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# Risk Based Supervision for Islamic Banking and Area of Concern

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## Abstract

In this paper, the aim is to designing the risk based supervisory framework for Islamic banks. Specifically, we examine seven policy issues in the field of regulation and supervision. These issues cover the regulations on: Islamic bank activities and banking-commerce links; domestic and foreign Islamic bank entry; capital adequacy; deposit insurance design; regulations on easing private sector monitoring of Islamic banks; government ownership of Islamic banks; and supervision. The findings suggest that the supervision by risk approach provides the supervisor and the Islamic banking industry with: (i) a high level of consistency in supervision because it sets and uses minimum core procedures; an allocation of resources based on risk;(ii) sufficient flexibility to allow supervisors to tailor the supervisory effort to the risks present; (iii) less supervisory intervention in areas of low risk; and (iv) help in determining the sufficiency of each Islamic bank's capital and risk management systems.

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## 1. Introduction

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The problem in the US subprime mortgage market was identified as the main causes that triggered the recent global financial crisis. Crotty (2009) further argue that the deep cause on the financial side could also be found in the flawed institutions and practices of the current New Financial Architecture (NFA) regime. The NFA, that form a globally integrated system of giant bank conglomerates, comprise the so-called 'shadow banking system' of investment banks, hedge funds and bank-created Special Purpose Vehicles. These institutions are either lightly and badly regulated or not regulated at all, an arrangement defended by and celebrated in the dominant financial economics theoretical paradigm – the theory of efficient capital markets. However, studies done by among others Cheung and Coutts (2001) and Wooly (2010) show that the theory of efficient capital markets is very weak. Therefore, the celebratory narrative of the NFA accepted by regulators is seriously misleading.

In addition, the NFA also contributed to: (i) the widespread perverse incentives embedded in the NFA generated excessive risk-taking throughout financial markets; (ii) mortgage-backed securities, which became central to the boom, were so complex and non-transparent that they could not possibly be priced correctly; their prices were bound to collapse once the excessive optimism of the boom faded; (iii) contrary to the narrative, excessive risk built up in giant banks during the boom; and (iv) the NFA generated high leverage and high systemic risk, with channels of contagion that transmitted problems in the US subprime mortgage market around the world.

Understanding the profound problems of the NFA should become a lesson for the regulators and players in the Islamic financial services industry which has expanded substantially over the last three decades. A review of the development so far indicates that too much emphasis has been placed on transplanting substantive norms from Islamic law that become the foundation of Islamic banking (among the examples are Zaher and Hassan (2001), Tahir (2007) and Tohirin and Ismail (2010)) and little attention (up to our knowledge is only limited to Errico and Farakbahsh (1998))[2] has been paid to discussing the framework of regulations and supervision.[3]

Therefore, in this paper, the aim is to designing the risk based supervisory framework for Islamic banks. This paper is motivated by four factors: first, Islamic banks matter for human welfare. Most noticeably, Islamic banks matter when they fail. Indeed, the fiscal costs of banking crises might be transferred to taxpayer. Second, recent research also finds that Islamic banks matter for economic growth.[4] Islamic banks that mobilize and allocate savings efficiently, allocate capital to entrepreneurs with the highest expected social returns, and exert sound governance over funded firms foster innovation and growth. Third, recent work further shows that banks matter for wealth creation.[5]

The remaining discussion of this paper will be divided into four sections. Section 2 will the debate and current evidence related to seven policy issues in the field of regulation and supervision. The discussion in Section 3 will be focused on the risk-based supervision (RBS) approach, framework and process. Section 4 will highlight the areas of concern to the central bank in performing the supervisory task. Section 5 presents the conclusions.

## 2. The Debates and Current Evidence

[2] This paper only discusses the appropriate and effective regulatory system.

[3] Although, the subject of regulation and supervision of Islamic banks was first mentioned at the Organization of the Islamic Conference (OIC) Meeting held in Khartoum on 7-8 March 1981. Nothing much was done after that. Then, it was in November 2002, IFSB was established to serve as an international standard-setting body of regulatory and supervisory agencies that have vested interest in ensuring the soundness and stability of the Islamic financial services industry. IFSB will also a similar role as BIS.

[4] See, Said, F.F. and A.G. Ismail (2008) Monetary Policy, Capital Requirement and Lending Behaviour of Islamic Banking in Malaysia. *Journal of Economic Cooperation*, Vol. 29, no. 3, 1-22.

[5]

In this section, the discussion will be focused on the debate and current evidence related to seven policy issues in the field of regulation and supervision. These issues cover the regulations on: Islamic bank activities and banking-commerce links; domestic and foreign Islamic bank entry; capital adequacy; deposit insurance design; regulations on easing private sector monitoring of Islamic banks; government ownership of Islamic banks; and supervision. For each issue, we will: (a) stress the theoretical and policy disagreements and (b) emphasize that specific regulatory are inextricably inter-related so it is important to examine them simultaneously. This discussion will motivate the use of various interaction terms in our proposed approach and empirical analyses that will be discussed in section 3.

### (a) Regulations on Islamic Bank Activities and Banking-Commerce Links

There are five main reasons for restricting the degree to which banks can engage in securities, takaful, and real estate activities or own non-financial firms. Indeed, it is these regulations that help define what observers mean by the term "bank". First, conflicts of interest may arise when Islamic banks engage in such diverse activities such as securities underwriting, and real estate investments. Islamic Banks, for example may attempt to "dump" securities on, or shift risks to ill-informed investors so as to assist firms with outstanding debts or existing equities. Second, to the extent that moral hazard encourages riskier behaviour by Islamic banks, they will have more opportunities to increase risk if allowed to engage in a broader range of activities. Third, broad financial activities and the mixing of banking and commerce may lead to the formation of extremely large and complex entities that are difficult to monitor. Fourth, large Islamic banks may become so politically and economically powerful that they become "too big to discipline". Finally, large financial conglomerates may reduce competition and hence efficiency in the financial sector. Based on these arguments, the government can ease market failures and thereby enhance Islamic bank performance and stability by restricting certain activities.

However, there are alternative theoretical reasons for permitting Islamic banks to engage in a broader range of activities. First, fewer regulatory restrictions on activities will allow them more scope in processing information about firms, managing different types of risk for customers, advertising and distributing financial services, enforcing contracts, and building a reputation with clients. It moves banks towards becoming Islamic investment banks, rather than "Islamic banks".

Second, fewer regulatory restrictions may increase the value of Islamic banks and thereby augement incentives for Islamic banks to behave prudently. Third, broader activities may diversify income streams and thereby create more stable Islamic banks. Finally, the approach to regulations suggests that governments do not restrict Islamic bank activities to ease market failure. So, regulatory restrictions promote government power, create a bigger role for corruption through the granting of exceptions to the rules, and thereby hinder Islamic bank performance and stability.

Most of the literature suggests there are positive benefits from permitting broader powers for Islamic banks. For instance, expanded Islamic banking powers may reduce the cost of capital and cash-flow constraints. The unrestricted Islamic banks may also have higher levels of operational efficiency than Islamic banks with restricted powers. In terms of diversification, since profits from providing different financial services are not very highly correlated, there are diversification benefits from allowing broader powers. Hence, the greater involvement of Islamic banks in different financial services can be expected to develop. This offers wider scope for Islamic financial services which are based on profit sharing and mark-up methods.

### (b) Regulations on Domestic and Foreign Islamic Banks Entry

Islamic banks with monopolistic powers have stronger incentives to incur costs associated with overcoming informational barriers, which then facilitate the flow of financing to more worthy corporations. Furthermore, Islamic banks with monopolistic power may possess considerable value, which will enhance prudent risk-taking behavior. Thus, there may be a 'helping-hand' role for the government in limiting competition. While there may exist valid economic reasons for regulating entry, this view stresses that placing such limits can cause corruption and impede economic efficiency. Politicians and regulators may use entry restrictions to reward friendly constituents, extract campaign support, and collect bribes.

Furthermore, an open, competitive Islamic banking sector may be less likely to produce powerful institutions that unduly influence policymakers in ways that adversely affect bank performance and stability. Greater restrictions on the entry of foreign and domestic Islamic banks make for less efficient and more fragile Islamic banking systems. And while not emphasized in formal theoretical literature, the impact of competition may depend on the degree of regulatory restrictions on Islamic banking activities and the mixing of Islamic banking and commerce, the quantity and quality of supervision, the features of any deposit insurance scheme, capital adequacy requirements, the degree of equity market development, and the extent to which government-owned Islamic banks play a dominant role in the Islamic banking sector.

### (c) Regulations on Capital Adequacy

Traditional approaches to Islamic bank regulations emphasize the positive features of capital adequacy requirements. Capital, or net worth, serves as a buffer against losses and failure. When faced with limited liability, Islamic bank owners will avoid higher risk activities considering the amount of capital at risk relative to assets. With deposit insurance the regulatory capital requirements play a crucial role in aligning the incentives of Islamic bank owners with depositors and other financiers. However, disagreement may exist over whether the imposition of capital requirements actually reduces risk-taking incentives. Moreover, it is difficult - if not impossible - for regulators and supervisors to set capital standards that mimic those that would be demanded by well-informed, undistorted private-market participants. For instance, actual capital requirements may increase risk-taking behaviour. At the same time, capital requirement may also induce credit rationing, that produce a negative implications for economic growth.

Higher capital requirements may induce customers to shift to capital markets and in the process impair capital allocation, while raising capital requirements can increase the cost of capital. Thus, these provide conflicting predictions on whether capital requirements curtail or promote Islamic bank performance and stability.

Therefore, at a time when existing regulatory capital requirements are widely viewed as being arbitrary and inadequate, it seems especially important to examine whether they even matter since capital adequacy standards have been introduced.

### (d) **Deposit Insurance Design**

Countries often adopt deposit insurance schemes to provide protection for unsophisticated and small depositors who face coordination and free-rider problems. If too many depositors attempt to withdraw their funds at once, an illiquid but solvent bank can fail. Moreover, monitoring banks is expensive and there is an externality associated with monitoring to curtail risk-taking behaviour. Therefore, depositors will have a tendency to free ride, so that there is a socially sub-optimal level of monitoring. To improve these problems, a proponent of government intervention would favour deposit insurance to protect payment and credit systems from contagious bank runs *plus a* tight official overview to augment private-sector monitoring of banks. However, potential gains from a deposit insurance scheme come at a cost. There are concerns that deposit insurance could encourage excessive risk-taking behaviour.[6]

The moral-hazard problem, which is aggravated by deposit insurance, continues to be a concern today. Thus, even those subscribing to the 'helping-hand' view may argue that the adverse-incentive costs of deposit insurance outweigh the benefits. On the other hand, many believe that regulation and supervision can control the moral-hazard problem, including an appropriately designed insurance system that encompasses coverage limits, scope of coverage or the extent of uninsured liabilities, coinsurance, funding, premium structure (flat fee or risk-based), who manages the funds and how they are motivated, and membership requirements.

In the case of Islamic banks, the intention of depositors to share the profit and losses might indicate that deposit insurance is not applicable. Furthermore, the current amount insured up to RM60,000 per depositor in Malaysia, per member institution does not consider the risk-base of each member institution.

### (e) Regulations on Easing Private Sector Monitoring of Islamic Banks

Many regulators encourage private monitoring of banks. For instance, regulators may require Islamic banks to obtain certified audits and/or ratings from rating agencies. Regulators may also make Islamic bank directors legally liable if information is erroneous or misleading. Regulators may also compel Islamic banks to produce accurate, comprehensive and consolidated information on the full range of Islamic bank activities and risk-management procedures. Furthermore, a country credibly imposes a "no deposit insurance" policy to stimulate private monitoring of banks.

Some economists have advocated greater reliance on the private sector and expressed misgivings with official regulation of Islamic banks. For instance, the "grabbing-hand" view of government regulations holds that banks will pressure politicians who, in turn, can unduly influence regulators. Furthermore, in some countries, regulators are not well compensated and hence quickly move into banking, resulting in a situation in which regulators may have mixed objectives when it comes to strict adherence to the rules. Also, since regulators do not have their own wealth invested in banks, they have different incentives from that of private owners or *rabbul mal* when it comes to monitoring and disciplining Islamic banks. For example, the *rabbul mal* who act as capital contributors, via restricted deposits, are in a better position to monitor and discipline Islamic banks

However, questions are raised about placing excessive trust in private-sector monitoring, especially in a system with poorly-developed capital markets, accounting standards, and legal systems. A system with a weak institutional environment will benefit more from regulators containing excessive risk-taking behaviour and thereby instilling more confidence in depositors than would exist with private-sector monitoring. This view argues that, in weak institutional settings, increased reliance on private monitoring leads to exploitation of small savers and hence less Islamic bank development.

### (f) Government Ownership of Islamic Banks

Economists hold sharply different views about the impact of government ownership of Islamic banks on financial and economic development. The argument is that government ownership of Islamic banks would facilitate the mobilization of savings and the allocation of those savings toward strategic projects with long-term benefits on an economy. According to this view, governments have adequate information and

[6] Indeed, this argument helped develop the Malaysia Deposit Insurance Corporation Act 2005. The act enables the establishment of Malaysia Deposit Insurance Corporation (PIDM) in 2005.

sufficient incentives to ensure socially desirable investments. Consequently, government ownership of Islamic banks helps economies overcome private capital-market failures, exploit externalities, and invest in strategic sectors. The government ownership of Islamic banks to promote economic and financial development may be relevant in an underdeveloped financial system.

However, governments do not have sufficient incentives to ensure socially desirable investments. Government ownership tends to politicize resource allocation, soften budget constraints, and otherwise hinder economic efficiency. Thus, government ownership of Islamic banks facilitates the financing of politically attractive projects, but not necessarily economically efficient projects.

### (g) Supervision

Islamic Islamic banks are generally supervised within the framework of the prevailing international commercial banking supervisory systems. In some countries special laws have been introduced to facilitate Islamic banking, while in others no such laws have been introduced. Islamic banking operations in the latter group of countries are performed under the guidelines issued by their respective central Islamic banks.

Member countries covered in this review segregate banking functions from securities and takaful businesses, and distinct supervisory authorities are assigned the task accordingly. Malaysia is the only exception, where Islamic banks and takaful companies are supervised by a single authority, namely, the central bank (Bank Negara Malaysia). The global trend is also inclined towards the concept of universal banking with emphasis on supervision by a single mega-supervisor.

Islamic banks in member countries are supervised by central Islamic banks. However, the emerging trend in the world is to segregate the monetary policy framework of macroeconomic management from the microeconomic considerations of bank soundness. As a result of this segregation, bank supervision is separated from monetary policy and assigned to a specialised authority. There are many examples of this segregation, the most recent and significant being the separation of supervisory functions from the Bank of England in 1998 and the establishment of the Financial Services Authority to take up the responsibility of a mega-supervisor.

In cases where different supervisory authorities specialise in supervising different banking and non-banking financial institutions, the need for cooperation and coordination between these authorities increases. The available literature on banking supervision in member countries does not mention other sectors. This could perhaps be an indication of the absence of such coordination between the different supervisory organizations. Conventional Islamic banks are allowed to open Islamic windows in some member countries, while some other countries do not allow this. Only two member countries, Bahrain and Malaysia (Labuan), have offshore banking centers. In terms of compatibility with international banking standards, a study conducted by the Financial Stability Forum puts these centers in the moderately good second category.

## 3. Supervision by Risk – Approach, Framework and Process

Having discussed the debate on current regulatory framework, the question arises as to how to produce an effective supervisory approach. An effective supervision, as discussed in Ismail (2010a) might produce positive and negative influence. The positive influence might be seen in three areas: firstly, Islamic banks are costly to monitor. Private agents may not have the ability or incentive to supervise Islamic banks and will attempt to free-ride. Thus, there will be too little monitoring of Islamic banks, which implies sub-optimal performance and stability. Supervisors can improve this market failure. Secondly, because of informational asymmetries, Islamic banks are prone to contagious and socially costly bank runs. Supervision in such a situation can serve a socially efficient role. Thirdly, some countries choose to adopt a deposit insurance scheme, this situation: (i) creates incentives for excessive risk-taking behavior by Islamic banks, and (ii) reduces the incentives for depositors to monitor Islamic banks. Thus, strong, supervision will help prevent Islamic banks from engaging in excessive risk-taking behavior and thus improve Islamic bank performance and stability.

Alternatively, effective supervisors might exert a negative influence. Governments with powerful supervisory agencies may use this power to benefit favoured constituents, attract campaign donations, and extract bribes. Effective supervisors would be less focused on overcoming market failures and more concerned with currying political support and implementing their own narrow objectives. Therefore, supervision would be positively related to corruption and would not improve either Islamic bank performance or stability.

On the other hand, we should also recognize that Islamic banking is a business of taking risk in order to earn profits. However, risk levels must be appropriately managed and controlled. Islamic banking risks must also be evaluated in terms of their significance. Therefore, in this section, the discussion will be focused on the approach, framework and process of risk-based supervision. [7]

### 3.1 The Approach

For individual Islamic bank, supervision by risk leaves the responsibility for controlling risks with the Islamic bank management. The supervisor assesses how well an Islamic bank manages this risk over time, rather than only assessing the condition at a single point in time. With supervision by risk, the supervisor functions in more of an oversight than an audit role. Supervision by risk allows the supervisor to supervise by concentrating on systemic risks and institutions or areas that pose the greatest risk to the system.

For the whole industry, the supervisor's supervision by risk identifies areas that, in aggregate, pose the potential for presenting an unacceptable level of risk to the Islamic banking system and the deposit insurance fund. For those high-risk activities or activities that have become particularly risky because of market conditions, the supervisor's goal is to communicate with, and influence, the industry through direct supervision, policy, and regulation. In situations where an individual Islamic bank is not properly managing its risks, the supervisor's goal is to use appropriate means to influence the Islamic bank management to adjust its practices to conform with sound fundamental banking principles.

Some risks are inherent to Islamic banking. A wide body of knowledge exists within the industry on how to identify, measure, control, and monitor these inherent risks. Supervision by risk acknowledges those inherent risks and performs limited testing in examinations directed at confirming whether adequate controls are in place. Other risks in the industry are more diverse and complex. These more sophisticated risks require enhanced controls and monitoring by both the Islamic bank and the supervisor. The supervisor is committed to directing significant resources to these complex and evolving risks, especially where they present material, actual, or potential risks to the Islamic banking system.

Risks that large Islamic banks assume are generally diverse and complex and warrant a risk-oriented supervisory approach. Under this approach, supervisors do not attempt to prohibit appropriate risk-taking, but rather ensure that Islamic banks understand and control the levels and types of risks they assume. In situations where risk is not properly managed, the supervisor tries to direct the Islamic bank management to take corrective action so that the Islamic bank is managed in a safe and sound manner. In all cases, the supervisor's supervisory focus is to ensure that the Islamic bank management identifies, measures, controls, and monitors risks to ensure sufficient capital is present in light of the risks involved.

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[7] The RBS has been practiced in three jurisdictions, namely, the Federal Reserve System of America (FRS), the Office of the Superintendent of Financial Institutions (OSFI) Canada and the Financial Services Authority (FSA) UK. But, in this paper, the unique characteristics of Islamic banks become crucial elements in RBS approach.

Risks that small Islamic banks assume are generally less diverse and complex than those of larger Islamic banks. Under this approach, supervisors verify the existence of adequate controls and risk management systems by testing transactions. Supervisors will focus attention on the risk management systems and the methods the management uses to identify, measure, control, and monitor risks in those small Islamic banks or in areas that are more diverse and complex. Supervision by risk allocates greater resources to those areas with higher risks.

The supervisor accomplishes this by: (i) identifying risks using common definitions. This set of risks forms the basis for supervisory assessments and actions; (ii) measuring risk based on common evaluation factors. Risk measurement is not always quantified in ringgit terms; it is sometimes a relative assessment of exposure. For example, numerous internal control deficiencies may indicate an Islamic bank has an excessive amount of transaction risk; (iii) evaluating risk management to determine if Islamic banking systems adequately manage and control the identified risk levels. The sophistication of the systems will vary based on the level of risks present and the size and/or complexity of the institution; (iv) assigning greater resources to areas of higher or increasing risk, both within an individual institution and among banks in general. This is done through the supervisory strategy; and (v) performing examinations based on the risks, reaching conclusions on risk profiles and conditions, and following up on areas of concern.

To accomplish the above tasks, supervisors should discuss preliminary conclusions of this risk-based supervisory strategy with the Islamic bank management and adjust conclusions and strategies based on these discussions, if appropriate. The supervisor can then focus supervisory efforts on significant risks, i.e., the areas of highest risk within an Islamic bank and within the Islamic banking system. Supervisors must focus on the consolidated company risk profile to fully implement supervision by risk. This consolidated approach recognizes that risks at individual institutions may be mitigated or increased on a companywide basis. However, individual Islamic bank risk profiles must be determined for the lead Islamic bank and significant country bank affiliates for the supervisor to fully evaluate the consolidated risk profile.

In summary, the supervision by risk approach provides the supervisor and the Islamic banking industry with: a high level of consistency in supervision because it sets and uses minimum core procedures; an allocation of resources based on risk; sufficient flexibility to allow supervisors to tailor the supervisory effort to the risks present; less supervisory intervention in areas of low risk; and help in determining the sufficiency of each Islamic bank's capital and risk management systems.

## 3.2 The Framework

To ensure an effective supervision, the supervisor normally requires a common framework to document decisions. However, risks may threaten the Islamic banking institutions. Therefore, a framework that outlines the supervisory tools to mitigate them is required. This section will present the RBS framework. In the following discussion, we will introduce a series of structured stages that are designed to: (i) focus the supervisor's attention on the risks that threaten the achievement of supervisory objectives; and (ii) enable the supervisor to devise a risk mitigation programme to address those risks. The framework is based on the three main supervisory objectives, that is, promoting stability and soundness of the Islamic banking system; ensuring consumer protection; and reducing financial crimes.[8]

The framework involves six stages, that is, the full scope maiden examination; impact assessment; the risk assessment of Islamic banks (RAIB); development of risk mitigation programmes; evaluation and validation; communicating the results of the assessment and risk mitigation programme to the bank. Finally, the discussion will be focused on the: implementation of the risk mitigation programme, on-going assessment of the Islamic bank and response to risk escalation.

[8] These objective become part of maqasid shariah

**Stage 1: Full Scope Examination**

A full scope examination, covering the identification of risk elements (will be discussed in Stage 3). The identification will be conducted at the commencement of the risk-based supervisory process. The risk elements cover the full range of risks in an Islamic bank. This stage will be a one-off event, as subsequent examinations will depend on the supervisors' assessment and perception of the risks of individual Islamic banks.

**Stage 2: Impact Assessment**

The first step at this stage is to determine the potential impact of an Islamic bank, in the event of distress, on the entire financial system by appraising quantitatively, balance sheet items such as total assets and deposits against defined impact thresholds. This will indicate the scale and significance of the problem if it is to occur. Then, the Islamic bank will be categorized into impact bands - Very High, High, Medium, Low and Very Low. The impact threshold is as shown in Table 1.

**Table 1: Example of Impact Thresholds**

| Thresholds | | Total Assets | | | Total Deposits | |
|---|---|---|---|---|---|---|
| | RM billion | Market share (%) | Number of banks | RM billion | Market share (%) | Number of banks |
| Very High | Above 114 | Above 4% | 1 | Above 45 | Above 3.2% | 3 |
| High | 86 - 114 | 3% - 4% | 2 | 35 - 45 | 2.5% - 3.2% | 1 |
| Medium | 57 – 85 | 2% -3% | 2 | 25 - 34 | 1.8% - 2.5% | 2 |
| Low | 28 - 56 | 1% - 2% | 5 | 14 - 24 | 1% - 1.8% | 5 |
| Very Low | Below 28 | Below 1% | 12 | Below 14 | Below 1% | 11 |
| | | | 22 | | | 22 |

A bank's risk impact category is the higher of the two impact parameters. For example, if a bank has "High" impact rating using the assets parameter and has a "medium" or "Low" rating using the deposits parameter, its impact classification will be "High".

**Stage 3: Risk Assessment**

At this stage, the focus is to assess the likelihood of various Islamic bank-specific risks crystallizing. The aim of risk assessment of Islamic banks (RAIB) is to provide a concise method of communicating and documenting judgments regarding the quantity of risk, the quality of risk management, the level of supervisory concern (measured as aggregate or composite risk), and the direction of risk. In achieving this, the first step is to identify the risk elements that threaten the achievement of the supervisory objectives. Islamic banks will be assessed based on a risk map, which takes into account external events or threats (environmental risks) and Islamic bank-specific risk issues and scores each of these risks in a common way. This will involve off-site assessments and on-site visits to complement available information on an Islamic bank.

*Environmental Risks* These are risks that are external to the Islamic banks, which directly or indirectly affect the Islamic bank's business or control risks. Environmental risks will not be accessed directly under this framework, as their effect will be captured in the assessment of Islamic bank-specific risks and sector wide assessment.

*Islamic Bank-Specific Risk Assessment* The Islamic bank-specific risk assessment involves determining where the risks arise and which statutory objectives they may affect. The assessment will focus on the risk elements structured into four business risk groups and five control risk groups. Business risks are derived from the overall philosophy of the Islamic bank and include issues of strategy, target market, products and services, and the risk attached to the financial soundness of the institution. While, control risks are the risks arising from the failure and/or inadequacies of systems, processes and procedures as well as organization and culture. The main business and control risk elements adopted include the risks described in Chapter 10.

*Risk-to-Objectives* The Risk-to-Objectives (RTOs) are risk elements that threaten the achievement of supervisory objectives. The risk to the three supervisory objectives will include the following as shown in Table 2.

**Table 2: Risks to Objectives**

| No. | Supervisory Objectives | Risk-To-Objectives |
|---|---|---|
| 1 | Promoting stability and Soundness | Financial failure |
| | | Poor corporate governance |
| | | Widespread misconduct /Mismanagement |
| | | Financial crime /Fraud or dishonesty |
| | | Malpractices in operations |
| 2 | Ensuring Consumer Protection | Financial failure |
| | | Widespread misconduct/ Mismanagement |
| | | Financial crime /Fraud or dishonesty |
| | | Poor corporate governance |
| | | Inadequate consumer understanding |
| 3 | Reduction of Financial Crimes | Financial crime /Fraud or dishonesty |
| | | Money laundering |
| | | Malpractices in operations |

In view of the fact that some RTOs are common threats to more than one supervisory objective as indicated above, they will be summarized under seven broad categories:

i. Financial Failure (Objectives 1 & 2);
ii. Misconduct/Mismanagement (Objectives 1, 2 & 3);
iii. Poor Corporate Governance (Objectives 1 & 2);
iv. Inadequate Consumer Understanding (Objective 2);
v. Financial Crime/Fraud or Dishonesty (Objectives 1, 2 & 3)
vi. Money Laundering (Objective 3)
vii. Malpractices in operations (Objectives 1 & 3)

*Scoring of Islamic Bank-Specific Risks* Having identified the risk elements, the risk assessment will involve measuring the threat of each Islamic bank's risk element against the RTO categories using the risk map, as shown in Table 3. The measurement will be on a scale of 1-5 with 1 representing the lowest risk and 5 the highest. The risk bands will be as follows:

1 - Very Low
2 – Low
3 – Medium
4 – High
5 - Very High

There might be situations where a risk element for a given Islamic bank does not have any correlation with a supervisory objective. In that instance, the assessment will be categorized as "Not Applicable" (N/A). For situations where additional information is required to make an objective assessment, the assessment will be categorized as "Additional Information Required" (AIR) and might require further supervisory action to obtain the required information. Table 3 illustrates a typical risk map.

**Table 3: Example of Risk Map**

| Risk Groups | Risks Elements | Risk-To-Objectives | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Financial Failure | Misconduct and Mismanagement | Poor Corporate Governance | Inadequate Government Understanding | Financial Crime/Fraud or dishonesty | Money laundering | Forex Mailpractice |
| Strategy | Quality of corporate strategy/ Nature of business | 3 | 2 | 3 | N/A | N/A | 2.5 | 4 |
| Strategy Score | | 3 | 2 | 3 | N/A | N/A | 2.5 | 4 |
| Strategy score – OVERRIDE | | 3 | 2 | 3 | N/A | N/A | 3 | 4 |
| Market, Credit and Operational Risks | Credit Risk | 4 | 3 | 1 | N/A | 1 | N/A | 1 |
| | Market Risk | 2 | 1 | N/A | N/A | N/A | 1 | 4 |
| | Operational Risk | 1 | 2 | 3 | 3 | 2 | 2 | 1 |
| | Legal Risk | 1 | 1 | 1 | 1 | 1 | 3 | 3 |
| Market, Credit and Operational | | 2 | 1.8 | 1.2 | 2 | 1.3 | 2 | 2.25 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Risks Score | | | | | | | | |
| Market, Credit and Operational Risks – OVERRIDE | | 2 | 2 | 1 | 2 | 1 | 2 | 2 |
| Financial Soundness | Adequacy of Capital | 5 | 5 | 5 | N/A | N/A | N/A | N/A |
| | Liquidity/ Clearing Settlement Arrangement | 5 | 5 | 5 | N/A | N/A | N/A | N/A |
| | Earnings | 5 | 2 | 3 | N/A | N/A | N/A | N/A |
| Financial Soundness Score | | 5 | 4 | 4 | N/A | N/A | N/A | N/A |
| Financial Soundness - OVERRIDE | | 5 | 3 | 4 | N/A | N/A | N/A | N/A |
| Nature of Customers and Products | Type of customers/Sources of business | 2 | 2 | N/A | 4 | 1 | 2 | 1 |
| | Types of products | 2 | 4 | N/A | 2 | N/A | 1 | N/A |
| Nature of Customers and Products Score | | 2 | 3 | N/A | 3 | 1 | 1.5 | 1 |
| Nature of Customers and Products – OVERRIDE | | 2 | 2 | 1 | 3 | 1 | 1.5 | 1 |
| Treatment of Customers | Service delivery, training, recruitment, remuneration and security of customer. | 1 | N/A | N/A | 2 | 3 | N/A | N/A |
| | Disclosure and adequacy of product literature | N/A | N/A | N/A | 4 | N/A | N/A | N/A |
| Treatment of Customers Score | | 1 | N/A | N/A | 3 | 3 | N/A | N/A |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Treatment of Customers – OVERRIDE | | 1 | 1 | N/A | 3 | 3 | N/A | N/A |
| Organization | Clarity of Ownership/Group structure | 2 | 3.5 | 3 | N/A | N/A | N/A | N/A |
| Organization Score | | 2 | 3.5 | 3.5 | N/A | N/A | N/A | N/A |
| Organization – OVERRIDE | | 2 | 3 | 3 | N/A | N/A | N/A | N/A |
| Internal Systems and Controls | Risk management system | 5 | 5 | 5 | N/A | N/A | N/A | N/A |
| | Information Communication Technology. | 5 | 2 | 3 | N/A | N/A | N/A | N/A |
| | Compliance/Internal Audit | 5 | 5 | 3 | | 2 | 1 | 3 |
| | Degree of outsourcing | 4 | 1 | N/A | N/A | N/A | 2 | N/A |
| | Money laundering controls | 5 | 4 | 1 | N/A | N/A | 1 | 5 |
| Internal Systems and Controls Score | | 4.8 | 3.4 | 3 | N/A | 2 | 1.3 | 4 |
| Internal Systems and Controls – OVERRIDE | | 4 | 3 | 3 | N/A | 1 | 1 | 4 |
| Board, Management and Staff | Corporate governance/ Human Resources | 4.5 | 4.5 | 3 | N/A | 1 | N/A | 2 |
| Board, Management and Staff Score (Average) | | 4.5 | 4.5 | 3 | N/A | 1 | N/A | 2 |
| Board, Management and Staff – OVERRIDE | | 4 | 4 | 3 | N/A | 1 | N/A | 2 |
| Business and | Relationship with | 1 | N/A | N/A | N/A | N/A | N/A | 3 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Compliance Culture | regulators | | | | | | | |
| Business and Compliance Culture Score | | 3 | N/A | N/A | N/A | N/A | 2 | 3 |
| Business and Compliance Culture – OVERRIDE | | 2 | N/A | N/A | N/A | N/A | 2 | 3 |

The scores for each of the business and control risks elements in the risk map are aggregated to arrive at the average risk scores under the two risk groups as illustrated in Table 4.

**Table 4: Risk Map Summary**

| **RTO Groups** | Financial Failure | Misconduct and Mismanagement | Poor Corporate Governance | Inadequate Consumer Understanding | Fraud or Dishonesty | Money Laundering | Forex |
|---|---|---|---|---|---|---|---|
| **Risk Groups:** | | | | | | | |
| Strategy | 3 | 2 | 3 | N/A | N/A | 3 | 4 |
| Market, Credit and Operational Risk | 2 | 2 | 1 | 2 | 1 | 2 | 2 |
| Financial Soundness | 5 | 3 | 4 | N/A | N/A | N/A | N/A |
| Nature of Customers and Products | 2 | 2 | 1 | 3 | 1 | 2 | 1 |
| **Total Business Risk Score** | 3 | 2 | 2 | 3 | 1 | 2 | 2 |
| **Total Business Risk Rating** | Medium | Low | Low | Medium | Very Low | Low | Low |
| Treatment of Customers | 1 | 1 | N/A | 3 | 3 | N/A | N/A |
| Organization | 2 | 3 | 3 | N/A | N/A | N/A | N/A |
| Internal Systems and Controls | 5 | 4 | 3 | N/A | 1 | 1 | 4 |
| Board, Management and Staff | 3 | 5 | 3 | N/A | 1 | N/A | 2 |
| Business and Compliance Culture | 2 | N/A | N/A | N/A | N/A | 2 | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Total Controls Risk Score** | 3 | 3 | 3 | 3 | 2 | 1 | 3 |
| **Total Controls Risk Rating** | Medium | Medium | Medium | Medium | Low | Very Low | Medium |
| | | | | | | | |
| **Bank-Specific Risk Score Per RTO Group** | Medium | Medium | Medium | Medium | Low | Very Low | Medium |

The assessment of the control risk will influence the assessment of business risks as low control risks will often mitigate the overall business risks and vice versa. For instance, where the aggregate score under the business risks is Very High and the control risk Very Low, then the overall score will be Medium. Conversely, when the business risk is Very Low but the control risk Very High, the aggregate rating should be considered High.

The overall Islamic bank-specific risk score will be derived as shown in the risk matrix in Table 5.

**Table 5: Risk Matrix for Bank-Specific Risk Score**

| **Control** | **Business** | | | | |
|---|---|---|---|---|---|
| | **Very High** | **High** | **Medium** | **Low** | **Very Low** |
| Very High | Very High | Very High | High | Medium | Medium |
| High | Very High | High | High | Medium | Low |
| Medium | High | Medium | Medium | Medium | Low |
| Low | High | Medium | Low | Low | Low |
| Very Low | Medium | Low | Low | Very Low | Very Low |

The bank-specific risk scores for each RTO group will then be matched against the supervisory objectives that it is likely to affect, as illustrated in Table 6.

**Table 6: RTO Score Sheet**

| **Statutory Objective** | **Financial Failure 1** | **Misconduct and Mismanagement 2** | **Poor Corporate Governance 3** | **Inadequate Consumer Understanding 4** | **Fraud or Dishonesty 5** | **Money Laundering 6** | **Forex 7** | **SUMMARY** |
|---|---|---|---|---|---|---|---|---|
| Stability and Soundness of the Financial System | Medium | Medium | Medium | - | Low | - | Medium | Medium |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Consumer Protection | Mediu m | Medium | Medium | Medium | Low | - | - | Mediu m |
| Reduction of Financial Crime | - | Medium | - | - | Low | | Medium | Low |

*Determining the Overall Risk* The next step will be to determine the overall risk. A combination of the bank-specific RTO score and the impact score gives a measure of the overall risk posed to the supervisory objectives, as represented in Table 7.

**Table 7: Overall Bank Risk Rating Sheet**

| **Statutory Objective** | Derived IMPACT | IMPACT Override | Derived BANKSPECIFIC RISK | Derived BANKSPECIFIC RISK Override | OVERALL RISK | Override Comment |
|---|---|---|---|---|---|---|
| Stability and Soundness of the Financial System | Very High | Very High | Medium | Medium | High | |
| Consumer Protection | Very High | Very High | Medium | Medium | High | |
| Reduction of Financial Crime | Very High | Very High | Low | Low | Medium | |
| **Summary** | Very High | Very High | Medium | Medium | High | |

The overall risk rating for any bank will be in accordance with the risk matrix in Table 8.

**Table 8: Risk Matrix for Overall Bank Risk Rating**

| **Derived BANK IMPACT** | Derived BANK-SPECIFIC RISK | | | | |
|---|---|---|---|---|---|
| | Very High | **High** | **Medium** | **Low** | **Very Low** |
| Very High | Very High | Very High | High | Medium | Low |
| High | Very High | High | High | Medium | Low |
| Medium | High | Medium | Medium | Low | Low |
| Low | High | Medium | Medium | Low | Very Low |
| Very Low | Medium | Medium | Low | Low | Very Low |

The overall risk rating is a summary judgment that reflects the level of supervisory concern considering both the quantity of risk and the quality of risk management, and weighing the relative importance of each. The supervisor's assessment of aggregate risk may be impacted by mitigating factors, not necessarily considered in the quantity of risk and quality of risk management decisions. An example of a mitigating factor is *takaful*. Aggregate risk is assessed as high. Aggregate risk assessments direct the specific activities and resources outlined in supervisory strategies. In addition the Islamic bank's overall risk rating will be used to take informed decisions on the type and frequency of regulatory response to be adopted.

*Direction of risk*, which indicates the likely changes to the risk profile over the next, for example, 12 months and is assessed as decreasing, stable, or increasing. Decreasing direction indicates the supervisor anticipates, based on current information that the aggregate risk will decline over the next 12 months. Stable direction indicates that the supervisor anticipates that aggregate risk will remain unchanged. Increasing direction indicates the supervisor anticipates that aggregate risk will be higher 12 months in the future. When aggregate credit risk is moderate and direction is decreasing, the supervisor can anticipate that aggregate credit risk will be low or lower in 12 months. The direction of risk often influences the supervisory strategy. For the other two categories of risk, strategic risk and reputation risk, the supervisors' judgment of risk is less quantifiable. These risks affect the Islamic bank's value but are not direct risks that supervisors can precisely measure in an examination. These risks require supervisors to consult with supervisory offices to ensure all elements are considered. Given the less explicit nature of these risks, the central bank's risk assessment and measuring process is modified.

*Preliminary Feedback* At this stage, significant findings from the risk assessment will be discussed with the Islamic bank, following which the risk mitigation programme will be developed and formalized. The feedback will take the form of meeting with the Islamic bank management and will usually take place at the completion of the on-site risk assessment work. It may, however, take place at a later time, particularly if additional time is required to arrive at conclusions on significant findings. Where issues identified are not material, a preliminary feedback meeting may not be necessary. The importance of the preliminary feedback is to allow the Islamic bank the opportunity to correct any errors of fact rather than negotiate the supervisor's interpretation of the facts.

**Stage 4: Development of a Risk Mitigation Programme**

The risk mitigation programmes (RMPs) are regulatory actions designed to address the issues identified at the risk assessment stage. The programme will address the nature of the risk, intended outcome, actions to be taken by the supervisor and/or the Islamic bank and the timeframe within which to implement the programme. This will involve the selection of regulatory tools, based on the severity and nature of the risk and the expected outcome.

*Supervisory Tools* These are tools used to diagnose and mitigate risks. They consist of actions to be taken either by the supervisor or the Islamic bank and are classified under four broad groups as shown in Table 9.

**Table 9: Supervisory Tools**

| Diagnostic | Monitoring | Preventive | Remedial |
|---|---|---|---|
| On-site examinations<br>Investigations<br>Sector-wide projects<br>Risk assessments | Off-site surveillance<br>On-site visits<br>External auditors | Disclosure<br>Consumer education<br>Public statements<br>Regulatory standards<br>Authorizations<br>Institution-specific standards<br>Contingency planning<br>Self Regulatory Organizations (SRO) | Compensation schemes<br>Complaints resolution<br>Holding actions<br>Disciplinary actions<br>Interventions<br>Restitution<br>Penalties |

| | | |
|---|---|---|
| | Memoranda of Understanding (MOU) | |

The diagnostic tools will be used mostly to identify and/or measure risks, the monitoring tools will be used to keep track of risks on an ongoing basis, the preventive tools are meant to mitigate or reduce risks while the remedial tools will be used to address crystallised risks.

The selection of regulatory tools will depend on the overall risk rating of the Islamic bank. For Islamic banks rated Very High or High, remedial and preventive tools will mainly be applied; for those rated Medium, monitoring and preventive tools will be applied; while for those rated Low and Very Low, diagnostic and monitoring tools will be mainly applied.

*Determining the Supervisory Period* The supervisory period is the time between one formal risk assessment and another or the period for which the risk mitigation programme lasts. This will vary depending on the overall risk rating of an Islamic bank and will range between 12 and 24 months.

Islamic banks rated Very High and High should have a regulatory period of 12 months, those rated Medium and Low, 18 months and those rated Very Low should have a regulatory period of 24 months. However, any bank that is rated as a ‘Very High’ impact Islamic bank should have a supervisory period of 12 months.

### Stage 5: Evaluation and Validation

Having completed the risk assessment and the risk mitigation programme, the next stage entails conducting an internal evaluation and validation, before the results are adopted for implementation. The validation and testing process is expected to provide quality control and ensure consistency. A committee whose members will be independent of the risk assessment of a particular bank will conduct it. The process will cover the items listed in Table 10.

**Table 10: Evaluation and Validation Procedure**

| Type of Review | Reviewer |
|---|---|
| A review of the risk assessment for completeness and appropriateness of the scores assigned. | Committee of Group Heads of relevant supervisory departments. |
| A review of any business and control risk overrides. | Central Bank Management (CBM)/PDIM Executive Committee on Supervision. |
| A review of the risk mitigation programme, for completeness, adequacy, proportionality and optimal allocation of resources. | The Director of the relevant supervisory department. |
| Approval of the overall risk rating and risk mitigation programme. | CBM/PDIM Executive Committee on Supervision. |

### Stage 6: Communicating the Results of the Assessment and Risk Mitigation Programme to the Islamic Bank

The results of the risk assessment, and the threat it poses to achieving supervisory objectives, the on-site examination report and the risk mitigation programme, will be formally communicated to the Islamic bank. The letter communicating the result of the risk assessment will contain the following: the Islamic bank-specific risk scores and impacts against each statutory objective; key findings that lead to the

Islamic bank-specific risk scores of “Very High” or “High”;tThe length of the regulatory period; and a requirement that the Islamic bank should, at all times, communicate significant events that may affect the risk assessment to the supervisors.

The letter also, will include findings of on-site visits, which should contain the following: (i) the supervisor’s view of key environmental or external risks facing the Islamic bank (where appropriate) that provides the context for the Islamic bank-specific issues identified in the risk assessment; and (ii) The detailed comments and observations of the supervisor.

Finally, the letter will also inform the Islamic bank of the prescribed risk mitigation programme that will set out the following: the issues identified by the supervisors; the intended outcome the supervisors seek to achieve for each issue; the action to be taken to achieve the intended outcome, specifying whether the action is to be taken by the supervisor or the Islamic bank; and the timetable of the action.

The letter to the Islamic bank will be addressed to the Board of Directors to emphasize the importance placed on the board’s responsibility for setting up and operating effective internal controls and running the Islamic bank’s business in compliance with regulatory requirements. In line with this approach, there will be a bias in RMPs for action to be taken by the Islamic bank rather than the supervisors, to achieve specific intended outcomes and make management responsible for ensuring that the action is taken. Where an Islamic bank is a subsidiary, a copy of the letter will be sent to the parent company.

The Islamic bank will be required to respond formally to the letter confirming that it will follow the prescribed RMP. If the Islamic bank declines to carry out the actions in the RMP, the supervisor will consider the use of other supervisory tools. The supervisor will also consider whether the Islamic bank has breached any rule, principle or threshold condition and whether other formal actions, consistent with the provisions of IBA/BAFIA as well as the Contingency Planning Framework for Systemic Distress and Crisis, should be taken. The issuance of the letter will trigger-off implementation actions, as specified in the RMP, by both the supervisory authorities and the Islamic bank.

**Stage 7: Implementation of Risk Mitigation Programme, On-Going Assessment and Response to Risk Escalation**

Where an Islamic bank’s supervisory period exceeds certain prescribed months or as an example - say 12 months, an interim review will be carried out before the expiration of the regulatory period to determine whether the earlier risk assessment and risk mitigation programmes are still applicable to the Islamic bank. The review will also determine whether there has been an escalation of the risks and the appropriateness of the risk mitigation programmes. The review will be an off-site assessment, covering all the risk factors, issues and the supervisory tools deployed.

Reviews could also be carried out when any of the following occurs: developments in the external environment that could materially affect the Islamic bank; changes in the bank’s business, strategy, infrastructure or management; where the supervisory tools deployed have not been effective; and successful achievement of desired outcomes in the RMP, which should ordinarily lead to an improvement in the risk profile of the Islamic bank.

### 3.3 Supervisory Process

This section details steps in off-site surveillance and on-site examination under the RBS framework. The new framework, based essentially on risk profiling of Islamic banks, would be largely carried out through baseline monitoring. Through analyses of information rendered by the Islamic bank, the supervisor would monitor, identify and deal with Islamic bank-specific risks, and provide an insight into industry developments. Since supervisory action would be risk driven, routine monitoring visits will not be a dominant feature of the new framework.

**(a) Off-Site Surveillance**

The off- site function will principally be pre-emptive. It will aim at preventing, controlling and mitigating risks. It will aim at early identification of problems with a view to taking prompt corrective actions, thereby minimizing overall risk in the system.

In line with the framework, off-site supervisory activity will involve risk identification and assessment; implementing and monitoring on-going corrective actions; providing statistical reports to operators; discussions with management and/or external auditors; collaboration with on-site examiners and identification of high risk areas for on-site examination.

**(b) Pre Conditions for Effective Off-Site Surveillance**

There are several conditions that are needed for effective off-site surveillance; among others are data integrity, legal protection for compliance officers, legal protection for whistle blowers, independent directors, fit and proper persons tests, and supervisory team formation.

*Data Integrity* **-** The efficacy of RBS relies heavily on integrity of data upon which informed and accurate analysis of risks are based. Where information and data are either false or unreliable, assessment from the analysis conducted on such data would also be unreliable and faulty. The need for zero tolerance for data and information unreliability is a *sin qua non* for effective risk based supervision. In order to further ensure the quality of data received from Islamic banks, proper validation tests should be carried out with adequate links to examination reports through the Electronic Financial Analysis Surveillance System (e- fass).

*Legal Protection for Compliance Officers* **-** The Compliance Officers of the reporting Islamic banks will play a very significant role under a risk-based supervision regime. Accordingly, there should be adequate legal protection for them. They are to ensure that returns comply with rules and regulations before appending their signatures. They should be made to operate within minimum operating standards.

*Legal Protection for Whistle Blowers* - The supervisor needs to be alerted on happenings in the Islamic banking institutions being supervised that constitute threat to the supervisory objectives. One source of such information are the insiders of the Islamic banking institutions and others whose information could be relied upon. To assure adequate protection for those providing the information, appropriate legal backing will be necessary.

*Independent Directors* **-** In constituting the board of directors of Islamic banks, provision should be made for independent directors so as to promote transparency and reliability of information from the Islamic banks. Such persons must be of high integrity, have no equity interest in the Islamic bank and should be professionals in their own fields. The Islamic banks should ensure that they are appointed as members of the major committees of the board.

*Fit and Proper Persons Test* **-** The process of carrying out the fit and proper persons test should be reviewed to make it more effective. The Boards of banks should have proper combination of Executive and Non Executive Directors. The Chairman of the Board should not serve as the Chairman of Board Committees while the posts of Board Chairman and Managing Director/Chief Executive Officer should not be vested in one person.

*Supervisory Team Formation* - Risk-Based Supervision requires full collaboration between on-site and off-site supervision. In that regard, the roles of on-site examination and the off-site supervision teams need to be harmonized. This would entail the assignment of a group of Islamic banks to a particular on-site examination team with its equivalent off-site. This arrangement would facilitate continuous exchange of information, regular meetings, continuity, and specialization amongst supervisory personnel.

### (c) Off-Site Surveillance Processes

The process involves the same stages as discussed in the RBS framework, except these stages will be actually taken by supervisors in response to the information provided.

*Impact Assessment of Banks* - The off-site processes will commence with the impact assessment of banks. This entails determining the relative significance of a bank to the entire system if it becomes unsafe or unsound. Balance sheet items, (i.e. total assets and total deposits) are compared against defined impact thresholds. This will indicate the scale and significance of the problem if it were to occur. The bank will then be categorized into impact bands - Very High, High, Medium, Low and Very Low. The impact threshold is as shown in Table 11.

**Table 11: Impact Thresholds**

| | **Total Assets** | | | **Total Deposits** | | |
|---|---|---|---|---|---|---|
| **Thresholds** | **RM billion** | **Market Share %** | **Number of Banks** | **RM billion** | **Market Share %** | **Number of Banks** |
| Very High | Above 114 | Above 4% | 1 | Above 45 | Above 3.2% | 3 |
| High | 86-114 | 3%-4% | 2 | 35-45 | 2.5%-3.2% | 1 |
| Medium | 57-85 | 2%-3% | 2 | 25-34 | 1.8%-2.5% | 2 |
| Low | 28-56 | 1%-2% | 5 | 14-24 | 1%-1.8% | 5 |
| Very Low | Below 28 | Below 1% | 12 | Below 14 | Below 1% | 11 |

*Bank-Specific Risk Assessment* - This will involve an off-site review of the bank-specific risk elements. Integrating the outcome of the on-site bank-specific risk assessment with that of the offsite will complete the bank-specific risk review.

*Development of Risk Mitigation Programmes* - Once the bank-specific risk assessment is completed, the Risk Mitigation Programme (RMP) should be developed. The off-site and on-site Examiners as detailed below will develop this, jointly:

The risk mitigation programmes (RMPs) are regulatory actions designed to address the issues identified at the risk assessment stage. The programme will address the nature of the risk, intended outcome, actions to be taken by the supervisor and/or the bank and the timeframe within which to implement the programme.

This will involve the selection of regulatory tools, based on the severity and nature of the risk and the expected outcome.

The tools, which consist of actions to be taken either by the supervisor or the bank, are classified under four broad groups as shown in Table 12.

**Table 12: Supervisory Tools**

| **Diagnostic** | **Monitoring** | **Preventive** | **Remedial** |
|---|---|---|---|
| · On-site examinations<br>· Investigations<br>· Sector-wide | · Off-site surveillance<br>· On-site visits<br>· External auditors | · Disclosure<br>· Consumer education<br>· Public statements<br>· Regulatory standards | · Compensation schemes<br>· Complaints resolution |

| | | |
|---|---|---|
| projects<br>· Risk assessments | · Authorizations<br>· Institution-specific standards<br>· Contingency planning<br>· Self Regulatory Organisations (SRO)<br>. Memoranda of Understanding (MOU) | · Holding actions<br>· Disciplinary actions<br>· Interventions<br>· Restitution<br>· Penalties |

*Evaluation and Validation* - Having completed the risk assessment and the risk mitigation programme, the next stage entails conducting an internal evaluation and validation, before the results are adopted for implementation. The validation and testing process is expected to provide quality control and ensure consistency. A group whose members will be independent of the risk assessment team of a particular Islamic bank will conduct this function. The process will include the items in Table 13.

**Table 13: Evaluation and Validation Procedure**

| **Type of Review** | **Reviewer** |
|---|---|
| · A review of the risk assessment for completeness and appropriateness of the scores assigned.<br>· A review of any business and control risk overrides.<br>· A review of the risk mitigation programme, for completeness, adequacy, proportionality and optimal allocation of resources.<br>· Approval of the overall risk rating and risk mitigation programme. | · Committee of Group Heads of relevant supervisory departments.<br>· CBM/PDIM Executive Committee on Supervision.<br>· The Director of the relevant supervisory department.<br>· CBM/PDIM Executive Committee on Supervision. |

*Communicating the Results of the Assessment and Risk Mitigation Programme to the Bank* **-** The results of the risk assessment, and the threat it poses to achieving supervisory objectives and the risk mitigation programme, will be formally communicated to the Islamic bank.

*On-Going Assessment and Response to Risk Escalation* After communicating the results of the assessment and RMP to the Islamic bank, the next stage is the on- going assessment and response to risk escalation. The on-going assessment will also focus on prompt corrective actions and contingency plans to curtail possible escalation of risk. Apart from the risk assessment that is carried out for each Islamic bank during the supervisory cycle, an on-going off-site assessment of the financial soundness of the Islamic bank will continue. The process would include off-site rating of Islamic banks, sending offsite reports to Islamic banks, and a review of compliance with prudent thresholds and guidelines.

### (d) On-Site Examination Process

The Risk-Based Supervision will commence with a full-scope examination of an Islamic bank. Subsequently, the on-site examination will range from a full scope examination that will cover the various risk elements identified to a target examination as may be determined by the supervisory programme developed for each Islamic bank.

On-site visitation will be required at the following stages of the framework; risk assessment, development of RMP, implementation of the RMP, and commencement of a new assessment cycle.

While, the examination process will include the following phases: examination planning, examination programme and examination procedures.

### (i) Examination Planning

The starting point for RBS is an understanding of the Islamic bank being examined. The process begins with the review of all available information on the bank. The Examination Team will prepare a report titled "Institutional Overview Report" in the form of an executive summary that concisely describes the Islamic bank's present condition as well as its current and prospective risk profile.

To define the examination activities as well as provide information for the conduct of risk-based examination, two important documents must be prepared. These are the Examination Planning Memorandum and the Entry Letter.

In the Examination Planning Memorandum (EPM), it will summarize the activities to be performed during the onsite examination, as an integral part of the RBS. The document, which would be prepared before undertaking the on-site visit, should identify the specific objectives of the examination and ensure that the objectives and strategy are communicated to the team members. The focus of on-site examination identified in the EPM, should be oriented to a top-down approach that includes a review of the Islamic bank's risk management systems and appropriate level of transaction testing. Transaction testing and asset review would be necessary to verify the integrity of the systems.

The Primary purpose of the EPM is to document and convey Examiners' conclusions regarding allocation of examination resources according to perceived risks. However, it should not serve as an off-site analysis of the Islamic banking institution to be examined. The EPM includes a discussion of all CAMELS components (and in some cases, ancillary areas), regardless of the risk involved or the volume of resources anticipated to be devoted to these areas. The EPM will also include data and discussion regarding examination hours (budgeted hours, average hours, and previous examination hours).

The EPM comments will be prepared on an "exception only" basis, according to areas of higher-than-normal or lower than-normal perceived risk. It will also encourage brief, bullet comments, not necessarily of report quality; include high-level performance ratios and financial data; require the Examiner's formal contact with the bank's off-site Examiner during pre-planning, which will be documented in the EPM; define the deadline for submission to be the last five (5) business days prior to the commencement of the examination. The Examination Planning process will generate concise pre-planning documents that are consistent with the stated examination objectives and detail allocation of resources according to perceived risks.

The Entry Letter is used to request an Islamic bank to supply specific information on its activities to the supervisor. It identifies information necessary for the successful execution of the on-site examination. The letter would be tailored to fit the specific character and profile of the Islamic bank to be examined and the scope of the activities to be performed. To eliminate duplication, the letter will not request for any information that is provided on a regular basis to the Regulatory Authorities, such as the various financial information on Quarterly Bank Report.

### (ii) Examination Programme

The examination programme will provide a comprehensive schedule of all examination activities to be conducted on an Islamic bank. The examination programme should incorporate the following: targeted risk areas, low risk areas subject to limited review, financing scope, staffing, documentation methodology, and submitting the examination planning memorandum.

*Targeted Risk Areas* - These are defined as areas with more than normal risk, to which the Examiner intends to devote additional or "above normal" examination resources. Targeted Risk Areas may include CAMELS components, specialty areas [e.g. e-banking], internal audit environment, internal routine and controls. Targeted Risk Areas should not include discussions of areas that are perceived to present average or moderate risk. For areas of moderate or "normal" risk, the Examiner will perform standard examination procedures. Specific discussion of these areas is therefore, not necessary.

*Low Risk Areas Subject to Limited Review* **-** Examiners will specifically discuss any areas of perceived low risk, where normal examination resources and procedures will be reduced or eliminated. Comments will include a brief explanation of why the area is considered low risk.

*Financing Scope* - The Examiner will comment on the proposed financing scope, with emphasis on risk areas within the portfolio where financing file reviews will be concentrated. To the extent possible, Examiners will disclose the target financing penetration percentage. The Examiner will discuss financing scope with the Off-site Examiner during the pre-examination planning contact.

*Staffing* **-** The Examiner will prepare a schedule of duties, apportioning tasks to members of the Examination team. The job schedule should be accomplished within the specified time frame.

*Documentation Methodology* **-** The Examiner is expected to indicate the specific examination modules which he/she anticipates using. The actual documentation methodology used may differ from that discussed in the EPM.

*Submitting the Examination Planning Memorandum* **-** The EPM is expected to be submitted for approval not later than the last business day prior to the commencement of the examination. A copy of the EPM should also be forwarded to the Relationship Manager for comments.

### (iii) Examination Procedures

Having developed the EPM, examination procedures will be tailored to the characteristics of each Islamic bank, bearing in mind the size, complexity and risk profile. The procedures will cover the: evaluation of areas of significant risk, documentation of findings and conclusions, exit discussion, and risk report.

*Evaluation of Areas of Significant Risk* - The field work will focus on developing appropriate documentation to adequately assess management's ability to identify, measure, monitor and control risks. Procedures will be completed to the degree necessary to determine whether the Islamic bank's management understands and adequately controls the levels and types of risks that are assumed. Full-scope examinations are expected to include Examiners' evaluation of all the risk elements, which usually are the common sources of significant risks. In addition, Examiners are also expected to evaluate other areas of significant sources of risk to the Islamic bank. The Examiner should hold formal meetings with the Islamic bank's management team to discuss and obtain commitment on their findings on each functional area.

*Documentation of Findings and Conclusions* - It is important for Examiners to document their findings and overall conclusions after performing the procedures contained in the relevant examination manual. The comments are expected to be clear and well organized. The conclusions, as each relates to the functional area under review, should clearly communicate the Examiners' assessment of the risk management system, the financial condition, and compliance with laws and regulations

*Exit Discussion* **-** At the end of the examination, the Examiners will arrange for a meeting with the Islamic bank's management during which all findings will be discussed.

*Risk Report* **-** At the conclusion of each on-site visit, a Risk Map as shown in Table 14 will be produced. Accompanying the Risk Map, a detailed report will also be produced. It should clearly and concisely contain any supervisory issues, problems, or concerns related to the Islamic bank. All comments regarding deficiencies noted in the Islamic bank's risk management systems, as highlighted during the exit discussion, should be included in the Report. Accordingly, the report should detail observations under each of the risk elements.

**Table 14: An Example of Risk Map**

| Risk | Risks | Risk-To-Objectives |
|---|---|---|

| Groups | Elements | Financial Failure | Misconduct and Mismanagement | Poor Corporate Governance | Inadequate Government Understanding | Financial Crime/Fraud or dishonesty | Money |
|---|---|---|---|---|---|---|---|
| Strategy | Quality of corporate strategy/Nature of business | 3 | 2 | 3 | N/A | N/A | 2.5 |
| Strategy Score | | 3 | 2 | 3 | N/A | N/A | 2.5 |
| Strategy score – OVERRIDE | | 3 | 2 | 3 | N/A | N/A | 3 |
| Market, Credit and Operational Risks | Credit Risk | 4 | 3 | 1 | N/A | 1 | N/A |
| | Market Risk | 2 | 1 | N/A | N/A | N/A | 1 |
| | Operational Risk | 1 | 2 | 3 | 3 | 2 | 2 |
| | Legal Risk | 1 | 1 | 1 | 1 | 1 | 3 |
| Market, Credit and Operational Risks Score | | 2 | 1.8 | 1.2 | 2 | 1.3 | 2 |
| Market, Credit and Operational Risks – OVERRIDE | | 2 | 2 | 1 | 2 | 1 | 2 |
| Financial Soundness | Adequacy of Capital | 5 | 5 | 5 | N/A | N/A | N/A |
| | Liquidity/ Clearing Settlement Arrangement | 5 | 5 | 5 | N/A | N/A | N/A |
| | Earnings | 5 | 2 | 3 | N/A | N/A | N/A |
| Financial Soundness Score | | 5 | 4 | 4 | N/A | N/A | N/A |
| Financial Soundness - OVERRIDE | | 5 | 3 | 4 | N/A | N/A | N/A |
| Nature of Customers and Products | Type of customers/ Sources of business | 2 | 2 | N/A | 4 | 1 | 2 |
| | Types of products | 2 | 4 | N/A | 2 | N/A | 1 |
| Nature of Customers and Products Score | | 2 | 3 | N/A | 3 | 1 | 1.5 |
| Nature of Customers and Products –OVERRIDE | | 2 | 2 | 1 | 3 | 1 | 1.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Treatment of Customers | Service delivery, training, recruitment, remuneration and security of customer. | 1 | N/A | N/A | 2 | 3 | N/A |
| | Disclosure and adequacy of product literature | N/A | N/A | N/A | 4 | N/A | N/A |
| Treatment of Customers Score | | 1 | N/A | N/A | 3 | 3 | N/A |
| Treatment of Customers – OVERRIDE | | 1 | 1 | N/A | 3 | 3 | N/A |
| Organisation | Clarity of Ownership /Group structure | 2 | 3.5 | 3 | N/A | N/A | N/A |
| Organisation Score | | 2 | 3.5 | 3.5 | N/A | N/A | N/A |
| Organisation – OVERRIDE | | 2 | 3 | 3 | N/A | N/A | N/A |
| Internal Systems and Controls | Risk management system | 5 | 5 | 5 | N/A | N/A | N/A |
| | Information Communication Technology. | 5 | 2 | 3 | N/A | N/A | N/A |
| | Compliance/Internal Audit | 5 | 5 | 3 | | 2 | 1 |
| | Degree of outsourcing | 4 | 1 | N/A | N/A | N/A | 2 |
| | Money laundering controls | 5 | 4 | 1 | N/A | N/A | 1 |
| Internal Systems and Controls Score | | 4.8 | 3.4 | 3 | N/A | 2 | 1.3 |
| Internal Systems and Controls – | | 4 | 3 | 3 | N/A | 1 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| OVERRIDE | | | | | | | |
| Board, Management and Staff | Corporate governanc e/ Human Resources | 4.5 | 4.5 | 3 | N/A | 1 | N/A |
| Board, Management and Staff Score (Average) | | 4.5 | 4.5 | 3 | N/A | 1 | N/A |
| Board, Management and Staff – OVERRIDE | | 4 | 4 | 3 | N/A | 1 | N/A |
| Business and Compliance Culture | Relationsh ip with regulators | 1 | N/A | N/A | N/A | N/A | N/A |
| Business and Compliance Culture Score | | 3 | N/A | N/A | N/A | N/A | 2 |
| Business and Compliance Culture –OVERRIDE | | 2 | N/A | N/A | N/A | N/A | 2 |

**(e) Stress Testing**

Stress testing is developed to avoid the portfolio losses. In stress testing, supervisors are concerned that Islamic banks monitor their risk exposures with appropriate reference to unlikely events that could cause portfolio losses. They are interested in ensuring that *stress testing procedures* are detailed in the Islamic bank's risk-management policies and that senior management actively uses the information, for example, in setting trading limits. We could highlight that some supervisory concerns remain, including the need to improve financing and liquidity risk stress testing as well as the need to integrate market and financing risks across the Islamic banks. In addition to assessing Islamic banks' risk-management practices, supervisors have developed *stress-testing tools* for their own monitoring purposes.

The Central Bank in different jurisdictions use different stress-testing models to identify depository institutions that are potentially vulnerable to markets. For example, one model was calibrated to the financial crisis in 1997, which affected the health of several depository institutions. With regard to benchmark rate risk, the Central Bank could maintain a duration-based valuation model that examines the impact of an increase in rates on bank portfolio values. The model can be used to detect Islamic banks that would appear to be the most vulnerable to rising benchmark rates.

Recently, supervisors have been developing similar tools for assessing national financial systems overall. For example, macroeconomic stress-testing techniques are used to assess the vulnerability of a financial system to exceptional, but plausible, macroeconomic shocks. These stress tests have become an important component of the Financial Sector Assessment Programmes (FSAPs) initiated by the International Monetary Fund in the late 1990s and conducted by national policymakers. There are two main methodological approaches here. The piecewise approach evaluates the vulnerability of the financial sector to individual risk factors, such as nonperforming financing ratios, by forecasting their behaviour under various macroeconomic stress scenarios. The integrated approach analyzes the sensitivity of the financial system to multiple risk factors by generating a distribution of aggregate portfolio losses that could occur under macroeconomic stress scenarios.

For example, one stress scenario could be based on the macroeconomic impact of a 35% decline in global stock prices; another scenario could be based on a 12% decline in domestic real estate prices; the magnitudes for these hypothetical macroeconomic scenarios are compared with the range of historical estimates. The aim is to identify the probability that those two results move together.

## 4. Areas of Concern in Performing the Supervisory Task

Having discussed the approach and framework of RBS, and also the supervisory process, there are several areas of concern to the central bank. We will discuss each concern below.

### (a) Capital Adequacy and Earning Sustainability

An area of particular concern to the Central Bank in its supervisory role over Islamic banks is whether an Islamic bank has sufficient capital to support its operations, to provide an adequate base for the growth of the bank, and to act as a cushion to absorb unexpected losses incurred by the bank. Capital adequacy is a vital measure of the safety and soundness of the Islamic bank and a significant indicator of the level of protection the Islamic bank has against insolvency. Ensuring adequate levels of capital on a consolidated basis promotes public confidence in the particular Islamic bank and the entire banking system. The Central Bank's capital adequacy guidelines include risk-based measures (based on the Basle I and Capital Adequacy Standard) and leverage measures.

The primary functions of the risk-based measure of capital adequacy are to: (i) sensitize regulatory capital requirements to differences in risk profiles among Islamic banks; (ii) factor off-balance sheet exposures into the assessment of capital adequacy; (iii) minimize disincentives to holding liquid, low-risk assets; and (iv) achieve greater consistency in the evaluation of the capital adequacy of major Islamic banks throughout the world.

The risk-based capital guidelines set forth minimum ratios of capital to risk-weighted assets, but it is important to note that Islamic banks are expected to maintain capital well above these minimum ratios. Currently, the minimum ratio of total capital to risk-weighted assets is eight percent, and the minimum ratio of Tier 1 capital to risk-weighted assets is four percent. Those bank holding companies that intend to expand their operations are expected to maintain capital levels significantly in excess of these minimum ratios. Additionally, those bank holding companies that engage in Islamic banking or Islamic non-banking activities that are prone to high levels of risk, such as engaging in underwriting and dealing in certain debt and equity securities through Islamic non-bank subsidiaries - must maintain capital ratios substantially above the minimum ratios. Islamic banks that fail to meet the minimum risk-based standard, or otherwise become inadequately capitalized, must develop and implement a capital restoration plan acceptable to the central bank.

The leverage measure of capital adequacy was formulated by the Central Bank to complement the risk-based measure in determining the overall capital adequacy of Islamic banks. The Central Bank has established a minimum ratio of capital to total assets of eight percent. The principal objective of the capital leverage ratio is to limit the degree to which an Islamic bank can leverage its equity capital base.
As in the case of the earning sustainability, the Islamic banks are expected to maintain an increasing trend of profit with a lower allowance. By doing this, the Islamic banks are able to transfer reserves that could increase the total amount of capital.

### (b) Continuous Surveillance

Continuous surveillance can be judged by the use of various monitoring systems and risk management tools or controls. Both become the focus of discussion in this section.

### (i) Monitoring System

Over the past four decades, various monitoring systems have been developed, but their objectives have generally been the same: to identify developing financial problems at Islamic banking institutions; to identify the areas of main supervisory concern in those institutions; and to allocate the more experienced examiners to troubled institutions.

The following discussion will concentrate on each monitoring system and will highlight the limitations of each system, which will later produce a combination of FIMS and risk rank and the RBS.

*Uniform Bank Surveillance Screen* **-** Since the mid-l970s, the Central Bank monitored the financial performance and condition of banking organizations by screening financial ratios calculated from the Call Report filed quarterly by each banking organization. In an effort to improve this monitoring system, the Central Bank in the mid-198Os adopted the Uniform Bank Surveillance Screen (UBBS) as its primary surveillance system. With some changes, the UBBS remained in service until 1993, when it was replaced by the Financial Institutions Monitoring System (FIMS). The UBBS used financial data from regulatory reports to identify individual institutions whose financial ratios had deteriorated relative to the averages of their respective "peer groups,' institutions with similar sizes of assets.

*CAEL System* **-** During the mid-198Os, the Central Bank developed a surveillance system known as CAEL, which is methodologically similar to the UBBS. The acronym CAEL refers to four CAEL component ratings that the system evaluates, which are capital, asset quality, earnings, and liquidity. The system does not provide a management rating. Like the UBBS, CAEL is based upon quarterly bank Call Report data; but whereas the UBBS calculates a composite percentile ranking, CAEL calculates off-site surrogates for CAEL ratings.

CAEL ratings are calculated in a manner similar to that by which the surveillance scores are calculated in the UBBS, although the calculation of CAEL ratings is considerably more complex and involves many more financial ratios. Like the UBBS, the CAEL system divides banks into peer groups based upon asset size and calculates percentile rankings for four sets of financial ratios that correspond to the four component ratings. Each of the four component ratings is calculated as a weighted average of the corresponding set of financial ratios. The composite CAEL rating is calculated as a weighted average of the four component ratings. Both the ratios used to calculate the ratings and the weights associated with each ratio are determined by a panel of bank examiners. CAEL remains in place today as the Central Bank's off-site surveillance system.

*Financial Institutions Monitoring System* **-** The weaknesses of the above methods are identified around three areas. First, the weights assigned for each variable, which were fixed across estimation periods, were determined subjectively rather than by rigorous statistical testing. The CAEL applies equal weights to each of the four financial ratios used to construct the composite surveillance score. CAEL applies a system of weights determined by a panel of senior examiners.

Second, even if the selected financial ratios contained all the information necessary for an accurate assessment of risk, improper weighting of those ratios would reduce the accuracy of estimation. Moreover, even if optimal weights had initially been assigned, the failure to adjust for temporal shifts

Third, the weaknesses of these systems are the reliance upon peer-group analysis. Both systems divide banks into peer groups based upon asset size because the average values of key financial ratio are significantly different for banks of different sizes. Without a peer-group analysis, differences in the financial ratios associated solely with bank size could be mistakenly interpreted as differences in financial condition. Because performance is measured relative to that of other banks of similar size however, systemic changes in the performance either of peer groups or of the banking system as a whole are not incorporated into the composite surveillance scores. Hence, if an entire peer group deteriorates, the percentile scores of individual banks within that peer group may not change, even though the banks have become riskier.

With peer group analysis, an additional complication arises when the size of an institution changes in a manner that places it in a larger or smaller peer group than it was in during the previous quarter. In such a case, the institution's percentile scores may change significantly, even if its financial condition has not changed.

Addressing the weaknesses of the previous off-site bank monitoring systems, the Financial Institutions Monitoring System (FIMS) provides two complementary surveillance scores based upon two distinct econometric models-the FIMS rating and the FIMS risk rank. The FIMS rating is an assessment of a bank's current condition, whereas the FIMS risk rank is a longer-term assessment of the bank's expected future condition.

The FIMS rating represents an estimate, based upon the most recent data, of the financial health of the banks during the current quarter. Because the relationship between financial ratios and CAEL ratings may change over time, the FIMS rating model is updated each quarter. The updates reflect the most recent relationship between financial ratios derived from the two most recent quarters of the bank’s financial statement and supervisory ratings based upon the most recent on-site examination. Empirical testing indicates that using data from the two most recent quarters to estimate the historical relationship maximizes the classification accuracy of the rating model.

On the other hand, the FIMS risk rank represents an estimate, based upon a bank's financial condition as measured by the most recent data, of the probability that a bank will fail during the subsequent two years.[9] Like the FIMS rating model, the risk rank model is updated quarterly to determine which ratios to include and how to weight these ratios. But the risk rank model is updated using financial ratios derived from financial statements from the same quarter two years previously and information classifying banks as failing or surviving during the intervening period. This procedure enables the risk rank model to incorporate change over time and produces a much longer-term assessment of a bank's financial viability than does the FIMS rating model.

*Risk-Based Supervision* - the dynamism of the global economic environment requires more robust tools and skills to mitigate risks arising from the rapid development of the financial sector. In response to the changing financial landscape, advancement in, and widespread use of information/communications technology, a more effective approach is required. Although effective risk management has always been central to safe and sound banking activities, it has assumed added importance for two main reasons. Firstly, new technologies, product innovation, size and speed of financial transactions have changed the nature of banking. Secondly, there is need to comply fully with the Islamic Financial Services Board guidelines and to prepare an enabling environment for the implementation of the New Capital Adequacy Standards. The foregoing, amongst others, premised the imperative of the adoption of Risk-Based Supervision (RBS) Framework.

**(ii) Risk Management Tools**

In promoting a stable and sound Islamic financial system, the supervisory authorities place high priority in Islamic banks establishing effective risk management processes. The processes put in place for the effective management of risks in any Islamic bank underscores the ability of the board and management of each Islamic bank to identify, measure, monitor and control all risks inherent in its activities.

It is the overall responsibility of the Board and Management of each Islamic bank to ensure that adequate policies are in place to manage and mitigate the adverse effects of both business and control risks in its operations. Each bank should develop and implement appropriate and effective information systems and procedures to manage and control risks in line with the risk management policies of the bank.

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[9] "Failure" is defined as encompassing not only those institutions declared equity insolvent by their primary regulator during the two-year period but also those that are classified as "critically undercapitalized" at the end of the period. The latter group is included to identify institutions for which the Central Bank mandates "prompt corrective action." In general that legislation requires the Central Bank to close critically undercapitalized institutions within ninety days. Critical under capitalization is defined as a ratio of tangible equity to average assets of less than 2 percent.

The supervisory authorities will appraise the adequacy of the risk management processes of each Islamic bank. All the facets of the risk management processes of the bank will be reviewed as the need arises to take account of changing circumstances. Each Islamic bank should submit a copy of its Risk Management Process (and any amendments thereto) to the Central Bank and the Malaysia Deposit Insurance Corporation for appraisal and review.[10]

The following issues need to be considered in developing the risk management processes. *Self Assessment* - each Islamic bank is expected to identify significant activities, types and levels of inherent risks and the adequacy of its risk management processes and each Islamic bank should also assess itself to determine the level of risks inherent in its operations.

*Risk Identification and Assessment* - This process involves identifying the risks inherent in an Islamic bank's business activities, which may affect its business objectives. Each Islamic bank would also need to assess the likelihood of risks crystallizing from within the Islamic banks. The risk assessment entails the development of a risk map by Islamic banks, which should take into account external events and threats.

*Risk Measurement Methods* – Islamic banks are required to score the risk elements identified in terms of size, duration and probability of adverse consequences. The measurement should graduate risk levels, based on the scale or significance of the activities in relation to the Islamic bank's risk management goals and objectives. Thus, a risk element may be scored Very High, High, Medium, Low or Very Low.

*Risk Mitigation and Control Programme* - The risk mitigation programme is a set of self regulatory actions designed to address the impact of risks and its associate problems if and/or when they occur. The type of risk mitigation programme that would be put in place would depend on the result of self-assessment carried out by the bank. Generally, risks viewed as Very High or High would require actions to be taken to mitigate such risks. The mitigation programme from the individual Islamic bank's perspective would entail actions that are diagnostic, monitoring, preventive or remedial. Actions are preventive when they are aimed at preventing the occurrence of an identified risk and remedial where they are to address crystallized risks. The risk control process involves the establishment of risk management standards. The standards to be set should be a deliberate policy of the Islamic bank to achieve its business objectives. The objective would be to minimize the occurrence of such identified risks and contain the effects of the risks when they occur.

*Risk Monitoring Process* - Management should review the standards set for the Islamic banks on a continuous basis, to ensure that they are appropriate in meeting the set objectives. This would be achieved by appointing specific Risk Managers who would review the adequacy or otherwise of the risk management processes across the organization (see Appendix A). It is the duty of the Senior Management of the Islamic banks to ensure compliance with the risk controls put in place.

### (c) Supervisory and Enforcement Actions

The central bank may take both formal and informal supervisory enforcement action against an Islamic bank in response to violations of law or regulations, capital deficiencies, or other significant supervisory concerns. Generally, the central bank may take formal action only after informal action has failed to resolve the supervisory concerns. Informal actions include supervisory letters and formal discussions with the officers or directors of the Islamic bank. Formal actions include cease and desist orders, civil money penalties, criminal penalties, written agreements, and prompt corrective action directives ("PCAs"). The central bank may take supervisory and enforcement action not only against the Islamic banks it supervises, but also against various persons affiliated with such Islamic banks, such as officers or directors.

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[10] The latter is only applicable if the Central Bank introduces a policy of deposit insurance based on the risk exposure level of each Islamic bank.

Of the formal enforcement actions available to the central bank, PCA relates most directly to concerns regarding capital adequacy, as well as asset quality, management, earnings, and liquidity. PCA requires the central bank to administer timely corrective measures to Islamic banks when their capital position falls below certain thresholds that are considered unsafe and unsound. The five capital categories for PCA purposes are: (a) well capitalized; (b) adequately capitalized; (c) undercapitalized; (d) significantly undercapitalized; and (e) critically undercapitalized.

Islamic banks falling into one of the last three categories are the primary candidates for PCA. PCA generally relies on the current total risk-based capital, Tier 1 risk-based capital, and Tier 1 leverage ratio thresholds to trigger specific actions to restore Islamic banks to appropriate capital levels. While these capital ratios are generally calculated from information submitted in the various regulatory reports required by the Central bank, PCA may also be triggered by the finding of an unsafe or unsound condition or practice in an Islamic bank, irrespective of the Islamic bank's actual capital ratio. In such cases, the Islamic bank's measurable capital ratio may be reclassified to the next lower capital category.

PCA provides for increasingly stringent corrective provisions as an Islamic bank is placed in progressively lower capital categories. The PCA framework requires the Central Bank to take certain mandatory actions as well as to consider certain discretionary actions.

An important component of the PCA framework is the capital restoration plan. Any Islamic bank that is undercapitalized, significantly undercapitalized, or critically undercapitalized must provide the Central Bank with a capital restoration plan to bring capital ratios to at least the minimum level necessary for an adequately capitalized organization. These plans must be in writing and detailed in nature. Islamic banks submitting such plans for Central Bank approval must adhere to established rules regarding the minimum substantive criteria for, and filing requirements of, capital restoration plans. Moreover, the Central Bank may not approve any capital restoration plan unless each company/individual that controls the Islamic bank submitting the plan has guaranteed the Islamic bank's full compliance with the plan and has given the Central Bank reasonable assurances of performance. Failure to submit or implement an approved capital restoration plan by an undercapitalized Islamic bank makes such an Islamic bank subject to the same PCA provisions applicable to significantly undercapitalized banks.

## 5. Conclusion

The aim of this paper is to produce effective supervision. From the analysis, the findings suggest that the supervision by risk approach provides the supervisor and the Islamic banking industry with: (i) a high level of consistency in supervision because it sets and uses minimum core procedures; an allocation of resources based on risk;(ii) sufficient flexibility to allow supervisors to tailor the supervisory effort to the risks present; (iii) less supervisory intervention in areas of low risk; and (iv) help in determining the sufficiency of each Islamic bank’s capital and risk management systems.

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**Appendix A:** Example of Financial Risk Management Policies of an Islamic Bank

The guidelines and policies adopted by the Bank to manage the following risks that arise in the conduct of the business activities are as follows:

**Operational risk**

This risk is defined as the risk of loss arising from inadequate or failed internal processes, people and systems and external events. In managing this risk a dedicated team has been established. The team is responsible for identification, assessment and measurement, control framework, monitoring and reporting of operational risks.

**Credit Risk**

Credit risk is the potential loss of revenue and principal in the form of specific allowances as a result of defaults by the customers or counter parties through the financing, dealing and investing activities. The primary exposure to credit risk arises from financing activities. Credit policy to govern the activities is rigorously being enhanced with the objectives of improving the quality of assets originated and preserved. This is in line with the on-going organization transformation.

Under the credit process flow, credit administration, credit control, review and analysis are performed independently of individuals involved in business origination. In addition, an independent evaluation of credit proposals before approval has been established for all proposals involving corporate and commercial sectors. This function is performed by the risk management division.

Credit risk arising from dealing and investing activities are managed by the establishment of limits which include, counter parties limits, permissible acquisition of not less than A-rated private entities instruments. Furthermore, the dealing and investing activities are monitored by an independent middle office unit.

**Market risk**

Market risk is the risk of loss arising from adverse movements in the level of market prices or

rates. The market risk components are foreign exchange risk, profit rate risk and equity risk.
(i) Foreign exchange risk
This risk refers to adverse exchange rate movements on foreign currency positions taken by the Bank. Foreign currency open position is monitored against predetermined position limits and cut-loss limits.
(ii) Profit rate risk
This risk refers to volatility in the net profit income as a result of changes in the levels of profit rate and shifts in the composition of the assets and liabilities. The profit rate risk, however, is self-mitigated when most of the financing assets are based on fixed rates while profit paid to depositors is not contractual. Profit paid to depositors/investors depend on the profit generated from the Bank's activities and the profit sharing distribution. The Bank is not exposed directly to interest rate risk because interest is prohibited under Islamic banking. The indirect interest rate risk exists arising from competition with other banks. This is managed by regularly reviewing the Bank's profit rates.
(iii) Equity risk
Equity risk refers to the adverse movements in the price of equities on equity positions. Equity position is marked to market and monitored Risk Management Division and reported to the Risk Management Committee.

**Liquidity risk**
Liquidity risk is related to the risk arising mainly from withdrawals of deposits. In managing this, the Bank is adopting the liquidity framework introduced by Bank Negara Malaysia which ascertains liquidity based on the contractual and behavioural cash flow of assets, liabilities and off-balance sheet commitments.