Islamic Finance: Risk Management Challenges and the Impact of Basel II

Islamic banks follow a set of principles that distinguish them from other banks and that present unique risk management obstacles. **Dr. Natalie Schoon** explains the laws that govern the way Islamic banks conduct business and manage risk and discusses the potential effect of Basel II on Islamic finance.

The ethical framework governing Islamic finance prohibits gambling, speculation and interest. Although at first glance this sounds like a risk manager's dream, it does not mean that an Islamic bank runs little to no risk at all.

Like other banks, Islamic banks face risks inherent to the financial industry, and they have to abide by the same rules as others for the calculation of regulatory capital. However, Islamic banks also have their own set of unique risk management challenges.

Dr. Natalie Schoon

Since the Islamic financial industry is young and the balance sheet size of the average Islamic bank is relatively small, issues associated with the calculation of regulatory capital are in part similar to those faced by small, locally operating, conventional European and North American banks. However, because of the transaction structures they employ, Islamic banks face higher charges for regulatory capital under the Basel II capital accord.

There are, in fact, a few Islamic finance-specific issues that need to be taken into consideration when contemplating the potential impact of the Basel II implementation at Islamic banks. This article will examine those issues and will also explore other factors that distinguish Islamic banks from a risk management perspective.

Islamic Banking: History, Growth and Prohibitions

Though Islamic finance remains a relatively young industry (the Islamic Development Bank, the first Islamic Bank, was established in Jeddah, Saudi Arabia, in 1972), it has grown significantly and has branched out into new geographic regions. For example, there are now a total of 24 financial institutions[1] offering Islamic financial services in the UK — including three UK-based banks that are wholly compliant with Sharia'a — or the principles of Islamic law.

Globally, after a fairly slow start, the Islamic finance industry has grown at a rate of 15% to 20% per annum over the past 10 years and is expected to continue to grow at a similar rate for some time to come. Islamic financial products are offered using three different distribution channels: (1) Islamic windows of conventional banks; (2) Islamic branches of conventional banks; or (3) fully Sharia'a-compliant Islamic banks. Although the first two distribution channels are currently the most popular, the number of fully Sharia'a-compliant banks is increasing rapidly.

Like every other aspect of Muslim life, Islamic banking is governed by the Sharia'a and the interpretation of this law (Fiqh). Together, these provide the ethical framework outlining the essence of economic well-being and the development of individuals. This framework does not specifically apply to Islamic banks, but to life and business generally. Fairness, honesty, avoidance of hoarding and avoidance of tort are integral parts of the Sharia'a law, but so are the prohibition of *riba*, *gharar* and *maysir*.

In brief, these prohibitions are define as follows:

Riba (or usury) is the predetermined interest collected by a lender, which the lender receives over and above the principal amount it has lent out.

Gharar (or gambling) is the sale of a probable item whose existence or characteristics are not certain. A traditional example of gharar is the sale of any of the animals from a herd without specifying a particular one. In the context of Islamic finance, a more current example is advising a customer to buy shares in a company that is the subject of a takeover bid on the grounds that the share price is likely to increase.

Maysir (or speculation) is an event in which there is a possibility of total loss to one party. Maysir has elements of gharar, but not every gharar is maysir.

In the context of the Sharia'a framework, money is seen as nothing more than a means to facilitate trade (rather than a store of value). Consequently, in combination with

Islamic Financial Products: A Quick Overview

Islamic financial products work on the basis that the bank and the customer share the risk of investments on agreed terms. Profits are distributed based on negotiated terms; risk is distributed based on the share of the ownership. Islamic Financial products typically have an underlying asset that requires financing. Six of the main transaction types are specified below.

Murabaha
Deferred sale of goods at cost plus an agreed profit mark-up under which a party (the seller) purchases goods at cost price from a supplier and sells the goods to another (the buyer) at cost price plus an agreed mark-up. *Murabaha* has a variety of applications and is often used as a financing arrangement for instance for receivables and working capital financing.

Commodity Murabaha
Deferred sale of commodities at cost plus an agreed profit mark-up under which a party (the seller) purchases commodities at cost price from a supplier and sells the commodities to another (the buyer) at cost price plus an agreed mark-up. *Commodity Murabaha* has a variety of applications and is often used for liquidity management purposes, such as working capital financing.

Ijara
Bilateral contract allowing the transfer of the usufruct which basically equates to an operational lease in which the bank leases the asset to a client. *Ijara* takes on different structures depending on the specific financing requirements of the counterparty.

Musharaka
Partnership of two or more owners of a property held in common. Partners do not have to own a proportional share in the property. Any profits and losses are shared according to the terms of the contract. Ownership of the underlying property can be transferred gradually during the term of the contract (*Diminishing Musharaka*). The *Musharaka* structure is used, for instance, for mortgages and development financing.

Mudaraba
Partnership contract in which a capital owner (*Rab al Maal*) enters into a Mudaraba contract with a partner (*Mudarib*) to undertake a specific business or project. The *Mudarib* provides the labor or expertise to undertake a business or activity. Profits are shared on a pre-agreed ratio but losses are borne by the *Rab al Maal* only.

Sukuk
Certificate evidencing (part) ownership of an underlying asset. Profit is depending on the performance of the underlying asset. Typically referred to as an Islamic Bond.

the aforementioned prohibitions, it is not possible for Islamic banks to provide financing in a similar fashion to conventional banks. Instead, other structures are applied in which the bank often plays a much larger role in the financing structure and becomes a partner in the project to be financed -- rather than just a provider of money.

As defined in the accounting, auditing and governance standards for Islamic financial Institutions,[2] Islamic banks are founded on the concept of profit sharing and loss bearing, which is consistent with the Islamic concept that "profit is for those who bear risk." Profits are distributed per a ratio defined in the contract, and any losses are distributed equally depending on the share in the project a party holds. The bank or financier partners with the company or individual seeking financing; the bank therefore holds (part) of the title to the underlying assets as well, depending on its degree of ownership.

Risks in Islamic Banks

The absence of interest in Islamic finance means that Islamic banks are not subject to interest rate risk. However, this does not mean Islamic banks are subject to lower levels of risk than conventional banks.

Like conventional banks, Islamic banks incur liquidity, credit, settlement, leverage, operational and business risk. Additionally, Islamic banks also incur risks that are not common in conventional banks, such as the following:[3]

- **Fiduciary Risk.** Specifically, risk related to the nature of the *Mudaraba* contract, which places liability for losses on the *Mudarib* (or agent) in the case of malfeasance, negligence or breach of contract on the part of the management of the *Mudaraba*.
- **Displaced Commercial Risk.** This risk type is related to the common practice among Islamic banks to "smooth the financial returns to investment account holders by varying the percentage of profit taken as the *Mudarib* share, which can be compared to an arrangement or agency fee.

Because the Islamic finance industry is young and home to an increasing number of start-up banks, Islamic banks now must contend with infrastructure development challenges and other problematic issues facing banks of similar (small) size.

Capital Adequacy and Minimum Capital Requirements

Capital adequacy is a measure of the financial strength of a bank or a securities firm, typical expressed as a ratio of its capital to its risk-weighted assets (RWA). The Basel II capital accord provides local regulatory bodies with a framework to determine this. Banks are required to hold

a minimum level of capital to prevent overlending and to ensure that every bank has sufficient funds in case any of its counterparties default without endangering depositors, the banking system or the economy.

Basel II — an accord that was originally designed for large, internationally active banks in G10 countries — has been adopted by many other countries and now applies to different types of financial institutions, including Islamic banks.

Basel II maintains both the current (Basel I) definition of capital and the minimum requirement of 8% of capital to risk-weighted assets. It does not introduce any changes to the calculation of capital for market risk beyond the specification of the 1996 market risk amendment to Basel I, but market risk is now segregated from credit risk (it was previously taken into consideration in the overall RWA calculation). Moreover, Basel II has introduced a capital charge for operational risk, and it has placed greater emphasis on credit risk measurement and mitigation techniques

For both the credit and operational risk components, three different risk measurement approaches are available, each with a different level of sophistication (see "Basel II" boxes, below).

Generally, it is expected that large banks with sophisticated risk management systems will benefit from the new regulation and see their capital reduced as a result of applying the more advanced approaches. Smaller banks, however, may not be able to justify investments on the same scale and will therefore not be in a position to benefit from the advanced risk measurement approaches.

Islamic banks certainly fall under the smaller banks category, but they also face some other issues that are uncommon to the rest of the financial industry.

Balance Sheet Size and Loss Data History

Although the Islamic financial industry has grown substantially over the past decade, it remains very small when compared to the overall financial sector. Indeed, the size of an individual Islamic bank is typically not large enough to justify the investment required for the advanced risk measurement approaches. As mentioned earlier, this is not a problem that is exclusive to Islamic banks, but the smallness of the Islamic financial industry makes it more difficult to lobby for changes in regulatory policy, such as Basel II.

The absence of significant amounts of loss data is one of the problems that hinders smaller sized banks that need to comply with Basel II. Islamic banks — most of which have only recently been established and which have not seen a complete economic cycle yet — don't have a long enough history and hence cannot meet the Basel II requirement for seven years of loss data.

Although this is also a problem for any other start-up bank, conventional European and North American banks

Basel II: Available Approaches for Credit Risk

Credit risk is defined as the risk that a counterparty will default on one or more payments. Three approaches can be used to determine the required capital:

Standardized Approach
Roughly the same as the current Basel I approach. In addition to the standard risk weights currently available, clients need to be graded by an External Credit Assessment Institution (ECAI). The rating of the counterparty will be incorporated into the overall risk weighting.

Foundation Internal Ratings-Based Approach (FIRB)
Banks do not rely on ECAIs for their ratings, but determine the probability of default (PD) of their borrowers using an internally built model. Loss-given default (LGD) and exposure-at-default (EAD) are determined based on supervisory rules defined in Basel II.

Advanced Internal Ratings Based (AIRB)
Not only the PD, but also LGD and EAD are determined based on internally built models.

Basel II: Available Approaches for Operational Risk

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This includes legal risk, but excludes strategic and reputational risk. Similar to the calculation of the minimum capital requirements for credit risk, three methodologies are available for the calculation of operational risk capital charges:

Basic Indicator Approach
The capital charge is calculated as a fixed percentage (15%) of average gross income over the previous three years. The percentage is determined by the local regulator.

Standardized Approach
The banks' activities are divided into eight business lines, and the capital charge is calculated per business line as a percentage of gross income. The percentages differ according to the business line and are set by the local regulator.

Advanced Measurement Approach (AMA)
Banks apply their own internally developed model, which incorporates quantitative and qualitative criteria such as internal loss data, key risk indicators, scenario analysis and self-assessment.

have the opportunity to join one of the established data consortiums — such as the Pan European Credit Data Consortium (PECDC) or the North American Loan Loss Database (NALLD) — to gain access to a larger data set with a longer history of loss data. To date, no loss database for Islamic finance has been established.

Troublesome Transaction Types

The Basel Committee on Banking Supervision (BCBS) has taken the stance that banks should not hold significant equity positions in companies they finance. This is troublesome for Islamic banks, because *Mudaraba* and *Musharaka* transactions that are based on profit-sharing principles (see "Islamic Financial Products" box on pg. 28 for more details) are deemed to be similar to holding equity from a regulatory perspective.

The underlying principle of the BCBS's stance on equity holding is that the risk a bank takes increases when ownership and the provision of debt funding are in the same hands. As a result of this belief, banks that hold equity positions in the companies they finance (e.g., as in *Mudaraba* and *Musharaka* transactions) are heavily penalized. Specifically, under the Basel II standards on capital adequacy, transactions that are based on the profit-sharing and loss-bearing mode carry a rather significant risk weight of 400%.

Future Forecast

Given the strong growth in Islamic finance, balance sheet size and lack of loss data are not expected to remain issues for many banks in the long run. Moreover, ensuring the use of robust internal counterparty ratings systems should have a positive impact on the risk management process and the level of capital required at Islamic banks.

The structure of *Mudaraba* and *Musharaka* transactions are capital intensive, and are therefore more expensive from the bank's perspective. Consequently, Islamic banks should take the cost of capital into consideration when they are advising clients and when they are developing new transaction types in the future. In fact, one of the questions that must be addressed as part of the advisory function of an Islamic bank is whether the client's interest can be served equally well with structures separate from the *Mudaraba* and *Musharaka*.

Although it could be argued that the chances of default will decrease in any *Mudaraba* and *Musharaka* transaction — due to the stronger link between a bank and its counterparty — the counterargument presented by the BCBS and the resulting higher capital charge for equity products are equally valid.

"Given the strong growth in Islamic finance, balance sheet size and lack of loss data are not expected to remain issues for many banks in the long run."

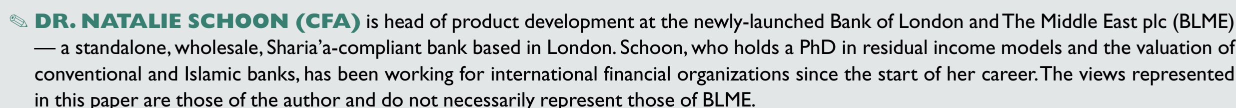
Given that Basel II has only recently been finalized, no immediate changes to the accord's regulatory capital treatment of *Mudaraba* and *Musharaka* transactions are expected.

Looking at longer-term developments, problematic issues related to Islamic banks' lack of historical loss data could potentially be resolved through the development of a loss experience database, such as those set up by member banks of the EPCDC and NALLD. While this would not resolve the issue concerning the length of time over which an Islamic bank can track data, it would at least enhance the quantity of loss history data.

Data sharing in the financial sector is a sensitive point, and such a project will need to be managed by a trustworthy third party. Following the selection of this third party and the creation of a comprehensive loss database for Islamic finance, Islamic banks will have the ability to start designing advanced risk measurement models that would otherwise remain out of reach. ■

FOOTNOTES:

1. All of these firms, including the Sharia'a-compliant banks, are regulated by the Financial Services Authority, which means they must follow the same rules as every other UK bank under the FSA's "no obstacles, no special favors" policy.
2. AAOIFI (2002). *Accounting, Auditing and Governance Standards for Islamic Financial Institutions*, Accounting and Auditing Organization for Islamic Financial Institutions, Bahrain.
3. S. Archer and R.A.A. Karim, "On Capital Structure, Risk Sharing and Capital Adequacy in Islamic Banks," International Journal of Theoretical and Applied Finance 9, no. 3 (2006): 269-280.



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