

# **Comments of**

**Zamir Iqbal\***

**on**

## **Basel II and Capital Requirements for Islamic Banks**

by M. Kabir Hassan and Mehmet F. Dicle

## **Basel II: Implications for Islamic Banking**

by Monzer Kahf

## **Cyclical Patterns in Profits, Provisioning and Lending of Islamic Banks and Procyclicality of the New Basel Capital Requirements**

by Abd. Ghafar b. Ismail and Ahmad Azam b. Sulaiman

I would like to thank the organizers of the conference to give me an opportunity to read and benefit from three well-written papers on a very relevant topic. I will briefly mention strengths and areas of improvements for each paper followed by some general comments on the topic.

### **1. Basel II: Implications for Islamic Banking**

**by Monzer Kahf**

This paper provides a comprehensive description of Basel-II accord covering all three pillars. Section I which discusses the nature of three risks (credit, market and operational) and their impact on risk weights for capital requirements and respective methodologies to measure such risks offers a good summary of issues highlighted by Basel II. Section II shows how Islamic financial instruments can be classified into 'debt-creating' or 'non-debt creating' assets which is a good distinction to group assets of Islamic banks for understanding capital requirements. Results of a brief survey of balance sheets of 7 banks are useful to understand common practises in classifying assets. Towards the end of Section II, the paper successfully argues and justifies the need for different capital requirements for Islamic banks.

I consider the Section III, the core of the paper where a link between risks and capital requirements for Islamic banks is established concluding that (a) there are qualitative similarities of treatment of credit risks between conventional and Islamic banks; (b) unrestricted deposits should be treated as equity; and (c) the

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capital requirement for operational risk should be lower as these will be shared between equity-holders and owners of unrestricted deposits. Paper also shows why market risk (trading book risks) may be higher in Islamic banks due to nature of quasi-trading books. Paper asserts that trading book risks are relatively small in case of the Islamic banks quoting that typical Islamic banks' share of trading book ranges from 5% to 26%. This conclusion may need to be revisited as growing number of Islamic banks are active in holding of *ṣukūks* and other asset-backed securities.<sup>1</sup>

Whereas the paper does justice to the discussion of pillar I of the Basel II accord, it ignores discussion and implication of the other two pillars, i.e. Supervisory review and market discipline. These two pillars are of significant nature and further discussion of relevance to Islamic banks would have made the paper even better. Second, the paper's argument that operational risk should be spread over shareholders' equity and unrestricted investment account holders who are similar to shareholders needs a rethinking. It is true that the financial intermediary (*muḍārib*) is responsible for any losses due to the negligence or misconduct, but the intermediary should also be responsible for losses due to failure of processes as well because as trustee of capital, institution is responsible to adhere to best practises and controls. Islamic bank acts as fund manager for unrestricted investment account holders and is expected to provide the best operational standards and if it fails to do so, it should be responsible for the resultant losses. For instance, failure to comply with Sharī'ah is a form of operational risk and if the financial intermediary fails to do so, it will betray the trust of investors and therefore should be responsible for the lost income which investors will not be able to realize since it would be from non-Sharī'ah-compatible sources. Furthermore, if the losses from operational risks are to be shared with the investment account holders, it can lead to moral hazard as financial intermediary may become complacent in ensuring the best practises.<sup>2</sup>

Third, the paper discusses different methodologies of measuring or assessing risks, i.e. Standardized, internal rating, or advanced measurement approaches but does not link these to Islamic banks as to which methodology may be suitable considering that many institutions may not be well-equipped to implement some of these methodologies. Finally, some discussion of liquidity risk, withdrawal risk and Sharī'ah-compliance risk could have enhanced the paper further.

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<sup>1</sup> For example, in case of Sudan, holding of government papers known as *Shahamahs* or 'equity-participation securities' is common practice among Islamic banks.

<sup>2</sup> According to IFSB exposure on capital adequacy, financial institution's shareholders should be liable for any losses due to operational risks.

## **2. Basel II and Capital Requirements for Islamic Banks**

**by M. Kabir Hassan and Mehmet F. Dicle**

This paper focuses primarily on the capital requirements of Islamic banks and does not indulge into other aspects of Basel-II. It is very essential that the nature of different risks for each instrument are understood before one can discuss the need and the level of capital adequate for security and stability of a financial institution. This paper does this job well by drawing a risk profile for different instruments on the asset side of Islamic banks. This provides a sound foundation for understanding the behaviour of each asset class. Discussion of risks is valuable, especially in section 3.3 where paper highlights the significance of an enterprise wide risk culture and risk management system including standardization of processes and procedures, proper internal control systems and adequate risk measurement systems. Discussion of risk measurement approaches such as standardized, internal rating and model-based methodologies and their relevance to Islamic banks is useful which is followed by discussion of transparency that is supported by some empirical evidence. The paper concludes that profit/loss sharing accounts should be treated as part of tier two capital since these are similar to preferred stock or hybrid capital.

Although the paper is focused on the capital requirements under Basel II, omission of any discussion on the treatment or the allocation of capital for operational risk can not go unnoticed. Paper discusses the nature of operational risk but does not make any suggestion on how to handle capital requirements with respect to Islamic banks. Capital allocation for operational risk is an important element of Basel-II and therefore the paper should have included it in its discussion. I tend to agree with the paper that Islamic banks do not have standardized products as well as standardized procedures which may lead to an elevated level of operational risk, and therefore this makes a stronger case for capital allocation to cover expected losses due to operational failures. Similar to operational risk, the paper shies away from discussing market risks of trading and banking books and their relevant impact on capital adequacy.

Second, the paper makes an argument that deposits through investment accounts can be treated as a special case of securitization of a group of assets against deposits. Earlier the paper makes reference to Islamic banks issuing a *ṣukūk* which can be part of capital for Islamic banks. This creates some confusion and a clarification is required. Confusion arises from the fact that any kind of securitization and issuance of *ṣukūk* takes assets off-of-balance sheet such that these assets and the resultant claims on such assets are passed to a special purpose vehicle (SPV) in conventional banks and to a special purpose *muḍārabah* (SPM) in case of Islamic banks. SPV or SPM is a trust and a separate legal entity by itself with its own balance sheet. As a result bank's capital can not be considered as buffer for any risks arising from a non-recourse securitized asset. However, there

may be some direct or indirect recourse to the originator of the securitized assets through implicit or explicit guarantees and/or credit enhancements. A discussion of exposure to such risk should be incorporated in capital allocation.

Finally, the paper does not offer any suggestion as to what should or should not be correct treatment of different instruments but quotes such discussion by previous research which provides a useful survey and a literature review.

### **3. Cyclical Patterns in Profits, Provisioning and Lending of Islamic Banks and Procyclicality of the New Basel Capital Requirements**

**by Abd. Ghafar b. Ismail and Ahmad Azam b. Sulaiman**

This paper conducts an empirical study of possible procyclical behaviour of banking due to capital requirements and thus impacting macro-economic stability. The paper provides a good summary of the literature linking capital requirements to a bank's contraction or expansion of credit. Paper also mentions that linking Basel accord's capital requirement to procyclicality in the banking business creates a paradox since the objective of capital requirement is to enhance the financial health and the stability of the financial system. The paper conducts regression analysis using data from 16 Islamic banks and windows, and finds some evidence that the current setting of the Basel minimum regulatory capital requirement can lead to cyclical behaviour in provisioning in banking. However, this conclusion can not be taken as a strong evidence of cyclicity in case of Islamic banks due to the reasons discussed below.

The paper's objective to perform an empirical analysis on Islamic banks is good but there are serious weaknesses in the methodology of analysis. First, the paper does not take into account the nature of contract between the depositors (investors) and the Islamic banks, i.e. Profit and loss sharing agreement. There is unanimity among researchers that profit sharing and loss bearing contract between Islamic banks and the depositors is very different from a contract between a bank and depositor of a conventional bank. In case of Islamic banks, since the investors agree to share profit as well as loss, assets financed through such deposits are not subject to the same capital requirements. This position is consistent with standards recommended by AAOIFI and IFSB. Therefore, the paper should have made adjustment in the model (equations) to incorporate the fraction of loans not financed through non-profit and loss sharing agreement.

Second, on the asset side of the Islamic bank, there are different classes of assets which may or may not behave like a conventional loan. Depending on the nature of asset, i.e. *salam*, *murābahah*, *ijārah*, or *istiṣnā'*, risk weights will be different. Similarly, Islamic bank's asset side include contracts like *muḍārabah* (trust financing) and *mushārahah* (equity-sharing) which demands special treatment as far as capital allocation is concerned. Incorporating above-mentioned

characteristics of Islamic banks means refining the model by performing a detailed analysis of the balance sheets of banks in sample set where in some cases, detailed data may not be available. This further increases the level of complexity of analysis. Finally, the paper does not mention if in the case of Islamic windows, the bank's loan portfolio was adjusted to reflect the portion funded by Islamic windows.

#### **4. Basel II and Islamic Banks: Some General Comments**

The issues of capital adequacy, risk management and supervisory framework for Islamic financial institutions (IFIs) have attracted significant attention in the recent years. Need for special nature of capital requirements of IFIs was brought to attention through research by AAOIFI which led to the issuance of standards for capital requirements. With the establishment of Islamic Financial Services Board (IFSB), further progress has been made. After considerable collaboration with researchers, practitioners and supervisory authorities, in early 2005, IFSB issued two exposure drafts dealing with the risk management and the capital requirements of IFIs. Draft Exposure No. 1 addresses the standards for risk management and Draft Exposure No. 2 addresses the capital requirements in a fairly comprehensive fashion.

In light of IFSB draft exposures, specific discussion of capital requirement would not be necessary but I would like to highlight some general issues and make some observations to complement the papers presented in this session. This discussion will be followed by identification of some related to the implementation of Basel-II.

##### **4.1 IFIs as Universal Banks:**

Financial intermediation performed by IFIs, combines commercial and investment banking activities similar to a universal bank in the conventional system. This combination of banking with securities (underwriting) operations demands that different capital adequacy criteria be applied to banking and securities operations. This has led to the adoption of a 'banking book – trading book' approach in the EU Capital Adequacy Directive of 1993. The securities activities grouped as 'trading book' are subject to a capital adequacy regime that is separate from the banking business as defined by the 'banking book'.<sup>3</sup> One marked difference in the case of IFIs is that the trading operations are not confined to securities business only but include position in commodities and other non-financial assets, for example by means of *salam* and *istiṣnā'* contracts. Due to universal nature of financial intermediation, it is important that well-defined rules and standards are designed to clearly demark the boundaries of banking and trading

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<sup>3</sup> Archer (2004).

books with respective allocation of capital depending upon the nature of business.<sup>4</sup> On the liabilities side of an IFI, existence of restricted and unrestricted investment accounts results in a collection of heterogeneous investment funds resembling a fund of funds and therefore should be subject to capital requirements of a fund manager. Investments funded by current accounts carry commercial banking risks and should be subject to adequate risk weights and capital allocation accordingly.

#### 4.2 Displaced Commercial Risk:

Both AAOIFI and IFSB standards recognize ‘displaced commercial risk’ as a risk special to IFIs and is the risk of divergence between assets’ performance and expectations for returns on liabilities. For Islamic banks, while there is no interest payable or receivable, there are asset-backed securities with pre-determined returns such as receivable of a mark-up nature or *ijārah* rentals. Such assets are funded by unrestricted investment account holders who follow current market expectations leading to a mismatch and a gap between assets and liabilities. This mismatch is referred to as ‘displaced commercial risk’ and may lead to a kind of squeeze similar to interest rate mismatch. The severity of this squeeze and its implications for capital adequacy will depend, among other things, on the economic characteristics of unrestricted investment account holders in the country concerned. This matter will therefore call for particular attention from supervisors under Pillar 2. Supervisors will need to evaluate the risk management systems of Islamic banks in their jurisdiction, and their exposure to and capability to manage Displaced Commercial Risk.<sup>5</sup>

#### 4.3 Use of Quantitative Methods of Risk Measurement:

Risk assessment and measurement is an art as well as a science. Increased complexity of financial instruments calls for more sophisticated risk assessment tools for all sorts of risks including credit, market and operational risk. In risk management, the first step is to identify the source of the risk and the second step is to devise the methods to quantify the risk. In case of Islamic banking, the first step has made good progress in terms of identifying risks associated with IFIs. However, there is need to apply risk measurement techniques and models to quantify risks. For example, similar to the idea of Value-at-Risk (VaR), the risk of the investors (unrestricted *muḍārabah* depositors) can be quantified by a measure of Profit-at-Risk (PaR) based on the historical profits and the volatility of returns.<sup>6</sup>

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<sup>4</sup> See Al-Hawary, Grais and Iqbal (2004) who argue to take a ‘segmented’ approach to the balance sheet of IFIs where different segments of liabilities are properly demarked and ring fenced.

<sup>5</sup> Archer (2004).

<sup>6</sup> Sundararajan (2004). Assuming normal distribution, Profit at Risk (PaR) can be calculated as equal to  $Z_{\alpha} \cdot \sigma_p \cdot \sqrt{T}$  where  $Z_{\alpha}$  = is the constant that gives the appropriate one-tailed confidence interval with a probability of  $1-\alpha$  for the standard normal distribution (e.g.  $Z_{.01} = 2.33$  for .99% confidence interval), T holding period or maturity of investment

PaR measure could become handy in determining the level of income smoothing reserves--Profit Equalization Reserves (PER) maintained by majority of IFIs-- to mitigate displaced commercial risk.

Trade financing and lease-based financial instruments on the assets' side of IFIs resemble fixed-income asset-backed securities and thus some of the standard risk measurement techniques such as duration, gap analysis, bucketing, DV01, and Value-at-Risk (VaR) can be computed to monitor the level of the risks. Use of such monitoring tools becomes more important for IFIs due to lack of risk-mitigating derivative products and due to low liquidity of the assets. Also, there could be issues in the use of parametric VaR for instruments based on *mudārabah* and *mushārah* contracts and therefore alternative measures of risks should be designed.

On the credit risk side, valuation of collaterals needs special attention in case of IFIs. Although, Basel-II recognizes collaterals as one of the risk mitigating tools, in practise, many supervisory authorities tend to under-weight the existence of collaterals for several reasons. Valuation and determination of fair market value of collaterals is not an easy task, especially in case of under-developed markets. Therefore, advance models based on simulations and other analytical techniques should be developed to measure the extent of exposure due to credit risk. Due to the above mentioned reasons; supervisors should encourage IFIs to develop infrastructure and systems to perform quantitative analysis.<sup>7</sup>

#### 4.4 Operational Risk:

Operational risks are considered to be significant in case of IFIs<sup>8</sup> due to several reasons such as (a) relative small size of institutions; (b) highly specialized legal framework and non-standardized contractual features, e.g. The cancellation risks in non binding *murābahah* contracts; (c) weak internal control systems to detect and manage potential problems in operational processes and back office functions; (d) the risk of non-compliance with *Shari'ah* requirements that may result in non-recognition of income and resultant losses; (e) dealing with the maintenance and management of commodity inventories often in illiquid markets; and (f) increasing use of structured finance transactions, e.g. Securitization. Compliance to *Shari'ah* is one of the most important requirements by investors (depositors) since it forms the basis of Islamic banking. Non-compliance or failure to adhere to *Shari'ah* can expose financial institutions to further *reputational* or *headline* risks. Both the

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account as a fraction of month and  $\sigma_p$  as standard deviation of the monthly profit as a percentage of assets.

<sup>7</sup> IFSB's draft exposure on capital adequacy stops short of explaining approaches other than the standardised approach but encourages supervisory authorities to use other approaches provided they have the ability to address the infrastructure issues adequately.

<sup>8</sup> Survey by Khan and Ahmed (2000) shows exposure to operational risks is perceived high among Islamic bankers.

management of IFIs and the supervisory authorities need to ensure that proper measurement and management of such risks are in place.

IFSB's exposure draft recommends that the proposed measurement of capital to allocate for the operational risk may be based on either the Basic Indicator Approach or the Standardised approach.<sup>9</sup> It is further recommended that due to different structure of Lines of Business (LOBs) for IFIs, at the present stage, the Basic Indicator Approach to be used by IFIs. However, the use of gross income as the basic indicator for operational risk measurement could be misleading in the case of IFIs. For example, dealing with large volume of transactions in commodities, and the use of structured finance raises operational exposures that will not be captured by gross income. In contrast, the standardized approach that allows for different business lines could be better suited, but would still need adaptation to the needs of IFIs.<sup>10</sup>

Finally, the question of the liability of the investment account holders with respect to the operational risk needs to be addressed. Since investment account holders are exposed to and are liable for the market and the credit risk, IFIs who act as financial intermediary or fund manager are responsible for the operational risk. For example, in case of mutual funds in US, regulators require that the fund managers have enough capital to cover at least nine months of operating cost and the rationale behind this allocation is that in normal circumstances, it takes about this much time to wind down the business in case of failures.

#### **4.5 Significance of Pillar II and III:**

A robust financial system infrastructure and adequate macro prudential surveillance are the prerequisite for effective supervision and risk management. Several recent studies by the World Bank and IMF have highlighted the significance of the appropriate balance of prudential supervision and market discipline in Islamic finance, and the related implications for the organization of the industry and further linking it to the financial stability.<sup>11</sup> These studies stress the importance of disclosure and market discipline in Islamic finance because it is observed that different nature of the risks of IFIs and limited capacity for risk mitigation expose them more than the conventional financial institutions. This exposure is further elevated due to an inadequate financial

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<sup>9</sup> Under the Basic Indicator Approach, a fixed percentage of 15% of annual average gross income, averaged over the previous three years, is set aside. Under the Standardised Approach, this percentage varies according to the line of business (LOB) from 12% to 18%, being 18% for corporate finance, trading and sales, and payment and settlement, to 15% for commercial banking and agency services, and 12% for retail banking, asset management and retail brokerage.

<sup>10</sup> Sundararajan (2004)

<sup>11</sup> See El-Hawary, Grais and Iqbal (2004), Sundararajan and Errico (2002), Marston and Sundararajan(2003)



infrastructure such as low level of transparency, absence of derivative instruments and markets, and a weak insolvency and creditor rights regime. Weak disclosure and low market discipline calls for active supervision.

Whereas understanding the risks and the allocation of capital under Pillar I is a critical step but equally or more important are core elements of supervision (Pillar II) and market discipline (Pillar III). A well-designed capital requirement can not be made effective in absence of strong and prudent supervision. Therefore, the strengthening the existing supervisory framework to achieve full compliance with Basel Core Principles of Banking Supervision is highly desirable in case of IFIs. In many countries with Islamic banks, available information on compliance with Basel Core Principles seem to suggest that the disclosure requirements for banks relating to risk management processes and detailed risk exposures need strengthening.<sup>12</sup>

The disclosure practises of IFIs are not standardized and are highly varied. Although, the AAOIFI Financial Accounting standards provide a sound basis for further developing prudential disclosures, it has been suggested that further development should have two key purposes; (a) to develop *consumer- friendly disclosures* to inform investment account holders on the inherent overall risks that they face, and the related reserving policies; and (b) to develop *market-oriented disclosures* to inform public at large, particularly other professional counterparties, including regulators (who will require more details, not publicly disclosed) on capital, risk exposures and capital adequacy, along the lines of Pillar III of Based II.<sup>13</sup> The true risks borne by investment account holders can be made transparent by enhancing the reporting and disclosure. For example disclosure of the definition of *mudārabah* profits, the level and variations in these profits and in profit equalization reserves can not only help the investor in determining the level of their exposure, it can provide valuable insight for the supervisors as well.

#### **4.6 Implementation Issues of Basel-II:**

It is worth discussing some of the issues which are relevant to the implementation of Basel II in case of IFIs as following:

(a). *Risk Reporting*: Significance of risk reporting can not be underestimated<sup>14</sup> and therefore it is necessary that IFIs work together and with the supervisory authorities to implement a comprehensive risk reporting framework. IFBS recently issued a draft exposure for risk reporting of IFIs which puts great emphasis on the need to have in place a comprehensive risk reporting process, including appropriate board and senior management oversight, to identify, measure, monitor, report and

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<sup>12</sup> Sundararajan(2004)

<sup>13</sup> Sundararajan(2004)

<sup>14</sup> For a detailed discussion of banking risks and risk reporting, see van Greuning and Bratanovic (2004)

control relevant categories of risks and to ensure the adequacy of relevant risk reporting to the supervisory authority. Supervisory authorities need to allocate resources to ensure timely implementation of proposed risk reporting framework.

(b). *Information Infrastructure:* There is need to establish information gathering infrastructure to provide reliable information about the credit worthiness of the borrowers, fair value of collaterals and independent valuation of assets. This requires systematic effort of data collection and analysis, establishment of credit registries who can track credit history of potential borrowers, and well-functioning rating agencies. There is now increasing recognition that the credit registries with appropriate modifications in data content could facilitate systematic credit risk measurements.

(c). *Liquidity Enhancement:* IFIs have limited choices to maintain liquidity, especially in times of stress. Availability of liquidity is critical for risk management and therefore it is essential that IFIs allocate resources to introduce liquidity enhancement financial instruments through securitization and the development of capital markets.

(d). *Fragmentation and Concentration:* IFIs are often fragmented, highly concentrated, and are of relatively small size as compared to average conventional bank. As a result, IFIs do not have enough opportunities to gain from the benefits of diversification. Supervisors need to watch financial institutions having considerable exposure to a particular industry or deposit base. Supervisory authorities should also encourage IFIs to seek diversification. Through geographical diversification of deposit base, an IFI can reduce its exposure to displacement or withdrawal risks. Diversification on the asset side can reduce the variance of the returns that accrue to claimholders of the financial intermediary. Geographical spread of products can further help an IFI improve its credit risk by selecting the best credit quality of borrowers and avoiding weak credit quality. Further diversification benefits can come from a more diverse mix offered by extending the scope of products and services.

(e). *Investment in Risk Management Infrastructure:* Establishment of risk assessment and measurement systems often becomes an expensive proposition as it requires sophisticated models, software, technologies and skillful resources who could understand the nature of risks and prepare models accordingly. Measurement and control of operational risk is still evolving. Given small size of the financial institution, establishing such a framework at organization level may not be possible. IFIs and supervisory authorities should work together to find suitable solution for this problem.

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