IMPLICATIONS of BASEL III for ISLAMIC BANKING - OPPORTUNITIES AND CHALLENGES

Canan Ozkan

Zamir Iqbal

The World Bank Group
Finance and Markets Group
Global Islamic Finance Development Center
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Abstract

This study aims to examine the elements of Basel III regulations, unveiling the implications of the regulations for the Islamic banking industry. The study sheds light on the opportunities and challenges posed by new rules specifically for Islamic banking and the possible implementation problems in their adoption. Within a post-crisis environment, there has been longstanding discussions at the global regulatory platforms, regarding the ability of banks to absorb shocks arising from periods of financial distress. Based on these discussions, Basel III reforms were launched with an intention of addressing the challenges resulting from 2007 crisis. The rules aim to strengthen global capital and liquidity rules for banks in order to make them more resilient against shocks. Though setting minimum standards, the rules leave room for the discretion of national authorities. Much will depend on the decisions of national regulators who will implement Basel III in their own jurisdictions. Many important overall Basel III implications (opportunity as well as challenge-wise) for Islamic banks have been inferred in this study. Due to the current high capitalization levels in most of the Islamic banks, meeting the increased minimum capital requirements is not expected to be very hard to achieve. The increased quality of capital will also not create a big challenge for Islamic banks as most of the Islamic banks` capital is made up of Tier 1 capital on a large basis. Further, the stricter new capital requirements might impose a discipline on the better utilization and maintenance of capital in Islamic banks, which might also be perceived as positively in the industry. On the other hand, new liquidity requirements under Basel III could pose serious threats and challenges to Islamic banks. Meeting the Liquidity Coverage Ratio (LCR) requirement of Basel III will be the biggest challenge for Islamic banks as it is hard to find the high quality liquid Shari`a-compliant instruments due to a general lack in the supply of short-term HQLA and non-existence of secondary markets as well as Interbank and Money Markets. The role of national regulators on the treatment of PSIAs for LCR purposes, basically the run-off rates they choose to assign for these accounts, would create an implementation challenge the level of which differs among jurisdictions. Even small percentage differences in the assigned weights could show up either punitively or favorable for Islamic banks, possibly creating an unlevelled playing field for players. It is also inevitable that the whole process of Basel compliance will pose significant operational challenges and thus, higher operational risks for Islamic banks. The readiness of risk and IT systems, internal controls, rating assessment systems, financial disclosure, and corporate governance framework of Islamic banks to abide by the Basel III rules is seriously questionable.

Key Words: Basel III, Implications for Islamic banks, High Capitalization, High Quality Liquid Sharia-Compliant Assets, Run-Off Rate, Operational Risk
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INTRODUCTION

As financial stability contributes to economic growth as well as development and enhances national economic welfare, maintaining financial stability became an important concern for many regulatory authorities. For the sake of maintaining financial stability, some global reforms on prudential regulation and supervision frameworks have been put together in the global financial arena. Overall, the main objective of these reforms are to strengthen the financial buffers and deliver a system less prone to instability. Key elements of the global regulatory reforms can be summarized as follows:

- **Basel III**: Improve the banking sector's ability to absorb shocks, improve risk management and governance, strengthen transparency and disclosures
- **TBTF**: Tackle too-big-to-fail institutions
- **OTC Derivatives Market Reforms**: Make derivatives markets safer and push more of derivatives transactions on central-clearing.
- **Shadow Banking**: Transform shadow banking into transparent and resilient market-based financing

Taking into account the growth levels and the penetration of the Islamic banking industry within the overall financial system, it is considered that elements of global regulatory reforms have substantial implications for Islamic banking as well. However, unveiling the implications of Basel III regulations on Islamic banking will be the only focus of this study.

Looking at Islamic finance assets geographically, it is seen that total Islamic finance assets remain concentrated in the Middle East and Asia, with a heavy concentration in the Islamic banking sector. Between 2009 and 2013, international Islamic banking assets with commercial banks witnessed a compounded annual growth rate (CAGR) of around 17% and set to exceed US$778b in 2014. (Chart 1-2). Islamic banking assets in six core markets (Qatar, Indonesia, Saudi Arabia, Malaysia, UAE, and Turkey) are expected to touch US$1.8t by 2019. (E&Y World Islamic Banking Competitiveness Report, 2014-2015). Not only the Islam-conscious investors but also conventional investors have demand and appetite for Islamic banking products, helping the double-digit growth rates in the banking industry that outpace the conventional banking growth rates. Strong growth level of Islamic financial industry that mostly stems from the banking products, creates an incentive for regulators as well as supervisory authorities to develop a level playing field for the industry. Further, based on the strong growth level of Islamic banking, its systemic importance in different jurisdictions has been gradually increasing. The financial stability as well as systemic risk implications of the industry growth should also be an important concern for regulatory and supervisory authorities as the market share of Islamic banking assets increases within the overall financial system (Chart 3-4).

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1 Based on IFSB, having assets that accounts for 15% of total banking system assets is considered as a threshold for determining systemic importance.
Source: Ernst & Young World Islamic Banking Competitiveness Report


Current status of Islamic banking industry makes evident that the industry is rapidly increasing its presence and as such getting systemically important in many jurisdictions. This study aims to examine the elements of Basel III regulations, unveiling the implications of the regulations for the Islamic banking industry. The study sheds light on the opportunities and challenges posed by new rules specifically for Islamic banking and the possible implementation problems in their adoption. In the first section, an overview of Basel reforms and the rationale of the emerging need for new Basel rules will be explained. In later sections, all elements of Basel will be examined in detail and the implication of each Basel regulation element for Islamic banking will be discussed. The last section concludes the study summarizing all the implications (both opportunities and challenges) from an Islamic banking perspective.

I. Overview of Basel Reforms and the Road to Basel III

The key objective of Basel reforms is considered as promoting a less-leveraged, less risky and thus a more resilient financial system that supports strong and sustainable economic growth. Aftermath the 2007 global financial crisis, the stability of banking system had deteriorated substantially. The crisis made evident several deficiencies in the solvency and liquidity frameworks such as i. Excessive on and off-balance sheet leverage; ii. Regulatory arbitrage between the banking and trading book; iii. Little high quality capital to absorb losses. The deficiencies in the capital framework and the reality that liquidity might quickly dry up in financial markets, causing liquidity spirals at the times of crisis, compelled a new set of regulations to be launched.

**Figure I. A Snapshot of Basel Reforms**

<table>
<thead>
<tr>
<th>Year</th>
<th>Basel Framework Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>Accord Minimum K requirements (Credit risk, RWAs, two-tier K)</td>
</tr>
<tr>
<td>1996</td>
<td>Amendment K adequacy for market risks in the trading book</td>
</tr>
<tr>
<td>2004</td>
<td>Pillar I Minimum K requirements (Credit/Operational/Market risk; standardized*/IRB*) (*) under revision</td>
</tr>
<tr>
<td>2009</td>
<td>Pillar II Higher K charges on market risks from trading books and complex securitization exposures</td>
</tr>
<tr>
<td>2010 - 2019</td>
<td>Pillar III Quality and quantity of K strengthened</td>
</tr>
<tr>
<td></td>
<td>Liquidity requirements</td>
</tr>
<tr>
<td></td>
<td>Pillar II Supervisory Review Process</td>
</tr>
<tr>
<td></td>
<td>Pillar III Market Discipline</td>
</tr>
</tbody>
</table>

*Source: I got this from Mario’s presentation and will draw this figure again with my own wording.*
In order to remove the reasons causing financial crisis, BCBS, based on the declaration of G-20 countries, agreed on a set of reforms to further strengthen the financial system. Basel III framework has been evolved from Basel I whose main purpose was to strengthen the capital base to Basel II whose main objective was to align regulation/supervision to market developments and introduced a reliance on internal risk models. Basel II had 3 pillars: minimum capital requirement, supervisory review and market discipline. Pillar II looks into the governance of supervisory practices and Pillar III works as an important mechanism to induce banks to assess and manage risks effectively and maintain sufficient level of capital accordingly. Basel II, however, relied importantly on external credit rating agencies and introduced no changes in the definition of capital. Some elements of Basel II were revised (e.g., standardized approach, IRB models) making the standardized approach closer to the IRB model, creating a hybrid model. Although the target was simplicity, it is considered as far from achieving the simplicity target, quite oppositely adding greater complexity to the whole process of compliance.

Turning back to Basel III reforms, in summary they target both bank-level (micro-prudential) and system wide (macro-prudential) risks. Bank-level or micro-prudential regulation is intended to help raise the resilience of individual banking institutions to periods of stress. On the other hand, system-wide, or macro-prudential risks as well as the pro-cyclical amplification of these risks over time will be managed by macro-prudential regulations, as thereby limiting the spillover effects to the real economy. (BIS Guidance)

The Basel III key components might be summarized as:

i) strengthening the global capital framework via higher and better quality capital and mitigating pro-cyclicality with capital conservation and counter-cyclical buffers

ii) tighter liquidity standards with Liquidity Coverage Ratio (LCR) for short-term liquidity coverage and Non-Stable Funding Ratio (NSFR) for longer term stable funding requirement to limit maturity mismatches

iii) non-risk based leverage ratio, as a backstop measure

iv) additional charges to SIFIs that focus on Global Systemically Important Institutions.

v) an enhanced disclosure

Additionally, Basel Committee promotes safe and sound corporate governance as well as prudent risk management practices in its new framework and it paves the way for changing supervisory mechanisms to adopt these global changes.

New rules brought by Basel also state that stress-testing should form an integral part of the overall governance and risk management culture of the bank, especially forward-looking stress-testing and scenario analysis. (The Basel Accord, 2013)
II. Components of Basel III Rules

II.1 Strengthening the Global Capital Framework

Capital is one of the key factors to be considered when assessing the safety and soundness of a particular bank. Capital is required as a buffer against unexpected losses. It absorbs possible losses and maintains solvency, providing a basis for developing the confidence of depositors. It is the ultimate determinant of a bank’s lending capacity. A bank’s balance sheet cannot be expanded beyond the level determined by its capital adequacy ratio (CAR). The maximum level of assets is ultimately determined by the availability of capital. A bank’s performance measured by return on equity capital (ROE) is dependent on its ability to utilize the capital in an efficient manner and to calibrate the level of capital required. The capital adequacy standard is based on the principle that the level of a bank’s capital should be related to the bank’s specific risk profile. (Iqbal and Hennie, Risk Analysis for Islamic Banks). 2007 banking crisis has also revealed that banks need to hold higher levels of capital, to absorb potential losses and remain solvent. In terms of capital requirements rule, the higher and better quality capital is the main change brought by Basel III. The quality and quantity of capital will be increased gradually based on the implementation timelines that is seen in detail at Annex- I. During the transitional period from 2013 up to and including 2019, the ratios will gradually be stepped up to 4.5% CET1, 6% Tier-1 capital and 8 % Total capital. In addition, a conservation buffer is required to be built up to a percentage of 2.5% starting from January 1st, 2016 through to January 1st, 2019. Ultimately, banks are required to hold 10.5% of total capital expressed in risk-weighted assets.

The Basel III Capital Framework and the changes to capital structure of banks and their potential effect comparatively for both conventional and Islamic banks have been summarized in the Table X in detail. The changes brought by Basel capital rules might be summarized under 3 main areas, minimum capital levels, the conservation buffers and the changes in the definition of capital in order to achieve enhancement of quality capital in the capital structure of banks.

- Minimum capital requirements are increased under Basel III.

- Capital buffers additional to minimum requirements have been established.

- The quality of capital has been changed substantially, based on changes in the capital definition.

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2 The percentages exclude the capital conservation and pro-cyclical buffers.
Minimum capital requirements are increased under Basel III.

<table>
<thead>
<tr>
<th>Capital Requirements and Buffers</th>
<th>Common Equity Tier 1</th>
<th>Tier 1 Capital</th>
<th>Total Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>4.5%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Conservation Buffer</td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum plus conservation buffer</td>
<td>7%</td>
<td>8.5%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Countercyclical buffer range*</td>
<td>0-2.5 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The minimum common equity capital ratio (CET) has been raised from existing 2% to 4.5% of total RWAs by January 1, 2015. Common equity will represent a higher proportion of capital as the highest quality capital, allowing for greater loss absorption.
- CET ratio will be complemented by a 2.5% capital conservation buffer, met with common equity. This requirement will be phased in between 2016 through 2019. The target of 7% for common equity will be reached by 2019.

Source: BCBS Press Release, June 2011

- The minimum Tier 1 capital ratio will increase from 4% to 6% from January 1st, 2015.
- The minimum total capital ratio (Tier 1 and Tier 2 capital to risk-weighted assets) will remain at 8%. However, with capital conservation buffers, banks are required to hold 10.5% of their total capital expressed in risk-weighted assets.
Basel III Capital Framework: Changes to Capital Structure

<table>
<thead>
<tr>
<th>Reform</th>
<th>Simple Definition</th>
<th>Description of Change</th>
<th>Rationale of the Change</th>
<th>Expected Impact on CBs and IBs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Capital Requirement</td>
<td>The amount of capital needed for a bank to withstand a significant downturn period and still remain adequately capitalized above the minimum capital requirement.</td>
<td>Tier 1 Capital [Core (CET1) + Non-core (Additional) Tier 1 capital (AT1)] will increase to 6% of risk-weighted assets by 1 January 2019 and a counter-cyclical buffer of 0%-2.5% of risk-weighted assets.</td>
<td>The minimum level of Tier 1 capital has been increased, allowing a higher protection.</td>
<td>The quality of conventional financial institutions’ capital will improve. An increase in loss-bearing capital will be seen in CBs. As currently, most of the Islamic banks’ total capital and Tier 1 capital ratios already exceed Basel III minimums, the reform will not have direct implications on IBs. In general, it may help both institutions, imposing of a discipline on utilization and maintenance of capital.</td>
</tr>
<tr>
<td>Capital Conservation Buffer</td>
<td>The amount of capital sufficient for the bank to absorb losses in the event of a downturn period and retain capital.</td>
<td>Tier 2 Capital: will be simplified and will no longer be divided into upper and lower Tier 2 capital.</td>
<td>Simplified rules from Tier 1 and Tier 2 towards an improved quality capital that is Core Tier 1.</td>
<td>Basel III compliance creates an productivity innovation opportunity for Islamic banks. To abide by Basel III rules, some Islamic banks have issued perpetual sukuk as a type of contingent capital.</td>
</tr>
<tr>
<td>Counter-cyclical buffer</td>
<td>The amount of capital sufficient to protect the banking sector from periods of excess aggregate credit growth associated with the buildup of system-wide risk.</td>
<td>Tier 3 Capital has been dropped from the definition.</td>
<td>Abolishing lower quality capital.</td>
<td>CBs will be more affected as IBs capital is mostly comprised of Tier 1 capital, rather than Tier 2 capital.</td>
</tr>
</tbody>
</table>

### The Quality of Capital

- **Tier 1 Capital**: Common equity will represent a higher proportion of equity as the highest quality capital, allowing for greater loss absorption.
- **Tier 2 Capital**: Contributing to the minimum capital ratio, it includes Tier 2 instruments and non-common equity, providing additional loss absorption capacity.
- **Tier 3 Capital**: Mostly made up of hybrid capital instruments, it is the least permanent and absorbs losses last.

### New Capital Definition

The subordinated debt has been dropped from the definition of core capital. Tier-2 capital has been simplified. Allow the application of all deductions (interest on common equity, net asset value, and unconsolidated subsidiaries) to be deducted from Tier-2 capital.

The role of the common equity tier (CET1) capital will be more restrictive approach in the definition.

CBs will have higher minimums, based on their equity-based business models. PSAs and so on, putting them in a disadvantage in terms of high cost of capital. The role of a debt-based Tier 1 capital to more of equity capital. CBs will hold more of their capital as equity, and the role will level the playing field, reducing the debt advantage that conventional banks have over IBs, increasing their cost of capital.

### Basel III Compliance

- **CET1 (Core Tier 1 Capital)**: Is the minimum common equity required by banks. It is also known as Tier 1 capital.
- **Tier 1 Capital** (CET1): Is the minimum common equity required by banks. It is also known as Tier 1 capital.
- **Tier 2 Capital**: Has been dropped from the definition. It is no longer a separate tier but is included in Tier 1 capital.
- **Tier 3 Capital**: Is a more restrictive approach to the definition of core capital.

### Summary

The changes under Basel III are designed to improve the quality and quantity of capital held by banks. This includes raising the minimum capital requirements, simplifying the definition of capital, and introducing a new countercyclical capital buffer. These changes are intended to improve the stability of the banking sector and reduce the risk of systemic failures. The shifts in the definition of capital have been accompanied by an increased emphasis on common equity, which represents the highest quality capital. As a result, banks will be required to hold a greater proportion of their capital in the form of equity, which is more permanent and less volatile than debt. This will reduce the risk of banks becoming insolvent during economic downturns and improve the ability of banks to absorb losses. Overall, the changes under Basel III are intended to strengthen the resilience of the banking sector and enhance financial stability.
Capital buffers additional to minimum requirements have been established.

In addition to strengthening capital in terms of definition and minimums, two capital buffers were added to enhance the resilience of banking sector to adverse shocks and unexpected losses.

- Based on the Basel III norms, banks are required to hold a **capital conservation buffer (CCB)** for bad times that is 2.5% of their risk-weighted assets. The fundamental objective of holding a capital conservation buffer is to ensure that a bank has the capacity to absorb losses in stressed times. This buffer must be met with common equity capital. To offset the contraction of the buffer, if needed, banks could restrict discretionary payments, such as dividends and bonuses to shareholders, employees, and other capital providers. If banks are operating under 7% common equity target, (4.5% for minimum common equity + 2.5% for capital conservation buffer), they will be restricted to distribute earnings until they have rebuilt their capital by retained earnings, or raising new capital.

- In addition to CCB, at certain times, banks may be required to hold a further **counter-cyclical buffer** of 0%–2.5% of risk-weighted assets that will be set by the relevant national regulator. Via reducing pro-cyclicality of bank lending, containing credit growth in good times and reducing credit crunch in bad times, the buffer will be used as a macro prudential tool to dampen the excessive credit growth in the economy. The buffer will met with a common equity. This extra 2.5% countercyclical buffer will allow regulators to raise the common equity capital requirement to 9.5% during boom times in order to slow down lending. This 2.5% requirement can even rise to 3.5% for systemically important financial institutions (SIFIs) if the risks they are posing to the system are still growing despite of 2.5% requirement implementation. This item will help banking system to reduce the pro-cyclicality by ensuring that banks have the capital to enable them to continue providing financing to customers even during adverse market conditions, thus contributing to economic recovery.

The quality of capital has been changed substantially.

The definition of capital in Basel III has been changed substantially. The subordinated debt has been dropped from the definition of core capital. After the application of all deductions, the recognition of intangible and qualified assets that can be included when calculating core common equity will be limited to 15% of Common Equity Tier 1 (CET1) capital. Goodwill, minority interests, investments in unconsolidated subsidiaries, the value of deferred tax assets (DTA) arising from time differences or loss carry-forwards, mortgage servicing rights (MSR) are the assets and the corresponding equity components to be deducted gradually from the capital. These intangibles seem as part of capital but they are not actually available to be used in the case of a loss. Furthermore, their ability to protect the banks in severe conditions is limited. The rule aims that the banks have higher quality capital on hand to absorb losses.
During phase-in period\(^3\), different percentage deductions from common equity will be done, and 100% deduction of related items will be achieved, as of 2019.

II.1.2. Implications of Capital Adequacy Requirements for Islamic Banks

The design of capital adequacy ratios for Islamic banks would need to take into account the distinct characteristics of their balance sheets. As assets and liabilities of Islamic banks tend to differ from those of their conventional counterparts, the capital structure of Islamic banks is also substantially different. A major difference between Islamic banks and conventional banks relates to the investment account deposits. These liabilities are not deposits in traditional sense as the depositors of a conventional bank have a predetermined income and do not share in the losses of the bank but investment account holders do. As the Islamic bank legally does guarantee neither the principal amount nor the returns to investment account holder, these accounts may not enjoy the legal protections that depositors of conventional bank typically enjoy. \(^4\) (IMF Note, on Resolution of Islamic Banks). Taking into account the risk absorption characteristics of such funds, the treatment of those for assessment of capital adequacy assumes great importance.

According to Paragraph 2.1.2 on treatment of profit and risk sharing investment accounts (PSIA), Profit Equalization Reserves (PER) and Investment Risk Reserves (IRR) of IFSB-15, Revised Capital Adequacy Standard for Institutions Offering Islamic Financial Services [Excluding Islamic Insurance (Takāful) Institutions and Islamic Collective Investment Schemes]. \(^5\) PSIAs are not considered as part of Islamic bank’s capital, because they do not meet the criteria of core or additional capital but still they allow Islamic banks some pass-through of losses to depositors due to their unique aspect of risk-sharing. Since the IRRs and PERs belong to investment account holders, they are also not considered as part of capital of Islamic bank in calculations. \(^6\)

The discretionary role of national authorities in the treatment of unique Islamic banking deposits (PSIAs) will have a differing impact among jurisdictions.

The magnitude of the impact of new capital rules will basically depend on the supervisory authority of the jurisdiction where Islamic banks operate and the nature of banking activities within each institution. The supervisory authorities could set higher capital requirements than the Basel III minimums. They can apply stricter definitions and adjustments to the components of capital. They can also reduce capital requirements for smaller institutions. The unique aspect of risk-sharing in the PSIAs of Islamic banks help some pass-through of losses to depositors, lessening the need for

\(^3\) The phase-in periods for capital standards can be seen in detail, at Annex-I.
\(^4\) Typically, the conventional bank depositors are protected by the governments with a bank deposit insurance the amount of which changes by jurisdiction.
\(^5\) The details of IFSB 15, could be found in Box I.
\(^6\) See Box I. on Capital Adequacy Methodology for Islamic Banks and Treatment of PSIAs In the Calculation of CAR.
more capital to abide by the rules. (See Box-I for details). It is crucial that the supervisory authorities do not assign over-punitive weights, while determining the treatment of these funds.

Box I- Capital Adequacy Methodology for Islamic Banks and Treatment of PSIAs in the Calculation of CAR

The main purpose of the regulations is to ensure a level-playing field for banks across the globe. However, a uniform application of the Basel capital adequacy norms to both conventional and Islamic financial institutions may be problematic since the business of Islamic banking and relevant risk factors for Islamic banks are quite different than that of conventional banking. A major difference between Islamic banks and conventional banks relates to the investment account deposits. Islamic banks accept investment deposits that are risk-sharing mudharabah contracts. In the commercial banking, the depositor has a predetermined income and do not share in the losses of the bank but investment account holders do. For a proper understanding of their risk absorption characteristics, the investment accounts need to be defined and distinguished clearly. Furthermore, the treatment of such funds for assessment of capital adequacy assumes great importance.

Investment accounts can be classified into two types, the unrestricted and restricted investment accounts. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) defines unrestricted investment accounts as `fund received by the Islamic bank from individuals and others on the basis that Islamic bank will have the right to use and invest those funds without restrictions, including the Islamic bank's right to commingle those invested funds with its own investment in exchange for proportionate participation in profits and losses after the Islamic bank receives its share of profit as mudarib.` The Islamic bank acts as an entrepreneur while the PSIA holder acts as a capital provider. Holders of unrestricted investment accounts receive their share of profits according to what is agreed in the mudharabah contract with the Islamic bank while losses are borne solely by the PSIA holder, unless they are due to the Islamic bank's misconduct, negligence, or breach of the contract terms. On the case of conventional deposits, the bank has an obligation to return the original amount of the funds received from the depositors in the case of a loss. Whether the conventional bank generates profits or loss, the bank needs to pay a fixed or variable rate on the deposit to deposit holders. On the other hand, the investment accounts are not guaranteed by the bank since account holders are considered as investors and are expected to take on the responsibility of loss. Therefore, deposit insurance is not required for investment accounts.

Given the profit-sharing nature of PSIA in Islamic banks and the fact that Islamic bank can pass-through its losses to the investment account holders, (IAH) it is suggested that PSIAs may be treated as pure capital and IAHs are treated as investors bearing their own risks. However, with that in mind, investment account holders do not have voting rights as the equity holders do. They only have rights to the profits generated from their accounts but not the profits from investing funds provided by current and other investment accounts. They are also risk-averse and too much downside in their returns can lead to deposit withdrawals that can create systemic risks. Due to these reasons, treating PSIA as pure capital would be on one extreme. On the other extreme, given the fact that Islamic banks operate on a risk sharing basis, treating the PSIAs like pure deposits and putting aside a level of capital equivalent to that required by conventional banks will undermine their loss-absorbing capacity. This will be overly restrictive for Islamic banks. If the purpose of capital is to protect depositors and creditors from the business risks inherent in any banking operation and if depositors share in the risk in Islamic banks, then less capital should be needed to protect them.
The characteristic of Islamic finance that limits over-risky investments will be reducing RWAs and current high capitalization levels in Islamic banking industry will help to achieve based on these views, IFSB has issued IFSB-15, Revised Capital Adequacy Standard for Institutions Offering Islamic Financial Services [Excluding Islamic Insurance (Takāful) Institutions and Islamic Collective Investment Schemes] for giving guidance on the calculation of capital adequacy ratio in Islamic banks. In the IFSB guidance, an alpha factor is proposed taking the characteristic of PSIAs into account. As alpha is determined by the supervisory authorities, the formula has been named as supervisory discretionary formula. Alpha can be determined by supervisory authorities between 0 and 1, based on their assessment of the level of pass-through of losses to account holders as well as the risk mitigation level through profit equalization reserves. The discretionary formula of IFSB for CAR is expressed as:

\[
\frac{\text{Eligible Capital}}{\text{[total risk-weighted assets + operational risk] - [RWAs funded by restricted profit sharing investment accounts (credit + market risk) - \{1 - \alpha^*\} total risk-weighted assets funded by unrestricted profit sharing investment accounts] - [\alpha^* risk-weighted assets funded by PER and IRR of unrestricted profit sharing investment accounts]}}
\]

where \( \alpha^* \) is the proportion of risk weighted assets funded by PSIAs and is determined by the supervisory authorities.

According to IFSB guidelines on capital adequacy, unrestricted PSIAs cannot be included in additional Tier 1 capital because they do not meet the criteria set out by the Basel III. Assets financed by the unrestricted PSIAs are also excluded from the exposure measure. Therefore, the proportion of assets funded by unrestricted PSIAs (\( \alpha^* \)) is not included in the RWAs in the IFSB formula.

The presence of income smoothing practices has implications for an Islamic bank’s capital adequacy. The formula takes these income smoothing practices into account. The risk weighted assets funded by Profit Equalization Reserve (PER) and Investment Risk Reserve (IRR) are not included in the exposure measure in the discretionary formula. PSIA holders typically have the right to withdraw their funds at short notice. When the PSIA return is lower than the market rate given by other financial institutions, investment depositors may have the incentive to seek withdrawal of their funds, creating a withdrawal risk. Displaced commercial risk arises when banks forgo a part of their own share of profit and pay the investment depositors to prevent withdrawals resulting from a lower return (AAOIFI, 1999). In order to get rid of this withdrawal risk that could also be a source of liquidity risk for an Islamic bank, Islamic banks practice the smoothing of investment returns to PSIA, using a combination of PER and IRR in addition to provision for losses. The profit equalization reserve (PEE) is deducted from the gross income of the mudarabah. This reserve is deducted from both the shareholders and investment account holders. PER share of the bank (shareholders) is included in capital, whereas the portion of the depositors is not included in the capital. The investment risk reserve (IRR) is deducted from the income of the PSIA account holders only (after the deduction of the bank’s share of the profit) to meet future losses on the investments financed by investment accounts. With IFSB-15 standard, IFSB made it clear that PER and IRR both are not part of the capital of Islamic banks.

In the IFSB formula, the RWAs funded by restricted profit sharing investment accounts, on which Islamic bank does not have unconditional right to use or dispose of, are also excluded from the total exposure measure. The Islamic bank doesn’t need to put capital aside for these accounts as it acts only as agent for these accounts.
the minimum capital requirements easily. Meeting increased minimum capital requirements will not be very hard for most of the Islamic banks since they are well-capitalized. However for Islamic banks operating in emerging economies due to their higher tendency to cyclicality as well as the less stable nature of their economies, a need for adjustment in their capital levels might arise.

With the possible adjustments that could come from different jurisdictions in mind, the general nature of Islamic banking limits the over-risky investments, thereby reducing the RWAs of the banks and helping to achieve minimum capital requirements in an easier manner compared to their conventional counterparts. Practically, the balance sheets of Islamic banks are largely clear of derivatives and complex, risky assets. This facilitates compliance of Islamic banks with Basel III’s minimum capital standards. It is expected that the banks of fast-growing economies such as Arabian Gulf and Malaysia may not be affected as much because most of the banks are already well-capitalized in this region. The current high capitalization of Gulf Cooperation Council (GCC) banks will make it easier for them to move to and comply with Basel III standards. (Chart 1)

Chart 1

The increased quality of capital also will not create a major challenge for Islamic banks as many of the Islamic banks’ capital is made up of Tier 1 capital on a large basis, based on their equity-based business models, creating less risk for their existing capital cease to be counted as eligible. Tier 1 and total capital requirements currently stand at levels which are already higher than the target 2019 ratios set by Basel III (of 6% and 8%, respectively). (Chart 2)

Chart 2
Based on equity-based business models of Islamic banks, the stricter criteria in determining the eligibility of instruments to be counted as Tier-1 and Tier 2 will be less of concern for Islamic banks. Furthermore, the shifted focus from Tier 1 and Tier 2 towards an improved quality capital (CET1) and the higher levels of equity required in Tier 1 capital in Basel III will also not affect most of the Islamic banks as they usually hold high levels of CET1 capital, compatible to their equity-based nature.

The higher capital adequacy requirements could impose a discipline on banks on better utilization and maintenance of capital. As banks will be holding more capital aside, they need to be more selective when they are allocating their resources to project financing. This can ultimately lead project financing to be more difficult to obtain from banks. However, this negative effect could come with an equally positive effect and could contribute to the improvement of investment and credit decisions of banks leading to better utilization and maintenance of capital as well as some restructuring of their balance sheet.

The introduction of the two buffers (capital conservation buffer and counter-cyclical buffer) will reinforce the capitalization of Islamic banks and make them more resilient to the cyclical swings by requiring additional capital. Because of the asset-backing principle in Islamic finance, Islamic banks tend to be highly exposed to the real estate sector compared to their conventional counterparts. This could put them in a difficult position in case of a correction in the real estate sector. Furthermore, most of the banks in Middle East region face concentration risk in their portfolio. Despite their credit exposures to different sectors of economy, their ability to truly diversify their credit portfolio is limited due to the high dependency of non-oil sectors to the oil sectors. (IMF, 2014) This over-dependency to oil economy and the risks that emanate from these concentrations would also create cyclical swings, increasing the need for counter-cyclical buffers.

New countercyclical buffer, if used too early and intensely, may serve to damp down economic recovery in future. The role national supervisory and regulatory authorities will have in determining the timing and magnitude of buffers that could even differ. The optimal levels of buffers needs to be invoked, to prevent the unintended consequence of having overly-punitive, overly restrictive as well as overly-conservative buffers that restrict the ability of banking system to continue providing financing to customers even during adverse market conditions, thus contributing to economic recovery. The role of the national regulators is vital in terms of finding the correct balance between regulations and trusting the market, in terms of levels of capital buffer.

The capital conservation buffer as well as counter-cyclical buffer requirement of Basel III will lead to restrictions on dividends and bonuses, if banks are operating below the

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7 In terms of Islamic banking, profits/earnings for this purpose should be understood as being profits that are distributable excluding the share of profits payable to profit sharing investment accounts (PSIA) based on IFSB guidance.
minimum CET1 target (7% and 9.5% respectively), possibly creating some kind of decision uncertainty and hardship in the relationships with investors. The timing of release and calibration of buffer is at sole discretion of national authorities. The decision uncertainty that emanates from the sole discretionary power of the regulator who will set and release the counter-cyclical buffer, could ultimately make it hard for Islamic banks to properly manage capital, as well as planning purposes. The restrictions on discretionary distributions may also inversely affect the investor relations as well as makes it hard to retain top-level management as it also restricts bonuses.

The combined effect of the tougher capital requirements and new liquidity requirements might theoretically cause an increase in the cost of funding, might narrow ROE and/or could cause higher costs of lending to consumers and/or reduce the amount of credit to corporates and consumers in the macro economy. This potential impact could cause some close-down of overseas operations of some globally operated banks.

If Islamic banks use standardized approach in the calculation of minimum required capital, the measurement of total exposures with standardized approaches will be problematic due to insufficient credit rating systems. The reason is the standardized approach calculates RWAs in a standardized manner, supported by external credit assessments. However, in most of the countries where Islamic banks operate, the credit rating systems are not well established yet. This is thought to be a challenging aspect of the calculation of capital requirements.

The operational burden created by Basel III compliance, will be more impactful in Islamic banking compared to conventional banking due to the more complex operational aspect of Islamic financial contracts and products. Basel III compliance will cause banks to have more of operational burden and increase operational costs.
The recent developments in the Islamic banking industry to abide by Basel compliance created some innovative structures such as perpetual sukuk or Tier 1 sukuk that help capitalize banks in a Shariah-compliant manner. Recently, there has been a trend for Islamic banks and corporates to issue perpetual sukuk. It has been created from the idea of perpetual bond. The details of perpetual sukuk and Tier-1 Sukuk issuance is seen in Box-II named as Recent Developments in Islamic Banks to Abide by Basel Rules.

Box II- Recent Developments in Islamic Banks to Abide By Basel III Capital Rules

Banks can meet new capital requirements by a number different ways.

- By choosing not to pay dividends, and meeting the increased requirements by their retained earnings. The long phase-in period for capital requirements will help banks smooth out the effects of implementation timelines, giving them enough time to meet the requirements by their retained earnings.
- By cutting back on lending and making less risky investments, thereby reducing their risk-weighted assets and improving their capital adequacy ratio.
- By issuing new equity shares, thereby adding to capital.
- By issuing hybrid instruments, such as Tier-1 capital (Tier 1 Sukuk)

There exist new and innovative structures that help capitalize banks in a Shariah-compliant way. Recently, there has been a trend for Islamic banks and corporates to issue perpetual sukuk. It has been created from the idea of perpetual bond.

A perpetual bond is a bond with no maturity date. Issuers pay coupons on perpetual bonds forever, and they do not have to redeem the principal. Perpetual bond cash flows are, therefore, those of perpetuity. Therefore, it may be treated as equity, not as debt. Tier 1 capital is regarded to be the going concern capital which absorbs losses while the bank is still solvent. It consists mainly of Common Equity Tier 1 (CET1) instruments such as ordinary shares and reserves. Basel III does, however, allow 1.5% of the minimum Tier 1 capital ratio to be in the form of additional tier 1 (AT1) capital. AT1 capital is a layer of additional going-concern capital which is perpetual in nature. Together, the CET1 and the AT1 constitutes subordinated paid-in capital capable of absorbing losses. When referring to AT1 capital, the Basel III accords are signaling towards instruments that are potentially hybrid in nature (equity and debt), offering fixed rates of return while able to absorb losses like equity instruments via returns which can be deferred and non-cumulative.

On the Islamic banking side, perpetual sukuk is innovated as a new Basel III compliant instrument that could address the capital adequacy needs of Islamic banks. Basel III regulations allow Perpetual sukuk in the inclusion of additional capital. Perpetual sukuk as a Basel compliant Islamic finance instrument uses the same logic as a perpetual bond. It is a sukuk with no fixed maturity date. Perpetual Islamic bonds (Tier 1 Sukuk) are treated as equity rather than debt on a company’s balance sheet, enabling firms to raise funds without affecting their creditworthiness.
In preparation for Basel III implementation for Islamic banks, Islamic Financial Services Board (IFSB), in line with Basel III rules, has already issued guidelines (IFSB-15) on capital adequacy requirements. IFSB-15 clarifies the use of sukuk as additional capital. As per the IFSB-15, sukuk issued against assets owned by an Islamic bank may be used by that bank as an additional capital to meet regulatory minimum requirements. Recently, for the aim of abiding by Basel III capital adequacy standards, corporates, banks and governmental institutions have issued perpetual sukuk as Tier-1 capital. The data compiled by Bloomberg show that most of them have a structure either Mudharabah or Musharakah (Table 2). In compliance with Basel III requirements, the first international sukuk has been issued by Abu Dhabi Islamic bank (ADIB) with an USD1bln issuance and classified as AT1 capital. Malaysian Airline Air Asia and Malaysian property developer SP Setia Bhd. have also issued perpetual sukuk.

Table 1: Selected Issuances of Perpetual Sukuk

<table>
<thead>
<tr>
<th>Year</th>
<th>Issuer</th>
<th>Structure</th>
<th>Amount (Million USD)</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>June, 2012</td>
<td>Malaysian Airline (AIRA) Air Asia</td>
<td>Sukuk Al Musharakah</td>
<td>314</td>
<td>Domestic</td>
</tr>
<tr>
<td>November, 2012</td>
<td>Abu Dhabi Islamic Bank</td>
<td>Sukuk Al Mudharabah</td>
<td>1000</td>
<td>International</td>
</tr>
<tr>
<td>March, 2013</td>
<td>Dubai Islamic Bank</td>
<td>Sukuk Al Mudharabah</td>
<td>1000</td>
<td>International</td>
</tr>
<tr>
<td>September, 2013</td>
<td>Almarai Company</td>
<td>Hybrid-Mudarabah and Murabah</td>
<td>453</td>
<td>Domestic</td>
</tr>
<tr>
<td>November, 2013</td>
<td>GEMS Education</td>
<td>Sukuk Al Mudharabah</td>
<td>200</td>
<td>International</td>
</tr>
<tr>
<td>December, 2013</td>
<td>Malaysian Property Developer</td>
<td>Sukuk Al Musharakah</td>
<td>186</td>
<td>Domestic</td>
</tr>
<tr>
<td>June, 2014</td>
<td>Al Hilal Bank</td>
<td>Sukuk Al Mudharabah</td>
<td>500</td>
<td>International</td>
</tr>
</tbody>
</table>

The issuance of perpetual sukuk is expected to have some benefits for the issuers. i) The banks are expected to realize the benefits from raising capital through the issuance of hybrid instruments as a cost efficient and non-dilutive capital raising solution that lowers the cost of capital when compared to issuing new equity shares ii) Basel III compliant Tier-1 sukuk can be an alternative funding source for institutions that face difficulties in raising capital through equity issuances as global financial instability depresses stock markets iii) Basel III has created a market gap for the supply of Basel III compliant sukuk which can be filled by issuers. Such issuances would help in boosting the growth rates for sukuk industry while further reinforcing the role of Islamic finance in the global financial industry. (IMF Paper, Sukuk Markets, A Proposed Approach for Development)

IFIs have an opportunity to boost their Tier 1 capital by issuing sukuk which comply with Basel III and IFSB 15 guideline. The details of AT1 and T2 issuances, which are Basel compliant could be seen in a list in the Table II, of Annex. Another important thing to mention here is that the role national regulators play in determining the instruments eligible for additional Tier-1 and Tier-2 capital. The Basel Committee and IFSB perspective summary on this issue might be seen as follows.

<table>
<thead>
<tr>
<th>Basel III</th>
<th>IFSB-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Tier 1 Capital</td>
<td>Common Stock</td>
</tr>
<tr>
<td>Other Tier 1</td>
<td>Preferred Stock</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Subordinated Bonds and Loans</td>
</tr>
</tbody>
</table>

Source: Nomura Institute of Capital Markets Research, based on Basel III and documented IFSB-15 rules
II.2. Introducing a Liquidity Standard

Liquidity can be considered from both the liability side (funding liquidity) and the asset side (market liquidity). Funding liquidity risk refers to the inability of an agent to acquire funds in desired quantity and reasonable risk premium, an example of which could arise in the case of raising money by using an asset as collateral. Market liquidity risk is the inability to trade without affecting market prices, an example of this type of risk could arise when raising money by selling an asset. If any asset can be disposed of in the market rapidly and without major price changes, its market liquidity is considered to be high. The strong interaction between both liquidity measures can produce liquidity spirals. Typical liquidity shocks are bank runs that stems from either from depositors’ withdrawals or runs of repos by wholesale lenders. Liquidity shocks could also stem from asset-side runs in the case that contingent credit lines are activated.

During the international financial crisis which started in mid-2007, despite the adequate capital levels, many banks still experienced difficulties because they did not manage their liquidity in a prudent manner. Liquidity in short-term money markets dried up causing banks to suffer severe funding problems, causing liquidity spirals. To address this problem, the Basel Committee has introduced internationally harmonized global liquidity standards, as summarized in Table X below.

<table>
<thead>
<tr>
<th>Basel III Liquidity Framework</th>
<th>Reform</th>
<th>Simple Definition</th>
<th>Description of Change</th>
<th>Rationale of the Change</th>
<th>Expected Impact on CBs and Ibs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquidity Coverage Ratio (LCR)</strong></td>
<td>Short-Term Liquidity</td>
<td>Stock of HQLA ≥ 100%</td>
<td>Intends to promote short-term resilience of a bank to potential liquidity disruptions over a 30-day horizon</td>
<td>The lack of Sharia-compliant high quality liquid assets will be the biggest challenge for Ibs. The ratio would urge Ibs to enhance their liquidity management and develop appropriate liquidity instruments: standardized, AAA graded, tradable and logically priced.</td>
<td></td>
</tr>
<tr>
<td><strong>Net Stable Funding Ratio (NSFR)</strong></td>
<td>Long-Term Liquidity</td>
<td>Available Amount of Stable Funding ≥ 100%</td>
<td>Intends to provide a sustainable maturity structure of assets and liabilities over a time horizon of one year</td>
<td>The treatment of PSIAs in terms of run-off rates is a major issue for Ibs. The availability of Deposit Insurance will lessen the run-off rates, deeming deposits/funds more stable.</td>
<td></td>
</tr>
</tbody>
</table>

**Liquidity Coverage Ratio:** The first liquidity standard is called the Liquidity Coverage Ratio (LCR), which is intended to promote short-term resilience of a bank to potential liquidity disruptions over a 30-day horizon. Basel III requires banks to hold enough High Quality Liquid Assets (HQLA) to cover net cash outflows for a 30-day period under a high stress scenario or as a guard against a run on wholesale deposits. Cash, central bank reserves, high quality sovereign debt like government bonds are eligible HQLA. The ratio is calculated by dividing total assets, after liquidity haircuts to the 30-day cash outflows. Liquidity haircut is assigned according to the loss that would be incurred if the asset had to be liquidated in the middle of a severe financial crisis. The shorter-maturity the assets, the less haircut it is assigned. On the contrast, the riskier and longer-term assets have higher haircuts. The outflows on the other hand are calculated by applying different weights (run-off rates) against different funding sources. The riskier the funding sources, the higher the run-off rates and the larger the amount of HQLA needed to cover them.
Net Stable Funding Ratio (NSFR): The second standard is called the Net Stable Funding Ratio (NSFR) which is intended to provide a sustainable maturity structure of assets and liabilities over a time horizon of one year. This ratio will require banks to hold minimum amount of stable sources of funding at a bank relative to the liquidity profiles of its assets, as well as the potential for contingent liquidity needs arising from off-balance sheet commitments, over a one-year horizon. The intention is covering risks resulting from maturity mismatches. A higher value of NSFR demonstrates that a bank is more stable. In compliance to this ratio, the availability of deposit insurance framework of jurisdictions gets highly important. As for bank deposits to be deemed stable, they need to be protected by an insurance scheme.

Both ratios need to be 100% at least. Banks can meet liquidity requirements by many ways which are likely to have significantly different implications for the real economy. They can increase the ratio of HQLA to other assets, decrease the ratio of short-term wholesale funding and switch to more stable retail deposits and equity funding or a combination of the two.

II.2.2. Implications of Liquidity Requirements for Islamic Banks

New liquidity requirements under Basel III could pose more serious threats and challenges to Islamic banks. The key challenge is to broaden the range of Shari`ah-compliant instruments and build liquid markets.

Basel III’s new liquidity standards, the Liquidity Coverage Ratio and the Net Stable Funding Ratio would present challenges for Islamic banks, since their ability to hold High Quality Liquid Assets is more limited than that of conventional banks due to the fact that most of the high quality liquid assets often include interest-bearing bonds, which Sharia law does not allow. Historically, this phenomenon has caused most of the Islamic banks to operate with a liquidity surplus on their balance sheet for the aim of being liquid at the time of a liquidity run. Islamic banks do not enter interbank transactions with conventional banks, for Sharia reasons. On one hand, since they do not enter interbank transactions, the concentration risk of these wholesale funding resources is limited for Islamic banks. On the other hand, since they do not enter interbank transactions, their surplus liquidity cannot be transferred to conventional banks and they do not generate any return on their surplus liquidity. It is not easy for them to access the liquidity when it is needed either, although recently there were some attempts, though small, from some Central Banks, on the roads of creating a Sharia-compliant Lender of Last Resort facility that somewhat responds to the need of Islamic banks, helping them access to central bank liquidity. There is an urgent need for commitment from both Central Banks by supporting the IBs with a Sharia-compliant LOLR facility and also the support from sovereigns to develop a sovereign Sukuk market, which will facilitate developing Islamic interbank market and creating a secondary market (IMF Working Paper, Monetary Operations and Islamic Banking in the GCC: Challenges and Options). The reason that there is a general lack of Sharia-compliant short-term funds market (Interbank and Money) and absence of secondary markets is explaining why Islamic banks had historically needed to maintain substantial liquidity surpluses. The fact that Islamic banks operate within an
undeveloped Islamic money market, it is hard for them to find ample pools of liquid Sharia-compliant investment tools with short term maturities. Although government bonds on the conventional side are eligible to be counted in the liquidity ratios, Islamic bonds (Sukuk) on the other hand are not considered in the calculation of liquidity ratios. This is because of the fact that they cannot be traded easily. Most of the liquid assets on the balance sheet can only be equity and this cause a shortage of liquid assets for Islamic banks.

In the current environment, due to the insufficiency of Sharia-compliant money market instruments, the Islamic banks either hold more cash or reserves to remain liquid, forgoing their profitability. This phenomenon diminishes their ability to compete with conventional banking. Developing a Sharia-compliant lender-of last-resort facility in these jurisdictions could help Islamic banks to access the liquidity, increasing the level playing field with conventional banks. Even without a Shari`a compliant LOLR facility, contractual liquidity facilities could be provided by central banks, constructed by using a Wakala, Mudarabah or Murabahah contract, with a fee charged. Some supervisory authorities, namely central banks have taken some steps to strengthen the liquidity in the IIFS as well as overall banking system. Allowing foreign currency HQLA to cover domestic currency liquidity needs will be beneficial in the case of insufficient liquidity in domestic markets. Sukuk issued by IDB or IILM lies within this category. Despite the 3-month and 6-month tenure sukuk issuance of IDB, the amounts seem insufficient in times of market stress. To fill the gap in the limited supply of Level I, (highly liquid assets), Level 2 assets (such as highly rated corporate sukuk) could also be used more with an application of higher haircut. To overcome these challenges, the national authorities are expected to deepen the local Sukuk and money markets and even issue highly rated and tradable sukuk or accept them as collateral in money market transactions.

Another important liquidity risk for Islamic banks arises from the maturity mismatches on their balance sheet. Islamic banks typically display excessive maturity mismatches. This is because only short maturity funding is usually available while demand is for risky assets with a longer term maturity. Most of the liabilities of Islamic banks have a shorter maturity than their assets. Both mudarabah and musharakah contracts of Islamic banks have a longer term. They have inventory and asset-backed transactions on the asset side and this can cause insufficiency of cash or liquid assets, in the event of a withdrawal. Islamic banks need to develop tools other than commodity murabaha to maintain short-term assets on their balance sheet. (AAOIFI-WB Conference Proceedings)

Meeting the Liquidity Coverage Ratio (LCR) requirement of Basel III will be the biggest challenge for Islamic banks as it is hard to find the high quality liquid Shari`a-compliant instruments due to a general lack in the supply of short-term HQLA and non-existence of secondary markets as well as Interbank and Money Markets. It is very hard for Islamic banks to cover short-term funding gaps within a 30-day period to abide by LCR.
New strict liquidity requirements (LCR and NSFR) will cause banks to hold more high quality assets to cover a one month stress period and to obtain longer term stable funding. As banks move away from interbank, the competition for retail deposits is expected to increase. As banks switch to more stable sources of funding from short-term and volatile wholesale-funding, the cost of bank funding is expected to increase, damaging the real economy as banks pass higher costs and reduce credit supply to the real economy. If banks do not increase interest rates on lending, their profitability will be affected because of the substitution towards lower yielding HQLA and more expensive deposit-funding such as retail funding. For the sake of fulfilling the NSFR ratio, the banks will be issuing long-term debt, leading to a rise in their average borrowing costs. (BIS, Liquidity Paper)

In terms of implications, another important aspect of Basel III is the treatment of the PSIAs under Basel III in relation to the liquidity coverage ratio that needs to be clarified. One of the main issues there is the run-off rate that would be applied to the PSIAs, factoring in their possible loss-sharing characteristics and the impact this might have on their stability. The riskier the funding source, the higher the run-off rate and consequently the higher the liquidity needs and the larger the amount of HQLA to cover it. The treatment of PSIAs under the new regime will rely largely on the views taken by national regulators, who will be applying different weights to funding sources, including PSIAs. Ultimately it is the regulator in each country that will decide what will be the treatment of PSIAs. See Box III for the details. Overall, the role of national supervisory and regulatory authorities in determining the run-off rates and the eligibility criteria for HQLA should not be undermined in the implementation of LCR ratios. Due to the scarcity of Shari`ah compliant instruments, the low level of trading of these instruments stemming from the `buy-and-hold up to maturity` behavior of IIFS, lack of an active Islamic money market and Shari`ah compliant LOLR facility as well as Shari`ah-compliant deposit insurance schemes, Islamic banks will be facing a challenge to abide by LCR requirement of Basel III. With these challenges in mind, the role of supervisory authorities is getting more crucial, in the implementation of Basel III.
Box- III: Treatment of PSIAs in Determination of Run-Off Rates for LCR Purposes and Role of Supervisors in Response to Insufficient HQLAs

Liquidity Coverage Ratio (LCR) proposed by Basel III is intended to promote short-term resilience of a bank to potential liquidity disruptions over a 30-day horizon. Basel III requires banks to hold enough High Quality Liquid Assets (HQLA)\(^1\) to cover net cash outflows for a 30-day period under a high stress scenario. The ratio is calculated as follows:

\[
\text{LCR} = \frac{\text{Stock of Shariah-compliant HQLA}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%
\]

The term `total net cash outflows` in the denominator is defined as total expected cash outflows minus total expected cash inflows in the specified stress scenario for the subsequent 30 calendar days. Total expected cash outflows are calculated by multiplying the outstanding balances of various categories or liabilities and PSIA, and off-balance sheet by the rates at which they are expected to run-off or be drawn down. (IFSB, 2014, Guidance Note) The determination of run-off rates depends on the assessment of each supervisory authority. The availability and effectiveness of Sharia-compliant deposit insurance schemes will help deposits be deemed as stable and will lower the run-off factor, lessening the liquidity requirement needs. Supervisory authorities may apply different run-off and draw-down rates based on their assessment of stress-testing to the IIFS portfolio.

To give a guidance to the industry, The IFSB has published the guidance note on `Quantitative Measures for Liquidity Risk Management in Institutions Offering Islamic Financial Services` in late October, 2014.

In the determination of run-off rates, the applicable run-off factor for PSIA depends on the withdrawal rights of the investment account holder (IAH) whether they are retail or wholesale accounts. Restricted PSIA holders with no withdrawal rights prior to the maturity date specified in the contract, the IIFS managing the restricted PSIA is not exposed to a run-off rate for LCR purposes, as there is no risk of a withdrawal, unless the contract maturity date falls within the next 30 days or the withdrawals are permitted less than 30 days’ notice. For the unrestricted PSIA holders, if withdrawals could be done either on demand or at less than 30 days’ notice, then then a run-off factor should be applied. In both accounts, the first criteria for determining the applicable run-off factor lies in the contractual withdrawal rights of IAH.

In its guidance note, in addition to looking at contractual withdrawal rights, IFSB further divides the retail deposits and retail PSIA into two categories and assign run-off factors accordingly. The categories are named as `stable` and `less stable`. Stable funds are highly unlikely to be withdrawn and fully insured by a Shari’ah-compliant deposit insurance scheme that meets the criteria of an effective deposit insurance scheme or by an explicit and legally binding public guarantee that provides an equivalent protection. The run-off factor is 5% to cash outflows paid to these types of accounts. The deposits or PSIA not falling in the category of stable accounts will be considered as `less stable` accounts. Minimum run-off rate for these accounts should be 10%, with a discretion of the supervisory authority that might determine additional categories within the bucket based on different risk profile of the layers.

The guidance note assigns different and higher run-off rates for different categories of wholesale deposit and PSIAs as wholesale funds are subject to more volatility. The different categories of the wholesale funding depends on by which type of institution the funding is provided as well as if the so-called wholesale funding is secured or not. The run-off rates that could be assigned changes from 0 % - to 100 % based on the category of classification, the details of which could be accessed in the IFSB guidance note.
In the guidance note, important guidelines are also given to supervisory authorities in the definition and categorization of HQLA as well as the operational requirements for HQLA. However, each regulatory and supervisory authority needs to define the characteristics of Shari`ah compliant HQLA in their own jurisdiction.

Not only IFSB but also The Basel Committee and Banking Supervision recognized the challenging situation of Islamic banks in finding HQLA in abiding by LCR requirement. The Basel Committee and Banking Supervision has issued a document on LCR on January 2013 that mentions the treatment for Shari`ah compliant banks. In the document, Basel Committee allows and encourages discretion of national supervisors in jurisdictions in which Shari`ah compliant banks operate, to define Shari`ah compliant financial products (such as Sukuk) as alternative HQLA applicable to such banks only, subject to such conditions or haircuts that the supervisors may require. Based on the fact that Islamic banks face prohibition on holding certain type of assets, such as interest-bearing debt securities, Basel committee allows this type of discretion for Islamic banks.

In the current environment, due to the insufficiency of Sharia-compliant money market instruments, the Islamic banks either hold more cash or reserves to remain liquid, forgoing their profitability. This phenomenon diminishes their ability to compete with conventional banking. Developing a Sharia-compliant lender-of last-resort facility in these jurisdictions could help Islamic banks to access the liquidity, increasing the level playing field with conventional banks. Even without a Shari`ah compliant LOLR facility, contractual liquidity facilities could be provided by central banks, constructed by using a Wakala, Mudarabah or Murabahah contract, with a fee charged. Some supervisory authorities, namely central banks have taken some steps to strengthen the liquidity in the IIFS as well as overall banking system. These measures were not specifically for LCR purposes but with an objective of financial stability as well as to help the liquidity conditions of the banks. Allowing foreign currency HQLA to cover domestic currency liquidity needs will be beneficial in the case of insufficient liquidity in domestic markets. Sukuk issued by IDB or IILM lies within this category. To fill the gap in the limited supply of Level I, (highly liquid assets), Level 2 assets (such as highly rated corporate sukuk) could also be used more with an application of higher haircut. To overcome these challenges, the national authorities are expected to deepen the local Sukuk and money markets and even issue highly rated and tradable sukuk or accept them as collateral in money market transactions.

Overall, the role of national supervisory and regulatory authorities in determining the run-off rates and the eligibility criteria for HQLA should not be undermined in the implementation of LCR ratios. Due to the scarcity of Shari`ah compliant instruments, the low level of trading of these instruments stemming from the `buy-and-hold upto maturity` behavior of IIFS, lack of an active Islamic money market and Shari`ah compliant LOLR facility as well as Shari`ah-compliant deposit insurance schemes, Islamic banks will be facing a challenge to abide by LCR requirement of Basel III. With these challenges in mind, the role of supervisory authorities is getting more crucial, in the implementation of Basel III.

NSFR requires a bank to value a certain proportion of each asset as illiquid and against which stable or sticky funding must be held. This rule for conventional side can be solved by issuing more long-term debt but here the question arises for Islamic banks. Thinking of that Islamic
finance is based on equity-based financing, what will be the source of this stable funding for Islamic banks is still questionable. –Add IFSB view

Another potential issue with Islamic banks would be the process to determine the quality of the liquidity of the assets. Islamic banks operating in emerging markets do not have access to independent rating institutions or other means of adequately determining the credit and liquidity quality of the borrowers which would require the regulatory and supervisory authorities to draft extensive guidelines for such assessments. Setting up reliable independent rating institutions which also assesses Sharia-compliance is crucial in current environment as most of the instruments are not rated at all or rated based on international standards, limiting also the secondary market activity.

A potentially very positive outcome of Basel III liquidity requirements could be the potential deepening of the market with new innovative instruments in Islamic securities. The shortage of high-quality liquid instruments and the lack of liquidity management instruments for Islamic finance have so far been a key issue facing Islamic banks. Basel III is likely to act as a trigger to incentivize and push Islamic banks and sovereigns to issue more Sukuk and other sharia-compliant papers. There are some encouraging signs of healthy innovation in this area with the introduction of Perpetual sukuk by some Islamic banks, which is examined in the capital adequacy section of the paper. It is not only central banks, but also sovereigns, corporates and multilaterals that may be incentivized to issue either short-term Sukuk or to list their Sukuk on markets to make them eligible for HQLA inclusion. In any case, a decision on whether or not to include an asset as high quality will ultimately be given by national regulators. (WB-AAOIFI Conference Proceedings)

In light of Basel III developments, the need and incentive for developing Islamic deposit insurance arises. If a country implements a deposit protection scheme for conventional banks’ demand deposits then it will be unwise to leave the Islamic banks’ unrestricted investment account-holders unprotected. It is also against the principle of providing a level playing field between Islamic and conventional finance. Typically, regarding the protection of deposits and investments with Islamic banks, the range of protection varies in different jurisdictions from no coverage of deposits to partial or full protection of investment deposits. (IMF, Working Paper No:14/220) The deposit insurance can contribute to a lowering of the expected run-off rates of Basel III liquidity rules. This is another issue that Islamic banks will face when it comes to Basel III. For bank deposits to be deemed stable, they need to be protected by an insurance scheme, but the challenge is that fully-fledged Islamic deposit insurance schemes with premiums invested in a Sharia-compliant manner do not exist in many jurisdictions. Therefore, it’s important for Islamic banks to come together to develop a form of deposit insurance on a takaful basis, where the premium must be paid by the depositors.
II.3. Leverage Ratio

Complementary to risk-based requirements framework, a new non-risk based leverage ratio, as a backstop measure was introduced by Basel III. The build-up of excessive on and off-balance sheet leverage in the banking system was one of the main reasons of last financial turmoil. The leverage ratio posed by Basel III aims to constrain the build-up of leverage in the banking sector. This ratio is intended to prevent an undercapitalized bank from growing too large as it limits how much that can bank borrow relative to its capital base. New rules about leverage ratio \((\text{Tier 1 Capital} / \text{Total Exposure}^8)\) require that such ratio should be equal to or greater than 3% from 2013 to 2017, during the parallel run period and will be subject to change as of 2018. Leverage was a balance sheet amplifier before the financial crisis but with the leverage ratio of Basel III, it is aimed to put a cap on the balance sheet size of the banks and shrink.

<table>
<thead>
<tr>
<th>Basel III Leverage Framework</th>
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<tbody>
<tr>
<td><strong>Reform</strong></td>
</tr>
<tr>
<td>Leverage Ratio</td>
</tr>
</tbody>
</table>

II.3.2. Implications of Leverage Ratio for Islamic Banks

*Since Islamic mode of financing is less prone to engage in highly leveraged products due to Sharia requirements, abiding by the new leverage ratio will not be hard for Islamic banks.*

Islamic banks are less prone to engage in highly leveraged products, because *Shari`ah* requires in principle that all financing be linked to transactions in the real economy- that is production and trade transactions and activities. Pure financing such as derivative transactions and hedging instruments is not permitted. This constrains leverage and benefit financial stability of Islamic banking. Although these measures seriously limit the leverage effects in Islamic finance, it does not completely eradicate this phenomenon.

**Islamic banks are still exposed to implication of leverage ratio.** For example, any Islamic bank which uses *Tawarruq*\(^9\) as heavy source of its financing will be subject to proposed leverage ratio. Similarly, issuance of *asset-based Sukuk* by Islamic banks would impact leverage ratio\(^10\)

---

8 Total exposure refers on and off-balance sheet asset exposures.
9 Tawarruq is a complex structure in Islamic finance that has more layers than other Islamic banking products, that is open to creating more operational burden for Islamic banks. (Asli Demirguc Kunt)
10 PSIs are not included in the capital measure of the leverage ratio since they do not meet the criteria set by Basel III. The assets financed by these accounts are also excluded from the exposure measure.
depending on the structure. The question arises here about quasi-debt like instruments in Islamic finance, and whether they are going to be treated as capital. --can we have some data on sukuk?

II.4. Additional Charges for Systemically Important Financial Institutions

SIFIs are mostly financial holding companies, activities of which are a combination of traditional banking and shadow banking activities mostly cross border. According the regulatory framework, Global Systemically Important Banks` (G-SIBs) identification could be done in 5 dimensions; a) size, b) interconnectedness c) substitutability, d) global cross-border activity, e) complexity. The identification methodology for D-SIBs is the same as G-SIBs in the BCBS framework for D-SIBs (2012). Due to their large size and high variety of their business offerings as well as their high interconnections within and across borders, Systemically Important Financial Institutions (SIFIs) have a contagion effect on the system that should be seriously considered (IMF, Estimating the Cost of Financial Regulation). SIFIs are difficult to supervise and difficult to resolve orderly due to its complexity, cross-border nature of business, lack of effective resolution tools. The risks that a distressed SIFI and its disorderly liquidation could expose to the overall financial stability could be summarized as counterparty risks, contagion risks, liquidity risks and fire asset sales that further depresses asset prices and creates credit crunches. Taking these risks that a SIFI could expose on the overall financial stability into account, Basel III puts an additional capital requirement have been put on banks through their interconnectivity and asset size, depending on the systemic importance of the SIF. Per the rule, the larger complex banks would be subject to a capital surcharge ranging from 1% to 2.5% to be met with common equity not with complex and hybrid financial instruments. The capital surcharges for these institutions target a higher loss absorbency capacity for their capital. Minimum additional loss absorbency is defined as common equity as a percentage of risk-weighted assets. Furthermore, an intensified supervision and effective recovery and resolution planning are proposed for these institutions. Together with Solvency II regime aiming effectively wind-down of the SIFIs in the case of a default, the Basel III rules on SIFIs will help mitigate the total risk exposures to overall local and global financial systems exposed by SIFIs.

Basel Committee also published a supervisory framework for measuring large exposures the banks have. According to the new Basel standard on measuring and controlling large exposures, large exposures is defined as `the sum of all exposures to a counterparty or to a group of connected counterparties equal to or above 10 percent of the capital base (Tier 1 capital)`. Also, the sum of all the exposures values of a bank to a single counterparty or to a group of connected counterparties must not be higher than 25 percent of the bank’s available eligible capital base at all times.

II.4.2. Implications SIFI Additional Charges for Islamic Banks

_Dealing with risks posed by systemically important financial institutions should also need to be taken into account due to their increasing systemic importance._
In principle, the risk-sharing principle as well as the prohibition of speculation in Islamic finance might suggest that Islamic Finance should pose less systemic risk than conventional finance. However, the share of Islamic banking assets within total banking assets has surpassed the 20% threshold in 7 countries (Iran, Sudan, Saudi Arabia, Kuwait, Yemen, Brunei and Malaysia), (IFSB, Financial Stability Report). The increased penetration of Islamic finance together with the surge in the growth levels of the industry might cause the Islamic banks to also grow in systemic importance.

Since very few Islamic banks are considered big in size, they don’t use and offer highly hybrid products and finally they are less exposed to contamination by the toxic assets compared to conventional banking. Consequently, additional charges for SIFIs could be of lesser issue for regulators for the time being but would definitely need to be taken into account in the very near future, as their systemic importance increases.

II.5. Enhanced Disclosure

Basel III is not all about numbers and ratios but it also complements the Pillar 2 and Pillar 3 of Basel II. Disclosure is an important concern in the monitoring of financial institutions. The supervisory review process is broadly analogous to Pillar 2 of the Basel accords. It is about how supervisors should work. It takes risk-based approach to the process of supervisory review. Furthermore, in order to enable market discipline and consumer protection through transparency and disclosure, the disclosure requirements should be reinforced by the regulators in all jurisdictions. In the global arena of this century, it is known that profit-making organizations try every way in finding regulatory workarounds to get rid of the regulations for the sake of making more profit. With this in mind, the incentive of limiting workarounds and preventing the regulatory arbitrage opportunities in the market could also emerge for the regulators. Implementation should be consistent and coordinated across borders to avoid regulatory arbitrage. Lastly, the increased availability of data is needed for a better assessment of risks. Regulators have a duty to oversee that the implementation is done in spirit in order to achieve the benefits expected from Basel framework.

II.5.2. Implications of Enhanced Disclosure for Islamic Banks

The capacity improvement in supervisory authorities to expand and increase their effectiveness and ability to properly assess Islamic banks is crucial. One of the implementation challenge for Islamic banks could be the environment in which they are operating, as supervision of most countries still needs some improvement.

BCBS conceptual regulatory framework considers sound risk management practices in banks. Basel III implementation will lead to an improvement in risk management practices and better governance. Although, risk management system of each individual financial institution will depend on the nature of activities as well as the size and sophistication of that institution, it is generally expected that an Islamic bank should conduct sound risk management by ensuring that
it has the appropriate capabilities, systems, procedures, and governance in place. The risk profile of a typical Islamic bank may differ from that of a conventional bank. For example, an Islamic bank typically tends to take on more concentration and operational risk\textsuperscript{11}, which could be taken into account. Given the newness of Islamic banks, operational risk in terms of person risk can show up as not having enough qualified professionals (capacity and capability) to conduct the Islamic financial operations. The different nature of Islamic banking business and the involvement of multi-parties in the contracts can cause more of counterparty credit risk as well as increasing the importance of informational technologies in Islamic banks. Furthermore, Sharia compliance risk and reputation risk arise as extra risks for Islamic banks.

**Basel III framework also has some implications for corporate governance, placing greater burdens on Boards of Directors.** Proper corporate governance practices in financial institutions should provide added value by enhancing the protection of depositor and investor rights, facilitating access to finance, reducing the cost of capital, improving operational performance, and increasing institutions’ soundness against external shocks. Ensuring strong corporate governance standards is thus essential to the stability and health of all financial institutions, worldwide. (WB Blog) Good governance is an important priority for Islamic finance. Ensuring that directors get the requisite training and capacity development becomes essential in the post-global financial crisis world, where the sound governance and control of banking institutions has taken center stage. Board effectiveness and accountability, risk governance and the risk-management framework, transparency and reporting requirements, as well as Shari`ah governance for Islamic banks also should not be excluded from the broad topic of corporate governance.

**III. CONCLUSION**

The implementation of Basel III rules changes according to different jurisdictions. The rules set a minimum standard but some countries may choose to set stricter standards. As a consequence, the impact of Basel III framework for Islamic banks would differ among different jurisdictions. A summary of potential implications of Basel III for Islamic banks is seen in Table 2.

**Table 3: A Summary of the Potential Implications of Basel III for Islamic Banks**

<table>
<thead>
<tr>
<th>The Business Cycle and Strategy Effects</th>
<th>The Operational Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of run-off rate for PSIA on liquidity requirement.</td>
<td>The increased exposure to operational risks arising from compliance to Basel III</td>
</tr>
<tr>
<td>Incentive to develop HQLAs to overcome liquidity issues</td>
<td>The increased need of state-of-the art risk systems, quantitative analysis, IT systems, and</td>
</tr>
</tbody>
</table>

\textsuperscript{11} Operational risk is the risk of direct and indirect loss resulting from inadequate or failed internal processes, people, and technology or from external events (BCBS 2001).
The biggest challenge in the implementation of Basel III rules for Islamic banks lies in the liquidity requirements. The volatility of deposits and the shallowness of Islamic securities markets are the biggest challenging factors for Islamic banks in finding high quality liquid assets. The NSFR leads banks to use more of longer term debt to justify the stable sources of funding, but the question is what will be the source of this stable funding for Islamic banks, given the insufficiency of Sharia-compliant instruments. The cash, central bank reserves and the government bonds are accepted as eligible HQLA; however these instruments are not available for Islamic banks at that access level compared to their conventional counterparts.

In order to meet the 100% liquidity ratio requirements, the banks can either increase the length of their liabilities or they can raise capital, or shorten the maturity of their assets and switch to higher quality assets. If they increase the maturity profiles of their liabilities, this will increase their average funding costs, on the other hand if they shorten the maturities of their assets; this will lead them to lower investment returns, consequently causing their ROE to shrink. Islamic mode of financing is mostly done through equity financing with an emphasis on risk-sharing and longer-term financing. Contradictory to inherent nature of Islamic mode of financing, the change in balance sheet maturity structure in order to fulfill HQLAs requirements forces Islamic banks to be more of short-term on the liability side as well.

Overall, the Basel III rules will have beneficial effects to make the individual banks and the banking system more resilient but it will also pose some challenges to Islamic banks along with its positive implications. The new requirements on capital, liquidity, stress analysis, and leverage calculations will increase operational risks of Islamic banks as they are not considered ready with state-of-the art risk and IT systems, quantitative analysis, internal control systems, financial disclosure and corporate governance framework. Therefore, Islamic banks would need to focus on improving risk and system infrastructure to be ready for Basel-III.
Due to the growing interest coming from conventional investors for portfolio diversification purposes as well as the wider desire for a financing model rooted in the real economy, Islamic finance is no longer the domain of just Muslims. It is gaining ground in the general finance industry. The future growth of the industry is however highly dependent on the role of national authorities and their independent policies related to Basel compliance. The national regulators will have a degree of discretion when applying certain Basel III standards, particularly when defining sharia-compliant financial products, treating the PSIAs and determining the run-off rates for deposits. The role of national regulators also arises in the use of capital buffers. The role of the national regulators is vital in terms of finding the correct balance between regulations and trusting the market. Imposing a high capital requirement on a market without looking at the consequences on the growth of the banking sector can pose a threat to the future growth of the industry. Furthermore, in order to enable market discipline and consumer protection through transparency and disclosure, the disclosure requirements should be reinforced by the regulators in all jurisdictions. In the global arena of this century, it is known that profit-making organizations try every way in finding regulatory workarounds to get rid of the regulations for the sake of making more profit. With this in mind, the incentive of limiting workarounds and preventing the regulatory arbitrage opportunities in the market could also emerge for the regulators. Implementation should be consistent and coordinated across borders to avoid regulatory arbitrage. Lastly, the increased availability of data is needed for a better assessment of risks. Regulators have a duty to oversee that the implementation is done in spirit in order to achieve the benefits expected from Basel framework. (See Box IV, for Implementation of Basel III across jurisdictions and the implementation challenges).
Most of the Basel standards were applied in many jurisdictions according to the FSB 2014 report. In this box, it is aimed to depict a picture of implementation level in the countries where Islamic finance is either a part of the financial system or the financial system is solely Shari’ah-compliant (e.g., Saudi Arabia). The implementation of each element of Basel III is summarized in a table. The data of the Table below is gathered from the FSB 2014 Survey. The main drawback of the Box IV lies in the fact that the data gathered from FSB looks at the overall banking system. The table does not specifically depict the implementation of the rules per Islamic banking, but rather shows the implementation in the overall banking system. Using a survey done by IFSB would be ideally better to assess the implementation level of Basel III in Islamic banks. However, it still gives an idea of the implementation of Basel III in Islamic banking industry as well.

Table IV.1. Basel III Implementation by Jurisdictions (The overall banking system not specifically for Islamic banks)

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Liq (LCR)</th>
<th>Definition of Capital</th>
<th>Risk Coverage</th>
<th>Conservation Buffer</th>
<th>C-cyclical Buffer</th>
<th>LR</th>
<th>D-SIBs</th>
<th>G-SIBs</th>
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<td>Bahrain</td>
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<td>United Kingdom</td>
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Source: FSB 2014 Survey, IMF
Based on Table IV.1, Turkey, Saudi Arabia, Qatar, United Kingdom, Indonesia, South Africa, Kuwait, India and Bahrain have done quite a bit in the implementation of Basel III reforms. In these countries, either implementation is in-progress or implementation is complete. Looking at the table, it is recognized that the implementation of capital rules of Basel III, (the definition of capital and buffers) are complete in most jurisdictions. LCR still has a way to be implemented, thinking of the phase-in periods of LCR lasts till 2019. For D-SIBs or G-SIBs, the implementation hasn’t been done so far. Thinking of the fact that, most of the Islamic banks are not highly systemically important in current environment, the no implementation of D-SIBs and G-SIBs to date will not have a big impact on Islamic banks. (Table IV.1)

The question arises here that should all BCBS standards be implemented by all jurisdictions or do they need to be tailored based on the needs and conditions of their domestic market and banking system.

First of all, the uniform application of Basel III rules is both technically and practically is not possible. Since every jurisdiction has different dynamics and needs in its banking industry, it makes sense to tailor the regulatory standards based on these differences. The adjustments are not considered to be uniform across banks and regions either. The quality of existing regulations and supervisory framework (for ex: How much of Basel 2 and 2.5 has already be implemented) in different jurisdictions will also be effecting implementation capacity of Basel III. While Basel III reforms are prepared, it takes into account internationally active banks and mostly well-developed markets, the existing regulation and supervision of which were already in good shape. However, most of the Islamic banks are operating either in emerging markets (EMs) or in the MENA region, where some adjustments need to be made based on implementation timelines and calibration of the rules. One of the implementation challenge for Islamic banks could be the environment in which they are operating, as supervision of most countries still needs some improvement. Ensuring that requisite training efforts and capacity development has been done effectively in these supervisory authorities will become essential. The infrastructural needs of the banking system (such as well-established credit assessment systems, internal control systems, IT systems) will also be another challenge for Islamic banks in the implementation of the rules. Another important issue is the need for the coordination between standard-setters such as BCBS and IFSB. The coordination is important both at the time of drafting the rules as well as in the implementation stage. Implementation should also be consistent and coordinated across borders to avoid regulatory arbitrage.
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## Annex. Table 1. Phase-in arrangements for Capital Standards

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<tr>
<td><strong>Leverage Ratio</strong></td>
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<td><strong>Supervisory monitoring</strong></td>
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<td><strong>Minimum Common Equity Capital Ratio</strong></td>
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<td><strong>Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015</strong></td>
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<td><strong>Capital Conservation Buffer</strong></td>
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<td><strong>Migration to Pillar 1</strong></td>
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<td><strong>Minimum common equity plus capital conservation buffer</strong></td>
<td>3.5%</td>
<td>4.0%</td>
<td>4.5%</td>
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<td>4.5%</td>
<td>4.5%</td>
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<tr>
<td><strong>Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)</strong></td>
<td>20%</td>
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<td>40%</td>
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<td>60%</td>
<td>80%</td>
<td>100%</td>
<td>100%</td>
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<tr>
<td><strong>Minimum Tier 1 Capital</strong></td>
<td>4.5%</td>
<td>5.5%</td>
<td>6.0%</td>
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<td><strong>Minimum Total Capital</strong></td>
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<tr>
<td><strong>Minimum Total Capital plus conservation buffer</strong></td>
<td>8.0%</td>
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<tr>
<td><strong>Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital</strong></td>
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<td><strong>Phased out over 10 year horizon beginning 2013</strong></td>
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<td><strong>Liquidity coverage ratio</strong></td>
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<td><strong>Observation period begins</strong></td>
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<td><strong>Net stable funding ratio</strong></td>
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<td><strong>Observation period begins</strong></td>
</tr>
</tbody>
</table>

**Source:** BCBS
### Annex Table 2.

<table>
<thead>
<tr>
<th>CET1 Ratio</th>
<th>% of earnings that must be retained</th>
</tr>
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<tbody>
<tr>
<td>4.5% - 5.125%</td>
<td>100%</td>
</tr>
<tr>
<td>5.125% - 5.750%</td>
<td>80%</td>
</tr>
<tr>
<td>5.750% - 6.375%</td>
<td>60%</td>
</tr>
<tr>
<td>6.375% - 7.0%</td>
<td>40%</td>
</tr>
<tr>
<td>&gt; 7.0</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Annex Table 3.

<table>
<thead>
<tr>
<th>CET1 Ratio</th>
<th>% of earnings that must be retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5% - 5.7550%</td>
<td>100%</td>
</tr>
<tr>
<td>5.750% - 7.0%</td>
<td>80%</td>
</tr>
<tr>
<td>7.0% - 8.250%</td>
<td>60%</td>
</tr>
<tr>
<td>8.250% - 9.5%</td>
<td>40%</td>
</tr>
<tr>
<td>&gt; 9.5</td>
<td>0%</td>
</tr>
</tbody>
</table>