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## **PART A: OVERVIEW**

### **1. Introduction**

1.1 Insurers are expected to actively manage their capital adequacy by taking into account the potential impact of business strategies on the insurer's risk profile and overall financial resilience. This is outlined in the Risk-Based Capital Framework for Insurers (the RBC Framework)<sup>1</sup>, which specifies elements that insurers must put in place for active management of capital adequacy:

- (i) An individual target capital level (ITCL) that reflects its own risk profile and risk management practices, and is set by conducting appropriate stress and scenario tests (in this Guideline, the term "stress testing" will generally be taken to denote the whole process of stress and scenario testing);<sup>2</sup>
- (ii) A capital management plan that takes into account its strategic business direction and the changing business environment<sup>3</sup>; and
- (iii) Processes that monitor and ensure the maintenance at all times of an appropriate level of capital which is commensurate with its risk profile<sup>4</sup>.

1.2 The Internal Capital Adequacy Assessment Process (ICAAP) is the overall process (including oversight and operational frameworks and processes) by which an insurer ensures adequate capital to meet its capital requirements on an ongoing basis. The Bank considers the ICAAP as an integral part of ensuring insurer's capital adequacy and will therefore review and evaluate the adequacy of insurers' ICAAP under the Risk Based Supervision Framework, taking appropriate supervisory action where necessary to address areas of concern.

1.3 The Guidelines on ICAAP for Insurers (the Guidelines) establishes principles and standards for insurers' ICAAP and outlines the supervisory review and evaluation of the ICAAP. The key components of ICAAP are detailed in Part B and the supervisory review and evaluation is detailed in Part C of this Guideline.

<sup>1</sup> Paragraph 1.6 of the RBC Framework

<sup>2</sup> Paragraph 21.2 of the RBC Framework

<sup>3</sup> Paragraph 21.3 of the RBC Framework

<sup>4</sup> Paragraph 21.3 of the RBC Framework

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## **2. Applicability**

2.1 The Guidelines is applicable to all insurers licensed under the Insurance Act 1996 (the Act) and should be read together with the RBC Framework and BNM/RH/GL/003-23 “Guidelines on Stress Testing for Insurers” (the Guidelines on Stress Testing). Unless otherwise mentioned, the term ‘insurer’ in the Guidelines includes professional reinsurer, as defined in the Act.

## **3. Legal Provisions**

3.1 The Guidelines is issued pursuant to section 23 of the Act.

## **4. Effective Date**

4.1 The Guidelines shall apply with effect from 1 September 2012.

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## **PART B: INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS**

### **5. Overview of ICAAP**

5.1 The ICAAP is the overall process by which an insurer ensures adequate capital to meet its capital requirements on an ongoing basis. The key elements of the ICAAP are:

- (i) Board and senior management oversight;
- (ii) Comprehensive risk assessment;
- (iii) Individual target capital level;
- (iv) Stress testing;
- (v) Sound capital management; and
- (vi) Monitoring, reporting and review of the ICAAP.

5.2 An insurer's ICAAP is a key process in the management of the insurer's business and it should be integrated with the insurer's business planning, risk management processes and day-to-day operations. A high degree of integration will also ensure that conclusions from the ICAAP are realistic and reliable.

### **6. Board and Senior Management Oversight**

6.1 The board of directors and senior management are responsible for ensuring that the insurer maintains an appropriate level and quality of capital for its risk profile and business plan. For this purpose, the board and senior management should attain a sound understanding of the nature and materiality of risks inherent in the insurer's activities.

6.2 In exercising its oversight responsibilities, the board is expected to:

- (i) approve the insurer's risk appetite/risk tolerance and capital management framework; and
- (ii) ensure that senior management discharges its responsibilities for the development and effective implementation of the ICAAP.

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6.3 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 are established and functioning effectively in accordance with the Guidelines and capital management framework approved by the board, 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 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 the individual target capital level and other capital management thresholds continue to remain appropriate;
- (iii) establish policies and procedures relating to the ICAAP, and communicate these effectively throughout the organisation and establish a method for monitoring their compliance; and
- (iv) ensure that appropriate documentation is maintained for all aspects of the ICAAP described in the Guidelines.

## 7. Comprehensive Risk Assessment

7.1 The ITCL must factor in risks beyond those covered in the RBC Framework. To achieve this, insurers must have in place a process to assess an insurer's risk profile and quality of risk management, including where it concerns risks which are not included, such as liquidity risk, group risk and catastrophe (including environment) risk factors, or not adequately provided for (having regard to the quality of risk management of the insurer) in the regulatory capital maintained under the RBC Framework.

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7.2 An assessment of the risk profile of an insurer must consider all material risks arising from the insurer's business and operating environment. An insurer's risk profile will depend on factors such as:

- (i) Size and complexity of the business;
- (ii) Growth and expansion strategies;
- (iii) Nature, scale and complexity of asset mix, and product offering, composition and market segments;

7.3 An assessment of the quality of risk management must consider the effectiveness of the insurer's operational and risk management structure, and whether it is commensurate with the insurer's risk profile. An insurer's quality of risk management will depend on factors such as:

- (i) Quality of board and senior management oversight and overall governance processes;
- (ii) Adequacy and appropriateness of policies and procedures;
- (iii) Appropriateness of organisational and incentive structures;
- (iv) Effectiveness of internal control functions such as internal audit, financial control, compliance and risk management;
- (v) Adequacy of supporting systems infrastructure for business and control functions;
- (vi) Effectiveness of monitoring of risk exposures and escalation processes; and
- (vii) Adequacy of resources and staffing, with appropriate expertise and experience.

7.4 Insurers may choose to include other factors in assessing the risk profile that are appropriate to their circumstances, for example, internally adopted risk measures that are more stringent than the criteria outlined here.

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## **8. Individual Target Capital Level**

8.1 Insurers are required to have an ITCL that reflects its overall risk tolerance and appetite set by the board, its own risk profile and risk management practices. Insurers must operate at capital levels above the ITCL at all times. The ITCL is derived through an iterative process of stress tests performed on a range of financial positions and corresponding capital adequacy ratios (CAR), until a suitable level is determined in line with the requirement in paragraph 8.2.

8.2 The ITCL should provide a robust threshold in the management of an insurer's capital adequacy, where a breach of this level should trigger timely responses by management to restore capital to the ITCL (including restrictions on payment of dividends<sup>5</sup>) and heightened board scrutiny. The ITCL must be set, at the minimum, such that:

- (i) it takes into account plausible adverse scenarios that may arise over at least a one year time horizon;
- (ii) if the insurer has a CAR at the ITCL before the occurrence of selected plausible adverse scenarios, the insurer is able to maintain a CAR above the supervisory target capital level of 130% after the occurrence of those scenarios; and
- (iii) it takes into account all changes in risk profile arising from planned business and operational activities over the period of projection.

8.3 The approach for determining ITCL under the ICAAP does not equate to an internal models framework. In an internal models framework, the capital requirements may be substituted with outputs of an approved internal model. The ITCL on the other hand, is set by considering how the capital requirements, as computed in accordance with the RBC Framework, vary under plausible adverse scenarios. Insurers may utilise appropriate models that have been developed internally for this purpose, where the output is expressed as plausible adverse scenarios for stress testing to determine the ITCL.

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<sup>5</sup> Paragraph 23.1 of the RBC Framework

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## 9. Stress Testing

9.1 The stress tests conducted under the ICAAP should meet the same standards and requirements contained in the Guidelines on Stress Testing. It is acceptable for work done to fulfil the requirements of the Guidelines on Stress Testing to be adapted for use within the ICAAP where appropriate. Key areas that may require modification are:

- (i) The projection time horizon might need to be extended to cover the period of planned business and operational activities considered under the ICAAP. In any case, the minimum period of projection should not be less than one year as per paragraph 8.2(i); and
- (ii) When using stress testing to determine the ITCL, the impact of plausible adverse scenarios should be tested on the ITCL instead of the actual capital level.

9.2 Assumptions underlying the stress tests must be consistent with the results of the comprehensive risk assessment to ensure that they are realistic. Any business growth and profit assumed under the stress test must be consistent with one another and with the selected plausible adverse scenario. The projections should also incorporate all future changes in risk profile arising from planned business and operational activities over the period of projection. The scenarios should take into account the prevailing business and economic environment, emerging trends, as well as historical adverse movements in key risks.

9.3 The process of generating and selecting plausible adverse scenarios must be collaborative, with input derived from a wide range of possible sources from within and outside the organisation. The range of plausible adverse scenarios considered must be comprehensive, taking into account likelihood as well as potential impact given the insurer's risk profile, quality of risk management and operating environment. Scenarios should also reflect the degree of uncertainty and the credibility of supporting data and inputs. Where scenarios are generated using simulation methods, the insurer has to ensure that the systems, methods and parameters used in the simulations and the



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resulting scenarios are appropriate, and that it has sufficient technical expertise and adequate governance processes in place to ensure proper usage of simulation methods and ensure accurate interpretation of the results or outputs of the simulations.

9.4 The insurer's risk profile and quality of risk management must be considered when determining how the insurer's financial position is impacted by plausible adverse scenarios. The insurer should consider factors which would likely diminish the effectiveness of risk management activities under stress scenarios and be able to demonstrate how this will impact the resulting capital position under stress scenarios. Insurers are not allowed to reduce the magnitude of stress factors or the impact of stress testing on the capital position by factoring in the planned corrective actions under the capital management plan when using stress testing to set the ITCL as these corrective actions are remedial actions to restore capital levels post occurrence of stress scenarios.

## **10. Sound Capital Management**

10.1 Based on material risks identified, insurers should assess their overall capital adequacy, and develop a strategy for maintaining adequate capital levels consistent with their risk profile and business plans. This should be reflected in the insurer's capital planning process.

10.2 The capital planning process must be dynamic and forward-looking in relation to the insurer's risk profile. It should ensure that insurers operate at capital levels above the ITCL not just at a point in time, but over time, spanning a capital planning horizon of at least three years. This would involve taking into account current and anticipated changes in the insurer's risk profile, such as that reflected in its business plan, and forecasting the related impact on capital. As part of its capital planning, an insurer should integrate projected capital needs with its budgeting and financial forecasting processes. For example, an insurer might initiate a capital raising exercise to finance strategic investments or specify an earnings retention policy to support future growth whilst maintaining appropriate target capital levels.

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10.3 The results of the stress tests should be considered when evaluating the appropriateness of capital thresholds and corrective actions. Insurers should also be mindful of the particular stage of the business cycle in which they are operating, given the potential changes in the external environment that could affect their risk profile.

10.4 In assessing capital adequacy, insurers may adopt a more stringent definition of capital instrument than that specified under the RBC Framework based on assessments of these instruments' ability to absorb losses on both going concern and gone concern bases under different market conditions. The results of such assessments should be reflected in the capital planning process.

10.5 The Bank expects that the planning and assessment of capital be formally conducted by senior management at least annually and results should be reported to the board.

10.6 Insurers are required to have a Capital Management Plan (CMP) that documents the key elements of their capital planning process. At a minimum, the CMP should contain the following elements:

- (i) The CMP must list thresholds that will act as triggers for actions to ensure maintenance of appropriate capital levels at all times. As such, the thresholds should capture important capital levels such as the ITCL and the supervisory target capital level. In addition to capital levels, thresholds based on other forms of triggers should be established such as earnings deterioration, single large losses or a specified market event. Thresholds may also be determined based on internal management criteria or other objectives of the insurer, for example to achieve a certain level of financial strength for strategic purposes or to retain a financial strength rating; and
- (ii) The CMP must state clearly the corrective actions that are triggered by each threshold. These could include steps to reduce the level of inherent risk or increasing the capital available. The corrective actions must be

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specific, actionable and realistic having regard to how the realization of adverse scenarios is likely to affect the insurer's risk management activities (in contrast to normal operating conditions). In particular, it must be shown that the insurer is able to carry out the corrective actions in the context of the scenarios giving rise to the trigger. For example, raising additional capital may require significant lead time, and can be costly or difficult, especially at times when market conditions are unfavourable. The CMP must provide details on how these actions can effectively restore the financial position of the insurer to the relevant threshold and can be implemented in a timely manner to prevent further deterioration of the financial position. The intensity of the corrective actions should increase with the extent to which the threshold level is breached.

## 11. Monitoring and Review of ICAAP

11.1 Insurers must have in place a process for continuous monitoring and regular review of all components of the ICAAP. Systems for continuous monitoring should enable the insurer to track changes in the risk profile, risk management activities, operating environment and financial position so that timely actions can be taken to prevent any breaches of capital target levels. The monitoring process must ensure that any breaches or potential breaches of thresholds are reported to the board and senior management immediately. A breach or potential breach of the ITCL must be reported to the Bank immediately.

11.2 Insurers should schedule regular reviews of key components of the ICAAP, with interim reviews that may be triggered by monitoring activities or changes to the business and operating environment. The review should be conducted at least annually, taking into account how new experiences, emerging trends and changes to the business and operating environment impact the following areas:

- (i) The assumptions, methods and results of the assessments on the risk profile and quality of risk management;
- (ii) The assumptions, methods and results of the stress tests;

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- (iii) The appropriateness of the ITCL in the light of any changes to (i) and (ii); and
- (iv) The thresholds and planned actions under the CMP.

The review must conclude on the appropriateness of the above areas and recommend any necessary changes for approval by the board or senior management as appropriate.

11.3 Insurers should ensure that the risk management and capital management processes relating to the ICAAP is subject to independent review to ensure their integrity, and consistent application. Insurers should schedule regular independent reviews or more frequently if triggered by changes to the business or operating environment. This review should cover, at least an assessment of:

- (i) whether the insurer's ICAAP is appropriate 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 insurer'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
- (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.

The independent reviewer should not be directly involved in the development, implementation or oversight of the ICAAP but have the necessary expertise and experience to conduct the review effectively. The review may be conducted by a suitably resourced internal audit function, external auditor, a consultant or any other party that meets the independence criteria as mentioned above. Different aspects or components of ICAAP may be reviewed by different independent reviewers based on their areas of expertise. The review should include any necessary recommendations for improvements, and management's response, including specific action plans, to the recommendations.

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11.4 To support the monitoring and review process, the insurer must maintain detailed documentation of all components of the ICAAP. Documentation should cover at least the following areas:

- (i) Policies and procedures for all processes;
- (ii) Issues and recommendations raised by the board or independent review function;
- (iii) ITCL, the thresholds for planned actions to be taken by the insurer and the scenarios underpinning the ITCL and bases for selection of other capital thresholds;
- (iv) Planned actions for each threshold;
- (v) Description of key risks and methods and assumptions used in risk assessments and stress testing, including all relevant bases for and limitations of the choice of methods and assumptions;
- (vi) Qualitative and quantitative data, sources of data and treatment of data;
- (vii) Results and associated reasonableness checks;
- (viii) Internal and external reports and reviews; and
- (ix) Changes made and analysis of impact of changes.

## **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 an insurer's ICAAP will be reviewed and evaluated against the expectations set out in Part B of these Guidelines. This review will consider the comprehensiveness of the ICAAP and the quality of risk management to form a view on the appropriateness of the insurer's capital targets and its capacity for meeting the targets. Based on these reviews, the Bank may require the insurer to take action to improve its capital and risk management processes as well as adjust the insurer's ITCL<sup>6</sup> if it is not satisfied with an insurer's ICAAP.

<sup>6</sup> Paragraph 22.2 of the RBC Framework

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12.2 While the board and senior management of an insurer maintains primary responsibility for the institution's capital adequacy, the Bank reserves the power to intervene at an early stage to prevent an insurer's capital from falling below the level that the Bank deems adequate to support the institution's risk profile and will require rapid remedial action if capital is not maintained or restored. This may include altering the risk profile of the insurer through business or operational restrictions or directing insurers to raise additional capital, where the Bank determines that the expectations of these Guidelines have not been satisfactorily met.