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PART A OVERVIEW

1. Introduction

- 1.1. Pillar 2 of the Risk-Weighted Capital Adequacy Framework (RWCAF) aims to ensure that banking institutions have adequate capital to support their operations at all times. It also promotes the adoption of a more forward-looking approach to capital management and encourages banking institutions to develop and employ more rigorous risk management techniques.
- 1.2. Under Pillar 2, the adequacy of a banking institution's capital will be assessed by both the banking institution and Bank Negara Malaysia (the Bank). This encompasses:
 - i. an Internal Capital Adequacy Assessment Process (ICAAP) to be carried out by the banking institution in accordance with these Guidelines; and
 - ii. supervisory review and evaluation of a banking institution's ICAAP, including an assessment of the quality of the control environment within which the ICAAP is implemented.
- 1.3. While regulatory efforts have been directed at increasing the risk-sensitivity of Pillar 1 capital calculations, there exists limitations to which minimum regulatory capital requirements can be solely relied upon to ensure the overall capital adequacy of an individual banking institution. These include inadequacies in the Pillar 1 framework in capturing all material risks of an individual banking institution, as well as the potential for a deterioration in the banking institution's operating environment that will adversely affect its overall capital adequacy and compliance with regulatory requirements in the future. Therefore, a banking institution is expected to have in place an ICAAP to ensure that it maintains adequate capital on an ongoing basis to support its business operations beyond minimum regulatory capital requirements under

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Pillar 1. These Guidelines describe key elements required of an ICAAP, including the determination of internal capital targets that are commensurate with a banking institution’s risk profile and control environment.

2. Applicability

- 2.1. These Guidelines are applicable to all banking institutions licensed under the Banking and Financial Institutions Act 1989 (BAFIA).

3. Legal Provision

- 3.1. These Guidelines are issued pursuant to sections 37 and 126 of BAFIA.

4. Effective Date of Implementation

- 4.1. Banking institutions should submit to the Bank a board-approved ICAAP document by 31 March 2013¹. The document should be comprehensive and reflective of the banking institution’s size, nature of business and complexity of business activities².

5. Level of Application

- 5.1. The expectations set out under these Guidelines shall apply to all banking institutions on a consolidated basis, as defined in paragraph 4.1 of the *Risk-Weighted Capital Adequacy Framework (General Requirements and Capital Components)*.

¹ Based on 31 December 2012 financial and capital positions.

² Refer to Question B.4 of the *Implementation Guidance on Pillar 2* on the information to be included in the ICAAP document.

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PART B INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS (ICAAP)

6. Overview

- 6.1. A banking institution should have an ICAAP in place for assessing its overall capital adequacy in relation to its risk profile and a strategy for maintaining appropriate capital levels. In particular, the ICAAP should aim to:
- i. identify all material risks and measure those risks that can be reliably quantified to determine how such risks affect the banking institution's overall capital adequacy; and
 - ii. develop a strategy for maintaining adequate capital levels consistent with the banking institution's risk profile, and taking into account its strategic focus and business plans as well as its control environment.
- 6.2. The degree of formalisation and sophistication of a banking institution's ICAAP should be proportionate to its size, nature of business, and complexity of its activities. The Bank also expects that the ICAAP be embedded within a banking institution's internal risk management framework, and not be developed solely for regulatory compliance purposes. Information derived from the ICAAP should therefore influence decision making of the banking institution, and be used to determine other management processes and business applications (e.g. in limits setting, product design/pricing and performance measurement).

7. Board and Senior Management Oversight

- 7.1. The board of directors and senior management are responsible for ensuring that the banking institution maintains an appropriate level and quality of capital for the institution's risk profile and business plan. For this purpose, the

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board and senior management should attain an understanding of the nature and materiality of risks inherent in the banking institution's activities.

- 7.2. In exercising its oversight responsibilities, the board is expected to:
- i. approve the institution's tolerance for risks (risk appetite) and capital management framework (which should include, among others, internal capital targets) for the banking institution; and
 - ii. ensure that senior management discharges its responsibilities for the development and effective implementation of the ICAAP.
- 7.3. Senior management is responsible for the development and effective implementation of the ICAAP. Senior management is expected, among other things, to:
- i. ensure that all elements of the ICAAP, as stipulated in these Guidelines, are established and functioning effectively, and that these are subject to independent review on a periodic basis, including:
 - a. systems to assess risks, risk mitigation strategies and approaches to relate capital to the level of risk; and
 - b. processes for ensuring and monitoring the adequacy of capital allocated against material risks;
 - ii. as part of capital planning, ensure that a comprehensive assessment of capital adequacy is conducted at least annually (or more frequently as required), with the view of ascertaining whether internal capital targets continue to remain appropriate;
 - iii. establish policies and procedures relating to the ICAAP, and communicate these effectively throughout the organisation as appropriate and establish a method for monitoring their compliance; and
 - iv. ensure that appropriate documentation is maintained for all aspects of the ICAAP described in these Guidelines.

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8. Comprehensive Risk Assessment

8.1. A banking institution's ICAAP should identify all material risks faced by the institution and measure those risks that can be reliably quantified. The ICAAP should therefore address:

i. Risks captured under Pillar 1

This covers credit risk, market risk, operational risk, as well as any other risk types included under Pillar 1.

ii. Risks not fully captured under Pillar 1

This covers risks which are not fully captured by the Pillar 1 process. Such risks relate to the underestimation/uncertainty of risks calculated under Pillar 1 and may include model risk (e.g. parameter risk or model methodology risk)³ or securitisation risk.

iii. Risk types not covered by Pillar 1

This covers risks which are not specifically addressed under Pillar 1, which include risk concentrations (e.g. credit concentration risk), interest rate/rate of return risk in the banking book and reputational risk.

8.2. Banking institutions should also identify and assess changes in external factors (e.g. regulatory, economic or business environment) that may affect the banking institution's risk profile over time.

8.3. For each material risk identified, banking institutions should ensure that the risk assessments are supported by:

- i. consistent and robust risk assessment approaches;
- ii. quality data used for risk measurement; and

³ For example, a banking institution adopting the simpler approaches under Pillar 1, such as the Standardised Approach for credit risk, would be expected to assess whether capital allocated under Pillar 1 adequately captures the risks that the institution is exposed to. Meanwhile banking institutions adopting any of the advanced approaches, such as the Internal-Ratings Based approach for credit risk would be expected to assess any potential underestimation of risk due to limitations of data inputs or weaknesses in model structures.

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- iii. sound techniques and methodologies that are commensurate with a banking institution’s size, nature of business and complexity of activities. Banking institutions should additionally consider specific limitations that may exist on the use of particular techniques when implemented under certain market conditions.

- 8.4. All assessments of risks should incorporate both quantitative and qualitative elements. Generally, a quantitative approach should form the foundation of a banking institution’s risk measurement framework. Risks that can be reliably measured should be quantified based on credible data and methodologies. Banking institutions should therefore establish acceptable risk identification and measurement approaches for risks where the measurement methodologies have advanced and standards have been reasonably tested and accepted within the industry.

- 8.5. A banking institution should also consider the use of qualitative approaches that incorporate management experience and judgment to supplement quantitative assessments of risks. Qualitative approaches are particularly important for risk types where common or widely accepted risk measurement techniques are absent (e.g. Shariah non-compliance) or where risk measurement may be difficult to relate to capital (e.g. liquidity risk).

- 8.6. The confidence that a banking institution places in the results of its ICAAP should depend on the quality and robustness of the associated risk assessments. The banking institution’s ICAAP should therefore reflect an appropriate level of conservatism to account for uncertainty in risk identification and quantification (e.g. errors in risk estimations and measurements) as well as possible weaknesses in risk mitigation or control.

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9. Sound Capital Management

- 9.1. Based on material risks identified, the banking institution should assess its overall capital adequacy, and develop a strategy for maintaining adequate capital levels consistent with its risk profile and business plans. This should be reflected in the banking institution’s capital planning process and the setting of internal capital targets⁴.
- 9.2. The banking institution must ensure that well-defined processes are put in place to translate estimates of risk into an assessment of capital adequacy. For risks that are not easily quantifiable or related to capital, focus should be directed at ensuring the effectiveness of their management and mitigation. Adequate systems and processes for managing these risks should be put in place and implemented effectively, with consideration for providing appropriate capital for any residual risks that cannot be reduced to satisfactory levels.
- 9.3. The capital planning process must be dynamic and forward-looking in relation to the banking institution’s risk profile. The banking institution should therefore ensure that capital levels remain above the minimum regulatory capital requirements as well as the capital required to support its overall risk profile (as implied by the ICAAP) not just at a point in time, but over time, spanning a capital planning horizon of at least three years. The size of the capital buffers should take into account current and anticipated changes in the banking institution’s risk profile, such as that reflected in its business plan (e.g. an acquisition or planned retirement of capital).

⁴ A banking institution may for various business and strategic reasons hold capital and set targets in excess of the level that the ICAAP would regard as adequate to support its overall risk profile (e.g. in consideration of desired external ratings or market perceptions of capital adequacy and their impact on funding costs). In this regard, the banking institution should be able to explain its basis for selecting a particular level of capital as being its internal target. This should include an explanation as to how operating at this level would result in the banking institution holding capital adequate to support its risk characteristics (i.e. holding additional buffers that consider risks not covered or fully captured under Pillar 1).

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- 9.4. The banking institution should also be mindful of the particular stage of the business cycle in which it is operating, given the potential changes in the external environment that could affect the banking institution’s risk profile. Therefore, rigorous, forward-looking stress testing should form an integral part of the banking institution’s ICAAP, enabling the banking institution to assess the impact to its capital adequacy (as described by a variety of capital and earnings ratios/indicators) arising from adverse events or changes in market conditions⁵.
- 9.5. The results of the stress tests should be considered when evaluating the appropriateness of the banking institution’s capital plans and internal capital targets, with remedial actions identified to address any potential deficiencies in capital. These may include a review of earnings retention policies in order to gradually build up additional capital buffers, or an infusion of additional capital by shareholders, or any other remedial actions which can be realistically carried out in a period of stress. This recognises the fact that accommodating additional capital needs may require significant lead time, and can be costly or difficult, especially at times when market conditions are unfavourable.
- 9.6. In assessing capital adequacy, a banking institution should also evaluate the quality and capacity of its capital to absorb losses. The Bank expects the banking institution to clearly state the definition of capital used in any aspect of its ICAAP. Since components of capital have varying capacities to absorb losses, the banking institution should demonstrate how capital, as defined in its ICAAP, is able to absorb losses both on a going concern and gone concern basis, particularly when internal definitions are broader than that employed for regulatory capital purposes. This should include an explanation of such differences, and analyses and reasons to support the use of any capital

⁵ The Bank’s general expectations in relation to the design and implementation of stress tests are detailed in the *Guidelines on Stress Testing*.

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instrument not recognised for regulatory purposes. To facilitate supervisory reviews by the Bank, banking institutions should disclose internal capital targets expressed in the form of regulatory ratios which include total capital (regulatory capital base), Tier-1 (core capital) and common equity (core Tier-1) ratios.

- 9.7. The Bank expects that the planning and assessment of capital be formally conducted by senior management at least annually. This review should include an analysis of how measures of internal capital adequacy (e.g. economic capital), if any, compare with regulatory capital as well as whether existing capital buffers held and internal capital targets continue to be appropriate. More frequent reviews should be undertaken if there are material changes in the banking institution's business strategy, scale of activities or when changes in the business environment suggest that current internal capital targets are no longer appropriate. The results of reviews by senior management should be reported to the board.

10. Monitoring and Reporting of Risk and Capital

- 10.1. A banking institution should institutionalise a robust system for the continuous monitoring and reporting of risk exposures and for assessing how its changing risk profile affects the need for capital. The system should incorporate internal triggers to serve as early warning signals of deviations away from internal capital targets and breaches of regulatory capital requirements. Formal procedures for reporting to the board and the Bank⁶ should be in place and strictly observed to ensure that capital restoration strategies are activated and implemented immediately.

⁶ The banking institution should notify its respective relationship manager within the supervision departments of the Bank in instances when capital levels have fallen, or are expected to fall, below internal capital targets. In such instances, the banking institution should explain the causes of the situation and remedial actions to be taken. It is not the Bank's intention to penalise breaches, but the consistent failure to meet internal capital targets would signal deficiencies in capital management strategies or its implementation thereof, that in turn may affect a banking institution's supervisory risk assessment.

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10.2. The board and senior management should receive information on the banking institution's risk profile and capital needs in a manner appropriate to facilitate the informed conduct of their responsibilities in:

- i. evaluating the level and trends of material risks and their effect on capital levels;
- ii. evaluating the sensitivities and reasonableness of key assumptions used in the process of assessing material risks and capital;
- iii. determining that the banking institution holds sufficient capital or has other mitigants in place against the various risks and is in compliance with established (internal or regulatory) capital management policies; and
- iv. assessing and planning for the banking institution's future capital requirements and making adjustments to its strategic plans as appropriate.

11. Independent Review

11.1. A banking institution should conduct reviews of risk management and capital management processes relating to the ICAAP to ensure their integrity, objectivity, and consistent application. This review should cover, at least an assessment of:

- i. whether the banking institution's ICAAP is proportionate to the size, nature of business, and complexity of its activities;
- ii. the quality and completeness of data inputs to the ICAAP;
- iii. the reasonableness and validity of methodologies, assumptions and scenarios;
- iv. the robustness of the banking institution's ICAAP-related risk monitoring and reporting systems (e.g. the content and timeliness of ICAAP-related management reports as well as reports to the board); and

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- v. the performance and appropriateness of the use of third-party vendors and products, services and information, to the extent that they are employed within the ICAAP.

11.2. Independent reviews should be performed by qualified functions that are not directly involved in the development or oversight of ICAAP. Reviews should be carried out at regular intervals with regular reporting of the results to the board and senior management of the banking institution. Banking institutions shall promptly address any deficiencies identified.

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PART C SUPERVISORY REVIEW AND EVALUATION

12. Supervisory Review and Evaluation

- 12.1. As part of the Bank’s Risk-Based Supervisory Framework, the soundness of a banking institution’s ICAAP will be reviewed and evaluated against the expectations set out in Part B of these Guidelines. This review will also consider the comprehensiveness of the ICAAP and the quality of risk management to form a view on the appropriateness of the banking institution’s internal capital targets and its capacity for meeting the targets. Based on these reviews, the Bank may require the banking institution to, among other things, take action to improve its capital and risk management processes if it is not satisfied with a banking institution’s ICAAP.
- 12.2. While the board and senior management of a banking institution maintains primary responsibility for the institution’s capital adequacy, the Bank reserves the power to intervene at an early stage to prevent a banking institution’s capital from falling below the level that the Bank deems adequate to support the institution’s risk characteristics and will require rapid remedial action if capital is not maintained or restored. This may include altering the risk profile of the banking institution through business or operational restrictions or directing banking institutions to raise additional capital, where the Bank has adequate reason to believe that the expectations or requirements embodied in the supervisory principles outlined in these Guidelines have not been satisfactorily met.