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RISK-BASED SUPERVISION IN ISLAMIC BANKING

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RISK-BASED SUPERVISION IN ISLAMIC BANKING

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ABOUT THE ISLAMIC FINANCIAL SERVICES BOARD (IFSB)

The IFSB is an international standard-setting organisation which was officially inaugurated on 3 November 2002 and started operations on 10 March 2003. The organisation promotes and enhances the soundness and stability of the Islamic financial services industry by issuing global prudential standards and guiding principles for the industry, broadly defined to include banking, capital markets and insurance sectors. The standards prepared by the IFSB follow a lengthy due process as outlined in its Guidelines and Procedures for the Preparation of Standards/Guidelines, which includes issuing exposure drafts and holding workshops and, where necessary, public hearings. The IFSB also conducts research and coordinates initiatives on industry-related issues, and organises roundtables, seminars and conferences for regulators and industry stakeholders. Towards this end, the IFSB works closely with relevant international, regional and national organisations, research/educational institutions and market players.

For more information about the IFSB, please visit **www.ifsb.org**.

ABBREVIATIONS

AML	Anti-Money Laundering
APRA	Australian Prudential Regulation Authority
BCBS	Basel Committee for Banking Supervision
BCPs	Basel Core Principles
CBs	Conventional Banks
CIBAFI	General Council for Islamic Banks and Financial Institutions
CPIFR	Core Principles for Islamic Finance Regulation
D-SIBs	Domestic Systemically Important Banks
DCR	Displaced Commercial Risk
DFSA	Dubai Financial Services Authority
DIFC	Dubai International Financial Centre
FSB	Financial Stability Board
G-SIBs	Global Systemically Important Banks
IAH	Investment Account Holders
IBs	Islamic Banks
IFSB	Islamic Financial Services Board
IFSI	Islamic Financial Services Industry
IRR	Investment Risk Reserve
KYC	Know-Your-Customer
ML/TF	Money Laundering and Terrorism Financing
NIBs	Non-Interest Banks
OSFI	Office of the Superintendent of Financial Institutions
PAIRS	Probability and Impact Rating System
PER	Profit Equalisation Reserve
PSIA	Profit-Sharing Investment Account
PSIFIs	Prudential and Structural Islamic Financial Indicators
RAF	Risk Assessment Framework
RBS	Risk-Based Supervision
RSA	Regulatory and Supervisory Authority
SAFr	Supervisory Assessment Framework
SIFIs	Systemically Important Financial Institutions
UPSIA	Unrestricted Profit-Sharing Investment Account

GLOSSARY

Displaced Commercial Risk	The situation where an institution acting as a *muḍārib* donates a part of its profit to the investment account holders in order to smooth the returns payable to them.
Ijārah	A contract made to lease the usufruct of a specified asset for an agreed period against a specified rental. It could be preceded by a unilateral binding promise from one of the contracting parties. The *ijārah* contract is binding on both contracting parties.
Investment Risk Reserve (IRR)	The amount appropriated out of the profit of investment account holders, after allocating the *muḍārib*'s share of profit, in order to cushion against future investment losses for investment account holders.
Istisnā	The sale of a specified asset, with an obligation on the part of the seller to manufacture/construct it using his own materials and to deliver it on a specific date in return for a specific price to be paid in one lump sum or instalments.
Legal and Non-compliance Risk	Risk relating to the legal and regulatory implications arising from the operational activities of an institution and its dealings with its stakeholders, including both the possibility of an adverse outcome of legal disputes or contractual difficulties and the consequences of failure to comply with the legal and regulatory requirements applicable to the institution.
Liquidity Risk	The risk of potential loss to the institution arising from its inability either to meet its obligations or to fund increases in assets as they fall due without incurring unacceptable costs or losses.
Market Risk	The risk of losses in on- and off-balance sheet positions arising from movements in market prices – that is, fluctuations in values in tradable, marketable or leasable assets (including *ṣukūk*) and in off-balance sheet individual portfolios (e.g. restricted investment accounts).
Muḍārabah	A partnership contract between the capital provider (*rabb al-māl*) and an entrepreneur (*muḍārib*) whereby the capital provider would contribute capital to an enterprise or activity that is to be managed by the entrepreneur. Profits generated by that enterprise or activity are shared in accordance with the percentage specified in the contract, while losses are to be borne solely by the capital provider unless the losses are due to misconduct, negligence or breach of contracted terms.
Murābaḥah	A sale contract whereby the institution offering Islamic financial services sells to a customer a specified kind of asset that is already in its possession, whereby the selling price is the sum of the original price and an agreed profit margin.
Mushārakah	A contract between the institution offering Islamic financial services and a customer whereby both would contribute capital to an enterprise, whether existing or new, or to ownership of real estate or a movable asset, on either a temporary or a permanent basis. Profits generated by that enterprise or real estate/asset are shared in accordance with the terms of the *mushārakah* agreement, while losses are shared in proportion to each partner's share of capital.
Mushārakah mutanāqiṣah	A form of partnership in which one of the partners promises to buy the equity share of the other partner over a period of time until the title to the equity is completely transferred to the buying partner. The

	transaction starts with the formation of a partnership, after which buying and selling of the other partner's equity takes place at market value or at the price agreed upon at the time of entering into the contract. The "buying and selling" is independent of the partnership contract and should not be stipulated in the partnership contract, since the buying partner is only allowed to promise to buy. It is also not permitted that one contract be entered into as a condition for concluding the other.
Operational Risk	The risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.
Profit Equalisation	The amount appropriated out of the *muḍārabah* profits, in order to maintain a certain level of return on investment for the *muḍārib* and unrestricted investment account holders.
Restricted Investment Accounts	Accounts whose holders authorise the investment of their funds based on *muḍārabah* or *wakālah* agency contracts with certain restrictions as to where, how and for what purpose these funds are to be invested.
Sharīʿah	The practical divine law deduced from its legitimate sources: the Qur'ān, Sunnah, consensus (*ijmāʿ*), analogy (*qiyās*) and other approved sources of the Sharīʿah.
Sharīʿah Board	An independent body set up or engaged by the institution offering Islamic financial services to supervise its Sharīʿah compliance and governance system.
Sharīʿah Non-compliance Risk	An operational risk resulting from non-compliance of the institution with the rules and principles of Sharīʿah in its products and services.
Ṣukūk	Certificates that represent a proportional undivided ownership right in tangible assets, or a pool of tangible assets and other types of assets. These assets could be in a specific project or specific investment activity that is Sharīʿah-compliant.
Unrestricted Investment Accounts	Accounts whose holders authorise the investment of their funds based on *muḍārabah* contracts without imposing any restrictions. The institutions can commingle these funds with their own funds and invest them in a pooled portfolio.

Abstract

This working paper investigates the risk-based supervisory (RBS) practices among the Islamic Financial Services Board's regulatory and supervisory authority (RSA) members for the Islamic banking industry in their respective jurisdictions. Based on responses elicited from the RSAs via a survey questionnaire, the paper finds that RBS frameworks are equally as relevant, applicable and important for Islamic banks (IBs) as they are for conventional banks (CBs). However, applying RBS in Islamic banking, including for IBs that are domestic systemically important banks, would require taking cognisance of some additional peculiar risks that are not applicable to CBs. These risks include Sharīah non-compliance risk, rate-of-return risk, equity investment risk and displaced commercial risk. The RBS framework for IBs should capture these risks, as much as they are relevant, and include them in the final risk rating and assessment of IBs for supervisory purposes. To this end, it is essential that IBs develop key performance indicators (KPIs) with a framework of tolerance levels for all risk categories. In addition, and preferably via the use of technology, there should be a transparent and credible mechanism for accessing KPI information, which should be readily available to and applied by the RSAs while conducting RBS for risk assessment of Islamic banks.

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SECTION 1: INTRODUCTION

1.1 Background

The Islamic banking segment presently accounts for almost two-thirds of the worth of the global Islamic financial services industry (IFSI), operates in more than 60 countries, and is of systemic importance in 13 jurisdictions.[1] With a compound annual growth rate of 7% between 2013 and 2019, and a year-on-year growth rate of 12.4% in 2019, the segment maintains its dominance and growth trajectory, accounting for 72% of the IFSI's global asset worth. As the Islamic banking segment continues to grow and transform, it is expected that its susceptibility to risks will also grow.

Today, the Islamic banking segment is faced with numerous pre-existing risks, as well as those that may emerge from the impact of the COVID-19 pandemic – for instance, a significant increase in credit risk.[2] While the COVID-19 shock is pervasive, and is essentially a health crisis, it is having a dire consequential effect on the real sector, to which the Islamic banking segment is highly exposed.[3]

The "new normal" of physical distancing, working from home, customers' changing banking habits in favour of digital banking, and so on, and the consequential increased reliance on technology, also pose new risks to financial institutions, including Islamic banks (IBs). This development will require IBs to enhance their teleworking and remote access capabilities without compromising the integrity of their technology network, due to risks arising from cyber security, cloud concentration, third-party outsourcing, vendor lock-in, etc.

Although IBs face similar risks to their conventional counterparts in many regards, the former may be more susceptible because of their peculiar underlying operational structure and contracts under which they provide services to and relate with their clients.[4] Due to this operational peculiarity, it is important that IBs recognise and evaluate the overlapping nature of the categories of the various risks they face. Business risks, for instance, may originate from developments in the external marketplace due to adverse changes in IBs' markets, counterparties and products, as well as from the different applicable Sharī`ah rulings and the particular economic and political environments in which IBs operate.

Without prejudice to the availability of appropriate Sharī`ah-compliant credit risk mitigating techniques, IBs may be exposed to credit risk, or even to capital impairment risk, in the event of a delay or an outright default by an obligor during settlement, delivery of assets, or clearing transactions, depending on the underlying contract used.[5] In this regard, the probability of default may be higher in jurisdictions that prohibit imposing a penalty for default, while in those jurisdictions where a penalty is

[1] IFSB, *IFSI Stability Report 2020*: https://www.ifsb.org/download.php?id=5724&lang=English&pg=/sec03.php

[2] Once the moratorium period granted in many jurisdictions is over and governments gradually withdraw stimulus packages, those small and medium-sized enterprises whose economic activities were either stopped or restricted, as well as households that have lost jobs or face constrained employment opportunities, may default.

[3] IBs' financial exposure is mainly to the wholesale and retail trade, and household sectors, at 27% and 26%, respectively. The manufacturing sector accounts for 18% of IBs' exposure, while the real estate and construction sectors jointly account for 12%.

[4] These risks are listed in the appendix. For further details on those risks that are specific to Islamic banking, see IFSB-1: *Guiding Principles of Risk Management for Institutions (Other than Insurance Institutions) Offering Only Islamic Financial Services*: https://www.ifsb.org/download.php?id=4357&lang=English&pg=/published.php

[5] Depending on the underlying contract, an IB may face credit risk exposures in its financing activities either in terms of accounts receivable, counterparty risk or lease payments receivable.

allowed, a prohibition on using it for the benefit of the IBs imposing it may increase the cost of default. IBs also need to consider other types of risks that give rise to credit risk. For example, during the contract life, the risk inherent in a *murābahah* contract is transformed from market risk to credit risk. Similarly, the invested capital in a *muḍārabah* or *mushārakah* contract will transform from equity investment risk to debt in the case of proven negligence or misconduct of the *mudārib* or the *mushārakah*'s managing partner.

The risk-sharing philosophy as a key and distinct attribute of Islamic banking compared to conventional banking exposes IBs to equity investment risks based on *muḍārabah* and *mushārakah* contracts. An IB that is a partner in a particular Sharī`ah-compliant commercial enterprise, either as a joint venture or through private equity, will share in the business risk. While no fixed return on investment is guaranteed, but rather is subject to the performance of the business, an IB as provider of finance is nonetheless exposed to capital impairment risk in the event of default arising from outright loss on the business.[6] To a lesser extent, equity investment risk may also manifest in terms of profit rate risk in a *mushārakah mutanāqiṣah* financing contract, in which case its fixed payment plan may create exposure to an IB with reference to the contracting price vis-à-vis the changes in property prices and in the level of property rents.

Quite a substantial proportion of the funding of an IB comes from the investment accounts, especially those of unrestricted profit-sharing investment account (UPSIA) holders. UPSIA holders, notwithstanding being typically risk-averse, expect a modest, but secure, Sharīʿah-compliant rate of return on their retail deposits or investments, as the case may be.[7] Although an IB does not have an obligation to guarantee a fixed rate of return, it may be faced with pressure to offer a competitive rate of return.[8] Investing UPSIA funds may therefore lead to a form of rate-of-return risk (a discrepancy between the rate of return expected by UPSIA holders and the rate of return that the IB is able to pay them).

Consequent upon its exposure to rate-of-return risk, an IB may also be faced with displaced commercial risk (DCR) – namely, the transfer or displacement of variability in profits from the UPSIA holders to shareholders. This risk occurs in instances where an IB is under competitive pressure to pay a rate of return in excess of that earned on assets financed by the UPSIA holders so as to attract prospective and retain existing investors (fund providers). Otherwise, the latter may be encouraged to aggressively withdraw their funds, thus exposing an IB to withdrawal risk.

IBs are also exposed to market risk that may arise from losses in both on- and off-balance sheet positions due to movement in market prices. The fixed mark-up rate in a *murābaḥah* contract, for instance, may expose an IB to a mark-up risk if there is a change in the benchmark rate. Another manifestation may be in terms of commodity price risk that may arise due to an IB holding durable assets or commodities, as in a *salam or ijārah* contract. While the assets held may expose the IBs to price risk, the fixed or overdue rentals may also expose them to mark-up risks.[9] Similarly, a profit rate

[6] An exception will be where it can be reasonably proven that the loss is due to negligence, misconduct or breach of contract by the partner.
[7] In Malaysia, for instance, the *Islamic Financial Services Act* (IFSA) 2013 makes a clear distinction between Islamic deposits and investment accounts as sources of funding to IBs. While the former is risk-free and with a guaranteed principal, the latter is treated as risk bearing and with no guarantee of the principal amount invested.
[8] A.A. Adewale and S. Archer (2019). WP-10-05-19: *Risk Sharing in Islamic Banking. IFSB Working Paper Series:* www.ifsb.org/publications: https://www.ifsb.org/download.php?id=5160&lang=English&pg=/sec03.php
[9] Habib Ahmed and Tariqullah Khan (2007). "Risk Management in Islamic Banking", in M. Kabir Hassan and Mervyn K. Lewis (ed.), *Handbook of Islamic Banking* (Chapter 10). Edward Elgar Publishing.

risk may arise, such as in *ijārah ṣukūk* and *istiṣnā' ṣukūk*, if the holders are the manufacturers who receive a fixed income, or equity risk pertaining to financial instruments held in the trading book.

IBs may also be faced with liquidity risks arising from their inability either to meet obligations as they fall due or to fund an increase in assets as and when needed without incurring substantial incremental costs or losses. This is usually because, compared to conventional banks (CBs), IBs have relatively few Sharīʿah-compliant liquidity risk management options available to them,[10] especially on a long-term basis, since a large portion of IBs' deposits (including UPSIAs) have short maturities, which inhibits their ability to finance long-term risk-sharing investments.

Operational risks faced by an IB are basically similar to those faced by CBs, except that the former is also faced with Sharīʿah non-compliance risk. Such risk derives from the failure of an IB to comply with the Sharīʿah rules and principles as determined by the relevant body vested with such responsibility in a jurisdiction where Islamic banking is practised. Islamic finance in general is based on the premise that the laws and greater plans of almighty Allah are timeless truths that require absolute obeisance. Sharīʿah non-compliance can potentially trigger reputational risks and fiduciary risk, which may result in loss of business and withdrawal of funds from the IBs.

Even in jurisdictions with a relatively small Islamic banking industry, there could be many IBs operating and offering diverse services. Neither the context within which IBs operate, nor the risks they pose, are static. Rather, both evolve over time, and supervisors need to monitor these changes and their implications. Risk-based supervision (RBS) is increasingly gaining traction as an international best practice by supervisors, given that it promotes a common understanding of risk and offers a basis for productive engagement between the regulators and supervised financial institutions, including IBs. The Basel Committee on Banking Supervision (BCBS) has emphasised the need for a greater focus on early intervention and timely supervisory actions via RBS.[11]

The RBS takes cognisance of the fact that not all financial institutions are equally important, and not all financial institution failures can be prevented. Regulatory and supervisory authorities (RSAs) also have limited resources to carry out their oversight functions. As such, an attempt to pursue zero failure may exert excessive regulatory pressure on financial institutions and also infringe on their operational efficiency. The BCBS's *Core Principles for Effective Banking Supervision* also acknowledge this fact and favour an approach where more regulatory time, resources and attention are focused on banks that are systemically important and whose instability or failure could affect the entire banking system.

Priority is also given to risks that are considered significant in posing a threat to financial stability and resilience. This allows for efficient and effective resource allocation in a systematic and analytical way to address identified risks in a manner that captures the build-up and concentration of risk, and with due cognisance of business trends and prevailing macroeconomic circumstances. This is even more important now due to the COVID-19 pandemic, as regulators strive to find a balance between ensuring financial stability and supporting economic activity.

[10] N. Mohd Ariffin and S. Kassim (2014). "Risk Management Practices of Selected Islamic Banks in Malaysia", *Aceh International Journal of Islamic Sciences*, 3(1), 26–36.
[11] BCBS, *Core Principles for Effective Banking Supervision*: https://www.bis.org/publ/bcbs230.htm

The RBS, as an effective supervision mechanism,[12] ensures that entities' existing and potential risks incurred while conducting their businesses and operations are identified, measured and mitigated with the help of appropriate tools. These mitigation tools keep businesses' risk levels within the risk appetite limits set by the board of directors of an IB or the RSA.

As the IB segment continues to grow and becomes an integral part of the financial ecosystem, its susceptibility to systemic risks will also grow in parallel due to globalisation and increased linkages with other segments within the IFSI and with the real economy.[13] This will have implications for the financial stability of the IFSI, including the need for regulators and supervisors to implement international Islamic banking prudential standards and to incorporate an effective Sharī`ah governance framework into their risk management oversight functions. In this regard, due to the dynamism in the origination and propagation of risks in the financial ecosystem generally, and to the peculiarity of the susceptibility of IBs to additional unique risks, it is important that RBS adopted in jurisdictions where Islamic banking is practised is also dynamic, evidenced-based, future-oriented, and caters for the specificities of Islamic banking.

1.2 Objectives

The main objective of this working paper is to investigate the RBS practices among Islamic Financial Services Board (IFSB) RSA members for the Islamic banking industry in their respective jurisdictions. Specifically, the paper aims to:

- investigate risk-based supervisory frameworks for Islamic banking in the IFSB member jurisdictions;
- understand the current state of risk-based supervisory frameworks for Islamic banking in the IFSB member jurisdictions; and
- indicate the requirements for risk-based supervisory frameworks for Islamic banking.

1.3 Scope of the Paper

This working paper is an exploratory cross-sectional study of the RBS practices in Islamic banking, especially in relation to an assessment of the risk management process. Specifically, the paper focuses on assessment and analyses of key risk factors, capital and earnings, as well as the quality of risk management and assessment functions in Islamic banking. The paper covers and elicits responses only from IFSB RSA members that supervise Islamic banking in their respective jurisdictions.

1.4 Methodology

The data used in this study were collected via questionnaire surveys addressed to Islamic banking RSAs in various jurisdictions covered by the IFSB between March and

[12] "Effective supervision" refers to the reasonable assurance obtained by a supervisory authority that both the sector that is subject to supervision and the business entities in the sector are complying with the applicable regulatory framework.

[13] A.A. Adewale, and N. Volker (2019). WP-11-05-19: *Investigating Intersectoral Linkages in the Islamic Financial Services Industry. IFSB Working Paper Series*: https://www.ifsb.org/download.php?id=5161&lang=English&pg=/sec03.php

June 2020. The survey, which was administered online, comprised mainly closed-ended questions with codes to indicate the appropriate option a respondent RSA selects. In some other instances, open-ended questions were included for the respondents to freely express their opinion on related matters beyond the closed-ended options provided.

The cooperation of the RSAs was sought especially in terms of ensuring that the responding officer was the person with the relevant responsibilities to do so, and that the permission of relevant superiors or authorities was obtained where necessary, as the responses provided by an organisation would be assumed to reflect its perspectives on the issues raised.

Owing to the exploratory nature of the research, data elicited from 15 Islamic banking RSAs[14] from various countries (shown in Table 1.1) were subjected to descriptive data analyses. For instance, simple percentage and frequency distribution were used to show the prevalence, rather than relative prominence, of inherent risk, or the level of application of the related RBS framework.

Table 1.1 Respondent RSAs by Region and Country

Region	Countries where Respondent RSAs is Based	Number of Respondent RSAs
GCC and Middle East	Bahrain, Jordan, Lebanon, Oman, Saudi Arabia, United Arab Emirates	6
South-East Asia	Brunei Darussalam, Indonesia, Philippines	3
Africa	Mauritius, Morocco	2
South and Central Asia	Afghanistan	1
Europe	Germany, Turkey, Turkish Republic of Northern Cyprus	3
	15 countries	15 RSAs

SECTION 2: BANKING REGULATORY CORE PRINCIPLES AND RBS

The BCBS's revised *Core Principles for Effective Banking Supervision* of 2012 may be referred to in assessing the overall completeness of an RBS framework. The core principles are considered as a framework of relevant standards for sound prudential regulation and supervision of banks and are aimed at strengthening supervisory practices and enhancing financial stability at both local and international levels. Effective supervision in the medium to long run will create stability, trust and confidence for all stakeholders, including depositors, investors and the government.

There are 29 Basel Core Principles (BCPs) that are needed for a supervisory system to be effective. The revised BCPs strengthen the requirements for RSAs. This is achieved through a greater focus on RBS and the need for early intervention and timely supervisory actions. Supervisors should assess the risk profile of banks in terms of the risks they run, the efficiency of their risk management, and the risks they pose to the banking and financial systems. This risk-based process targets supervisory resources

[14] The list of the RSAs that responded to the survey is provided in the appendix.

where they can be utilised to the best effect, focusing on outcomes and processes, and moving beyond passive assessment of compliance with rules.

> *The BCPs acknowledge the need for [an] RBS approach in which more time and resources are devoted to larger, more complex or riskier banks. The BCPs also give particular consideration to macro prudential issues and systemic risks. Specifically, in the application of [an] RBS approach or framework, supervisors are expected to assess risk in a broader context than that of the balance sheet of individual banks. This includes consideration of: the prevailing macroeconomic environment, business trends, and the build-up and concentration of risk across the banking sector.*[15]

It is generally noticed that all of the 29 BCPs[16] are linked with RBS, with some of them having a direct relationship with the supervisory role in dealing with RBS, such as BCPs 8–12 and 14–15, whereas others focus on the overall supervisory framework for RBS, such as principles, concepts, core processes and inherent risks.

RBS can also be used to effectively set suitable priorities for improving the oversight function of RSAs over IBs as per the IFSB's *Core Principles for Islamic Finance Regulation (Banking Segment)* (CPIFR):

> *The main objective of the CPIFR is to provide a set of core principles for the regulation and supervision of the IFSI, taking into consideration the specificities of the IIFS in the banking segment and the lessons learned from the financial crisis, and complementing the existing international standards, principally BCPs.*[17]

In fact, several new core principles have been developed for Islamic finance, while some BCPs are amended significantly, generally at the level of the assessment criteria rather than the principles themselves. Other BCPs have been retained in view of their common applicability to both conventional and Islamic finance. BCP 23 (Interest rate risk in the banking book) has been replaced by CPIFR 26 (Rate-of-return risk), and four further principles have been added: Treatment of profit-sharing investment account (PSIA) holders (CPIFR 14), Sharī`ah governance framework (CPIFR 16), Equity investment risk (CPIFR 24), and Islamic "windows" operations (CPIFR 32).

Various notable supervisory frameworks also exist that describe the principles, concepts and processes involved in the RBS practices across various jurisdictions. A number of these frameworks have either been adopted in their entirety or adapted to reflect peculiarities of the adapting jurisdiction. For instance, the Office of the

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[15] Macroeconomic and Financial Management Institute for Eastern & Southern Africa, *Risk Based Supervision Guidelines for Supervised Banks*: http://mefmi.org/2018/05/30/risk-based-supervision-guideline/

[16] For each of the 29 Core Principles, there are two separate assessment criteria: "essential criteria" (EC), which are those elements that should be present in order to demonstrate compliance with a principle; and "additional criteria", which may be particularly relevant to the supervision of more sophisticated banking organisations and which countries with such institutions should aim to achieve. By and large, the compliance grading will be based on the EC; the assessor will comment on, but not grade, compliance with the additional criteria unless the country undergoing the assessment has voluntarily chosen also to be graded against the additional criteria. *Source: Core Principles for Effective Banking Supervision*: https://www.bis.org/publ/bcbs230.pdf

[17] IFSB-17 – Core Principles for Islamic Banking Supervision (April 2015): https://www.ifsb.org/download.php?id=4373&lang=English&pg=/published.php

Superintendent of Financial Institutions Canada (OSFI)[18] framework and the Probability and Impact Rating System (PAIRS)[19] of the Australian Prudential Regulation Authority (APRA) have been adopted in some jurisdictions where Islamic banking is practised.

OSFI uses a defined process to guide bank-specific supervisory works. The three steps of the core supervisory process include planning, execution, and reporting and intervention. In a planning supervisory work, a supervisory strategy for each bank is prepared annually, identifying pertinent aspects in the bank's risk profile. The intensity of the supervisory work depends on the systemic importance of that particular institution in a jurisdiction. The second step is to execute the supervisory work, which is a continuum of supervisory work ranging from monitoring, to limited off-site reviews, to extensive on-site reviews, and including testing or sampling where necessary. Finally, in addition to ongoing monitoring of a specific bank, the RSAs should communicate with the bank through various formal, written reports, including letters. Letters should summarise the RSA's key findings and recommendations based on supervisory works that were conducted since the last supervisory letter was issued.

Three concepts are introduced in APRA's PAIRS model: (i) a common set of rating components for measuring inherent risk, management control, and capital and support; (ii) a structured process for combining these component ratings into a probability-of-failure rating; and (iii) an impact rating scale. In the PAIRS model, supervision is a continuous process that includes a supervisory action plan, supervisory activities and risk assessment.

In general, most jurisdictions follow domestic regulations in their supervisory review process. Analysis is a primary input into the risk assessment process before a supervisory action plan takes effect. Planning consists of developing or updating the strategic plan on a periodic basis. The next step in the RBS process is to execute the supervisory work, which consists of preparing and executing on-site reviews. Domestic regulation also includes the process of documentation, which includes maintaining supervisory files of related correspondence.

Regardless of whether the RBS framework is adopted, adapted or newly developed by a jurisdiction, RSAs provide a guide for supervisory intervention. Usually, the guide will specify the various levels of concerns identified by the RSA and the corresponding remedial action that will be taken in the event that any such concern arises.[20] While the guide to supervisory intervention is usually published and made available to supervised institutions, RSAs also have an internal guide that contains the likely threshold that may trigger supervisory interventions.

[18] Office of the Superintendent of Financial Institutions Canada (2010). *Supervisory Framework*. Ottawa: OSFI Canada.
[19] Australian Prudential Regulation Authority (2018). *Probability and Impact Rating System (PAIRS).*
[20] For instance, such concerns may range from "low" (minimal risk to viability) to "high" (imminent risk to viability) or even resolution. Corresponding supervisory remedial actions that can be taken include normal monitoring, resolution planning for minimal risk, or possible activation of the deposit guarantee if a resolution plan is triggered. For an example of the supervisory intervention framework, see: Toronto Centre (2018). *Note on Risk-Based Supervision*, p. 18. Retrieved on 25 August 2019 from: https://res.torontocentre.org/guidedocs/Risk-Based%20Supervision%20FINAL.pdf

2.1 Enhancing Banking Supervisory Oversight via the RBS Framework

Historically, the risks most commonly identified by the banking supervisors were credit risk, market risk, operational risk, liquidity risk, and risks associated with the bank's business model and product range. In recent years, developments in information technology (IT) and related security risks, coupled with risks associated with innovative products and emerging distribution channels for financial services, have enhanced the importance of introducing an effective RBS framework that considers these additional risks. Further, these risk factors have led to redundancies in the traditional compliance and transaction testing-based supervisory approach that have placed a significant strain on supervisory resources.

The focus of supervisors across the globe, particularly after the global financial crises of 2008–9, has shifted towards ensuring financial stability and managing contagion risks in an increasingly interconnected marketplace. It is a common view among the international standard setters and supervising authorities that an RBS framework is an important and effective tool for focusing limited supervisory resources towards monitoring and overseeing high-risk areas. A G20 report of October 2010, issued in response to the financial crisis, advised standard setters to strengthen supervisory practices worldwide. In response, in November 2011, the Financial Stability Board (FSB) published an integrated set of policy measures to address the systemic and moral hazard risks associated with systemically important financial institutions (SIFIs).[21]

The rationale for adopting additional policy measures for global systemically important banks (G-SIBs) is based on the cross-border negative externalities created by SIFIs, which current regulatory policies do not fully address. These negative externalities are associated with institutions that are perceived as not being allowed to fail due to their size, interconnectedness, complexity, lack of substitutability or global scope. On the basis of defined criteria, the FSB, in consultation with the BCBS and national authorities, has been identifying G-SIBs since 2011. The list of G-SIBs is updated annually each November. In July 2013, BCBS published an updated methodology for assessing systemic importance.[22] Using BCBS methodology, the FSB and BCBS have to date identified 29 G-SIBs.

The regulators for G-SIBs are required to take policy measures to address the systemic and moral hazard risks associated with these SIFIs. In addition to the G-SIBs criteria, the BCBS also issued guidelines for segregating domestic banks into two categories. The first set of banks corresponds to those which are domestic systemically important banks (D-SIBs), and non-DSIBs in the context of a particular jurisdiction. For D-SIBs, an enhanced level of supervision is recommended by the Basel Committee. The parameters for segregating the set of domestic banks into D-SIBs and non-D-SIBs are based on the banks' assets size, interconnectedness with other banks, substitutability, and complexity of their business.

[21] Financial Stability Board (2011). *Policy Measures to Address Systemically Important Financial Institutions*. Basel: FSB.
[22] Basel Committee on Banking Supervision (2013). *Global Systemically Important Banks (G-SIBs): Updated Assessment Methodology and the Higher Loss Absorbency Requirement*. Basel: BCBS.

2.2 RBS: Islamic Banking Perspectives

An RBS framework is equally relevant and applicable to, and important for, IBs. As per the BCBS and FSB standards, the highest level of prudential requirements and supervisory intensity is required for G-SIBs. However, there is no IB that is currently categorised as a G-SIB. Therefore, the prudential regulatory standards and enhanced level of supervision are not required for now. Those jurisdictions which are following Basel standards should divide the IBs (for regulatory and supervisory purposes) into D-SIBs and non-DSIBs, with the RBS framework including an enhanced supervisory stance for IBs that are D-SIBs in their respective jurisdictions. The RSAs in Iran, Jordan and Kuwait, among the countries participating in the IFSB Prudential and Structural Islamic Financial Indicators (PSIFIs) database project, have identified few Islamic banks as D-SIBs in their jurisdictions. This perhaps indicates the need to consider the specificities of Islamic finance in the RBS frameworks to be introduced by the respective authority, while also imposing segregated parameters.

While applying RBS for D-SIBs, IBs are exposed to certain additional risks that are not applicable to conventional banks, as mentioned earlier. The equity-based products that are peculiar to IBs, for instance, expose them to a higher level of risk and thus require a higher level of capital as part of the capital adequacy ratio. This aspect of Sharīʿah-compliant products should also be factored into the RBS framework applied for IBs. In other words, the RBS framework for IBs should capture these risks, as much as relevant, and include them in their final risk rating for supervisory purposes. Details of these additional risks for IBs can be found in the relevant IFSB standards and guidance notes.[23]

Additionally, IBs have some fundamental differences with regard to their governance framework. In IBs, the board of directors is required to safeguard the interests of the investment account holders (IAH) along with those of the bank's shareholders. A Sharīʿah committee is an additional layer in the governance hierarchy of Sharīʿah-compliant banks. The key role of the Sharīʿah committee in an advisory capacity is to review and approve an IB's policies, products and services, and advise on matters related to Sharīʿah compliance across all its businesses and operations. This end-to-end compliance with Sharīʿah principles necessitates Sharīʿah compliance and Sharīʿah internal audit functions.

The above-mentioned differences in the operations of IBs with regard to Sharīʿah governance, additional risks and related capital requirements should be factored into an RBS framework for Islamic banking. However, that framework should be aligned with and take account of the size of the Islamic banking sector, its share of the total banking assets, and the comprehensiveness of the regulatory framework in a jurisdiction.

2.3 RBS Practices in Some IFSB Jurisdictions

There is no fixed or single model for an RBS framework that could be adopted by all RSAs. The RBS framework needs to be tailored for each RSA, depending upon various factors. These include, for instance, the size and complexity of the Islamic banking

[23] IFSB-1: *Guiding Principles of Risk Management for Institutions (Other than Insurance Institutions) Offering Islamic Financial Services*; GN-2: *Guidance Note in Connection with the Risk Management and Capital Adequacy Standards: Commodity Murâbahah Transactions.*

sector, economic and technological trends, the impact of regional and international market developments, and so on.

Saudi Arabia

Based on a review of the literature and learning from various RBS frameworks, the Saudi Central Bank has developed a number of principles that are a useful reference when developing an RBS framework for a jurisdiction's Islamic banking sector. They are:

- Unified view of risk assessments: The supervisor should create one common and integrated view of a supervised entity and the overall banking industry.
- Continuous and dynamic monitoring: Risk assessments must be continuous and dynamic to ensure that changes in both micro and macro risks are identified early, and that any necessary remedial actions are taken on a timely basis.
- Accountable supervision: The RBS framework should clearly define those individuals who are responsible for understanding the risks and control profile of a bank.
- Forward-looking risk assessment: The RBS framework should operate on the basis of a forward-looking supervision, where supervisors focus on an assessment of the potential future outcomes of supervised entities' risks and controls, instead of on historical results.
- Deep knowledge of risk drivers: Supervisors need to understand the drivers of risk, and to consider these drivers when reviewing a supervised entity's business model, significant activities, strategic direction and macro developments in order to build the bank's risk profile.
- Risk-based intervention: The level, frequency and intrusiveness of supervisory scrutiny is determined by the bank's final risk assessment.
- Quantitative and qualitative assessment: The final risk assessment includes the results of the quantitative and qualitative risk factors summarised in the bank's risk profile.
- Consolidated supervision: The risk assessment takes into account all risk exposures (micro and macro), regardless of whether the risks arise in the supervised entity itself, in the parent conglomerate or in a subsidiary (either domestic or foreign).
- Board and senior management responsibilities: A supervised entity's board of directors and senior management are accountable for overseeing the entity's risk appetite, risk management, controls, and compliance with governing legislation. This could be achieved by close interaction between the supervisors and the people responsible for establishing governance and internal control in the banks.

United Arab Emirates

In the United Arab Emirates (UAE), the Dubai Financial Services Authority (DFSA) regulates the full range of financial services within the Dubai International Financial Centre (DIFC), including Islamic banking and finance, and is considered a global

pioneer in operating a risk-based supervision framework[24] based on the following principles:[25]

- Relationship building with financial institutions: The DFSA seeks to establish and maintain an ongoing dialogue with a financial institution's senior management in order to develop and sustain a thorough understanding of the institution's business, systems and controls.
- Establishing and operating a risk assessment framework: The DFSA aims to identify and target areas that pose the highest risks to its objectives. It adopts a continuous risk management cycle comprising the identification, assessment, prioritisation and mitigation of risks. General risk factors are also included in the risk management process, including external factors that apply either to particular sectors of the regulated community or to the entire community.
- Supervisory tools: The DFSA has a range of supervisory tools available to diagnose and monitor risks, and to prevent them from occurring. It chooses appropriate tools for each situation, with a view to cost-effective regulation for the DFSA and the financial institutions, and to preserve and enhance the marketplace. Increasingly, the DFSA uses thematic reviews as a key tool to assess risk in the marketplace.
- International cooperation: The DFSA works closely with international regulators – in particular, with home regulators of entities and individuals. The focus of this cooperation is to ensure that mutually satisfactory standards are maintained and to promote the exchange of information.
- Anti-money laundering and know-your-customer: The DFSA places great emphasis on adherence to anti-money laundering and know-your-customer (AML/KYC) regulations. The DFSA has done a self-assessment exercise on its compliance level versus the previous version of the Basel Core Principles (2006). In fact, it believes that it must continue to fine-tune its risk-based approach so that it can consider this in its business plan for 2019/20.

In addition, the Prudential–Investment, Insurance Intermediation and Banking Business Module (PIB) of the DFSA Rulebook offers a detailed framework of prudential rules for banking business, covering calculation of capital resources, credit risk, market risk, liquidity risk, group risk and operational risk. The PIB module also specifies the prudential requirements for firms undertaking Islamic financial business.[26]

Nigeria

In Nigeria, the Central Bank of Nigeria (CBN) published guidelines for the regulation and supervision of institutions offering non-interest financial services in that country,[27] including non-interest banks (NIBs). In fact, two main aspects of the RBS framework have been highlighted in that document, as follows:

[24] As part of DFSA's business plan for 2019/20, which is based on implementing delivery, sustainability, engagement and innovation strategies, DFSA believes that it must continue to fine-tune its risk-based approach to make appropriate use of its supervisory resources

[25] https://www.dfsa.ae/en/What-We-Do/Supervision#About-Supervision

[26] For instance, with regards to authorised firms carrying on Islamic financial business, there are additional matters that should be included in their report to the DFSA which are in the Islamic Finance Rules (IFR) module. For instance, there is a need to consider the relevant provisions when calculating their credit risk and market risk for Islamic contracts and DCR capital requirement: https://dfsaen.thomsonreuters.com/rulebook/prudential-investment-insurance-intermediation-and-banking-module-pib-ver3604-20

[27] https://www.cbn.gov.ng/Out/2011/pressrelease/gvd/Non-Interest%20Banking%20Guidelines%20June%2020%202011.pdf

- Profit-sharing investment accounts:
  1. Ensuring that relevant disclosures are made to PSIA holders in a timely and effective manner, and ensuring the proper implementation of investment contracts.
  2. Informing their prospective PSIA client(s) operating under profit-sharing/loss-bearing contracts, in writing, that the risk of loss rests with the client(s) and that the institution will not share in the loss unless there is proven negligence or misconduct for which the institution is responsible.
  3. The possibility of maintaining a profit equalisation reserve (PER), which would serve as an income smoothing mechanism and risk mitigation tool to hedge against volatility of returns to IAH. NIBs may also maintain an investment risk reserve (IRR) to cushion against future losses for PSIA holders.
  4. The basis for computing the amounts to be appropriated to the PER and IRR should be pre-defined and disclosed.

- Risk management: The NIBs are required to put in place appropriate policies, systems and procedures to identify, measure, monitor and control their risk exposures. In addition, they must institute a risk management system that recognises the unique risks they face, such as displaced commercial, fiduciary, transparency, reputational, equity investment and rate-of-return risks.

Malaysia

In Malaysia, Bank Negara Malaysia (BNM) already employs a very well-developed risk-based supervisory regime. In fact, in 2013 the IMF and the World Bank published a document called "Detailed Assessment of Basel Core Principles for Effective Banking Supervision",[28] in which the following were emphasised:

> "The supervisory approach and practices for Islamic banks at the BNM are very similar to conventional banks. The only major difference is that, in accordance with the risk-based supervisory framework, an additional operational risk (i.e., that of Sharī`ah compliance) is assessed for Islamic banks. This risk is analysed in two ways: first, as a compliance risk embedded in every significant activity; and second, as an overarching operational risk for the whole bank."

In addition, the BNM's *Financial Stability Review* (2H 2019)[29] highlights the main risks arising from commodity trading underpinning Islamic financial transactions. The document also details the risk management practices adopted in mitigating both operational risk and commodity market risk under the umbrella of RBS in full-fledged Islamic banks and Islamic windows.

[28] Malaysia: Publication of Financial Sector Assessment Program Documentation – Detailed Assessment of Basel Core Principles for Effective Banking Supervision: https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Malaysia-Publication-of-Financial-Sector-Assessment-Program-Documentation-Detailed-40373

[29] https://www.bnm.gov.my/ar2019/files/fsr2019h2_en_full.pdf

2.4 RBS Framework for Effective Monitoring of Technological Advancements in Islamic Banking Operations

The past decade will be remembered as a game changer in the financial services industry, due to the extensive application of IT-based solutions, both for ease of doing business and for customer-oriented services. The advancements in IT have impacted the banking industry in numerous ways, including: (i) the role of BigTech companies; (ii) FinTech and digital banking; and (iii) the e-regulation and e–supervision role of BigTechs.

2.4.1 BigTech

The non-banking BigTech companies (Facebook, Microsoft, Google, etc.) have introduced banking services such as cash wallet, transfer of funds, retail funding solutions, and so on. These firms leverage their technological advantages and the data they collect on their large pre-existing customer base while rendering their primary business. On the basis of these dual advantages, they add rendering financial services to their value chain. These alternative banking options offered by BigTechs have created additional competition and challenges for traditional banks, including IBs, which now need to align their strategies, business models and operational efficiencies with these emerging trends. Consequently, while developing RBS frameworks, supervisors should account for the additional strategic and operational risks created as a result of the BigTechs that may decide to offer Islamic banking products.

2.4.2 FinTech and Digital Banking

FinTechs as technology-enabled innovators and disruptors in financial services have introduced new business models, applications, processes and products to the provision of financial services. In addition, technological advances now make it possible for IBs to provide digital banking services. Bank Negara Malaysia, for instance, announced it will be issuing up to five licences to applicants to establish either digital conventional or Islamic banking business. IBs are now offering blockchain and distribution ledger technologies that facilitate multiple chains of transactions with unique transaction identifiers. In addition, IT has provided end-to-end data management solutions for complex transactions with perfect accuracy and a trail. An effective RBS framework is required to capture the risks attributable to the extensive use of technology, such as data protection risk, cyber-security risk and other related sub-risks.

2.4.3 E-regulations and E-supervision

The substantial application of FinTech and digital banking across the financial sector has seen RSAs move from traditional off-site supervision and on-site inspection to e-supervision. The e-supervision inherently requires an umbrella of e-regulations. The upcoming RBS frameworks will be based on considerable application of IT and digital solutions. This will be mandatory to trigger timely supervisory intervention while supervising an Islamic banking sector supported largely by FinTech and a digital banking environment.

There is an increased need, therefore, for RSAs to enhance compliance and monitoring activities, and improve real-time surveillance, in order to enhance

regulatory outcomes through Supervisory Technology (SupTech). From a supervisory point of view, most RSAs have made huge investments in technology to enhance automated analysis of examination and enforcement. SupTech-related activities have been stepped up in the last decade or so, and it is envisaged that the momentum will be heightened to enable supervisors to cope with the dynamics of the fusion of technology and finance that is rapidly unfolding today. SupTech in the context of RBS enhances supervisory operational efficiency and effectiveness through automation in data collection, analytics and management. For instance, given the large amount of granular data that supervisors receive and analyse, SupTech makes it easier to flag anomalies, and to automate data cleaning, consolidation and validation in real time, thus providing quality assurance.

There are notable examples of how technology has been used to enhance RBS through SupTech implementation.[30] Although not specifically for Islamic banking, a few jurisdictions where Islamic banking is practised have implemented SupTech in one form or another. For instance, Bangko Sentral Ng Pilipinas (BSP) has developed an Application Programme Interface (API)[31] through which banks under its supervision report highly granular data that can be visualised, customised and automatically validated on a near real-time basis. This has greatly reduced the time, effort and compliance costs required for cross-validation of data and reconciliation of the increasing number of items hitherto generated based on an MS Excel template. It has also reduced the frequency of communication between BSP officials and those of reporting financial institutions in order to clarify errors.[32] A different approach to this method is the data pull approach implemented in Rwanda,[33] in which the requisite data prepared in a pre-specified format are pulled from a financial institution's system. Once in its own database, the RSA subsequently standardises and transforms the extracted data into a format suitable for its supervisory activities.

Two other supervisors, the UK's Financial Conduct Authority (FCA) and the Monetary Authority of Singapore (MAS), are notable examples that have implemented automated or machine-readable regulation in which the production of supervisory reports involves no human intervention. Rather, supervisory data flow seamlessly from the reporting financial institutions' databases to the RSAs' supervisory dashboards.[34] In fact, MAS is also integrating all databases of supervisory agencies by unifying access through an API in order to maximise data ustilisation and minimise data redundancies. This improved data collection should greatly impact on predictive data analytics. As such, stress testing and crisis simulation, credit risk monitoring and simulation, and identifying anomalies and suspicious transactions, etc., could be automatically conducted, analysed and visualised in real time for effective supervision.

Although the use of innovative technology for financial supervision has a lot of benefits for both the supervisory authorities and the supervised financial entities, there are also potential risks. Supervisory authorities need to pay more attention to these risks, which

[30] Toronto Centre (2018). *SupTech: Leveraging Technology for Better Supervision*: https://res.torontocentre.org/guidedocs/SupTech%20-%20Leveraging%20Technology%20for%20Better%20Supervision%20FINAL.pdf
[31] APIs connect software programs and allow them to communicate based on programming codes.
[32] Simone di Castri, Matt Grasser and Arend Kulenkampff (2018). "An API-based Prudential Reporting System for the Bangko Sentral ng Pilipinas (BSP): R^2A Project Retrospective and Lessons Learned". Available at SSRN: https://ssrn.com/abstract=3596276 or http://dx.doi.org/10.2139/ssrn.3596276
[33] At present, there is only one licensed Islamic microfinance bank operating in Rwanda.
[34] Toronto Centre (2018). *Note on Risk-Based Supervision*, p. 18. Retrieved on 25 August 2019 from: https://res.torontocentre.org/guidedocs/Risk-Based%20Supervision%20FINAL.pdf

include (but are not limited to) technical, data quality, legal, operational, reputational, resource, internal support and practical issues.[35]

SECTION 3: SURVEY RESULTS AND DISCUSSION

3.1 Assessment of the Risk Management Process in the RBS Framework and Islamic Banking

Banking supervisors across the globe have adopted a number of supervisory approaches for instituting an RBS framework. Notable among these are the RBS model of OSFI in Canada, the Central Bank of Ireland's Probability Risk and Impact SysteM (PRISM), APRA's PAIRS model in Australia, and the RBS models of the Federal Reserve Bank in the United States and the Prudential Regulation Authority in the United Kingdom. Some of these frameworks are intensively data-driven, while others are based on a combination of data, assessment of qualitative factors, and professional judgment. Some supervisors have focused on monitoring a set of risks and key areas in the banks, such as with the CAMEL approach, which includes capital adequacy, asset quality, management's performance, earnings and liquidity. Later on, some supervisors added "sensitivity" and "compliance", to come up with CAMELSC.

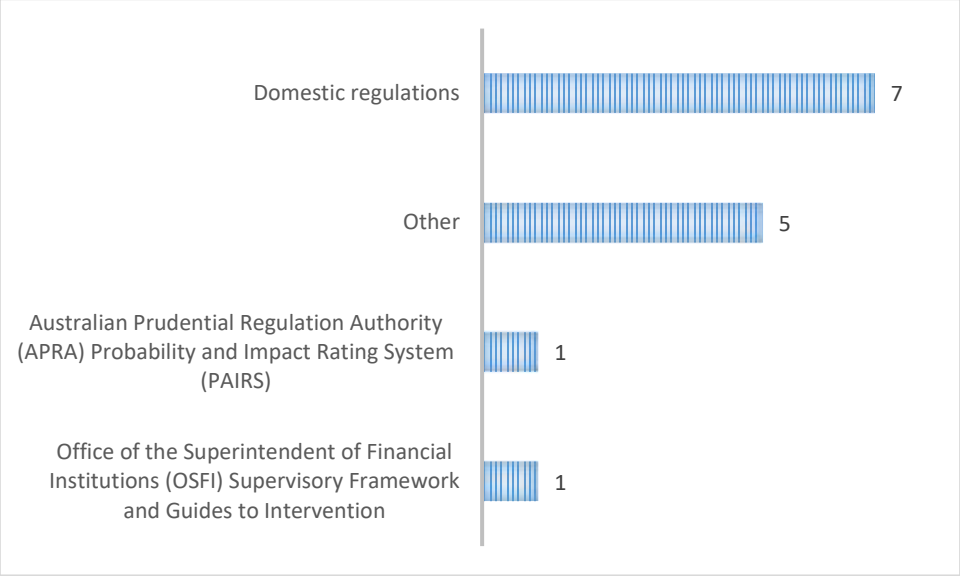
A question in the survey asked the RSAs to indicate what RBS model exists in their jurisdiction. Responses obtained indicated that all the RSAs have some type of RBS model in place, and that its applicability takes into account the relative significance of activities of the IBs vis-à-vis their business objectives. As shown in Figure 3.1, seven of the 14 RSAs that responded to the related question indicated that they have adopted these known RBS frameworks, with some modifications to suit their domestic banking sector requirements. For instance, one RSA indicated that, from January 2021, it will adopt its own internally developed supervisory assessment framework (SAFr). In addition to the CAMEL factors, the SAFr specifically takes into cognisance the systemic importance and risk profile of supervised financial institutions in crafting peculiar and appropriate supervisory plans. In other words, the supervisory intensity is hinged on the supervised entity's risk profile and its likely impact on the financial system.

Another RSA indicated that it already has in place a risk assessment framework (RAF) used to assess different risks and their mitigants. The RAF is modelled on the CAM(M)EL framework, as defined earlier, with the latter having an extra "M" denoting money laundering and terrorism financing (ML/TF) risk.[36] Another RSA adopts what it calls the CMORTALE methodology, which focuses on the assessment of the following elements: capital adequacy, management quality, operational risk, risk management, transparency and disclosure, asset quality, liquidity and earnings.

[35] For broader details on these risks and implications of SupTech for supervised entities, see D. Broeders and J. Prenio (2018). "Innovative Technology in Financial Supervision (SupTech) – the Experience of Early Users", *FSI Insights on Policy Implementation No. 9*: https://www.bis.org/fsi/publ/insights9.pdf

[36] A joint working paper by the IFSB and the Arab Monetary Fund (AMF) was issued in 2019. The paper concluded that the IBs are not differently susceptible to ML/FT risks compared to their conventional counterparts.

Figure 3.1 RBS Models Adopted by Respondent RSAs



Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

Five RSAs also indicated that they have adopted RBS models other than those provided as options in the survey. Only one RSA apiece has adopted the OSFI and PAIRS models. The open-ended responses provided indicate that all the RBS frameworks followed by the various supervisory authorities were focused on the key objective of obtaining reasonable assurance by the supervisors that the critical risks attributed either to the individual IB or to the sector as a whole are properly mitigated and monitored on a timely basis.

Regardless of the level of Islamic banking development, generally RSAs in jurisdictions where Islamic banking is practised have adapted an existing RBS framework or developed their own regulation while also ensuring that it accommodates jurisdictional peculiarities. This suggests that while RSAs are keying in to the global idea of the need for such an RBS framework, they are also making provisions to include those risks that are unique to IBs in their risk assessment frameworks.

The RSAs were asked to indicate the various risks that IBs in their jurisdictions are faced with. Basically, there are two categories of risks to which banks, including those in the Islamic banking sector, are exposed. First are the risks related to the business model of IBs, as reflected in the size and complexity of their operations, governance and management practices. These risks refer to micro-level risks, which may also be attributable to the peculiarity of IBs – for instance, Sharīʿah non-compliance risk. The second category of risks includes those attributable to the entire banking sector, and which are generally referred to as macro-level risks – for instance, risks due to changes in the real economy.

As shown in Figure 3.2, the RSAs, based on their supervisory experience, indicated that IBs are faced with unique risks, including: Sharīʿah non-compliance risk, displaced commercial risk, rate-of-return risk and equity investment risk. These four risks are all considered to be key risk areas by less than half of the RSAs that responded to the survey. Perhaps the small number of jurisdictions indicating exposure to rate-of-return

risk, equity investment risk and DCR could be due to the fact that profit-sharing modes account for only about 5% of total Sharī`ah-compliant financing, according to the IFSB PSIFIs database.

Figure 3.2 Key Risk Areas Faced by IBs in Various Jurisdictions[37]

Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

Moreover, in some jurisdictions with no formal or specific categorisation of these peculiar Islamic banking risks, it is likely that they are embedded in other broad risk categories as indicated by one of the responding RSAs. Another plausible reason could be that most jurisdictions permit smoothing practices via both the profit equalisation reserves and investment risk reserves.[38] The practice of PER, for instance, serves as a buffer against possible future low-income distribution to UPSIA holders and consequent withdrawal risk.[39] IBs may also use smoothing to transfer variability of profits from UPSIA holders to shareholders. This practice has been characterised as "displaced commercial risk" by the IFSB.

Notwithstanding, the prevalence of these unique Islamic banking risks in some jurisdictions is also noteworthy – especially, for instance, Sharī`ah non-compliance risk, which is also considered as operational risk in some jurisdictions. Other than Sharī`ah non-compliance risk, three other risks relate to financing contracts on the profit-sharing modes of *muḍārabah* and *mushārakah*. A notable unique IB risk in this regard is rate-of-return risk. In the near term, there would be likely increased rate-of-

[37] The frequency distribution does not necessarily imply the intensity of the respective risks indicated. The intent of the question is to capture the prevalence of the risks.
[38] PER comprises amounts appropriated out of gross income from the *muḍārabah* to be available for smoothing returns paid to the IAH and the shareholders, and consists of a PSIA portion and a shareholders' portion. See IFSB-15: *Revised Capital Adequacy Standard for Institutions Offering Islamic Financial Services [Excluding Islamic Insurance (Takāful) Institutions and Islamic Collective Investment Schemes]*. IRR comprises amounts appropriated out of the income of IAH, after deduction of the *muḍārib* share of income, to meet any future losses on the investments financed by the PSIA. See IFSB-15 (2015).
[39] A.A. Adewale and S. Archer (2019). WP-10-05-19: *Risk Sharing in Islamic Banking*. *IFSB Working Paper Series*: www.ifsb.org/publications

return risk and, by extension, DCR, given that there is expected pressure on earnings of the IBs due to the sudden cessation of or restriction in economic activities in the real sector as a result of COVID-19.

The prevalence of the unique risks to the IBs as key risk areas in various jurisdictions makes it imperative that any RBS framework adopted by RSAs should include such peculiarities in its risk assessment. Doing otherwise may increase the susceptibility of IBs to institutional failure, as the inherent risks peculiar to their unique activities may either be totally discountenanced or inappropriately captured in their risk assessment. Given the fact that most respondent RSAs follow domestic regulations in the development and implementation of their RBS such concerns are expected to have been catered for.

The survey also asked the RSAs about the exposure of IBs in their respective jurisdictions to credit, market, operational, liquidity, etc. risks. Though these risks are not unique to IBs, they may nonetheless have inherent peculiarities given the operational structure of IBs and the uniqueness of Islamic contracts. As shown in Figure 3.2, most respondent RSAs (specifically, 13 out of 15) indicated that credit risk is a key risk area in the Islamic banking sector in their respective jurisdictions. In Islamic banking, credit risk may arise based on an underlying Sharīʿah-compliant contract regardless of whether the IB plays the role of a financier, supplier or partner. For instance, an IB may face credit risk exposures in its financing activities in terms of accounts receivable in *murābahah* contracts, counterparty risk in *salam* contracts, accounts receivable and counterparty risk in *istisnā* contracts, lease payments receivable in *ijārah* contracts, and *sukūk* held in the banking book. The inherent credit risk may therefore be in the form of outright default, downgrading, or concentration that may arise during settlement and clearing transactions.

Other forms of inherent credit risk that perhaps explain its relative prominence as a key risk area in Islamic banking are capital impairment, risk transformation, and prohibition of penalty in the event of default by a counterparty obligor or guarantor. For instance, in a profit-sharing mode of financing by an IB based on either *mushārakah* or *muḍārabah* financings, the capital invested by the IB is not considered a debt. As such, repayment is not guaranteed, making the IB explicitly exposed to capital impairment risk in the event of loss on the investment.[40]

Furthermore, risk transformation from market risk to credit risk may take place in a *murābahah* contract, or in both *muḍārabah* and *mushārakah* contracts. For instance, in the case of the two latter contracts, transformation from credit risk to debt is predicated on proven negligence or misconduct on the part of the *muḍārib* or managing partner in a *mushārakah* contract. Similarly, in jurisdictions where imposing a penalty for default or procrastinated payment is prohibited, the incidence of credit risk may be heightened due to the increasing probability of default.

The prominence of credit risk as a key risk area may also be explained by the likely expected increase in non-performing financings due to the impact of COVID-19. This arises from the financing exposure of the IBs to the real sector, especially wholesale and trade, and to household sectors whose economic activities were either stopped or

[40] Capital impairment risk, especially from the use of profit-sharing contracts, explains the high risk weights the underlying contracts attract.

restricted. Such financing exposure portends increased pressure on earnings, a significant increase in credit risk and the amount of expected credit loss to be recognised, especially given the peculiarities of Islamic banks (varying stages of contract, treatment of profit- and loss-sharing contracts).

Operational risk was indicated by 12 out of the responding 15 RSAs as a key risk area faced by IBs in their respective jurisdiction. Operational risk may arise from inadequate or failed internal processes, people or systems, or from external events. The relative prominence accorded operational risk by responding RSAs may be explained by the fact that it may also trigger some other risks, such as withdrawal risk or reputational risk, if an IB, by virtue of its operation, fails in its fiduciary responsibility to its customers or is found to be Sharī`ah non-compliant.

IBs may also be exposed to legal risk arising from legal uncertainty in interpretation and enforcement of contracts notwithstanding Sharī`ah compliance. IBs' exposure to legal risk may even be greater in jurisdictions where domestic legal regulation and tax systems do not cater for the specificities of IBs. Also, an IB may be exposed to operational risk in terms of its contract drafting and execution, thus putting it in a very awkward position should there arise any disputes with its customers. Due mainly to the inherent problems in litigation involving Islamic finance matters in civil law courts, there have been calls to explore the feasibility of an alternative dispute resolution framework in Islamic finance.[41]

The pace of digital transformation of the financial ecosystem which began some years back has been quickened by the COVID-19 outbreak, and IBs are not immune to this "new normal". To enhance their operational efficiency, competitiveness and contestability, IBs now need to digitalise their workplaces via deployment of state-of-the-art technology, and to attract the right talents with the specific requisite human capital. However, introducing new technologies will also increase IBs' susceptibility to technology risk, with likely implications for customer protection and stability of the IFSI. For example, technology risk may materialise in the event of a cyber-attack on the operation of a cloud service provider, data breach, connectivity breakdown, etc. In fact, the General Council for Islamic Banks and Financial Institutions' (CIBAFI) Islamic Global Bankers' Survey of 2019 also ranked cyber risk as the overall number one risk facing Islamic banks.

Liquidity risk was indicated by 10 of the 15 RSAs that participated in the survey. Liquidity risk is the potential loss to IIFS arising from their inability either to meet their obligations or to fund increases in assets as they fall due without incurring unacceptable costs or losses.[42] The responses obtained from the RSAs also reflect those of the IB chief executives who participated in the CIBAFI survey, where liquidity risk was named as a concern in the coming years. This concern might have been aggravated by the delayed cash inflows following the outbreak of the COVID-19 pandemic which necessitated a payment moratorium as part of measures to ease the impact of restricted economic activities on businesses and households. Likely aggressive drawdowns on credit lines by both retail and corporate clients, as well as

[41] E.R.A. Engku Ali, U.A. Oseni, A.A. Adewale and N.R. Mohd Zain (2015). "Dispute Resolution Mechanisms in the Islamic Finance Industry in Malaysia: Towards a Legal Framework", *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilization (ISTAC)*: https://journals.iium.edu.my/shajarah/index.php/shaj/article/view/334
[42] Ibid.

limited avenues for Sharī`ah-compliant liquidity management, are expected to exacerbate short-term liquidity and possibly solvency risk issues for IBs.

Market risk is considered as a key risk by eight of the 15 RSAs that participated in the survey. Market risk stems from losses in on- and off-balance sheet positions arising from movements in market prices – that is, fluctuations in values in tradable, marketable or leasable assets (including *sukūk*) – and in off-balance sheet individual portfolios (e.g., restricted investment accounts).[43] Due to the impact of COVID-19, market losses will also likely increase due to mark-to-market losses on the Islamic banks' financial instruments and assets suffering a price dip. This will no doubt have negative implications for the profitability of the IBs.

In recent years, certain risks have attracted particular attention by supervisors and regulators across the globe, due to emerging trends and concerns about these risks. They include risks associated with AML/CTF practices, environment-related risks, and so on. They are also considered prevalent key risk areas and are included in the "other" category in the survey.

The foregoing analyses indicate that, in addition to facing unique risks, IBs are exposed to non-unique IB key risks such as credit risk, operational risk, liquidity risk, legal risk, and so on. Generally, the responding RSAs do not consider the exposure of IBs to non-unique IB risks to be materially different from that of the conventional banks in their respective jurisdictions. However, the IBs may be affected differently by, and react differently to, these risks, due to the peculiarity of their operational model, exposure to the real sector, complexity of product structure, and contractual relationship with clients. These risks are also expected to become more significant in terms of their specific implications for IBs, due to COVID-19.

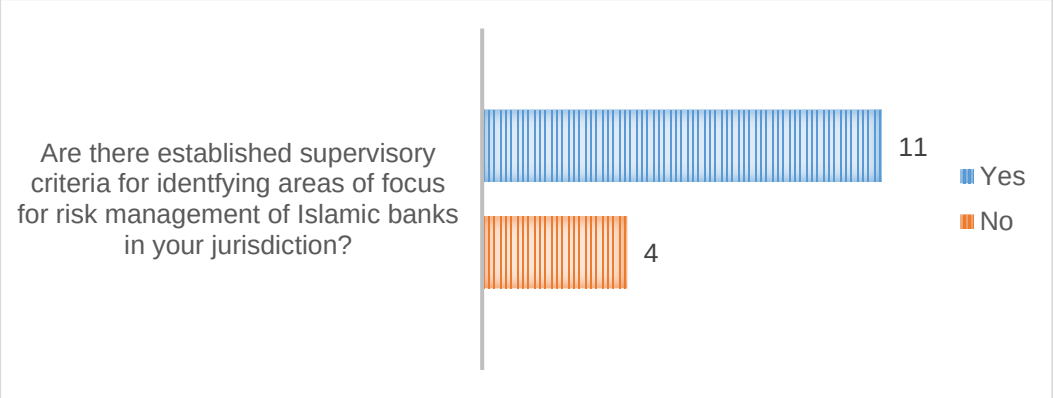
Central to the effectiveness of any RBS framework is identification of the key risk areas, as well as the inherent risks. As shown in Figure 3.3, 11 out of 15 RSAs that participated in the survey indicated that they have established criteria for identifying key risk areas facing the IBs in their jurisdiction. Taking note of the peculiarity of the inherent risks faced by IBs in the key risk areas discussed above, the respondent RSAs stated that such inherent risks are identified via both on-site and off-site supervision. One RSA indicated that both inherent credit and market risks are identified via off-site surveillance, while operational risks peculiar to the IBs – especially Sharī`ah non-compliance risk – are identified via on-site examination of IBs.

Another RSA stated that there are predetermined parameters put in place to identify inherent risks peculiar to the IBs, especially Sharī`ah non-compliance risk. Reports on these parameters are required to be submitted on a quarterly basis as part of an inherent risk assessment process in the jurisdiction, except for reports on liquidity returns which are reviewed on a monthly basis. In addition, risk profiles of IBs are assessed semi-annually as an extension of the IB examination report so that significant developments are noted and directions of risk and associated ratings are updated accordingly. During annual financial approval, all inherent risks and related disclosures are thoroughly checked and analysed, including rate-of-return risk, DCR and Sharī`ah non-compliance risk. Further risk profiling of IBs is undertaken by the banking

[43] Ibid.

examination department of the RSA before commencement of the on-site examination of banks.

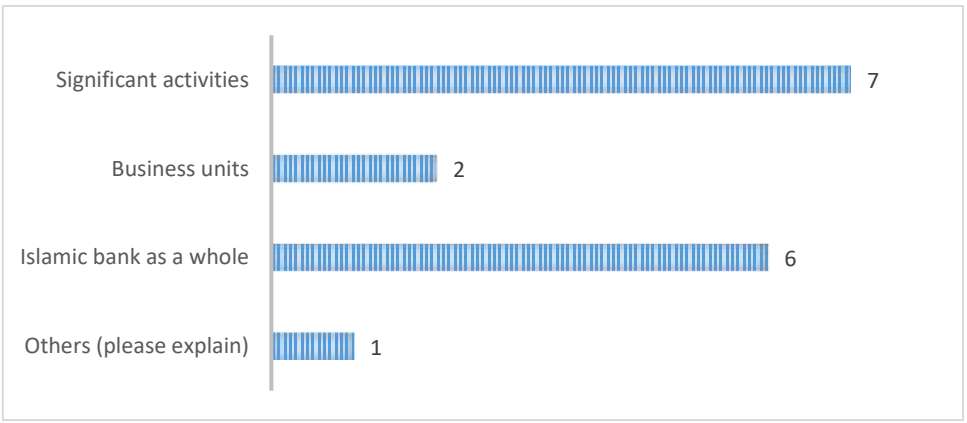
Figure 3.3 Available Established Criteria for Identifying Key IB Risk Areas



Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

A further probe sought to know which established criteria are used to identify the key risks facing Islamic banks in their respective jurisdictions. Responses obtained indicated that a combination of various criteria is used (see Figure 3.4). Seven RSAs, especially those from jurisdictions where Islamic banking is of systemic significance, indicated that the main criterion used is significant activities on the basis of which examination strategy is developed. Such activities are usually the main line of business or unit fundamental to the ability of an IB to meet its business objectives. Depending on the RBS model adopted by an RSA, the identification of such significant activities may be based on the strategic intents of an IB as reflected in, for instance, capital allocation, financing concentration, or potential for material loss and capital impairment. Otherwise, a judgmental criterion – for instance, implications for an IB's reputation – may be used. Six RSAs, especially those without a systemically significant Islamic banking sector, also indicated that an IB as a whole is considered as the basis for identifying key risk areas. In this case, based on the guidelines provided by the respective RSAs, methodologies for identifying key risk areas also take due cognisance of the complexity and peculiarity of IBs' operations.

Figure 3.4 Criteria Used to Identify Key Risks Facing IBs



Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

In response to the question as to whether RSAs have established criteria for assessing inherent risks facing IBs in their jurisdiction, eight RSAs responded in the affirmative, while six responded otherwise. Further responses to the related open-ended question indicated that RSAs assess the IBs' activities' inherent risks via both quantitative and qualitative parameters. The inherent risk assessment process is risk-oriented, comprehensive and structured, and based on concepts of proportionality and materiality.[44]

RSAs were also asked to briefly describe, either in general or in specific terms, the various risk mitigating controls, management and governance put in place pertaining to the peculiar inherent risks faced by IBs in their respective jurisdictions. Responses obtained indicated that specific mitigating controls are put in place to cater for the peculiar risks facing IBs. In most cases, Sharī'ah non-compliance risk is monitored through the supervision of the Shari'ah supervisory board, a Sharī'ah internal audit, a Sharī'ah compliance division that monitors the bank's compliance with Shari'ah requirements, and other procedures in line with an RSA's rulebook, Sharī'ah governance regulatory framework, and the IFSB standard on Sharī'ah governance.[45] Generally, the RSAs view that the role of the Sharī'ah board is very significant in ensuring the effectiveness of the RBS in reducing the incidence of Sharī'ah non-compliant risks in the IB sector in various jurisdictions.

Regarding mitigating rate-of-return risk and DCR, different practices exist. For instance, an RSA stated that regulations used for the conventional banks on interest rate risk in the banking book are adapted for the rate-of-return risks facing IBs. In other RSAs, both the DCR and the rate-of-return risk are mitigated via smoothing practices by building PER and IRR, which serve as buffers against possible future low-income distribution to UPSIA holders or to cover losses on investments of UPSIA funds.

3.2 Assessment of the Quality of Risk Management and Compliance Functions

3.2.1 Comprehensiveness of Risk Assessment

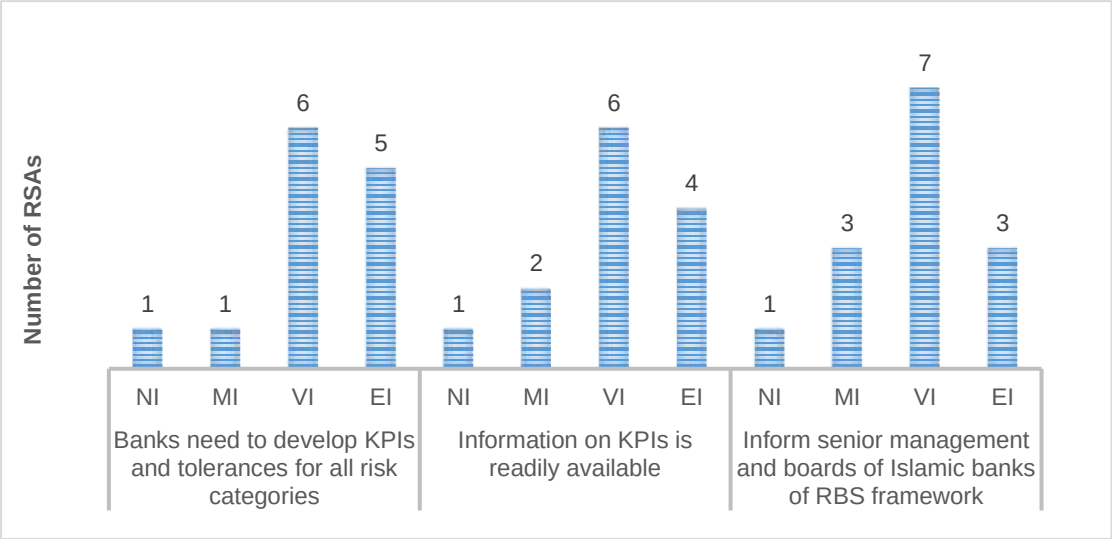
"Comprehensiveness of risk management" refers to the risk management by an institution itself which considers both its financial strengths and risks. Calculated risks (e.g., credit risk, market risk, operational risk, rate-of-return risk and equity investment risk), on a category-by-category or sector-by-sector basis, are assessed in a comprehensive risk management framework. Financial institutions, including banks, may engage in aggressive business activities in order to maximise earnings or preserve competitiveness. This can consequently increase their risk exposure. Therefore, it is imperative for an institution to achieve a balance between its risk appetite and tolerance levels to ensure its financial soundness. One way to achieve this is through developing key performance indicators (KPIs) in a comprehensive risk management system, while considering risk appetite and tolerance levels as part of its

[44] Application of RBS inherent risk parameters with due consideration for the peculiar business model and systemic significance of the IBs in a manner commensurate with their risk profile and without compromising the achievement of the common objective of the RBS framework.
[45] IFSB 10: *Guiding Principles on Shari`ah Governance Systems for Institutions Offering Islamic Financial Services.*

strategic objectives. The information on implementation of KPIs must be readily available to senior management levels of banks, including IBs, to enable them to monitor and assess the status of a financial institution on a periodic basis and to inform the board of directors accordingly of their findings.

The survey asked the RSAs to rank the KPIs to understand the specific characteristics that are needed in order to implement an RBS framework for banks, including IBs, among IFSB member jurisdictions. Figure 3.5 shows that most RSAs consider it "very important" or "extremely important" that banks develop KPIs and tolerance levels for all risk categories. Similarly, most RSAs also view it as "very important" or "extremely important" that information about those KPIs should be readily available, as mentioned.

Figure 3.5 Specific Characteristics of IBs for Implementing an RBS Framework



Note: MI = Moderately important, VI = Very important, EI = Extremely important.
Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

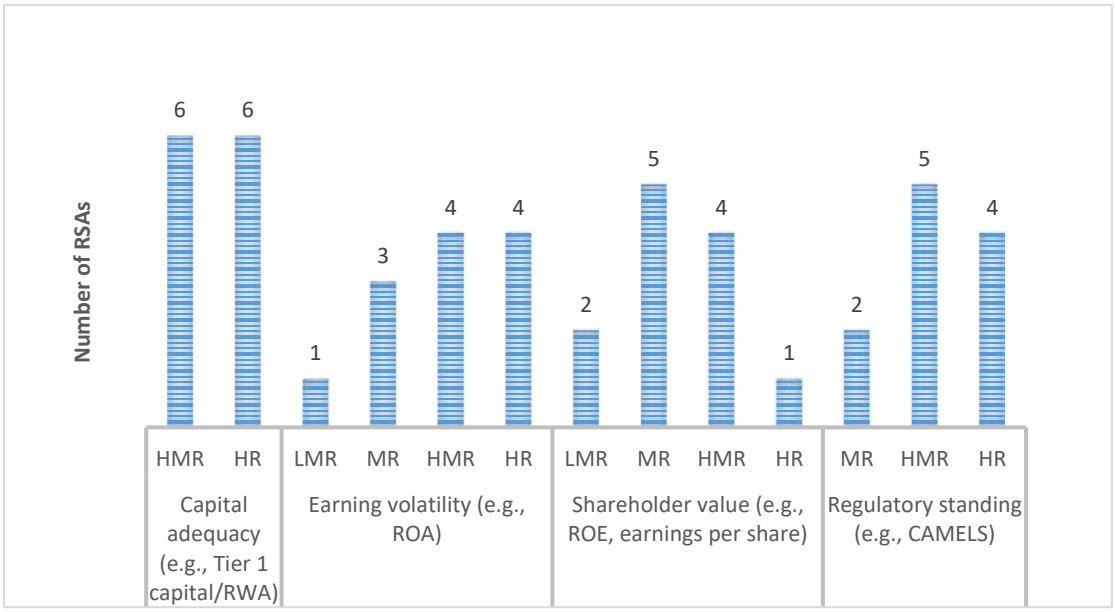
The survey also sought the views of the respondent RSAs in terms of risk appetite and tolerance levels by type of KPIs in order to understand their priorities on those KPIs. In an efficient risk appetite framework, banks should be able to list identifiable risks and define those risks so that they are effectively managed, thus maximising their earnings and profit. KPIs must be translatable into measurable categories, considering the risk appetite framework. KPIs in banking operations generally can be defined as quantitative values which provide inferences of how efficiently and effectively strategic objectives are achieved by a bank. Figure 3.6 shows that six and four RSAs, respectively, consider that risk appetite levels for core KPIs of capital adequacy and earnings volatility need to be set "high".

From a regulatory standpoint, CAMELS provides a good set of indicators through which trends in capital adequacy ratios (e.g. Tier 1 capital to risk-weighted assets, common equity Tier 1 to risk-weighted assets), earning indicators (return on assets, net profit margin) or shareholder values (return on equity) can be monitored and understood. Assessments based on the CAMELS should have established thresholds with an inherent mechanism for identifying and investigating shifts from "green flag" to "amber flag", as well as escalation in the event of a "red flag". The threshold adopted

should reflect the peculiarity of individual banks vis-à-vis its size, business model, interconnectedness, complexity, and lack of substitutability, as well as whether it is a D-SIB.

Figure 3.6 also shows that most respondent RSAs set the risk appetite level as “highly moderate” or “moderate” for KPIs for shareholder values (e.g. ROE, earnings per share) or regulatory standing (e.g. CAMELS).

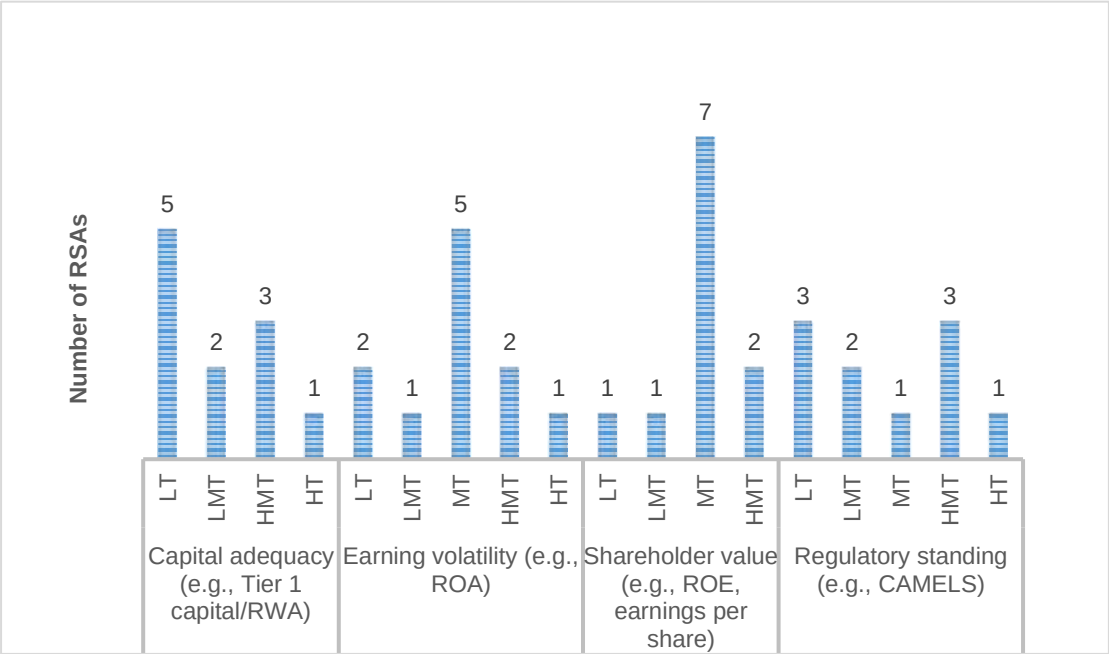
Figure 3.6 KPIs and Risk Levels



Note: LMR = Lower moderate risk, MR = Moderate risk, HMR = Higher moderate risk, HR = High risk.
Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

The survey also assesses the views of the RSAs on risk tolerance, which is the amount of risk category (as discussed above) that a bank is willing to accept so that the aggregate effects of risks against the KPIs such as capital, earnings and shareholder value can be managed effectively. Figure 3.7 shows that most respondent RSAs categorised KPIs for capital adequacy and regulatory standing as “lowest tolerance”, while four and six RSAs indicated that setting KPIs for earnings volatility and shareholder value, respectively, should have a “medium tolerance” level.

Figure 3.7 KPIs and Tolerance Levels



Note: LT = Low tolerance, LMT = Lower moderate tolerance, MT = Moderate tolerance, HMT = Higher moderate tolerance, HT = High tolerance.
Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

It is indicative, therefore, that developing KPIs with a framework of tolerance levels for all risk categories is very important for IBs. In addition, there should be a transparent and credible mechanism for ensuring that access to KPI information is readily available to the management and board of directors.

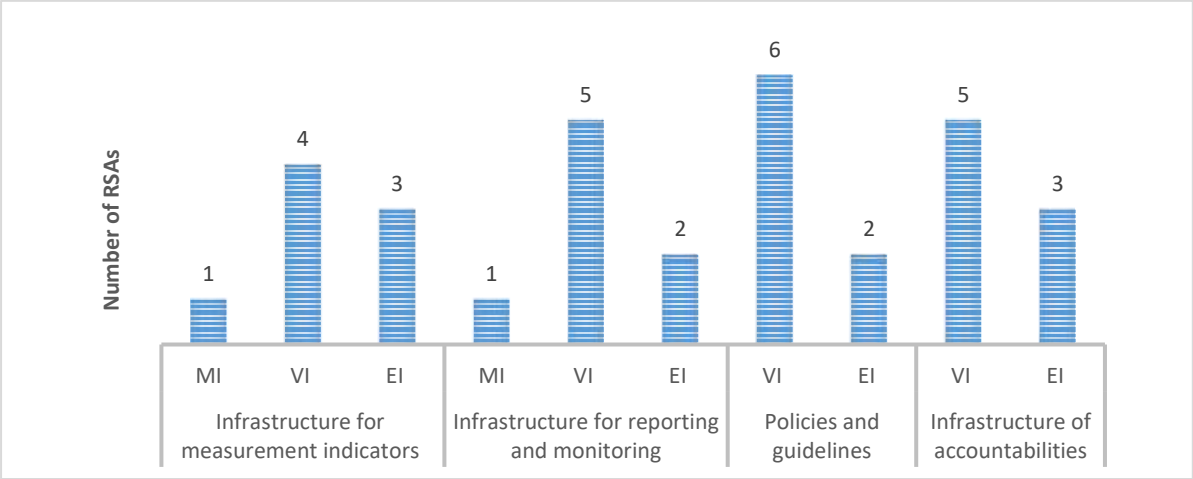
3.2.2 Completeness of Risk Assessment

According to BCBS,[46] "completeness" is defined as a bank's ability to capture and aggregate all material risk data across the banking group. Data should be available by business line, legal entity, asset type, industry, region and other grouping, as relevant for the risk in question, to permit identifying and reporting risk exposures, concentrations and emerging risks. RSAs have the responsibility to collect both qualitative and quantitative data, which are broadly expected to cover all types of risks (e.g. unique and non-unique IB risks). Infrastructure of measurement, reporting and monitoring in order to do this kind of assessment should be available at the bank. Certain guidelines and policies, along with accountabilities of responsibility to do the assessment, should be taken by the bank on a periodic basis.

The survey also asked the RSAs about the initiatives taken by IBs in developing the infrastructure, policies and guidelines for risk measurement indicators to ensure accurate, complete and timely assessment. Figure 3.8 shows that all the measurement indicators for reporting and monitoring, policies and guidelines, reporting and accountabilities are considered as "very important" by most of the respondent RSAs.

[46] Basel Committee on Banking Supervision (2013). *Principles for Effective Risk Data Aggregation and Risk Reporting.* Basel: BCBS.

Figure 3.8 Importance of Risk Measurement Indicators and Infrastructure for IBs



Note: MI = Moderately important, VI = Very important, EI = Extremely important.
Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

The survey results therefore suggest that IBs need to develop infrastructure for measurement indicators, as well as for reporting and monitoring. In this regard, RSAs can provide appropriate policies and guidelines for the IBs in terms of completeness of risk assessment so that they can also develop infrastructure of accountabilities as part of their RBS framework.

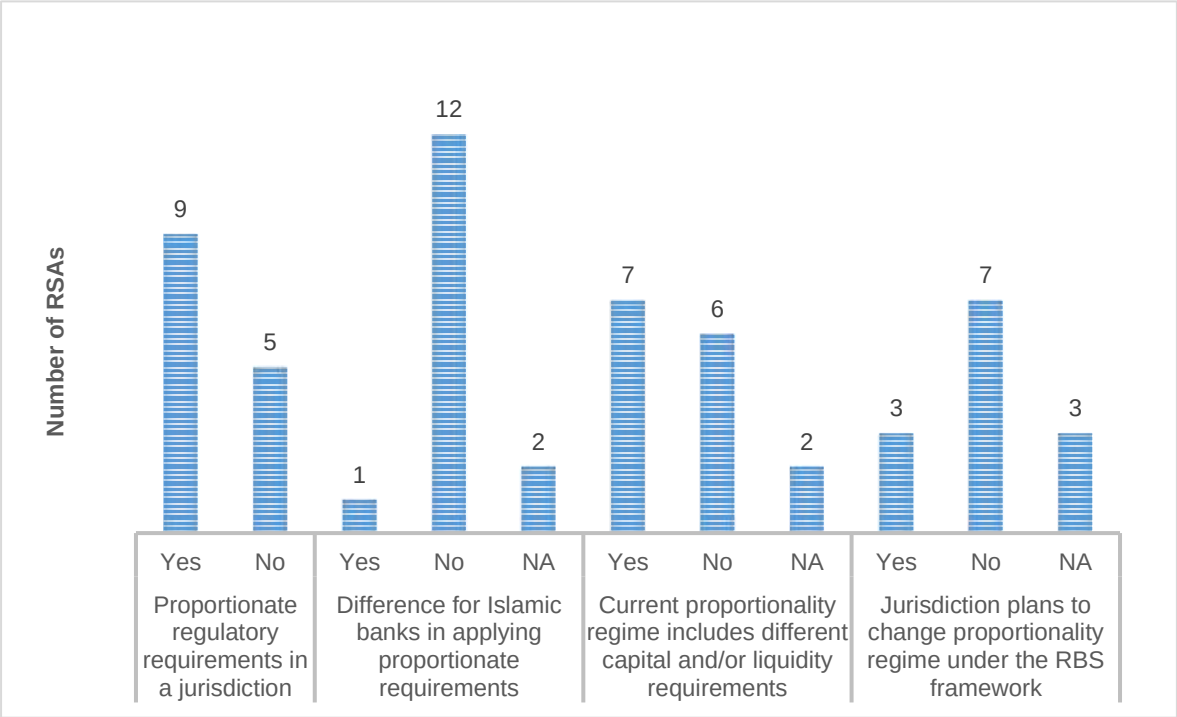
3.2.3 Proportionality

An important feature of international standards, whether issued by the BCBS for conventional banks or by the IFSB for IBs, is that not all their requirements apply to the whole banking system in all jurisdictions. For example, BCBS mentions that its *Basel Core Principles for Effective Banking Supervision* do not require jurisdictions to apply the capital adequacy regimes of Basel I, Basel II and/or Basel III to non-internationally active banks. Basel refers to "proportionality" as tailoring regulatory requirements to non-internationally active banks, especially smaller or less complex ones, which may differ significantly across banks in the same jurisdiction depending on their size or other characteristics.[47] On the other hand, in a jurisdiction with many systemically important banks there will be an increased requirement to obtain a grading of compliance by the respective RSAs.

The survey response finds that nine jurisdictions apply proportionate regulatory requirements, while only one jurisdiction applies separate proportionate requirements for IBs, as indicated by the respondent RSAs. Out of those nine jurisdictions that follow proportionate requirements, seven impose different capital and liquidity requirements based on proportionality (Figure 3.9). The survey results suggest that RSAs vary regulatory requirements based on the business model or the size and nature of the bank, which is also applicable for Islamic banks.

[47] A.P. Carvalho, S. Hohl, R. Raskopf and S. Ruhnau (2017). *Proportionality in Banking Regulation: A Cross-Country Comparison.* FSI Insights on Policy Recommendation No. 1, p. 3. Basel: BCBS.

Figure 3.9 Proportionality Requirements



Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

3.3 Net and Composite Risk Rating in the RBS Process

An RBS framework uses many concepts to assess risks over time, which it then uses to derive a composite risk rating. The key steps are discussed below.

1. A bank has to identify its significant activities in order to assess its risk profile. The significant activities include the lines of business, units or processes that have the ability to meet the institution's business objectives. In Islamic banking practices, the significant activities may include partnership business based on some unique contracts such as *mudharabah* or *musharakah*.

2. In a supervisory framework, banks then need to assess the key inherent risks of each significant activity. As discussed in Section 2 of this working paper, for the Islamic banking system, Sharī`ah non-compliance risk, equity investment risk and rate-of-return risk need to be included in the RBS framework to assess the inherent risks. In this case, the inherent risks in Islamic banking should be focused on a particular Islamic banking activity, regardless of the size of the institution and the quality of its risk management practices. A thorough understanding of the nature of Islamic banking activities and of the underlying contract and environment is essential in identifying and assessing the inherent risks of Islamic banking.

3. Quality of risk management should then be assessed at two levels of control: operational management and oversight functions. Operational management ensures a clear understanding of the inherent risks by the staffs of the bank so that those risks can be managed and controlled in an effective way. Oversight functions

are responsible for providing independent, enterprise-wide oversight of operational management against each significant activity. Another feature of quality of risk management is conducting audit works by the bank in such a way that it enhances the effectiveness and efficiency by reducing the scope of supervisory works and minimising the duplication of effort. Internal audit should be an independent function of a bank and has certain responsibilities. These responsibilities could include assessing the effectiveness of the corporate governance process and reporting to senior management and the board of directors on the bank's work on a regular basis. The key role of the Sharīʿah committee is also important here in an advisory capacity to review and approve an IB's policies, products and services, and advise on matters related to Sharīʿah compliance across all its businesses and operations. In an RBS framework, the RSA assumes more of an oversight role than an audit role.

4. The next step is to assess the net risk for each significant activity, which is determined based on a judgment about the key inherent risk ratings for the activity. Table 3.1 can be used to generate a final risk score for an IB.

Table 3.1 Aggregation of Scores for Inherent Risk and Quality of Risk Management

Quality of Risk Management and Governance		Quality of Management and Governance Score	Level of Inherent Risk			
			Low	Medium Low	Medium High	High
Risk Score			1		3	4
Strong	High	1	Low		Medium Low	Medium High
Acceptable	Medium High	2	Low	Medium Low	Medium High	High
Need Improvement	Medium Low	3	Medium Low	Medium High	High	High
Weak	Low	4	Medium High	High	High	High

Source: Toronto Centre Notes (2018). *Risk-Based Supervision*, p. 12: https://res.torontocentre.org/guidedocs/Risk-Based%20Supervision%20FINAL.pdf

Notes

High: In the absence of substantial and urgent remediation, there is a high probability of loss that will impair capital, leading to potential damage to depositors/policyholders within 12 months.

Medium High: In the absence of remediation, there is a significant probability of loss that will impair capital, possibly leading to damage to depositors/policyholders in the foreseeable future.

Medium Low: There is some need for action in a limited number of areas, but the likelihood of losses leading to damage to depositors/policyholders is small.

Low: No significant remediation is required, and losses leading to damage to depositors/policyholders are very unlikely.

5. The net risks of all the significant activities then need to be combined, considering their relative importance, in order to arrive at an overall net risk for the bank. An institution's overall net risk is the aggregate of the net risks for all the significant activities within the institution. The overall net risk is an assessment of the potential for an adverse impact on earning capacity, capital adequacy and liquidity. The assessment is conducted over a specified time period and with due cognisance to the changes occurring within both the internal and external environments. Overall net risk is rated as low, moderate, above average or high.

6. The composite risk rating is measured from a risk assessment of all the bank's activities, considering all the steps for assessing the risk profile. OSFI[48] defines "composite risk rating" as an assessment of overall risk profile after considering the impact of capital and earnings on a bank's overall net risk. A sample OSFI template is shown in table 3.2.

Table 3.2 Elements of a Risk Matrix

Significant Activities (a)	External Risks (b)		Inherent Risks (c)							Risk Management and Governance (d)						Net Risk (e)	Direction	Financial Resources (f)
	Macroeconomic	Macroprudential	Credit	Market	Operational	Liquidity	Sharī`ah non-compliance	Rate of return	Equity investment	Board	Senior management	Internal audit	Sharī`ah audit	Risk management				
A																		
B																		
C																		
Overall Rating																		

Source: Toronto Centre Notes (2018). *Risk-Based Supervision*, p. 12: https://res.torontocentre.org/guidedocs/Risk-Based%20Supervision%20FINAL.pdf

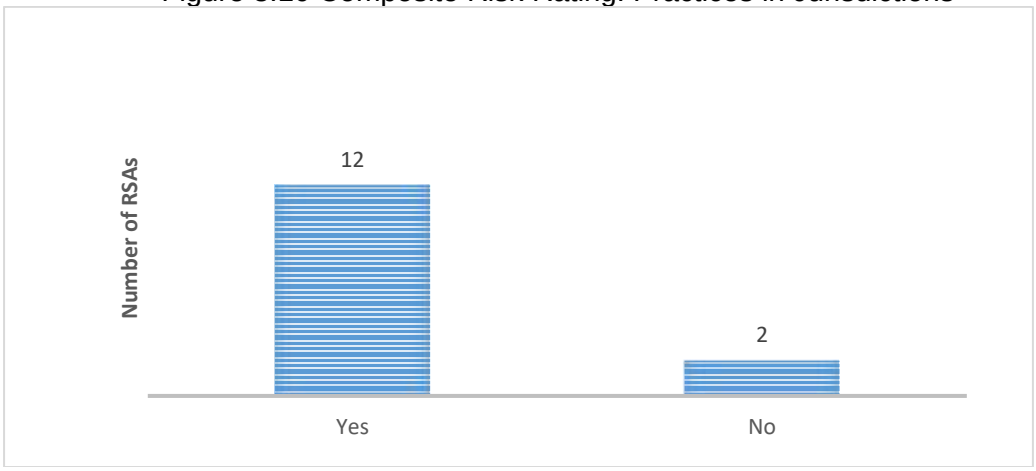
Notes

(a) May be significant activities, business unit or whole firm.
(b) Macroeconomic and macroprudential risks.
(c) The table shows a sample of inherent risks only. See appendix for detailed list.
(d) The table shows a sample of risk management, internal/Sharī`ah audit and governance functions only. Others will include compliance, actuarial, financial management.
(e) Net risk is inherent risk as mitigated by risk management and governance.
(f) "Financial resources" will usually refer to capital adequacy in this context, though some supervisory bodies also assess firm-wide liquidity and earnings at this point.

[48] Office of the Superintendent of Financial Institutions Canada (2010). *Supervisory Framework.* Ottawa: OSFI Canada.

Nine respondent RSAs mentioned that in their domestic regulations and laws they implement, or plan to implement, the overall net risk rating. When asked whether their domestic regulations and laws implement, or plan to implement, the composite risk rating, 12 out of 14 RSAs answered in the affirmative (Figure 3.10).

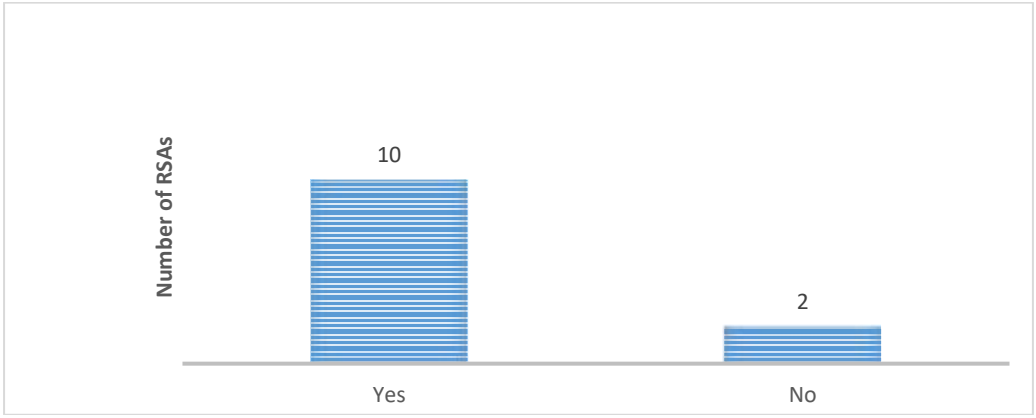
Figure 3.10 Composite Risk Rating: Practices in Jurisdictions



Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

OSFI Canada categorises the composite risk rating of an institution as low, moderate, above average or high, with the direction of change assessed as decreasing, stable or increasing for a specified time frame, depending on the institution's circumstances, and the business and economic environment. A risk matrix is used to record all of the risk assessments. Figure 3.11 shows that 10 respondent RSAs assessed composite risk.

Figure 3.11 Composite Risk Rating: Assessment Criteria



Source: IFSB Survey on Risk-Based Supervision for Islamic Banks, 2020.

SECTION 4: BASIC REQUIREMENTS FOR RISK-BASED SUPERVISORY FRAMEWORKS FOR ISLAMIC BANKING

Based on the responses obtained from the RSAs that participated in the survey and the extant RBS practices in a few IFSB jurisdictions as highlighted in this paper, the basic requirements for a sound risk-based supervision framework seem to be in place. However, such a framework would need to be further enhanced to cater for the specificities of Islamic banking, especially regarding the risks that are unique to Islamic banking.

There should be a risk identification mechanism in place that is continuously enhanced to ensure that the common, peculiar and emerging risks facing IBs are well understood. This is important, due to the transformational peculiarities of common risks such as credit and market risk during the contract life in a *murābahah*, *muḍārabah* or *mushārakah* contract, in which case invested capital will transform from equity investment risk to debt in the case of proven negligence or misconduct of the *mudārib* or the *mushārakah*'s managing partner. In a *salam* contract, a few risks may even be bundled together. For instance, once an IB advances payments, it is exposed to counterparty risk that may arise from delay or outright delivery default of the underlying commodity, market risk due to commodity price movement, liquidity risks at the point of converting commodity to cash, operational risk during storage and movement of the commodity, and so on.[49]

Risk measurement is also very important and depends on the inherent risks under consideration. This process should be very accurate and timely, and also take into consideration the key drivers, the probability of occurrence, and the impact of the crystallisation of such inherent risks, especially those peculiar to Islamic banking.

An active board and senior management, with members who understand the Islamic banking model and the inherent risks in the significant activities of an IB, is also pertinent. They should be setting the risk tolerance of the IB and ensuring that internal risk controls and governance procedures are fully implemented.

There should also be adequate risk management controls in place that reflect an IB's risk profile. IFSB-1: *Guiding Principles of Risk Management for Institutions (Other than Insurance Institutions) Offering Only Islamic Financial Services (IIFS)* provides details on definitions and operational considerations needed in this regard. Such control should provide clear-cut thresholds as well as segregation of duties. Importantly, it should have provision for incorporating a functional Sharī`ah governance as specified in IFSB-10: *Guiding Principles on Sharî`ah Governance Systems for Institutions Offering Islamic Financial Services*.

SECTION 5: CONCLUSION AND RECOMMENDATIONS

This working paper attempts to seek a better understanding of the current state of risk-based supervisory frameworks for Islamic banking in the IFSB member jurisdictions. In addition to reviewing the theoretical aspects of a risk-based supervision framework, the paper also analyses survey responses in order to: (i) investigate RBS frameworks for Islamic banking in IFSB jurisdictions; (ii) understand the current state of risk-based

[49] Habib Ahmed and Tariqullah Khan (2007). "Risk Management in Islamic Banking", in M. Kabir Hassan and Mervyn K. Lewis (ed.), *Handbook of Islamic Banking* (Chapter 10). Edward Elgar Publishing,

supervisory frameworks for Islamic banking in the IFSB member jurisdictions; and (iii) indicate the requirements for risk-based supervisory frameworks for Islamic banking. The paper also highlights the experiences of some countries with RBS frameworks.

The RBS framework in practice across jurisdictions where Islamic banking is practised is essentially the same as that applied to conventional banks. An RBS framework is equally relevant, applicable and important for IBs, given that the same supervisory approaches are applied to conventional banks. This is because, in addition to the fact that similar risk areas are covered, assessment based on RBS is geared towards the overall financial health of the banking system. However, the prevalence of unique risks among the key risk areas facing IBs in various jurisdictions makes it imperative that an RBS framework adopted by an RSA should include such peculiarities in its risk assessment.

In order to conduct effective supervision, RSAs need to understand, evaluate and monitor both the micro-level and macro-level risks faced by the IBs and the banking sector as a whole. Major micro-level risks in an IB generally include credit risk, market risk, operational risk, IT-related risks, liquidity risk, legal and regulatory risk, strategy risk, profit rate risk, and so on. The key macro-level risks include risks associated with the IBs due to changes in the real economy, such as growth in the gross domestic product (GDP), impact of exchange rate movement, monetary policy indicators, consumption patterns, local and/or international political and economic developments, and so on.

The aspect of Sharīʿah-compliant products should be factored into an RBS framework applied to Islamic banks. A Sharī'ah supervisory board can play a prominent role in an RBS framework through its advisory role by ensuring that Sharī'ah non-compliance risk is mitigated. Moreover, other unique risks facing IBs should be included in the RBS framework. For example, equity-based products based on risk-sharing and partnership arrangements are exposed to a higher level of risk, especially credit risks, than are non-equity-based products and such products are found on both the assets and liabilities sides of the balance sheet of an IB.

Compared to their conventional counterparts, IBs may be affected by and react differently to the generic non-unique risks due to the peculiarity of the latter's operational model, exposure to the real sector, complexity of product structure, and contractual relationship with clients. These risks are also expected to become more significant in terms of their specific implications for IBs, due to COVID-19. Furthermore, the pandemic is quickening the digital transformation process and this may also present new forms of operational risks.

The impact of COVID-19 is reflected in the macroprudential risks that affect the key economic indicators such as GDP, interest rates, unemployment, oil prices, and so on. The changes in the macroprudential risks are ultimately transferred to the financial sector, where banks play a pivotal role. As IBs are highly exposed to the real sector, an effective RBS framework should also take into account how the supervisory policy responses to cushion the effect of the consequential macroprudential risks arising from COVID-19 consider the specificities of Islamic banking, as well as the unique risks faced by IBs.

The main tool applied by the supervisory authorities to address macroprudential risks is stress testing, which RSAs can use to assess the effects of COVID-19 on the banking sector. It is recommended that an effective RBS framework should assess the changes in the macroprudential risks to enable RSAs to adjust their supervisory stance in light of the results of those risks, taking into consideration that Sharī`ah-compliant banks are exposed to unique risks in addition to the generic risks that conventional banks also face.

Developing KPIs with a framework of tolerance levels for all risk categories is considered “very important” for IBs. In addition, there should be a guiding threshold, as well as a transparent and credible mechanism for making KPI information readily available to management and the board of directors.

IBs need to develop infrastructure for measurement indicators. as well as for reporting and monitoring. In this regard, RSAs can provide appropriate policies and guidelines for IBs, in terms of completeness of risk assessment, so that IBs can develop an infrastructure of accountabilities as a part of their RBS framework.

Given the increased adoption of technological advancements and digitalisation of IB operations, RSAs would also need to invest substantially in SupTech to enhance the automated analysis of examination and enforcement of Islamic banking principles as well as regulatory compliance, monitoring of activities and improved real-time surveillance. However, this should be done with due cognisance of the potential risks that may arise from technical, data quality, legal, operational, reputational, resource, internal support and practical issues.

Finally, keeping in view the importance of the RBS framework, it is proposed that in future, the IFSB may provide comprehensive guidance on the development of an RBS framework and methodology, especially related to risks specific to Islamic banking, through the issuance of either a guidance note or a technical note. Such a standard or guidance note should focus on the inherent risks in Sharī`ah-compliant contracts and how they are transmitted. Other pertinent areas include guidance on both qualitative and quantitative assessment and rating of business model analysis, inherent risk elements, quality of internal control and governance, net-composite risk calculation and threshold determination, and how to incorporate stress test results into the proposed RBS framework.

Appendix:

Possible Risks Facing Islamic Banks

Risk Classification	**Type of Inherent Risk**
General or common risks	Credit
	Market
	Operational
	Liquidity
	Strategic
	Legal and regulatory
	Reputational
	Technology
Risks unique to Islamic banking	Sharī`ah non-compliance
	Equity investment
	Rate of return
	Displaced commercial
Emerging risks	Cyber security
	Money laundering and financing of terrorism
	Cloud concentration
	Third-party/outsourcing
	Vendor lock-in

Regulatory and Supervisory Authorities Participating in the Survey

1. Autoriti Monetari Brunei Darussalam
2. BaFin, Germany
3. Bangko Sentral Ng Pilipinas
4. Bank Indonesia
5. Bank of Mauritius
6. Banque Du Liban, Lebanon
7. Central Bank of Bahrain
8. Central Bank of Oman
9. Central Bank of Jordan
10. Banking Regulation and Supervision Agency, Turkey
11. Central Bank of the Turkish Republic of Northern Cyprus
12. Saudi Arabia Monetary Authority
13. Bank Al Maghrib
14. Da Afghanistan Bank
15. Central Bank of the UAE