# The Impact of Basel II on the Future of Islamic Banking

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#### INTRODUCTION TO THE BASEL ACCORD

The international standards on capital adequacy grew out of the work of the Basel Committee. They were prompted by concerns about the deteriorating capital levels of international banks as a result of increasing competition and about the sovereign debt crisis of the mid-1980s in lesser developed countries (LDCs) that eventually evolved into a global debt crisis. This led the international community, as represented in the Basel Committee, to strengthen systemic defenses to credit risk through the issuance of risk-based capital adequacy standards in the 1988 Basel Accord.<sup>2</sup>

While the original Basel Accord of 1988 was revolutionary when it was introduced, it soon became apparent that it seriously lacked adaptability to the profiles of different banks. The one-size-fits-all approach was too crude, and new institutional structures and evolving market practices greatly reduced its effectiveness. The original Basel Accord dealt with credit risk and later, through a 1996 amendment, addressed market risk too. It came short of dealing with other risks, however, as it presumed that other risks would be covered under credit and market risk.

In view of the deficiencies of the existing accord, the Basel Committee on Banking Supervision (BCBS) embarked upon drawing up a new accord, called Basel II. BCBS issued its revised framework in June 2004 on the New Basel Accord after three consultative papers and three quantitative impact studies (QIS). BCBS aims to have a revised framework available for implementation by the end of 2006.<sup>3</sup>

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<sup>&</sup>lt;sup>2</sup> The Basel Committee comprises the G-10 countries plus Luxembourg and Switzerland.

<sup>&</sup>lt;sup>3</sup> For an official summary of the New Basel Accord, *see* Basel Committee on Banking Supervision (BCBS) 2004.

Basel II is designed to align regulatory capital with underlying risks in order to enhance the capacity of banks to manage risk. The essence of Basel II is in its focus on risk differentiation and the need for enhanced approaches to assessing credit risk.<sup>4</sup>

Basel II is founded on three fundamental pillars:

- 1. Minimum Capital Requirements
- 2. Supervisory Review of Capital Adequacy
- 3. Public Disclosure

The focus of this paper is on Pillar 1 of Basel II: Minimum Capital Requirements. The paper will first summarize the approach adopted by BCBS to determine capital for credit risk in Basel II. Thereafter, it will analyze the impact of Basel II on the Islamic banking and finance industry (IBFI). The analysis carries a critique of Basel II from the perspective of Islamic banks.

The paper intends to demonstrate that while Islamic banks are in as much need of regulation and supervision as their conventional counterparts, a regulatory and supervisory setup more adaptive and responsive to their unique characteristics will not only better fit their needs but also address the underlying concern of BCBS, i.e., the stability of the global banking system.

#### PILLAR 1: MINIMUM CAPITAL REQUIREMENTS

The capital ratio is calculated using a definition of regulatory capital and risk-weighted assets. The total capital ratio must not be lower than 8 percent. Significant change occurs in the definition of risk-weighted assets used to measure the risk faced by the banks. There are two primary reasons for this change:

- Substantive changes to the treatment of credit risk relative to the current accord
- The introduction of an explicit treatment of operational risk such that a measure of operational risk is included in the denominator of a bank's capital ratio

One of the major changes brought by Basel II is the link created between the capital charge for credit risk to explicit indicators of credit quality, either measured externally (the standardized approach) or internally

<sup>&</sup>lt;sup>4</sup> Saidenberg and Schuermann 2003.

(the internal ratings based approach (IRB)).<sup>5</sup> This stands in contrast to the current accord's one-size-fits-all approach. It also provides for three distinct approaches for the calculation of operational risk.

TABLE 1.

Credit Risk		Operational Risk	
1.	Standardized Approach	1.	Basic Indicator Approach
2.	Foundation IRB Approach	2.	Standardized Approach
3.	Advanced IRB Approach	3.	Advanced Measurement Approach

### Credit Risk: Standardized Approach

The standardized approach is somewhat similar to the current accord in that it slots the borrowers in different categories for credit risk purposes based on readily observable credit risk. BCBS proposes to use the ratings mechanism to determine the credit risk of each borrower. The risk weights for sovereign, inter-bank, and corporate exposures are differentiated based on external credit assessments. If no ratings are available then the standardized approach, in most cases, mandates that a risk weighting of 100 percent be applied.

#### **Credit Risk: Internal Ratings Based Approaches**

The IRB approach has two versions: Foundation IRB Approach, and Advanced IRB (A-IRB) Approach. Compared to the current accord, the IRB approach is fundamentally different in concept, design, and implementation. In the IRB approach, the banks' internal assessment of key risk drivers serve as primary inputs to the capital calculation. Since the approach is based on the banks' own internal assessment of the risk, the banks will be able to have a more risk sensitive capital requirement. "The IRB approach does not allow banks themselves to determine all of the elements needed to calculate their own capital requirements. Instead, the risk weights and thus capital charges are determined through the combination of quantitative inputs provided by banks and formulas specified by the Committee."

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<sup>&</sup>lt;sup>5</sup> Hayes et al. 2002.

<sup>&</sup>lt;sup>6</sup> See Saidenberg and Schuermann 2003: 8.

<sup>&</sup>lt;sup>7</sup> See BCBS 2004.

### **Operational Risk**

Operational risk is not considered explicitly in the current accord. At present, banks employ different approaches toward the calculation of operational risk. However, banks are a long way from developing operational risk calculation techniques comparable to the approaches available for credit risk. One of the major reasons for inclusion of operational risk as a measure for calculation of capital adequacy was to provide banks with an incentive to develop the techniques for the calculation of operational risk.

Basel II has two simpler approaches for the calculation of operational risk: the basic indicator approach, and the standardized approach. The basic indicator and the standardized approaches are less risk sensitive as they simply require banks to multiply the average annual gross income over the previous three years with a factor of 0.15 set by the bank to reach the capital requirement. Additionally, in the standardized approach, the banks will need such calculations for each business line.

While the banks have a natural incentive to move to the Advanced Measurement Approach (AMA) in that it is more risk sensitive, BCBS has also provided the banks with an added incentive to shift to AMA. This is by allowing banks that use AMA to recognize insurance as a risk mitigating factor, and by denying it to banks that use the basic indicator and the standardized approach.

# Advantages of Pillar 1 of Basel II for the Islamic Banking Industry

There can be no doubt that the Islamic banking industry does need regulation and supervision. Islamic banks take deposits and essentially play the role of financial intermediaries in the same way as their conventional counterparts, albeit using different techniques. Their soundness and stability is as important as that of the conventional banks, and due to the risk sharing nature of Islamic banks, they need an even more effective system of regulation and supervision.

The A-IRB approach of Basel II provides a number of advantages to Islamic banks. Khan and Ahmad point out a number of benefits that the A-IRB approach will have for Islamic banks. The products of Islamic banks are diverse and in many cases Islamic banks tailor-make a hybrid product for the specific demands of the customer. Since the A-IRB approach allows mapping the risk profile of each asset individually, it suits the Islamic banks better than the standardized approach. Secondly, the risks faced by Islamic

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<sup>&</sup>lt;sup>8</sup> See Khan and Ahmad 2001.

banks can be very different from the risks faced by conventional banks and vary in correlation with the diversity of products that they offer. The A-IRB approach also suits Islamic banks because it aligns the actual risk exposure of banks with their capital requirements. Thirdly, most of the Islamic banks are located in developing countries, where existing national regulatory and enforcement structures are weak, and where a great deal of work is required to improve the risk management culture for financial stability and efficiency. It is expected that the A-IRB approach will encourage Islamic banks to enhance their risk management mechanisms. Fourthly, it is hoped that the A-IRB approach will help generate reliable data and information, thereby enhancing transparency and market discipline. Fifthly, the A-IRB approach will use external credit assessment as a benchmark along with internal credit assessment and hence will combine the information access of an internal credit assessment with the objectivity of an external credit assessment, thereby playing an instrumental role in controlling moral hazard and capital arbitrage.9

# Disadvantages of Pillar 1 of Basel II for the Islamic Banking **Industry**

While the approach in Basel II may prove to be in the long-term interest of Islamic banks, there may be subtle disadvantages that the Islamic banks may face in the implementation of Basel II.

# 1. First critique—Systemic risk as a mitigating factor in Islamic banks

Saidenberg argues that there are two sets of reasons for capital regulation.<sup>10</sup> One is the protection of the consumer and the other is the prevention of systemic risk. Banks pose a high level of systemic risk because of the central role that they play in the payment systems and the allocation of resources, coupled with the fact that they are highly leveraged.11

Islamic banks are well equipped to handle the systemic risk problem, since neither the profit nor the principal amount in the investment deposits of Islamic banks is guaranteed. Any loss on the asset side, in principle, can be passed on to the liability side within the investment deposits. This twoway transmission of risk from demand to investment deposits and vice versa

<sup>10</sup> See Saidenberg and Schuermann 2003: 1.

poses potential systemic risk for Islamic banks<sup>12</sup> and neutralizes their enhanced risk absorption capacity. The risk of loss in case of a run on the banks is a risk that is faced by all conventional banks. As far as the unavailability of deposit insurance and lender of last resort is concerned, these are not issues of inherent risk within the structure of an Islamic bank. These are issues that can and will be remedied as Islamic banking gains more and more mainstream acceptability. Islamic banks may therefore be better equipped to deal with systemic risk as compared to conventional banks.

Systemic risk has been a concern to BCBS. While there are no hard numbers to suggest the extent to which it is taken into consideration in the calculation of capital adequacy, if we can quantify the systemic risk reduction element of the Islamic banks we may be able to offset some of the added credit, operational, and market risk capital allocation within Islamic banks.

#### 2. Second critique—Retail banks or investment banks?

Islamic banks enter into a profit and loss sharing partnership with their investment depositors. Investment depositors participate in the risk of the business of the bank in the same way as shareholders of a corporation take the risk of price movement of the share price of the stock. Therefore, Islamic banks could be treated like corporations and hence could be subject to a similar regulatory regime rather than the stringent regulation of the banking sector.

To assess the validity of this argument we need to analyze why a different and much more stringent regulatory regime is required for the banks. The reason that banks are regulated is that they are at the heart of the payment system, are highly leveraged, and their failure can cause systemic risk. Islamic banks carry all these risks. They take deposits, are linked with the payment system, are leveraged, and can cause systemic risk. Therefore, the fact that Islamic banks perform some functions that resemble those performed by corporations does not derogate from the fact that they still require a banking regulatory regime based on the risks that their failure might cause. We may further note that the investment depositors in Islamic banks do not enjoy the same rights as equity investors in conventional

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<sup>&</sup>lt;sup>12</sup> In case of a run on the bank it is highly unlikely that the Islamic banks would be in a position to repay demand deposits. This effectively transfers the business risk from the investment deposits to demand deposits. Conversely the demand deposits increase the leverage of Islamic banks and as a result their financial risk and overall stability

<sup>&</sup>lt;sup>13</sup> See Saidenberg and Schuermann 2003: 1.

investment companies, but do share the same risks. Their protection further requires a higher level of supervision.

#### 3. Third critique—Banks from developing countries

A third critique of Pillar 1 of Basel II is that it is disadvantageous to banks in developing countries. Most of the Islamic banks are based in the Middle East, Pakistan, Malaysia, Sudan, Iran, and Indonesia. The following table shows a distribution of Islamic financial institutions by region with respect to their numbers and funds managed by them.

Islamic Financial Institutions Funds Managed Islamic by by Region (% Numbers) Financial Institutions by Regions (%) Europe & 9.4% Europe & 8.2% America America Africa Africa 10.6% 1.2% Other M.E. 15.3% Other M.E. 19.7% G.C.C 22.4% G.C.C 64.7% Asia 42.2% Asia 8.2%

TABLE 2.

Clearly, Islamic financial institutions are concentrated in developing countries and hence are subject to the peculiar disadvantages faced by banks in developing countries from the implementation of Basel II.

Griffith-Jones, Segaviano, and Spratt argue that the adoption of the IRB approach by internationally active banks would result in a decline in lending to developing countries as it will be more expensive to lend money to developing countries than to developed countries. He while such an outcome may be a simple realization of the existing risk, Griffith-Jones, Segaviano, and Spratt counter that Basel II does not take into account international loan portfolio diversification and hence the risk calculation is not accurate. They base their argument on two hypotheses. First, they say that the "degree of correlation between the real and financial sectors of developed economies is greater than that which exists between developed and developing economies." Their second hypothesis is that "An international loan portfolio which is diversified across the developed, emerging and developing regions enjoys a more efficient risk/return trade-off—and therefore lower overall portfolio level risk as measured by

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<sup>&</sup>lt;sup>14</sup> Griffith-Jones et al. 2002.

<sup>15</sup> Ibid.

unexpected losses—than one focused exclusively on developed markets."<sup>16</sup> They thus conclude that taking international loan diversification into account as a risk mitigating factor would allow internationally active banks to lend to developing countries.

BCBS has yet to take into account the potent argument for including the issue of international portfolio diversification. Decreased lending to developing countries would lead to increased difficulties for banks in such countries (including Islamic banks) to secure international financing. Additionally, the reduced lending by internationally active banks to developing countries will reduce competition for domestic banks from developing countries and this will actually lead to a growth of the banking sector in the developing countries. However, the cost of lending/financing for domestic banks would likely be higher, offsetting some or all of the benefit that the lack of international competition may bring.

### 4. Fourth critique—Pillar 1 of Basel II is disadvantageous to small banks

Islamic banks are generally smaller than their conventional counterparts in their respective jurisdictions and certainly with respect to international standards. While Islamic banking has enormous growth prospects, some of which are beginning to be realized, there remains a gulf between the magnitude of business they conduct and that of internationally active conventional banks. Recently, plans have been finalized to launch a new Islamic bank with a paid-up capital of US\$1.5 billion and authorized capital of US\$3 billion during the current year.

Table 1.3 below illustrates that Islamic banks in terms of both assets and capital will fall within the category of small banks.

<sup>16</sup> Ibid.

TABLE 3.

Islamic Banks	and Financial	Islamic Banks	and Financial	
Institutions by Size	e of Assets	Institutions by Size of Capital		
Assets	Frequency	Size of Capital	Frequency	
(US\$ Millions)	Distribution	(US\$ Millions)	Distribution	
0-50	39	0-25	55	
51-100	13	26-50	10	
101-200	4	51-75	6	
201-300	3	76-100	2	
301-400	8	101-150	2	
401-500	1	151-200	2	
501-1000	3	201-300	2	
> 1000	7	Total	79	
Total	78			

<sup>&</sup>lt;sup>17</sup>Source: Directory of Islamic Banks and Financial Institutions (Jedda: IAIB, 1996).

The cost of implementation, the requisite technology, and the expertise required to implement the A-IRB and/or AMA approach suggests that only the large banks have the resource wherewithal to take up these approaches. This suggests that only the larger banks will be able to lower their capital requirements by efficient calculation of risk. This will place the already disadvantaged small and medium-sized banks into further competitive disadvantage. The following is data from Quantitative Impact Study 3 (QIS3) about how A-IRB methods changed capital requirements compared to the current rules for twenty large U.S. banks. <sup>18</sup>

TABLE 4.

Corporate Loans	26% Reduction	
Small to Medium-sized Enterprise Loans	39% Reduction	
Residential Mortgages	56% Reduction	
Credit Card Receivables	16% Reduction	
Other Customer Loans	25% Reduction	

Table 4 suggests that banks following the A-IRB approach will have significant advantages over other banks.

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<sup>&</sup>lt;sup>17</sup> The statistics are old but it is difficult to get hold of the most current statistics. Euromoney is working on a project to develop a detailed databank, but its project is still in the making.

<sup>&</sup>lt;sup>18</sup> Zions Bancorporation 2003.

The competitive disadvantage for small banks would be reflected in the stock market. The Capital Asset Pricing Model has two drivers for valuing a stock: expected return on equity, and expected growth rate. Both of these would be hampered as a result of requiring small and medium-sized banks to hold more capital. This will lead to consolidation within the banking industry, which at one level may be acceptable but at another level may create banking "giants," which are "too big to fail" and will therefore pose a severe threat to systemic stability. In the context of Islamic banking, this will also mean that bigger conventional international players entering the Islamic banking market will be a severe threat to small, indigenous Islamic banks.

# 5. Fifth critique—Penalizes lending to small and medium-sized enterprises (SMEs)

BCBS has made significant progress in the treatment of loans to SMEs. Under the third consultative document the treatment of loan exposure to SMEs of up to one million euros as retail exposure is a welcome improvement. However, there are still issues of concern. The granularity criterion, for instance, which was proposed in the standardized approach in the QIS 3 Technical Guidance that no aggregate exposure to one counterpart could exceed 0.2 percent of the overall regulatory retail portfolio, would discriminate against SME-retail customers of smaller banks. Furthermore, under the standardized approach supervisors may determine higher risk weights for retail exposures. A lot of discretion has been left in this case to the supervisors and while they may increase the risk weights, no similar provision has been included for reduction of risk weights in light of the changed circumstances.

Most of the Islamic bank's customer base is within the SMEs. Under Basel II they will discover that lending to SMEs in some cases is not preferable. This will discourage lending to SMEs and will affect both the Islamic banks and the economy of the country—particularly given the crucial role of SMEs in the economy of any country in general and the economies with a significant Islamic banking presence in particular.<sup>21</sup>

<sup>19</sup> Ibid

<sup>&</sup>lt;sup>20</sup> For a detailed discussion on the issue *see* Basel Committee 2003.

<sup>&</sup>lt;sup>21</sup> Ibid.

# 6. Sixth critique—Treatment of operational risk

Sundararajan and Errico argue that operational risk is a very crucial risk in Islamic banking operations.<sup>22</sup> They maintain that the peculiar nature of Islamic banks contributes to the operational risk that they face. The investment nature of Islamic banks require stringent internal control mechanisms to monitor compliance of the investment with the objectives of Islamic banks and proper accounting for their operations.<sup>23</sup>

In view of the fact that there is no developed mechanism for the analysis of operational risk, nor are there any recognized standards for translating operational risk components into capital standards, and that the nature of operational risk in Islamic banks is such that there is almost no data or model available to follow, it will be appropriate if operational risk is moved to Pillar 2 until such time when the tools for calculating operational risk are made available and refined.

# PILLAR 2: SUPERVISORY REVIEW OF CAPITAL ADEQUACY

Under Pillar 2, supervisors are to ensure that each bank holds sufficient capital in view of its risk profile.<sup>24</sup> "[It] is inevitable that a capital adequacy framework, even the more forward looking Basel II, will lag to some extent behind the changing risk profiles of complex banking organizations, particularly as they take advantage of newly available business opportunities. Accordingly, this heightens the importance of, and attention supervisors must pay to pillar two."<sup>25</sup>

One of the aspects that the Islamic banks have been missing is a thorough supervisory review and support in accordance with their specialized operations. It can be hoped that they will receive more attention under Basel II. However, there are areas of concern. Under Basel II the burden on the regulators will increase tremendously. They will also be under pressure because of the *modus operandi* of the calculation of operational risk. The capacity and resources of regulators in the GCC countries vary significantly, as they do in other countries with a significant Islamic banking presence. It is feared that under Basel II the inconsistency between the regulatory regimes in place may increase tremendously. This will hurt the very basic objective of Basel II of "creating a level playing

<sup>24</sup> Comment by America's Community Bankers, November 3, 2003, to FDIC on the New Basel Accord.

<sup>&</sup>lt;sup>22</sup> See Sundararajan and Errico 2002: 4-5.

<sup>&</sup>lt;sup>23</sup> Ibid

<sup>&</sup>lt;sup>25</sup> BCBS 2004.

field"; in addition, it will also hurt those Islamic banks that may as a result be subjected to a more rigorous regulatory regime compared to banks under regimes that may have rather relaxed rules.<sup>26</sup>

#### **PILLAR 3: PUBLIC DISCLOSURE**

Pillar 3 complements Pillar 1 and Pillar 2. The Committee has developed a minimum set of disclosure rules that will allow market participants to assess key information about a bank's risk profile and level of capitalization.

Pillar 3 will help strengthen confidence in Islamic banks by requiring them to disclose information at an industry standard. This information disclosure is in addition to other avenues for disclosure of information that the banks may have. The minimum disclosure requirements may also help in bolstering further confidence in the two-tier *murabaha* model where the information asymmetry places the investor at a disadvantage in monitoring the performance of the bank.

#### **CONCLUSION**

In view of what has been discussed above, it is clear that Islamic banks are in as much need of regulation and supervision as their conventional counterparts. However, in view of their distinct characteristics, a regulatory and supervisory setup more sensitive to their unique characteristics and more adaptive and responsive to their emergence will more strongly address the underlying concern of BCBS, i.e., the stability of the banking system.

Khan and Ahmad argue that demand deposits and investment deposits of Islamic banks should be completely segregated. This will prevent the two-way transmission of systemic risk between demand and investment deposits. They propose separate capital adequacy standards for the demand and investment accounts and argue that this will "serve the firewalls and safety net requirements of major regulatory and supervisory jurisdictions around the world." They suggest two alternatives to the existing setup. The first alternative would be to keep demand deposits in the banking book and investment deposits in the trading book, with separate capital adequacy requirements for the two books. This will prevent the two-way transmission of systemic risk between demand and investment deposits and hence enhance the stability of the overall banking system.

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<sup>&</sup>lt;sup>26</sup> The Basel II Capital Accord: Where Do Arab Banks Stand? (The Report of the Union of Arab Banks, September 2003). On file with the author.

<sup>&</sup>lt;sup>27</sup> See Khan and Ahmad 2001.

The second alternative would be to pool the investment deposits of an Islamic bank into a securities subsidiary of the bank with independent capital adequacy standards and consolidated supervision.<sup>28</sup>

A third alternative is based on the idea of setting up two tiers of Islamic banks.<sup>29</sup> The first tier of banks would be responsible for the payment system of the country while the second tier would comprise a number of specialized *mudaraba* banks in different sectors of the economy. The diversification would make the second tier banks shock-proof as a whole in case of an economic downturn. On the other hand, the complete separation between the two tiers of banks would ensure that any shock in the *mudaraba* banks is not transmitted to the banks responsible for the payment system, thus eliminating or at least substantially reducing systemic risk, the major cause for banking regulation.

The proposed alternatives are more in line with the characteristics of Islamic banks and would bring more stability to the Islamic banking system. At the same time it is hoped that they would help enhance the credibility and acceptance of Islamic banks to the different regulatory regimes. Ishrat Hussain, governor of the State Bank of Pakistan, said at a recent conference that the objective of Islamic banking regulators is "to nurture a competitive dynamic, sustainable Islamic Financial Service Industry as an integral part of [the] Global Financial System." It is hoped that the proposed alternatives will help achieve this objective and will result in the further growth of Islamic finance.

<sup>28</sup> Ibid.

<sup>&</sup>lt;sup>29</sup> This alternative, an offspring of Narrow Banking, is being argued by Iqbal Kahn, CEO of HSBC Amanah, as the future course for Islamic banks.

<sup>&</sup>lt;sup>30</sup> Presentation made at the Annual General Assembly Meeting of IFSB held at Nusua Dua, Indonesia, on March 31, 2004.