications system and program failure. Process risk may occur due to various reasons including errors in model specifications, inaccurate transaction execution, and violating operational control limits (Crouhy et al, 2000). Due to problems arising from inaccurate processing, record keeping, system failures, compliance with regulations, etc., there is a possibility that operating costs might be different from what is expected affecting the net income adversely.

3.1.6. Legal Risks

Relate to risks of unenforceability of financial contracts. This relates to statutes, legislation, and regulations that affect the fulfilment of contracts and

transactions. This risk can be external in nature (like regulations affecting certain kind of business activities) or internal related to bank's management or employees (like fraud, violations of laws and regulations, etc.). Legal risks can be considered as a part of operational risk (Fontnouvelle et al., 2003). Regulatory risk arises from changes in regulatory framework of the country.

After discussing risks related to conventional banking, it is also important to discuss the risks involved in Islamic mode of financing.

3.2. Risks in Islamic Financial Institutions

The study shows that the Islamic banks face two types of risks. The first type of risks they have in common with traditional banks as financial intermediaries, such as credit risk, market risk, liquidity risk and operational risk. However, due to Shariah compliance the nature of these risks changes. The second type is of new and unique risks that the Islamic banks face as a result of their unique asset and liability structures. Consequently the processes and techniques of risk identification and management available to the Islamic banks could be of two types – standard techniques which are not in conflict with the Islamic principles of finance and techniques which are new or adapted keeping in view their special requirements.

The different categories of risk involved in Islamic banking relates to Credit risk, Equity investment risk, market risk, liquidity risk, operational risk and rate of return risk. While making meaningful risk assessments, it is crucial for Islamic Banking Institutions to recognize and evaluate the overlapping nature and transformation of risks that exist between and among the categories of the above-mentioned risks. In addition, IBIs may face consequential business risks relating to developments in the external

marketplace. Adverse changes in IBIs' markets, counterparties, or products as well as changes in the economic and political environments in which IBI operate and the effects of different Shariah rulings are examples of business risk. These changes may affect IBI's business plans, supporting systems and financial position. IBIs are also exposed to reputational risk arising from failures in governance, business strategy and process (SBP 2009). Negative publicity about the IBIs' business practices, particularly relating to Shariah non-compliance in their products and services, could have an impact upon their market position, profitability and liquidity.

The nature of risks that Islamic banks face and risks inherent in different modes of financing are outlined below.

3.2.1. Credit Risk

Credit risk would take the form of settlement/payment risk arising when one party to a deal pays money (e.g. in a Salam or Istisna contract) or delivers assets (e.g., in a Murabahah contract) before receiving its own assets or cash, thereby, exposing it to potential loss. In case of profit-sharing modes of financing (like Mudarabah and Musharakah) the credit risk will be non-payment of the share of the bank by the entrepreneur when it is due. This problem may arise for banks in these cases due to the asymmetric information problem in which they do not have sufficient information on the actual profit of the firm. As Murabahah contracts are trading contracts, credit risk arises in the form of counterparty risk due to non performance of a trading partner (Greuning and Iqbal, 2008, Pp. 126-127). The non performance can be due to external systematic sources.

3.2.2. Benchmarking Risk

As Islamic banks do not deal with interest rate, it may appear that they do not have market risks arising from changes in the interest

rate. Changes in the market interest rate, however, introduce some risks in the earnings of Islamic financial institutions. Financial institutions use a benchmark rate, to price different financial instruments. Specifically, in a Murabahah contract the mark-up is determined by adding the risk premium to the benchmark rate (usually the LIBOR). The nature of fixed income assets is such that the mark-up is fixed for the duration of the contract. As such if the benchmark rate changes, the mark-up rates on these fixed income contracts cannot be adjusted (Greuning and Iqbal, 2008, Pp. 126-127). As a result Islamic banks face risks arising from movements in market interest rate.

3.2.3. Liquidity Risk

As mentioned above, liquidity risk arises from either difficulties in obtaining cash at reasonable cost from borrowings or sale of assets. The liquidity risk arising from both sources is critical for Islamic banks. As interest based loans are prohibited by Shariah, Islamic banks cannot borrow funds to meet liquidity requirement in case of need. Furthermore, Shariah does not allow the sale of debt, other than its face value (Greuning and Iqbal, 2008). Thus, to raise funds by selling debt-based assets is not an option for Islamic financial institutions.

3.2.4. Operational Risk

Given the newness of Islamic banks, operational risk in terms of person risk can be acute in these institutions. Operational risk in this respect particularly arises as the banks may not have enough qualified professionals (capacity and capability) to conduct the Islamic financial operations. Given the different nature of business the computer software available in the market for conventional banks may not be appropriate for Islamic banks (Hunt 2007). This gives rise to system risks of developing and using

informational technologies in Islamic banks.

3.2.5. Legal Risk

Given the different nature of financial contracts, Islamic banks face risks related to their documentation and enforcement. As there are no standard forms of contracts for various financial instruments, Islamic banks prepare these according to their understanding of the Shariah, the local laws, and their needs and concerns (Hussain & Lewis 2007). Lack of standardized contracts along with the fact that there are no litigation systems to resolve problems associated with enforceability of contracts by the counterparty increases the legal risks associated with the Islamic contractual agreements.

3.2.6. Withdrawal Risk

A variable rate of return on saving/investment deposits introduces uncertainty regarding the real value of deposits. Asset preservation in terms of minimizing the risk of loss due to a lower rate of return may be an important factor in depositors' withdrawal decisions. From the bank's perspective, this introduces a 'withdrawal risk' that is linked to the lower rate of return relative to other financial institutions (Greuning and Iqbal, 2008).

3.2.7. Fiduciary Risk

A lower rate of return than the market rate also introduces fiduciary risk, when depositors/investors interpret a low rate of return as breaching of investment contract or mismanagement of funds by the bank (AAOIFI 1999). Fiduciary risk can be caused by breach of contract by the Islamic bank. For example, the bank may not be able to fully comply with the Shariah requirements of various contracts (Hunt 2007). While, the justification for the Islamic banks' business is compliance with the Shariah, an inability to do

so or not doing so will fully can cause a serious confidence problem and deposit withdrawal.

3.2.8. Displaced Commercial Risk

This risk is the transfer of the risk associated with deposits to equity holders. This arises when under commercial pressure banks forgo a part of profit to pay the depositors to prevent withdrawals due to a lower return (AAOIFI 1999). Displaced commercial risk implies that the bank though may operate in full compliance with the Shariah requirements, yet may not be able to pay competitive rates of return as compared to its peer group Islamic banks and other competitors. Depositors will again have the incentive to seek withdrawal (Greuning and Iqbal, 2007). To prevent withdrawal, the owners of the bank will need to apportion part of their own share in profits to the investment depositors.

4 Conclusions and Future Work

A central tenet of an economic system based on Islamic principles is the absolute prohibition on the payment and receipt of interest. It is this prohibition that makes Islamic banks and financial institutions differ in a fundamental sense from their Western counterparts. Moreover, there are several risks which are associated with the both Islamic and conventional banking system. This research recommends that a frame work to address these risk should be design in view of the practices as in use in these two different types of banking system. Future research will further expand some of the studied area as discussed in this work. We are committed to share future research findings with the ongoing research in this field.

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