Managing Business and Financial Risks of *Ṣukūk* : An Islamic Risk Management Perspective

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Abstract

Investors of *ṣukuk* (Islamic instruments of investment) are also exposed to a number of business and financial risks like conventional instruments, such as market, credit, liquidity, operational, regulatory, legal and fiduciary risks. Yet, the ability of Islamic instruments investors in mitigating the various risks is significantly impeded. The *sharī'ah* principles that govern the Islamic financial system invalidate many of the conventional risk management products due to the presence of objectionable elements in their structuring. Hence, without appropriate risk management tools and frameworks, the *ṣukūk* investors are put in an uncompetitive position compared to investors of conventional securitized instruments. As such, one of the major challenges in the global Islamic finance industry has been to 'structure' *sharī'ah*-compliant risk management tools and techniques. To this end, this paper assesses the business and financial risk characteristics of *ṣukūk* and proposes a number of innovative *sharī'ah* compliant risk mitigation tools and techniques that could be adopted to minimize risk exposures. The contributions from this paper are expected to generate significant interest from all *ṣukūk* market stakeholders as risk is an integral element of the industry and its effective management is a primary concern for most, if not all, connected parties.

Keywords: Islamic Risk Management, *Ṣukūk*, Islamic Derivatives, Financial Risks, Business Risks.

JEL Classification: G11, G31, G32, Z12

1. Introduction

With average annual growth rates ranging from 15% to 20% per annum over the past decade, Islamic finance is no longer an alien concept in major countries of the world (IIFM, 2010). The interest in incorporating

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Islamic Finance has emerged not only from Muslim markets and jurisdictions, but also from non-Muslim markets and investors. Countries such as Australia, China, France, Germany, Italy, Japan, Korea, Luxembourg, Singapore and United Kingdom have all undertaken measures to introduce Islamic Finance in their financial systems. Growing number of conventional banks have introduced parallel Islamic banking in their conventional operations (IFSB, 2010). As per ambitious estimates, Islamic Finance industry experts anticipate the overall Islamic Capital Markets of having a potential to reach capitalization levels of several trillion USD or nearly 25% of the world's capital market capitalization from the current 3.3% level in the next decade or two (IIFM, 2010).

Within the Islamic financial industry, Islamic financial certificates known as *ṣukūk* are the most popular modern Islamic financial instruments (Jobst et al, 2008). While commonly and rather inappropriately referred to as Islamic bonds (to be explained in the next section), *ṣukūk* are financial certificates which allow sovereign governments and public/private corporations to raise funds from the huge and growing Islamic liquidity pool (Naneava, 2010). The capitalization levels of *ṣukūk* markets in terms of new annual issuances have expanded tremendously from less than USD 6 billion. in 2003 to approximately USD 85 billion. by 2011 (IIFM, 2012). Malaysia and the Gulf region are the main hubs for *ṣukūk* issuance; however, there are a growing number of issuers from the United States, Europe, and other Asian countries (Cakir and Raei, 2007).

In spite of the progress, the years 2008 and 2009 were difficult years for the global *ṣukūk* markets partly due to the global financial crisis and partly as the *ṣukūk* industry was marred by a number of high profile default cases along with *sharī'ah* non-compliance allegations (Naneava, 2010). For instance, in October 2008, USD167million East Cameron Gas *Ṣukūk* filed for bankruptcy. Later, in May 2009, Dar Al Kuwait failed to meet its obligation on USD100 million *ṣukūk*. Saudi Arabia's Saad Group followed in June 2009 by failing to service its *ṣukūk* payments. Dubai Ports World, owned by Dubai government also announced moratorium on its *ṣukūk* repayments in November 2009. On the other hand, in November 2007 Sheikh Taqi Usmani, the chairman of the *sharī'ah* board of AAOIFI, commented that most of the *ṣukūk* (about 85%) in the market including even those using a *mushārakah* or *muḍārabah* structure, were not in line with the principles of *sharī'ah*. As a result, AAOIFI introduced six guidelines in February 2008 on the *sharī'ah* non-compliance issues in the *ṣukūk* structuring as apparent in the market at that time.

The combination of default risks, *sharī'ah* non-compliance risks and global financial crisis caused the amount of new *sharī'ah* issuances to fall from nearly USD 50 billion. in 2007 to a mere approximately USD16 billion. in 2008 and then to just under USD 31 billion. in 2009 (IIFM, 2012). Doubts and uneasiness amongst investors emerged as it became clear to many that *ṣukūk* carried additional risks due to the untested structures and specific *sharī'ah* requirements of such certificates (Lahsasna and Lee, 2012). A new wave of discussions took place on the robustness of Islamic finance system in general and *ṣukūk* markets in particular. The *ṣukūk* markets have stabilized since then as the global new *ṣukūk* issuances amounted to almost USD 85 billion. in 2011. However, the earlier events have firmly attracted stakeholders' attention towards comprehensively re-assessing the risk profiles of *ṣukūk* and to seek *sharī'ah* compliant risk mitigation techniques that minimize potential exposures.

In the same spirit, this paper assesses the business and financial risk characteristics of *ṣukūk* and considers what could be possible *sharī'ah* compliant risk mitigation tools and techniques that could be adopted to minimize the related risks. The paper is structured as follows: following the introduction, Section 2 presents a brief overview on the peculiarities of *ṣukūk* as financial certificates and what are the *sharī'ah* rulings that govern them. Section 3 next comprehensively considers the various areas of risk exposures in *ṣukūk* certificates that expose *ṣukūk* investors to potential losses. Subsequently, Section 4 critically highlights the various *sharī'ah* compliant risk management tools and techniques that could be used to mitigate risk exposures as identified in Section 3. Finally, Section 5 concludes the paper with closing remarks while references used in the paper are listed towards the end.

2. *Ṣukūk*: Definition, Structures and *Sharī'ah* Rulings

Ṣukūk are Islamic financial certificates the roots of which can be traced back to the Middle Ages where Muslim societies widely used papers representing financial obligations originating from trade and other commercial activities (Ayub, 2006). However, the structures of *ṣukūk* as used today in Islamic capital markets are much more enhanced reflecting the conventional concept of securitization, a process in which ownership of the underlying assets is transferred to a large number of investors through use of certificates (Marc, 2012). According to the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), *ṣukūk*

are 'certificates of equal value representing undivided shares in ownership of tangible assets, usufruct (legal right to derive profit from property), and services or in the ownership of the assets of particular projects or special investment activity'. Thus, a major distinction between conventional papers and *ṣukūk* are that *ṣukūk* do no pay interest, but rather generate returns through actual transactions depending on underlying contracts for e.g. profit-sharing investments, leasing of assets, etc. (Jobst et al, 2008).

Ṣukūk are of various types depending upon the underlying *sharī'ah* compliant contracts that are used in its structuring for e.g. *ṣukūk al-mushārakah*, *ṣukūk al-ijārah*, etc. Based on this, different *ṣukūk* can exhibit characteristics of debt and/or equity or asset-backed securities if securitisation elements are present (Thuronyi, 2007). However, with converging trends between Islamic and conventional finance, particularly in the case of *ṣukūk*, quite often *ṣukūk* are considered as 'Islamic bonds' which is not quite right (Iqbal and Mirakhor 2006). Even though the process of structuring and securitizing for *ṣukūk* are similar to conventional asset-backed securities (ABS) or covered bonds, it is inappropriate to equate them with conventional bonds (as is usually the case) since the mechanism of both are different even though in terms of features they may appear alike. A bond represents the issuer's pure debt, while *ṣukūk* represent ownership stake in an underlying asset (Cakir and Raei, 2007). For example, an *ijārah* (lease) contract that is often used to structure sovereign *ṣukūk* creates a lessee/lessor relationship which is different than a lender/borrower relationship. Also unlike conventional bonds, *ṣukūk* do not provide an explicit return guarantee or investment protection. As such, investors own the underlying asset(s) via a special purpose vehicle (SPV), which funds unsecured payments to investors from direct investment in real, religiously-sanctioned economic activity (Wilson, 2004).

In recent years, the numbers of issuances of *ṣukūk* has magnified as both private and public sector entities look for alternative investment/financing opportunities. The various types of *ṣukūk* being issued in the market are: *ṣukūk al-ijārah* (lease based), *ṣukūk al-mushārakah* (partnership based), *muḍārabah* (Equity investment based), *ṣukūk bai' bithaman al-'ājal* (sale and buy back), and *ṣukūk* al-salam (sale with deferred delivery) (Ayub, 2006). Prior to the AAOIFI's statement (2007/2008) on *sharī'ah* non-compliance aspects of *mushārakah/muḍārabah ṣukūk*, *ṣukūk al- mushārakah* used to be the most in terms of value of issuances. For e.g. in 2007, *ṣukūk al-mushārakah*

accounted for more than US$12 billion (nearly 30%) of total issues. The next in line in terms of value were *ṣukūk al-ijārah* (US$10 billion) (Jobst et al, 2008). However, *ṣukūk al-ijārah* were more common in terms of number of issuances as there were a total of 54 issuances of *ṣukūk al-ijārah* compared to 22 issuances of *mushārakah* structures in 2007. The global popularity of the *ijārah ṣukūk* has continued since then alongside a decline in the number *ṣukūk al- mushārakah* issuances. The popularity of the *ijārah ṣukūk* could be due to the fact that it allows investors to receive "fixed" timely payments and cash flows that are binding on the issuer based on rental agreements while satisfying AAOIFI's criteria of having a real and identifiable tangible asset as the underlying asset of the *ṣukūk* (Bacha, 2012). Thus, *ṣukūk ijārah* has the element of satisfying market requirements while complying with *sharī'ah*.

In terms of *sharī'ah* rulings, *ṣukūk* are required to comply with all rules as stipulated in *sharī'ah* (Islamic Law). From the economic point of view, *sharī'ah* requires gains from investments to be earned in an ethical and socially responsible manner that comply with teachings of Islam (DeLorenzo, 2000). In order for a *ṣukūk* to be classified as *sharī'ah* compliant and hence an 'Islamic finance' product, the *ṣukūk* structure needs to undergo a screening process to ensure it is free from prohibitive elements as dictated by *sharī'ah*. The common elements screened for are *ribā* (interest), *gharar* (absolute uncertainity), *maīsir* (gambling), prohibited commodities (liquour, pork, etc.) and fulfilment of contractual requirements as required in *fiqh al-mu'āmalāt* (Offer and acceptance, buyer and seller, subject matter and price) (Rosly, 2005).

In addition to the above requirements, *ṣukūk* can only be securitized on specific and identifiable tangible assets as unlike conventional bonds, *ṣukūk* cannot be used to finance the general liquidity needs of the issuer (Bacha, 2012). Hence, the requirement of a tangible underlying asset is a must. Meanwhile, the income to be received by the *ṣukūk* holders (investors) must be derived from the cash flows generated by the underlying asset, not from other sources external to the asset (AAOIFI, 2008). The *sharī'ah* Advisory Council (SAC) of Bank Negara Malaysia is an exception where they do not require underlying assets of *ribā* to be tangible and allow 100% securitization of receivables. That is because the SAC in Malaysia allows trading of debt (*bai' al-dayn*) which is prohibited by most scholars in the rest of the world. The SAC justifies its decision based on principles of *maṣlaḥah*, or public interest.

The paper will not go into the details of the various *ṣukūk* structures and their respective *sharī'ah* rulings as the concern of the paper is to mainly assess the risk characteristics and exposures of *ṣukūk* and what are the *sharī'ah* compliant solutions that could be used to mitigate this exposure. Hence, the paper proceeds to Section 3 which is dedicated to identification of various risk exposures that are faced by the holders of *ṣukūk*.

3. Risks Underlying the *Ṣukūk* Structures

Risk has been defined in a number of ways in literature by different writers although they all entail a similar understanding. For instance, Schroeck (2002) defined risk as an uncertainty or variation around some average value. Jorion and Khoury (1996) considered risk to be the variability or volatility of unexpected outcomes. Naneava (2010) explained that the standard deviation of historic outcomes represents risk. Overall, risks have the ability to adversely affect the competitiveness of an asset's pricing (Ahmed, 2011).

Khan and Ahmed (2001) elaborate that risks can be divided into business 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. It is usually associated with leverage with the risk that obligations cannot be met with current assets. Gleason (2000) further adds that banking financial risks can be partitioned into market risk, credit risk and liquidity risk while non-financial risks, among others, include operational risk, regulatory risk, and legal risk.

In the case of *ṣukūk*, the instruments face similar risk as conventional bonds. However, due to their peculiar underlying structuring, they often face higher exposure to certain business and financial risks compared to conventional bonds (Tariq and Dar, 2007). The various types of risk exposures as faced by holders of *ṣukūk* certificates are analysed below.

3.1 Market Risks

IFSB (2005) prudential guidelines describe market risk as the risk of losses in on- and off-balance sheet positions arising from movements in market prices resulting in fluctuations in values of tradable, marketable or leasable assets (including *ṣukūk*) and in off-balance sheet individual portfolios (for example restricted investment accounts). Specifically, in the case of *ṣukūk*, volatility of prices in various markets gives different kinds of market risks. Four main types of market risks as faced by *ṣukūk* holders

are equity price risk, rate of returns risk, currency risk and commodity price risk (Heffernan, 2003). Traditionally, the rate of return risk is the most prominent risk *ṣukūk* that holders need to worry about (Khan and Ahmed, 2001). The nature of these risks is individually explained below.

3.1.1 Rate of Return Risk

Ṣukūk that are structured on fixed return principles such as *ṣukūk al-ijārah ṣukūk al-murābaha*, etc. are exposed to return rate risks in the same manner as fixed rate bonds. From corporate finance theory, we know the valuation of an asset is the present value of all future cash flows. Similarly, fixed rate *ṣukūk* are valued based on present value of future cash flows and unfortunately the yield-to-maturity rates used in discounting cash flows are the conventional interest rates. Hence, changes in market interest rates (or identical rates of return in Islamic finance) can increase or decrease price of the fixed-income *ṣukūk* exposing holders to rates of return risk (Vogel and Hayes III, 1998).

3.1.2 Currency Rate Risk

Ṣukūk that are denominated in foreign currencies are exposed to currency risks which arise from unfavourable exchange rate fluctuations. For example, US Dollar denominated *ṣukūk* held by Malaysian investors will expose the investors to currency risks if the Dollar depreciates against the Malaysian Ringgits. Thus, investors will find their real earnings in terms of Malaysian Ringgits contracted if there are adverse movements in exchange rates.

3.1.3 Equity Price Risk

This risk arises from fluctuations in the value of the underlying tangible asset based on which the *ṣukūk* is securitized upon. For example, until recently, the main underlying asset used for *ṣukūk* issuance was any real estate, but recent developments in the real estate market made such assets very unstable to be underlying asset (Naneava, 2010). Therefore, the value of equity *ṣukūk* such as *ṣukūk al-murābaha* or *ṣukūk al-ijārah* where the face value of the *ṣukūk* certificate is reflective of the market price of the underlying asset is exposed to fluctuations in the market price of this asset (Al-Amine, 2008).

3.1.4 Commodity Price Risk

Commodity price risk is similar to equity price risk in the sense that the *ṣukūk* holders are exposed to changes in market prices of the underlying assets on which the *ṣukūk* are securitized upon. Commonly related with

ṣukūk al-salam and *ṣukūk al-istiṣnāʿ* where *ṣukūk* holders are to be delivered a commodity in future by the *ṣukūk* issuer, the risk exposure of the *ṣukūk* holders are in the adverse fluctuations of the commodity prices which they are to receive in future.

3.2 Credit and Counterparty Default Risks

IFSB (2005) guidelines define credit risk as the potential that the counterparty may fail to meet its obligations in accordance with the agreed terms. Thus, credit risk refers to the probability that an asset or receivable becomes irrecoverable due to a default or delay in settlements (Tariq and Dar, 2007). Credit risks can be substantially high for *ṣukūk* holders given that *sharīʿah* forbids rescheduling of debts for higher returns in future (Chapra and Khan, 2000). Consequently, counterparties would be more inclined to default on their commitments to other parties. Also, the nature of profit-loss sharing (PLS) arrangements means that agency costs will be higher. Therefore, *ṣukūk* holders face credit risks when the issuer is unable to timely service the returns as agreed in the underlying contract and when the issuer defaults in the redemption of the certificates.

3.3 Liquidity Risks

In terms of the *ṣukūk* markets, liquidity risks arise when there is an illiquid secondary trading market for *ṣukūk* certificates where holders may sell off their holdings to generate cash. As at September 2009, only 14% of total issuances of *ṣukūk* were listed on exchanges (Ernst &Young, 2009). The amount of *ṣukūk* actually traded is even lower, due to the preference of *ṣukūk* holders to hold papers until maturity. Also, majority of the *sharīʿah* scholars do not approve trading of debt on the secondary market at a price different from its face value (Naneava, 2010). Hence, debt based *ṣukūk* such as *ṣukūk al-murābaha* and *ṣukūk al-salam* may not be traded in the secondary market at prices other than the face value. On the other hand, equity-based *ṣukūk* such as *ṣukūk* al- *mushārakah* and *ṣukūk* al- *muḍārabah* may be traded at any price in the secondary market provided they satisfy following two conditions:

a) Tangible assets should constitute at least 33% of total assets;
b) The price at which they are traded cannot be lower than the value of the underlying liquid assets. Thus, holding *ṣukūk* can expose investors to liquidity risks due to inability to trade them in secondary markets.

3.4 Operational Risks

IFSB (2005) describes operational risk as the risk of loss resulting from inadequate or failed internal processes, people and systems or from

external events. For the specific case of *ṣukūk*, all activities in their structuring and performance involving processes, people and systems must be in a manner that is compliant with *sharī'ah* rulings. Particularly, as *ṣukūk* circulate in conventional markets as well, *ṣukūk* structuring must be done by specialists that have a dual expertise in conventional instruments as well as the relevant *sharī'ah* rulings. There is a serious lack of specialists in the area of Islamic finance. So far, according to the Ernst &Young report (2009), eight out of top ten *ṣukūk* arrangers were conventional banks or Islamic branches of conventional banks. Islamic banks need further development both in terms of their asset size as well as education of their employees. They also need enhanced systems and processes that are both efficient and in compliance with *sharī'ah*.

3.5 Shari'ah Compliance Risks

Sharī'ah compliance risks are peculiar to Islamic instruments and it refers a risk of loss in *ṣukūk* value due to non-compliance with *sharī'ah* principles (Tariq and Dar, 2007). *Sharī'ah* non-compliance risks have become extremely important in the aftermath of the recent criticism by AAOIFI scholars about non-Islamic nature of most *ṣukūk* in vogue in the market. Consequences of issuing financial instruments non-compliant with *sharī'ah* can be very damaging to the reputation of issuer and may require extensive efforts to re-gain investors' confidence. One of the problems with *sharī'ah* boards, as mentioned by Usmani (2008), is the fact that some scholars are active only at the first stage of *ṣukūk* structuring process. They issue fatwa on permissibility of issue in accordance with proposed structure and ignore remaining stages of *ṣukūk* performance. According to the new AAOIFI standards (2008), *sharī'ah* boards should be active during all stages of *ṣukūk* operation, ensuring *sharī'ah* compliance of entire life span of *ṣukūk*.

3.6 Regulatory Risks

One of the major obstacles in the path of a well flourishing Islamic capital market is the lack of harmonization in regulations amongst major players. There is considerable heterogeneity in terms of laws and regulatory principles that govern Islamic financial instruments in various countries. For example, Islamic finance in Turkey is known as 'participation finance' since the secular constitution of the country does not allow faith-based financial instruments to take root. As a result, *ṣukūk* issued following Malaysia's regulatory standards, for example, with contracts drawn using Islamic terminologies and direct references to Holy Scriptures may be invalidated in Turkey. Hence, regulatory risks are faced by *ṣukūk* holders

when there are variations in local laws which may adversely affect *ṣukūk* that are structured not in compliance with the varying regulatory requirements. Thus, it remains a challenge for *ṣukūk* issuers to structure *ṣukūk* that are in compliance with regulatory requirements of various countries.

3.7 Legal Risks

Ṣukūk are quite vulnerable to legal risks as well due to the absence of proper legislative bases that may govern disputes between *ṣukūk* holders and issuers (Zawya, 2009). In current practice, most *ṣukūk* operate and exist under conventional laws and cases of defaults are referred to civil courts as opposed to *sharī'ah* courts (Al-Amine, 2008). The challenge here for the legal personnel is to draft a contract of *ṣukūk* which while complying with conventional governing laws does not contradict with *sharī'ah* rulings. And in case of possible disputes, problem arises when conventional courts, that have to deal with such cases, are not familiar with *sharī'ah* principles. The bankruptcy of East Cameron Gas Company which led them to default on their *ṣukūk* is a recent example where the Louisiana court assigned to handle the case struggled to define the rights of *ṣukūk* holders and the question of assets' sale to satisfy creditors' claims (O'Neil, 2009). Thus, *ṣukūk* holders are exposed to legal risks when laws governing their contractual relationship with issuers are conventional that fail to appreciate or understand the *sharī'ah* principles involved in the underlying contracts.

3.8 Fiduciary Risks

Fiduciary duty is a legal duty to act on behalf of or for another party's interests and the parties owing this duty are called fiduciaries. The fiduciary manages the assets for the benefit of another person/entity. Fiduciary risk arises when the party entrusted with a fiduciary duty does not optimally perform in the beneficiary's best interests. Fiduciary Risks are essential for *ṣukūk* particularly structured on equity and profit-sharing contracts such as *ṣukūk al-mushārakah* and *ṣukūk al-muḍārabah* where investors provide the funds and the issuer provides entrepreneurship to generate returns that would be shared on a pre-agreed ratio. However, all losses must be borne by the investors. Hence, the fiduciary risk lies in the issuer's deliberate inefficient performance. The issuer must safeguard interests of investors by fulfilling his fiduciary duties that involves prudently using the funds to generate efficient returns (IFSB, 2005).

Having identified the various risk exposures of holding *ṣukūk* certificates, the paper now moves to Section 4 which discusses the various

sharī'ah compliant risk management tools and techniques that could be used to mitigate risk exposures as identified in Section 3.

4. Risk Mitigation in *Ṣukūk*

Just like any conventional investor, holders and fund managers of *ṣukūk* too are concerned about protecting themselves from different types of risks. As a result, risk management is an essential function of *ṣukūk* markets and the logical step for key stakeholders in Islamic finance is to develop and provide *sharī'ah* compliant risk management mechanisms that can mitigate potential exposures (Greuning and Iqbal, 2008). Without a sound risk management framework, the *ṣukūk* industry would find it hard to maintain its existing status and growth rates (Haider and Azhar, 2010). The paper proposes a few tools and mechanisms that could be adopted to mitigate the various risk exposures as highlighted in section 3. The key challenge here is to ensure that the proposed risk management tools comply with the requirements of *sharī'ah*; *sharī'ah* requirements invalidate many of the conventional risk management products due to the presence of objectionable elements in their structuring.

4.1 Market Risks Management

4.1.1 Islamic Derivatives

Conventional markets are able to hedge away many of their market risks using a variety of derivative products available such as forwards, futures, swaps, etc. However, most of these products are not *sharī'ah* compliant due to the presence of *ribā*, *gharar, maīsir*, etc. which are prohibited in *sharī'ah*. This provides an uncompetitive environment for *ṣukūk* to operate in the market. Therefore, in recognition of a legitimate need to protect investors against various financial risk exposures and market volatility, some *sharī'ah* scholars have taken the view that certain hedging arrangements may be allowed, provided that the instrument itself is structured in a *sharī'ah* -compliant manner (Dusuki, 2009).

A detailed proposal on Islamic derivatives for hedging risks is given by Shaikh Hussain Hamid Hassan who is a prominent Islamic finance scholar from the Middle East. According to Hassan (2009), Islamic derivatives are needed on the basis of *maṣlahah* and hence he approves Islamic derivative instruments provided they fulfil three conditions:

a) The underlying contracts in structuring Islamic derivatives are sharī'ah compliant.
b) The subject matter of these contracts is *ḥalāl*.

c) They are only used for hedging purposes and not for speculation leading to *maīsir*.

Hence, Islamic financial institutions have come up with various products structured using *wa'ad sharī'ah* (promise), *murābaha* (markup sale), *tawarruq* (3 party sale-resale) contracts as Islamic versions of hedging instruments to minimize the risk of market fluctuation including foreign currency exchange rate risk, rate of return risk and other market risks. The prominent Islamic hedging instruments which are currently being structured and used in treasury include Islamic FX forward, Islamic FX Swap, Islamic Cross-Currency Swap, Islamic Profit-Rate Swap and Islamic Options (Dusuki, 2009). So for example, a *ṣukūk* investor can hedge currency risks by making use of Islamic FX Swap products that result in similar performance as conventional forward contracts. Interest rate fluctuations risk can be hedged by using Islamic Profit-Rate Swap products. Equity and commodity price risks of *ṣukūk* can be hedged away by using Islamic embedded put options that give the *ṣukūk* holder the right to sell the underlying asset at a pre-determined price back to the issuer.

Illustration: Islamic Profit-Rate Swap (IPRS) to hedge *Ṣukūk al-Ijārah* Rate of Returns Risk

Example: Investors of a *ṣukūk al-ijārah* worth USD 100 million are entitled to fixed rental payments at the rate of 5% every 6 months. The returns of the *ṣukūk* were benchmarked to the existing interest rates in the country at the time of structuring. The investors are concerned that the monetary authorities may increase the prevailing interest rates in the country which will result in lower market price of the *ṣukūk* in future as the market price of fixed rate *ṣukūk* is based on present value of future cash flows discounted using prevailing rates of return. An increase in benchmark rates (which earlier was 5%) will decrease the market price of the *ṣukūk al-ijārah* exposing holders to rates of return risk. The investors can hedge this risk using an Islamic Profit-Rate Swap product that will protect the investors earnings should the benchmark rates increase.

The product is structured in three stages using the following contracts instruments:

a) *Wa'ad* – unilateral binding promise to enter into a series of *musāwamah* transactions on a specified lease rental payment for the duration of the lease period.

b) *Musāwamah* (*tawarruq*) – transactions involving purchases and sales of commodity where the settlement of price and commodity are on spot basis.

c) *Muqāṣṣah* – a "netting-off" arrangement for cash flows where the party with the higher purchase or rental price between the two periodical payment amounts is expected to pay the difference to the other party

Islamic Profit-Rate/Rental-Rate Swap Product

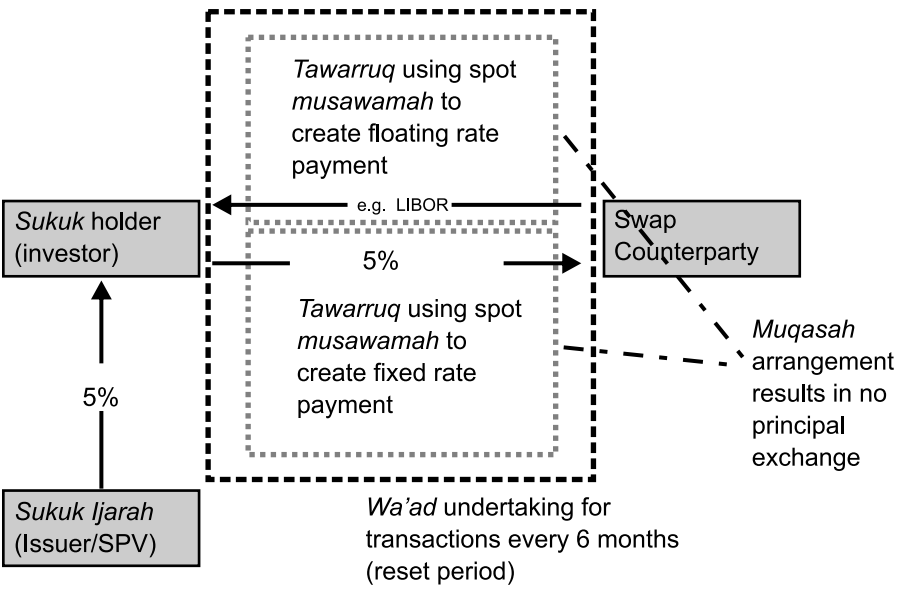
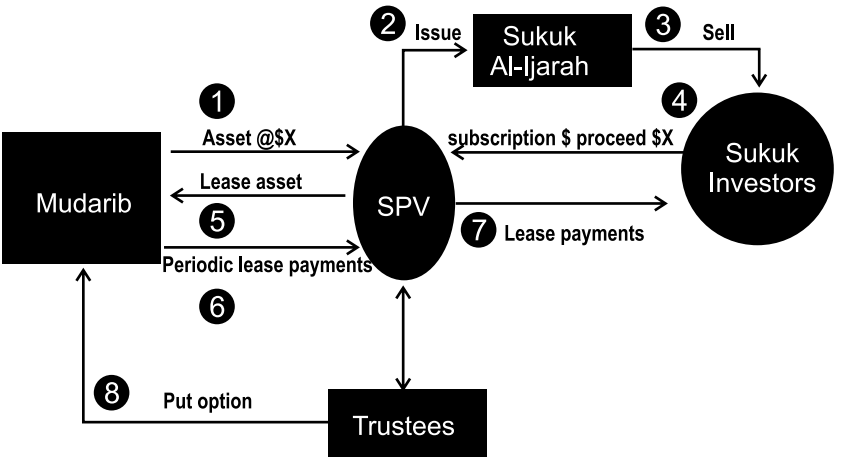


Illustration: Islamic embedded Put Option to hedge Underlying Asset's Price Risk in *Ṣukūk al-Ijārah*

Investors of a *ṣukūk al-ijārah* with underlying assets worth USD100 million are uneasy on the net amount the *ṣukūk* will redeem for them on maturity. The *ṣukūk* redemption value will be based on the proceeds generated from the sale of the underlying assets at the time of maturity. The investors are therefore exposed to asset/commodity price risks as any major fluctuations in the market value of the underlying assets can affect the principal investment component of the *ṣukūk* holders. The investors can hedge this risk by investing in *ṣukūk* embedded with Islamic put options that give the *ṣukūk* holder the right to sell the underlying asset at a pre-determined price back to the issuer. The put option is structured on the contract of Wa'ad, a unilateral promise given by the issuer to the *ṣukūk* holders to buy the asset back at an agreed price in future should the *ṣukūk* holders exercise to sell the assets to the issuer.

***Sukuk al-Ijārah* with an Embedded Put Option**



Source: Bacha (2012)

The *ṣukūk* holders will only act upon the promise given to them by the issuer if, at the time of maturity, they cannot find a third party willing to pay a higher price for the underlying assets. Hence, with Islamic embedded put options, there is no guarantee of what will be the cash flows generated at maturity from the redemption of the *ṣukūk*. As a result, the issue of guaranteed principals leading to capital protection, which has been a source of unease among *sharī'ah* scholars, is mitigated here.

4.1.2 Liquidity Facility and Purchase Undertaking

Prior to the six additional guidelines issued by AAOIFI in February 2008, most *mushārakah* / *muḍārabah ṣukūk* contracts incorporated two additional clauses widely known as the liquidity facility and the purchase undertaking (Dusuki and Mokhtar, 2010). Liquidity facility clause stipulated that in an event of lower returns than a certain threshold, the issuer shall cover the shortfall using own funds and ensure smooth and constant flow of profits to the *ṣukūk* holders. This shielded the *ṣukūk* holders from fluctuations in profits and the risk was entirely transmitted to the originator. The purchase undertaking was a legal binding promise given by the issuer to the *ṣukūk* holders that after the end of contract or in an event of default, the issuer promises to buy the underlying asset of the *ṣukūk* back from the *ṣukūk* holders at a price equivalent to the face value of

the *ṣukūk*. These two clauses gave protection to *ṣukūk* holders from most market risks as the burden was effectively transferred to the issuer.

However, according to Shaikh Taqi Usmani (2008) and also as per AAOIFI's standard on *ṣukūk*, any guarantee of the principal amount is unlawful in *sharī'ah*, whether the originator of *ṣukūk* acts as *muḍārib* (manager of the capital), *wakālah* (agent) or partner. Underlying *ṣukūk* assets should be bought at the end of *ṣukūk* life either by the third party or manager of *ṣukūk* at a market value of underlying asset. Thus, *ṣukūk* holders bear a market risk when underlying asset can be sold at a price lower than their initial investment.

Some scholars, such as those at the *Sharī'ah* Advisory Council (SAC) of Bank Negara Malaysia (Malaysian Central Bank), do think that such purchase undertaking can be permissible. The SAC, in its second edition of *Sharī'ah* Resolutions on Islamic Finance (2010), states that: "*Fundamentally, the obligation of purchase undertaking in ṣukūk is valid and acknowledged by sharī'ah. This is because such obligation is derived from a binding promise (wa'ad mulẓim) by the ṣukūk issuer to purchase an underlying asset of the ṣukūk based on agreed terms and conditions*". The SAC restricts the agreed purchase price to be at the *ṣukūk's* nominal value. Hence in these cases, the clause of purchase undertaking can be incorporated to protect *ṣukūk* holders from market risks. Alternatively, the use of Islamic embedded put options can be used instead of purchase undertaking which shields *ṣukūk* investors from equity and commodity price risks. This has been discussed above under Islamic derivatives.

4.1.3 Profit Equalisation Reserve (PER) / Investment Risk Reserve (IRR)

PER is a reserve used by Islamic banks to smooth returns to investment account holders over years where actual returns generated from investment activities are lower than the expectations of investors. The funds in this reserve are apportioned from the profits in good years, before allocations are made between the investment account holders and the bank itself as a *muḍārib*. Similarly, an IRR is a reserve created by Islamic banks as a precaution (buffer) against future losses that might be incurred by investment account holders.

Like the banking system, equity-based *ṣukūk* issuers (*ṣukūk* al-*mushākarah/al-muḍārabah*) may also set up and maintain PER and IRR reserves where portion of the profits from good years are set aside to absorb adversities in unfortunate years where profit levels are reduced or

the investment suffers losses. These are better alternatives compared to liquidity facility and purchase undertaking as the necessary risk is not burdened on the issuers (Dusuki and Mokhtar, 2010). Instead, the risk is spread over a longer term that helps to smooth returns leading to mitigation of rate of return and commodity/equity price risks.

4.1.4 Multiple Currency *Ṣukūk*

The idea of multiple currency *ṣukūk* draws upon from the Chinese government methods to mitigate foreign exchange risks of their bonds where they divide the issue into two parts with different currencies. Suppose the issue is USD 1 billion. The first part of USD 400 million will be in US Dollars and the second part of USD 600 million will be in Euro. Indeed, the *ṣukūk* issues can be based on this simple principle and can be based on multi currencies in order to diversify and mitigate Currency risks (Tariq, 2004).

4.1.5 Islamic Index

Several scholars and writers have proposed that to shield away Islamic instruments from conventional interest rate risks, Islamic finance should come up with their own index that could be used as a benchmark index for Islamic financial institutions. Suggestions have varied from use of CPI index to GDP growth rates for sovereign issues (Naneava, 2010). It is argued that inflation-adjusted indexes would help maintain real value of investments and their returns while real sector indices are appropriate for Islamic financial transactions that are based on sale and purchase of real assets.

4.2 Management of Credit Risks

4.2.1 Collaterals

The most basic and commonly applied mitigation process of credit risk is to seek collateral from the borrowing party. This means that any debt-creating finance or debt-representing *ṣukūk* may be supported by collaterals. Collaterals provide a tool to guarantee not only the debt of a principal but also the debt of rentals as well as the in-kind debt of services and usufructs (Kahf, 2006). Thus, in a case of default, the collateral can be used by debt or rental based *ṣukūk* holders to recover their dues. For example, in *murābaha-ṣukūk*, the underlying asset being sold to the issuer may be pledged as collateral by the issuer to the *ṣukūk* holders and in an event of default, the underlying asset could be auctioned to recover dues.

4.2.2 Third Party Guarantee

Third party guarantee can be offered by any entity/person that has interest in the financing without being a party to it. It may cover the principal as well as the returns in an *ijārah* or *murābaha* type of *ṣukūk* arrangements (Kahf, 2006). For example, a *ṣukūk al-ijārah* may be guaranteed by a third party who takes upon itself a contingent liability to ensure repayments of rental profits as well as face value of the *ṣukūk* to the holders. Such arrangements are quite common in Malaysia where most of the *ṣukūk* issued by the public corporations in Malaysia are backed by a federal government guarantee of both principal and returns. Therefore, this alleviates the credit riskiness of the *ṣukūk*.

4.2.3 Ratings

Finally, *ṣukūk* holders can mitigate credit risk if they only purchase rated *ṣukūk* that have an investment grade rating (BBB and above for Moody's). Rating agencies carefully evaluate the credit worthiness of the issuer and hence based on it, grade the *ṣukūk* in terms of their riskiness. By avoiding purchase of high risk, low grade *ṣukūk*, credit risk can be mitigated (Haider and Azhar, 2010). However, this option is not available for *ṣukūk* where issuers choose not to get their instruments rated. Furthermore, ratings are not blanket guarantee on the viability of instruments as in the past, high rated financial instruments have been known to fall into liquidity problems leading to their default.

4.3 Risk Management of Liquidity Risks

Liquidity risks are prevalent in *ṣukūk* markets due to a lack of secondary trading market where *ṣukūk* holders may redeem their certificates for cash. However, it has been generally observed that most investors/fund managers prefer to hold *ṣukūk* until maturity due to a limited number of *ṣukūk* available in market for purchase. Nonetheless, *ṣukūk* can be illiquid assets if there are no secondary markets where they could be traded. Some solutions to mitigate liquidity risks of *ṣukūk* are as follows:

4.3.1 Malaysian Secondary Markets for *Ṣukūk*

One way of mitigating this risk would be to subscribe to *ṣukūk* that are issued in Malaysian primary markets since Malaysia already has an active secondary trading market for *ṣukūk*. Considering Malaysia accounts for almost 70% of global *ṣukūk* issuances, this suggestion is not that difficult to adopt. Thus, Malaysian *ṣukūk* possess lower liquidity risks when

compared to *ṣukūk* issuances in the rest of the world. But there could be a case of non-*sharī'ah* compliance according to the mainstream view against the sale of debts

4.3.2 International Islamic Liquidity Management Corporation

The most progressive development in alleviating liquidity problems for Islamic financial institutions is the creation of IILM by 9 central banks and 1 multilateral institution. IILM would issue and allow trading of short-term *ṣukūk*. The centre launched its inaugural *ṣukūk* programme worth USD 490 million in August 2013. Therefore, IILM allows investors and fund managers to deal with liquidity issues using *ṣukūk* that would be traded in the centre.

4.4 Risk Management of Regulatory and Legal Risks

4.4.1 International Bodies and Harmonization

These are arguably the most challenging of all other risks as according to many finance experts, including Al-Amine (2008), the only way to resolve this problem is to activate functioning of such international organizations as AAOIFI and OIC *Fiqh* Academy. The rapidly growing Islamic financial market requires convergence of opinion and ruling among *sharī'ah* scholars. This is an uphill and challenging task. For now, the *ṣukūk* holders remain exposed to cross-border regulatory risks due a lack of standardization of rules and regulations amongst countries. However, domestic regulatory requirements can easily be complied with by ensuring well versed and up to date legal personnel draw up the contracts.

4.4.2 Arbitration

An alternate to immediately referring disputes to civil and conventional courts is for *ṣukūk* holders and issuers to prioritize arbitration first and hope to amicably settle disputes without resorting to the legal process. The element of risk arises when conventional courts fail to ascertain the relevant *sharī'ah* principles and issue rulings that may affect either the issuer or the holders. The priority of arbitration should be inserted as a condition in the *ṣukūk* contract and regional arbitration centres which are well versed in Islamic finance such as the one in Malaysia, the Kuala Lumpur Regional Centre for Arbitration (KLRCA), could be referred to arbitrate. This helps parties to avoid costly and often tedious legal battles and the legal risk through inappropriate rulings can be mitigated as the arbitrator being well versed in Islamic finance will help both parties come to an amicable understanding.

4.5 Management of Operational and *Sharī'ah* Compliance Risks

4.5.1 Competent *Sharī'ah* Supervisory Boards (CSSB) / Advisors

Both operational and *sharī'ah* compliance risks can be largely mitigated if the *ṣukūk* arrangements are supervised by an effective and competent SSB. The *ṣukūk* holders must ensure that the issuer has an effective and competent SSB in place and carefully scrutinize the expertise of SSB members. It is often found that there are no established standards in appointing members of *sharī'ah* boards and one scholar can be found sitting in many *sharī'ah* boards. In April 2010, *Funds@Work* published a research based on analysis of more than 200 *sharī'ah* scholars in 300 companies from 24 countries. According to this document, top 10 *sharī'ah* scholars occupy 67% of all chairmanship positions, while top 2 scholars hold 21 chairmanship positions each; Sheikh Nedham Yacoubi holds 78 positions in various *sharī'ah* boards. Meanwhile, reputation of some *sharī'ah* boards has been damaged by the ease with which they can change their *fatāwa*. As one of the bankers mentioned to the press, product developers develop a conventional product and keep applying for the approval to different *sharī'ah* boards. Sooner or later they find a board that can issue a necessary *fatwa* and the product can be distributed as Islamic (Foster, 2009). To avoid such risks, *ṣukūk* holders must scrutinize the *sharī'ah* supervisory arrangements in place made by the issuer.

4.5.2 *Sharī'ah* Audits

The *ṣukūk* holders must also demand the issuer to be subject to *sharī'ah* audits where competent *sharī'ah* auditors assess the issuer's operations and arrangements to ensure that they comply with *sharī'ah*. In countries like Malaysia and Pakistan, where central banks have introduced *sharī'ah* Governance Framework, the issuer does not have much choice but to comply. All these initiatives are very useful for minimizing potential exposures of *ṣukūk* holders to operational and *sharī'ah* compliance risks. A conference paper by Najeeb and Ibrahim (2013) has conceptualized how Islamic financial institutions can be holistically audited by well-trained *sharī'ah* auditors who will generate reports just like conventional auditors but with the addition of *sharī'ah* compliance reports.

4.6 Risk Management of Fiduciary Risks

4.6.1 Trustee and SPV Model

The current *ṣukūk* arrangements make use of an SPV where a trustee is appointed to look after the interests of the *ṣukūk* holders by ensuring that

the originator carries out its fiduciary duties in full compliance. This is the risk mitigation in place currently for fiduciary risks. However, it is not surprising to find that the trustees at times fail to perform their duties effectively mainly due to conflict of interests and *ṣukūk* holders have to suffer.

4.6.2 Feasibility Study Approach

An alternative proposed by Shaikh Hussain Hamid Hassan (2009) to keep the issuer on his toes in ensuring his fiduciary duties is by adopting a feasibility study approach (Dirasat al-Jadwa in Arabic) that will protect the interests of the *ṣukūk* holders [the bankruptcy remoteness would be ensured since the *ṣukūk* assets would be transferred into the balance sheets of the SPV]. Shaikh Hussain suggests that feasibility studies and prospectuses can be used as accountability measures to ensure that the *muḍarib* (or the issuer) act in accordance to what has been told to the *rabb al-māl* (investors) before contracting. So for instance, in the prospectus of a *ṣukūk al-muḍārabah*, if the issuer projects the return to be 12% per annum, and in actual results, if there is a shortfall of 2%, then the issuer needs to compensate the *ṣukūk* holders for the shortfall which he had earlier promised under the prospectus. His opinion is based on the legal maxim, "that deception by words entails compensation/indemnification in the same way as deceiving by acts requires". Shaikh Hussain further states that the issuer has the onus to prove his innocence that the loss or damage or defect is not due to his default, negligence, misconduct or breach. In other words, he should prove that the loss occurred for reasons or circumstances beyond his capability to foresee or power to rectify. The above could be a mechanism to mitigate fiduciary risks although it is a rather unorthodox opinion.

4.7 Summary

The following table summarizes the various types of *sharī'ah* compliant risk mitigation measures that have been discussed in this section along with the types of risks each of these measures mitigate.

TABLE 1 *Sharī'ah* Compliant Risk Management of *ṣukūk*

	Mitigation measure	Types of Risks Mitigated
1	Islamic Derivatives (Islamic FX Swap, Islamic Options, etc.)	*Market Risks - Currency, Rate of Return, Equity Price, Commodity Price*
2	Liquidity Facility and Purchase Undertaking Clauses	*Market Risks - Rate of Return, Equity Price, Commodity Price*
3	Profit Equalization Reserve and Investment Risk Reserve	*Market Risks - Rate of Return, Equity Price, Commodity Price*
4	Multiple Currency Sukuks	*Market Risks - Currency*
5	Islamic Index	*Market Risks - Rate of Return*
6	Collaterals	*Credit Risk*
7	Third Party Guarantees	*Credit RIsk*
8	Ratings	*Credit Risk*
9	Malaysian Sukuk Secondary Markets	*Liquidity Risks*
10	Bahrain Liquidity Management Centre	*Liquidity Risks*
11	International Islamic Liquidity Management Centre	*Liquidity Risks*
12	International Harmonization	*Regulatory/Legal Risks*
13	Arbitration	*Regulatory/Legal Risks*
14	Competent Shari'ah Supervisory Boards and Advisors	*Operational / Shari'ah Compliance Risks*
15	Shari'ah Audits	*Operational / Shari'ah Compliance Risks*
16	Trustee	*Fiduciary Risks*
17	Dirasat al-Jadwa	Fiduciary Risks

6. Conclusion

The combination of *ṣukūk* default cases, *sharī'ah* non-compliance allegations and global financial crisis during the years 2008 and 2009 significantly dented the growth of the global *ṣukūk* industry. Consequently, industry stakeholders' were firmly attracted towards comprehensively re-assessing the risk profiles of *ṣukūk* certificates and to seek *sharī'ah* compliant risk mitigation tools and techniques that could minimize potential exposures of *ṣukūk* investors. *ṣukūk*, like conventional debts instruments, are also exposed to various types of business and financial risks such as market, credit, liquidity, operational, regulatory, legal and fiduciary risks. In addition, *ṣukūk* are also exposed to *sharī'ah* compliance risks which are peculiar to the Islamic finance industry. Without appropriate risk management tools and frameworks, *ṣukūk* investors are exposed to a wide array of risks that puts them in an uncompetitive position compared to investors of conventional securitized instruments that have access to a variety of derivative instruments through which they can reduce their potential exposures.

In this paper, an effort has been made to identify the various risks underlying *ṣukūk* structures and a number of possible *sharī'ah* compliant methods of mitigating such risks have been proposed. Within the purview of *sharī'ah*, this paper identified a variety of means that allows *ṣukūk* investors to manage their risk exposures in a similar manner as conventional investors could, thus effectively providing *ṣukūk* investors a level-playing field. The *sharī'ah* compliant risk mitigation proposals discussed here would help *ṣukūk* investors to manage their risk exposures without having the need to resort to conventional financial derivatives that more often (if not always) contradict the essence and basic objectives (*maqāṣid*) of the prohibition of interest and other regulations of *sharī'ah*. Indeed, the subject is an emerging one and offers rich potential for further research.

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End Notes

Interested readers are recommended to read a chapter by Engku Ali (member of *sharī'ah* Advisory Council of Bank Negara Malaysia) for further understanding on issues of securitization in Islamic Finance. Engku Ali, E.R (2008). "Issues in Islamic debt securitization". In Bakar, M. and Engku Ali, E.R. (Eds.), Essential Readings in Islamic Finance (pp. 443-491). Kuala Lumpur: CERT Publications.

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