Consultation Paper on a Risk-based Capital Framework for the Insurance Industry of Hong Kong

FOREWORD

1 This paper is published by the Insurance Authority (IA) to consult interested parties on the proposed Risk-based Capital framework for Hong Kong's insurance industry.

2 IA welcomes written comments on or before **15 December 2014** by one of the following means:

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3 This consultation paper is also available on the website of the Office of the Commissioner of Insurance (OCI) at www.oci.gov.hk.

4 Any person submitting comments on behalf of any organization is requested to provide details of the organization they represent.

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7 Any personal data submitted will only be used for purposes which are directly related to consultation purposes under this consultation paper. Such data may be transferred to other Government departments/agencies for the same purposes. For access to or correction of personal data contained in your submission, please contact –

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CONTENTS

Page

CHAPTER 1 EXECUTIVE SUMMARY

1.1 Solvency measures the ability of an insurer to meet its obligations to policyholders when they fall due. Solvency is assessed by the adequacy of the insurer's financial resources, including capital resources, against the insurance protection it provides to policyholders. Risk-based capital (RBC) requirements strengthen the protection of policyholders by relating capital adequacy to the risk exposure of the insurer. Generally, an insurer exposed to higher risks is required to hold a higher amount of capital. Apart from capital adequacy, a solvency regime includes other qualitative and technical requirements.

1.2 The Insurance Companies Ordinance (ICO) (Chapter 41) and its Regulations, together with the Guidance Notes issued by the Insurance Authority (IA), prescribe a rule-based capital adequacy framework for insurers operating in Hong Kong. Capital adequacy is assessed on the basis of an insurer's solvency margin, i.e. the level of surplus derived from the value of the assets of an insurer vis-à-vis the value of its liabilities. Solvency requirements for long-term business are calculated with reference to the sum insured and policy reserves. Solvency requirements for general business are calculated with reference to the premium levels and claims outstanding. Substantial actuarial input is required in such calculations. The risk factors pertinent to an individual insurer are not featured or quantified under the existing framework, but are examined separately by the IA together with the insurer concerned.

1.3 In recent years, it has been recognized globally that the capital adequacy framework should take into account different risk factors of different insurers, and be conducive to enhancing the corporate governance, enterprise risk management (ERM) and public disclosure practices of insurers. The International Association of Insurance Supervisors (IAIS) – the global standard-setter for the insurance industry – has issued new Insurance Core Principles (ICPs) in relation to RBC requirements in late 2011. All insurance supervisors, including the IA, are obliged to comply with these new ICPs as soon as practicable.

1.4 Accordingly, the IA plans to move towards an RBC regime, establishing a clear and consistent valuation standard (including explicit best estimates of technical provisions and risk margins) and risk-sensitive capital requirements, supported by continued enhancement of corporate governance, ERM and public disclosure. The IA commissioned a consultancy study in 2012-2013

for developing an RBC framework that is appropriate for Hong Kong's insurance industry. Having regard to the study findings, the IA has drawn up the proposed framework in the ensuing chapters.

1.5 In addition, given the substantial presence of insurance groups in Hong Kong, it is timely that the IA formulates and implements a clear and comprehensive regulatory regime for insurance groups. Key elements of the regime will cover the nature of groups to be subject to group-wide supervision, as well as prudential, corporate governance, ERM and disclosure requirements at the group level. These proposed developments will also enable a more structured approach for macro-prudential surveillance, enhancing the supervisory capacity to identify, assess and mitigate vulnerabilities.

1.6 This consultation document focuses on the objectives, overarching principles and proposed framework for the RBC regime for Hong Kong's insurance industry. This is to enable the industry to familiarize itself with these proposals, to ensure that the future framework reflects the unique features of Hong Kong and is built on existing arrangements to ensure a healthy and thriving industry. We have provided a number of questions corresponding to our proposals to facilitate respondents to provide feedback.

1.7 Building on these overarching principles and the responses received, we will then start to develop detailed proposals, including the factors for determining capital requirements.

1.8 It must be stressed that the move towards developing an RBC framework does not necessarily imply a need to increase or decrease capital for individual insurers. The framework seeks to, consistent with international practice, make capital requirements more sensitive to the level of risk that individual insurers and insurance groups are bearing.

1.9 We <u>propose</u> that the new RBC framework should adopt a multi-faceted modular approach comprising quantitative aspects (including assessment of capital adequacy and valuation), qualitative aspects (including ERM and governance) and disclosure. Our key proposals include the following :

Pillar 1 – Quantitative aspects **(discussed in Chapter 4)**

<u>Capital adequacy</u>

- Total balance sheet approach should be adopted.

- Target criteria for :

    - Prescribed Capital Requirement (PCR) – should be aligned to a minimum investment grade, i.e. value-at-risk (VaR) is calculated at a confidence level of 99.5% over one-year time horizon.

    - Minimum Capital Requirement (MCR) – should be defined after completion of an industry quantitative impact study (QIS).

- Standardized approach – internal models should not initially be required for the purpose of calculating regulatory capital, although they may be permitted subject to approval by the IA.

- Stress-test based approach should be adopted (i) for the underwriting risk of long-term business and (ii) for the market risk of all insurers; and risk-factor based approach should be adopted for all other risks.

- Risk categories should include underwriting risk, credit risk, market risk, operational risk and liquidity risk :

    - Approach to aggregation of risk capital including any allowance for dependencies and inter-relationship between risks should be considered in Phase II.

    - Liquidity risk, legal risk, strategic risk, reputation risk and other risks which may not be well mitigated with additional capital should be addressed through risk management process.

- Tiered capital – capital resources should be categorized into different classes of quality, and certain limits or restrictions with respect to these tiers should be applied.

<u>Valuation</u>

- Recognition of insurance contracts on bound or inception date should be consistent with the generally accepted accounting principles in Hong Kong.

- Valuation of assets and liabilities should be consistent.

- Economic valuation should be applied to all classes of business except Class G business.

- Economic valuation should undertake either market consistent valuation approach for all classes of business, or a combination of market consistent and amortized cost valuation approaches, depending on the class of business.

- Market-referenced discount rate should be used (i.e. defined with reference to both current and historical yields). The IA should retain the ability to apply alternative valuation techniques during anomalous market conditions.

- Valuation of technical provisions :

  - should not reflect the insurer's own credit standing;

  - should exceed the Current Estimate by a margin (i.e. Margin over the Current Estimate (MOCE)), while the MOCE should be defined in Phase II; and

  - there should be allowance for time value of money, as well as allowance for embedded options and guarantees.

Pillar 2 – Qualitative aspects **(discussed in Chapter 5)**

- Corporate governance should be enhanced.

- ERM should be enhanced and should include risk tolerance framework and feedback loop.

- Own Risk and Solvency Assessment (ORSA) should include continuity analysis, stress and scenario testing and reverse stress testing.

- Investment policies should include security, liquidity and diversification perspectives. As part of the asset-liability management (ALM), investment strategies should take into account the extent to which cash flows from investments match liability cash flows in both timing and amount and how these change in varying conditions.

- The IA should have the power to apply capital add-ons.

Pillar 3 – Disclosure **(discussed in Chapter 6)**

- There should be periodic public reporting of capital resources and capital requirements.

1.10 The proposed RBC framework should be applied to both direct insurers and reinsurers authorized to carry on insurance business in Hong Kong. It should be applied consistently to all insurers in Hong Kong, whether they operate as locally-incorporated entities or as branches of overseas corporations.

1.11 In order to strengthen macro-prudential surveillance so as to enhance financial stability, the framework should facilitate the analysis of macro-prudential risks. The IA should supervise insurers on both legal entity and group-wide basis. The proposed group-wide supervisory framework include the following features (discussed in Chapter 7) :

- It should be applicable to all insurance groups including subgroups to be regulated under a three-tier group-wide supervisory approach, with each tier subject to a different level of regulatory requirements, depending on the group structure.

- Group-wide capital assessment should adopt :

  - Group level focus approach.
  - Consolidation method.
  - Group-wide PCR and MCR.

- Group-wide ERM and ORSA.

- Notification and reporting requirements.

1.12 Calibration of the Regime

1.12.1 The calibration of the regime may be addressed in a pragmatic sense as well as a technical sense, namely, whether the level of capital supporting the Hong Kong market is broadly adequate, whether it is excessive (which means policyholders are paying unduly or it could act as a deterrent to new entrants), or whether the levels are too low (which suggests policyholders are being subjected to undue risk).

1.12.2 The RBC regime should be developed in four phases :

- Phase I will involve development of the framework and key approaches.

- Phase II will involve development of detailed rules. QIS should be conducted for different types of insurers to ensure that the new regime is viable and practicable, and that it should not bring about instability to the insurance industry. Phase II should begin in 2015, to be followed by another consultation exercise.

- Phase III will involve amendment of legislation. At least 2 to 3 years will be needed to complete all the preparatory tasks including public consultations.

- Phase IV will be the implementation phase. The new RBC regime should be rolled out in phases with a sufficiently long run-in period, so that insurers will have adequate time to understand the requirements thoroughly, and be able to achieve full compliance incrementally.

CHAPTER 2 EXISTING CAPITAL ADEQUACY FRAMEWORK FOR INSURANCE INDUSTRY OF HONG KONG

2.1 Overview

2.1.1 The existing capital adequacy framework for Hong Kong's insurance industry is essentially rule-based, with capital and solvency requirements stipulated in the ICO and in Guidance Notes issued by the IA.

2.1.2 Insurers are licensed and regulated on a legal entity basis. Capital adequacy is assessed based on whether the value of the assets of an insurer exceeds the value of its liabilities by the required margin of solvency. The solvency margin calculation is set out in Section 10 of the ICO for general insurers, and in the *Insurance Companies (Margin of Solvency) Regulation* for long-term insurers.

2.1.3 The ICO sets out the requirement for an insurer to maintain separate assets in separate long-term business funds to support its long-term business liabilities. The ICO also prescribes a local asset requirement for general insurance business (except for reinsurance and captives).

2.1.4 The IA has issued various Guidance Notes with focus on governance, risk management and internal control of insurers.

2.2 Corporate Governance

2.2.1 Insurers are required to establish good corporate governance practices as set out in *Guidance Note 10 on the Corporate Governance of Authorized Insurers* (GN 10). GN 10 aims to enhance the integrity and general well-being of the insurance industry of Hong Kong, by setting guidelines for the evaluation and formulation of internal practices and procedures by insurers. For example, there is a requirement for clear lines of reporting and division of responsibilities within the organizational structure of an insurer.

2.2.2 GN 10 is applicable to insurers incorporated in Hong Kong (except certain insurers in run-off and captive insurers), and insurers incorporated outside Hong Kong where more than 75% of their annual gross premium income pertains to their Hong Kong insurance business. Irrespective of the proportion of their Hong Kong insurance business, the IA requires insurers incorporated outside Hong Kong but operate in Hong Kong to comply with the applicable guidelines on corporate governance promulgated by their

home regulatory authority. Where such guidelines are comparable to GN 10, the overseas insurer concerned may apply in writing to the IA for exemption from compliance with GN 10, and provide the IA with the particulars of the relevant guidelines.

2.3 Risk Management and Internal Controls

2.3.1 GN 10 outlines requirements on internal control systems and risk management. The Board of Directors (the Board) and senior management of the insurer should play a role in monitoring the risks of various functions.

2.4 Valuation

2.4.1 The ICO provides a regulatory framework for the valuation of long-term business and general insurance business.

2.4.2 For long-term business, the *Insurance Companies (Determination of Long Term Liabilities) Regulation* sets out various requirements for reserving methodologies and assumptions, including the rate of interest and requirements on assets and liabilities matching in the provisions for insurance liabilities.

2.4.3 *Guidance Note 7 on the Reserve Provision for Class G of Long-Term Business* (GN 7) and the Mandatory Provident Fund Authority's *Guidelines on Reserving Standards for Investment Guarantees* provide guiding principles and reserving methodologies and assumptions to be adopted by long-term insurers with respect to reserving provisions for Class G of long-term business with guaranteed capital and return.

2.4.4 For long-term business, valuation of assets and liabilities other than insurance liabilities follows Hong Kong's generally accepted accounting principles (i.e. Hong Kong Financial Reporting Standards (HKFRSs)). Financial assets are measured at either amortized cost or market value, depending on the accounting policy adopted by the insurer. No "haircuts" are applied, but some assets such as intangibles are inadmissible for valuation purposes.

2.4.5 For general insurance business, the *Insurance Companies (General Business) (Valuation) Regulation* specifies certain rules for the accounting for both assets and liabilities. Asset valuations are prescribed, and are primarily accounted for based on market values, and are subject to admissibility requirements and haircuts which vary by asset class, with higher haircuts

applied to assets with lower credit quality and unlisted assets. Intangible assets such as deferred acquisition cost and goodwill are inadmissible. Discounting of insurance liabilities is not allowed.

2.4.6 There are also Guidance Notes providing for rules on valuation of specific classes of business. *Guidance Note 6 on Reserving for Mortgage Guarantee Business* (GN 6) and *Guidance Note 9 on Actuarial Review of Insurance Liabilities in respect of Employees' Compensation and Motor Insurance Businesses* (GN 9) provide requirements for reserving on some specified classes of general business. Under GN 9, a risk margin is required to be provided for motor and employees' compensation businesses.

2.5 Investments

2.5.1 For insurers incorporated in Hong Kong, and for Hong Kong branches of insurers incorporated outside Hong Kong, if the insurers' investment in financial assets exceeds HK$100 million, they will be required to comply with investment requirements as set out in *Guidance Note 13 on Asset Management by Authorized Insurers* (GN 13).

2.5.2 GN 13 sets out essential elements of a sound asset management system and reporting framework across the full range of investment activities.

2.6 Capital Adequacy

2.6.1 The ICO sets out the solvency margin requirements for insurers. The *Insurance Companies (Margin of Solvency) Regulation* elaborates on the calculation of solvency margin by class of business for long-term business. In summary, the solvency margin calculation is factor-based and is subject to dollar amount minimums, which vary by type of insurers. In general, the solvency margin requirements are proportional to the business volume and size of reserves.

2.6.2 Capital resources reflect the excess of assets over liabilities. In practice, long-term insurers adjust the assets in their general purpose financial statements (on an HKFRS/IFRS basis) to arrive at the capital resources for solvency reporting. For example, intangible assets such as value of business acquired, deferred acquisition cost and goodwill are inadmissible. On the other hand, asset admissibility rules are set out in the *Insurance Companies (General Business) (Valuation) Regulation* for general insurance business.

2.6.3 All insurers are required to maintain assets in excess of liabilities by at least the amount of solvency margin stipulated under the ICO. For monitoring purposes, the IA requires general and long-term insurers to maintain at least 200% and 150% solvency ratio respectively. These are the trigger levels for the IA to take regulatory measures on solvency grounds.

2.6.4 Currently, there are no rules classifying capital into different tiers.

2.7 ERM

2.7.1 The current capital adequacy framework does not contain an explicit ERM requirement. However, GN 10 and GN 13 provide some guiding principles on issues of risk management on business operations and investments respectively.

2.7.2 For long-term insurance business, Appointed Actuaries are required to prepare a Dynamic Solvency Testing (DST) Report on the insurer's financial condition for its board of directors, which aims to identify threats to a satisfactory financial condition, together with possible actions for dealing with such threats if they are realized. They are also required to submit to the IA actuarial opinions on the future financial position of the insurer under various adverse scenarios.

2.7.3 In practice, some insurers are in the process of building, or have built, an ERM framework, either because they are part of a group which is subject to a group-wide risk management and capital adequacy framework, or because they strive to meet best practices and enhance business management. The design of the framework and level of sophistication vary across the industry.

2.8 Public Disclosure

2.8.1 All insurers are required to file their audited financial statements prepared in accordance with generally accepted accounting principles, usually being HKFRS or IFRS, and in compliance with ICO requirements. All long-term insurers are also required to file their actuarial investigation reports conducted in compliance with ICO requirements. These financial statements and actuarial investigation reports are made available for public inspection at the Companies Registry. However, such financial statements are prepared for shareholders of the insurer concerned, and their focus is on company performance rather than capital adequacy and solvency monitoring.

2.8.2 Apart from the reporting requirements in paragraph 2.8.1, the ICO prescribes other filing requirements. The ICO also gives the IA discretionary power to impose additional reporting requirements and request additional information.

2.8.3 In addition to filing of annual insurance returns mentioned in paragraph 2.8.1, the IA also requires insurers to submit quarterly returns. The IA publishes quarterly and annual statistics on individual insurers based on their insurance returns, with a focus on underwriting performance.

2.8.4 Insurers which are listed on the Hong Kong Stock Exchange are required to publish their annual reports and interim reports within the time periods prescribed in the Listing Rules. Details of the insurer's business activities, performance and financial position, as well as governance and controls, are usually set out in the Management Discussion and Analysis and Corporate Governance sections of the annual report.

CHAPTER 3 CONSIDERATIONS

3.1 ICPs Promulgated by the IAIS

3.1.1 The IAIS ICPs are globally accepted principles for the supervision of the insurance sector. The ICPs cover a hierarchy of supervisory materials including statements (essential elements which must be incorporated into the supervisory regime), standards (key high level requirements that are fundamental to the implementation of the ICP statement) and guidance materials (describing what is meant by an ICP statement).

3.1.2 ICPs relevant to an RBC framework are as follows :

- *ICP 7 Corporate Governance* sets out the requirements for insurers, as part of a corporate governance framework, to devise and implement a comprehensive risk management policy.

- *ICP 8 Risk Management and Internal Controls* requires insurers to put in place an effective system of risk management and internal controls in four key areas, namely, risk management, compliance, actuarial matters and internal audit.

- *ICP 14 Valuation* recognizes economic valuation as the valuation for assets and liabilities for solvency purposes.

- *ICP 15 Investment* identifies factors for which regulatory investment requirements (security, liquidity and diversification) should be taken into consideration by the Board. It also sets out investment requirements relating to financial instruments.

- *ICP 16 Enterprise Risk Management for Solvency Purposes* sets out elements of an ERM framework, which includes identification, assessment and measurement of material risks.

- *ICP 17 Capital Adequacy* sets out approaches and regulatory requirements for the assessment of solvency at both solo and group levels and requires supervisors to impose triggers of solvency level for which supervisory intervention should be taken on capital adequacy grounds.

- *ICP 20 Public Disclosure* requires insurers to disclose relevant, comprehensive and adequate information qualitatively and quantitatively

on their determination of capital employed to their business operations.

- *ICP 23 Group-wide Supervision* sets out the approaches and framework for supervisors to carry out effective supervision on insurers both at legal entity level and at group level.

3.2 Major Considerations

3.2.1 In developing the proposed RBC framework, we have taken into account the following considerations :

- The framework must be IAIS ICP-compliant.

- Reference should be drawn from the experiences of overseas jurisdictions that have already put in place RBC regimes.

- The framework should take into account the market landscape and special needs of Hong Kong's insurance industry.

- The framework should seek to ensure strong financial health and resilience of the insurance industry for the protection of policyholders.

- The framework should provide adequate indicators of the financial strength of an insurer so as to facilitate forward-looking monitoring of its solvency and financial conditions.

- The capital and regulatory requirements should not be excessive and unnecessarily burdensome, as this will lead to more expensive insurance products and less choice for consumers.

- The framework should give insurers an incentive to invest in enhanced corporate governance, as well as better risk management and capital management, with a view to fostering a cultural change among insurers.

- The framework should enable greater policyholder awareness of the financial strength of insurers.

- The framework should be broadly consistent across financial services sectors in Hong Kong to reduce the possibility of regulatory arbitrage and to foster a level playing field.

- The framework should provide a consistent level of protection to insurance consumers.

- Consumers are entitled to enjoy consistent protection regardless of the structure of the group and form/domicile of the legal entity through which their insurance is provided.

- The cost of change as well as the practical challenges in meeting the new requirements should be consistent with a healthy, thriving and well capitalized insurance sector in Hong Kong and should not diminish the attractiveness of Hong Kong as a place to do business.

CHAPTER 4 PILLAR 1: QUANTITATIVE ASPECT – CAPITAL ADEQUACY

4.1 The quantitative aspect of the proposed RBC framework is addressed in this Chapter. The primary purpose of imposing capital adequacy requirements is to ensure that, in adversity, an insurer's obligations to policyholders will continue to be met as they fall due. The centerpiece of an RBC framework is to make capital requirements risk-sensitive, so that insurers that present greater risk to policyholders must carry more capital.

I Structure of capital adequacy requirements

4.2 Total balance sheet approach

4.2.1 Under a total balance sheet approach, the required capital and capital resources of an insurer are determined on the basis of a consistent valuation of its assets and liabilities, and with due regard to the risks inherent in the assets and liabilities.

4.2.2 We propose to adopt the total balance sheet approach for assessment of capital adequacy requirements.

> **Question 1**
>
> Do you agree that a total balance sheet approach should be adopted in the assessment of solvency, valuation of assets and liabilities and determination of capital resources? If not, why?

4.3 Solvency control levels

4.3.1 A solvency control level is a limit or trigger point for supervisory actions on capital adequacy grounds. In the current Hong Kong regime, while the ICO stipulates a minimum solvency requirement of 100%, the IA adopts a solvency ratio benchmarks of 150% for long-term insurers and 200% for general insurers. These benchmarks may effectively be regarded as solvency control levels.

4.3.2 *ICP 17 Capital Adequacy* stipulates at least two explicit control levels. The highest control level is described as the PCR. The PCR is defined as the solvency control level above which the supervisor does not intervene on

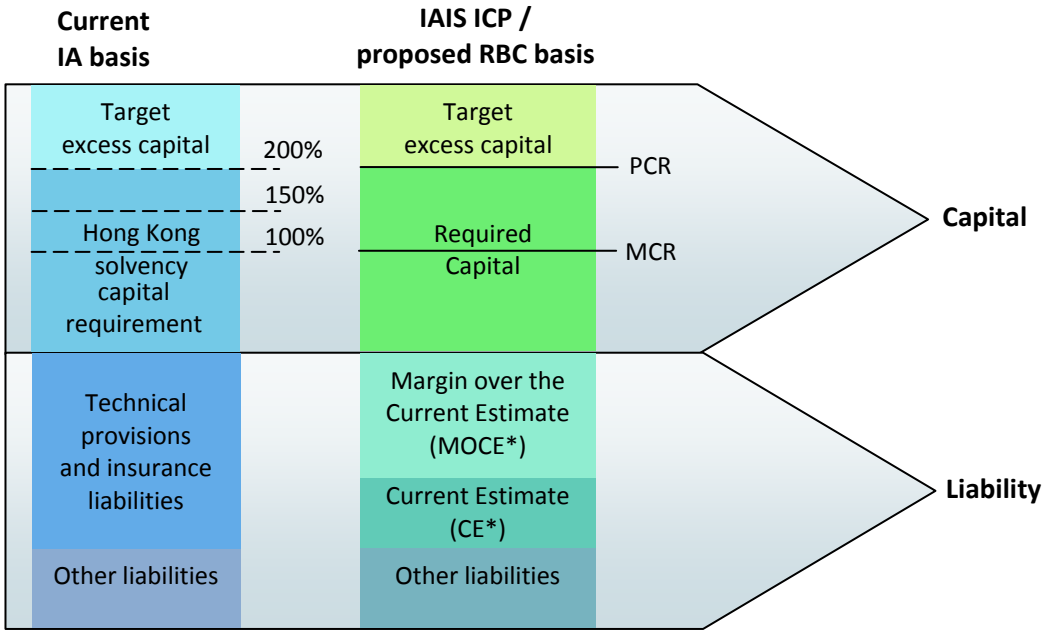
capital adequacy grounds. The PCR may be expressed in probabilistic terms (e.g. 99.5% VaR over a one-year time horizon) or as a fixed value, and is calculated for specific insurers and expressed in monetary units.

4.3.3 The other intervention level is the MCR, which is set at a level lower than the PCR. The MCR is the solvency control level at or below which the supervisor would invoke its strongest actions, in the absence of appropriate corrective actions by the insurer concerned. The MCR is a minimum bound, below which no insurer is regarded to be viable.

4.3.4 We propose that the current Hong Kong framework should be expanded to include two explicit solvency control levels, PCR and MCR. An insurer breaching each of these solvency control levels will trigger an appropriate intervention by the IA.

4.3.5 Additional trigger points may be used as well. For example, the IA may set trigger points at a multiple of the MCR or a fraction of the PCR. Breaching these points might, for example, trigger a requirement to hold additional capital, or prompt more frequent supervisory audits.

4.3.6 The following diagram illustrates the PCR and MCR under the proposed RBC framework vis-à-vis the existing framework, and gives an indication of the levels at which the triggers are applied. This diagram is for illustrative purpose and does not demonstrate the relative size of each component or level of capital requirement between the existing framework and the proposed RBC framework.



*CE and MOCE are discussed in 4.19.

4.3.7 ICP 17.3.4 states that the criteria used by the supervisor to establish solvency control levels should be transparent, and that this is particularly important where legal action may be taken in response to an insurer violating a control level. The above proposal is aimed at ensuring that control levels are simple to understand, and that the relationships between control levels and regulatory actions are clear and coherent to insurers and relevant stakeholders.

Question 2

Do you agree that we should impose two different solvency control levels (PCR and MCR) explicitly? If not, why?

4.4 Target criteria for the PCR and MCR

4.4.1 ICP 17.8 stipulates the need for appropriate target criteria (such as risk measures, confidence levels or time horizons) for the calculation of regulatory capital requirements. Emerging international trend is to calibrate regulatory capital requirements to a probabilistic target over a specified time horizon.

PCR

4.4.2 In recognition of the need to take a forward-looking view of an insurer's financial position, we propose that the PCR be determined on a going-concern basis and allowing for one year's forecast of new business in the calculation.

4.4.3 A common approach is to set the target criteria for PCR at the confidence level equivalent to a minimum investment grade level, such as a Standard & Poor's BBB rating. This represents the minimum counterparty worthiness a rated insurer requires in order to purchase reinsurance coverage and therefore is considered an appropriate level at which the regulatory capital requirements are set.

4.4.4 VaR is a commonly used measure in financial services to assess the risk associated with a portfolio of assets and liabilities. More precisely, VaR measures the worst expected loss under normal conditions over a specific time interval at a given confidence level. Recent trends indicate that setting the target PCR at a 99.5% VaR measure over a one-year timeframe is emerging as the international standard. This corresponds to the worst loss expected to occur in a single year over the next two hundred years.

4.4.5 Another measure that could also be used is a tail value-at-risk (TVaR) measure, also sometimes referred to as conditional tail expectation. TVaR essentially measures the exposure to tail events. It is often considered to be a more advanced method than VaR since it addresses the quantum of loss given default rather than the somewhat simpler VaR quantum of required capital to avoid a default. Both the VaR and TVaR are measures taken from the distribution of net assets at a given future point in time.

4.4.6 It is often considered that a 99% TVaR measure is broadly equivalent to a 99.5% VaR measure. However, information concerning tail distributions is less readily available and requires more subjective assumptions to be made.

4.4.7 We propose that the target criteria for PCR should be set at a confidence level that is comparable to a minimum investment grade level, calculated using 99.5% VaR over a one-year period. This would mean an insurer's PCR would be the amount of capital resources required to be at a 99.5% confidence level of having non-negative net assets at the end of a one-year time horizon. This would be confirmed during Phase II once the impact has been assessed during the QIS.

4.4.8 We propose that the same target criteria for capital adequacy should be applied to all classes of business of an insurer.

Question 3

Do you agree that the PCR should be determined on a going-concern basis and allow for one year's forecast new business? Do you agree with aligning PCR with a minimum investment grade based on VaR calculated at a 99.5% confidence level over a one-year time horizon? Do you agree that the same target criteria should be applied to all classes of business? If you disagree, what alternatives would you suggest? Why?

MCR

4.4.9 We propose that although the existence of an MCR is defined, the specific target criteria would not be defined until an industry QIS has been carried out to enable an informed decision.

4.4.10 Capital resources are an insurer's financial resources which should be capable of absorbing losses. MCR acts as a buffer to protect policyholders in the event of loss.

4.4.11 As a minimum floor below which no insurer is considered to be viable, the MCR should be set at a lower level of capital requirement than that of the PCR. As such it is typically defined either by calibration to a lower confidence level or by a simpler method.

4.4.12 Defining the MCR as a proportion of PCR is a simpler approach, requiring no additional work for companies. However this has a significant flaw at times of stress. Following a stress, the PCR would typically be expected to fall, but it may not be desirable for the MCR to fall any further than it already is.

4.4.13 As an ultimate minimum, the MCR is typically subject to a lower bound, defined as a monetary unit, below which no insurer is regarded to be viable to operate effectively. This concept already exists within the Hong Kong regime.

Question 4

Do you agree the MCR should be designed as a simpler calculation than the PCR? Do you agree that the level for MCR should be determined after the industry QIS has been carried out? If not, why?

II Determination of regulatory capital requirements

4.5 Approach to determining regulatory capital requirements

4.5.1 There are two broad approaches which may be adopted to determine regulatory capital requirements i.e. a standardized approach (typically a risk-factor based approach or a specified stress-test based approach) or an internal model (either partial or full) that has been approved by the supervisor. Either approach should be subject to the same principles and objectives, and reflect the risk profile of both the insurance industry and, as far as possible, individual insurers.

4.5.2 A standardized approach (ICP 17.6.8) must be designed to reasonably reflect the nature and materiality of risks of all, or most, insurers within a supervisor's jurisdiction. This is challenging to achieve, and generalization or simplification is required. The advantage of a generalized approach is the comparability it achieves – all insurers are measured on a consistent basis. The supervisor has an element of choice as to the level of complexity to be built into the model, enabling sophistication to be increased over time.

Relatively less complexity enables insurers to adopt the new approach in a shorter period of time without adding an undue burden, can be easier for consumers to understand and hence more transparent, and can be simpler for supervisors, requiring less training. Calculations may also be made more frequently. The complexity can also vary by risk, enabling the supervisor to prescribe more complex and accurate approaches for those risks that are most material. Simplified approaches may also be permitted for smaller insurers, or those with limited exposure to a given risk.

4.5.3 The existing Hong Kong regime uses a standard "fixed ratio" model with two risk drivers (reserve and sum at risk for long-term insurance; premiums and claims for general insurance), using size as a broad proxy for risk.

4.5.4 However, a standardized approach may not fully reflect the risk profile of any individual insurer, and does not necessarily encourage strong risk management processes by permitting a corresponding reduction in capital requirements where mitigating action is taken.

4.5.5 As an alternative approach, some regimes may allow insurers to use a full or partial internal model. An internal model is an economic capital model developed by the company specifically to model its own risks and used for management purposes. A partial internal model is where such an approach is used only for specific risks, with the standardized approach being otherwise used. The use of internal models is permitted, but not required, under ICP 17.6 which provides that "in determining regulatory capital requirements, the supervisor allows a set of standardized and, if appropriate, other approved more tailored approaches such as the use of (partial or full) internal models." ICP 17.6.9 provides that "where appropriate a supervisor should allow the use of more tailored approaches subject to approval."

4.5.6 Although more likely to accurately reflect the risk of a specific business if appropriately designed and calibrated, the introduction of internal models is challenging for both insurers and supervisors. Insurers need to invest significant resources in developing appropriate models and demonstrating their appropriateness for use. The degree of consistency of internal models with those of other regimes and other financial services sectors in Hong Kong will need to be considered as well.

4.5.7 The calibration of the PCR for internal models should be set at a 99.5% confidence level.

4.5.8 Should the use of internal models or other more tailored approaches be permitted, several provisions will need to be determined, including :

- General provisions (e.g. whether to require their use by the industry as a whole, by a subset of the industry, or to make their use purely optional; the readiness of the industry to develop, validate, approve and use internal models; and the cost and benefit of developing internal models vs. using the simplified approach);

- Initial validation and supervisory approval provisions;

- Calibration test provisions;

- Use test and governance provisions;

- Documentation provisions; and

- Ongoing validation and supervisory approval provisions.

4.5.9 Given the above considerations, a standardized approach appears to be more appropriate for Hong Kong. We propose that the PCR and MCR should be calibrated using a standardized approach.

4.5.10 We propose that internal models should not initially be required for the purpose of calculating regulatory capital. However, recognizing that some insurers, being part of larger groups, may be using internal models developed by their group and which have been approved by their home regulators for application to all entities in a group, we also propose that flexibility should be retained such that internal models or partial internal models may be used, subject to the approval by the IA.

4.5.11 Allowing companies to use internal models where they have them within their ERM framework and their ORSA rather than making it mandatory for setting regulatory capital, has the advantage of helping progression towards the development of models adequate for use in calculating the capital requirements at some future time and should be encouraged. It also fosters a culture of risk assessment for insurers who are incentivized to focus more on their risk exposures and drivers.

Question 5

Do you agree to adopt a standardized approach as a starting point to reflect the nature and materiality of risks and calibration of PCR and MCR for all insurers while retaining the flexibility to allow internal models? If not, why?

4.6 Risk categories

4.6.1 To meet the primary purpose of policyholder protection, an RBC regime must require insurers to identify and address all material risks to their businesses. Protection against adverse experience can be managed both by holding additional capital and by risk mitigating actions.

4.6.2 The key risks facing insurers may be classified into the following categories :

- Underwriting risk.
- Credit risk.
- Market risk.
- Operational risk.
- Liquidity risk.

4.6.3 We propose to specify the broad categories of risk to be captured by the standard approach and by an internal model (if approved), and emphasize the need for completeness of material risks captured, to ensure that insurers would still need to assess any material risks not captured by the model through their risk assessment processes. We propose to capture the individual risks and specific approaches through a subsequent process of industry QIS. It would be important to maintain sufficient flexibility in the standardized approach to recognize additional risks in future as practice and application develop.

4.6.4 We propose that capital requirements should address all relevant and material categories of risk of insurers and insurers will be required to quantify the capital they need to hold for any risks not addressed by these risk categories through their ORSA. The IA may require capital add-ons if this cannot be demonstrated to its satisfaction. Instead of attempting to model a long list of risk factors, we propose to focus initially on key risks and specify an explicit set of risks which include, as a minimum, the following risk categories: underwriting risk, credit risk, market risk and operational risk.

Question 6

Do you agree with the broad categories of risk that we have initially identified as driving capital requirements, namely, underwriting risk, market risk, credit risk and operational risk? Do you agree that other risks should be better dealt with through enhanced ERM? If not, why?

Underwriting risk

4.6.5 The underwriting risk capital requirement reflects the business being written and the underlying risk attached to that business. The greater the uncertainty in the amount or timing of claim or benefit payments, the greater the amount of capital that should be held.

4.6.6 The specific nature of the risks to be considered for long-term and general insurance businesses are different. We therefore propose to quantify separately the risks for each category of direct long-term and general insurers, as well as reinsurers.

4.6.7 For long-term insurance business, separate capital charges are typically applied for each key assumption (e.g. mortality, persistency) based on technical provisions, sum at risk or premiums, etc.

4.6.8 For general insurance business, the required capital should reflect reserve risk on claims incurred, as well as underwriting risk on the sufficiency of premiums being written to meet claims. In particular, it is important to reflect both the risk of a trend (e.g. higher medical costs due to road accidents), as well as the risk of catastrophe (e.g. hurricane or earthquake). Separate capital charges are typically applied by classes of business based on, for example, technical provisions and/or premiums volume. The underwriting risks are applied to, for example, provisions for unearned premiums and outstanding claims (including incurred but not reported).

Credit risk

4.6.9 The allowance for credit risk reflects the risk of counterparty default and downgrade, for example in respect of derivatives, debts and reinsurance. This is described by ICP 17.7.3 and is particularly important because an insurer can, for example, mitigate their exposure to underwriting risk using reinsurance, but entering the reinsurance deal carries risks of its own.

4.6.10 Risk in respect of corporate bonds is sometimes captured through credit risk and sometimes captured through market risk.

4.6.11 The capital requirement may be calculated by applying specified factors to the size of the exposure. The factors should vary by credit rating (as per approved rating agencies) of the counterparty to reflect the level of credit risk and encourage use of better quality counterparties. This requires insurers to have detailed information on exposures to all counterparties which should encourage improved risk management. Limits may also be placed on the concentration of reinsurance with a single provider, for example, to address concentration risk.

Market risk

4.6.12 Market risk reflects the impact on assets and liabilities of adverse movements in both the level and value of assets and other market instruments. Market risk includes, for example, falls in equity value, increases in equity volatility, interest rate volatility, spread risk, currency risk and asset concentration risk.

4.6.13 Different regimes incorporate some or all of these risks. Capital charges on movements in the value of equities, interest rates and bonds are found consistently in most regimes. Currency risk is particularly relevant to Hong Kong given the proportion of overseas assets held by long-term insurers, and non-Hong Kong dollar denominated liabilities.

4.6.14 Regimes employing simpler frameworks may not reflect changes in asset volatility given the difficulty of defining a simple factor charge to reflect this risk. For business with significant guarantees, these volatility stresses can be material, and the impact on liabilities may be modelled using either a stochastic model or a closed-form solution such as the Black-Scholes model, which would include further complexity to the calculation.

4.6.15 Regimes employing more advanced models measure the impact of market risk stresses on available capital (i.e. assets less liabilities) to ensure that asset-liability mismatch risk is captured. This requires more sophistication but addresses a significant risk of insurers not appropriately selecting assets to match their liabilities. This is particularly crucial to interest-sensitive liabilities such as annuities.

4.6.16 The DST within the existing Hong Kong regime captures some allowance for this mismatch risk, by considering how the available capital changes under

market risk stresses. Where assets and liabilities do not change value consistently, an additional reserve is needed. The DST usefully raises insurers' awareness of these concepts which should facilitate the implementation of the new capital regime.

Operational risk

4.6.17 Operational risks may be defined as risks arising from inadequacy or failure of internal systems, personnel, procedures or controls leading to financial loss, including custody risk. As a result, operational risk is dependent on the quality of risk controls and processes within an insurer and cannot readily be measured by proxies. Such risks can be difficult to quantify. However, simple approaches are used by a number of jurisdictions, and are allowed by the ICP, with an expectation that sophistication will improve as companies gather more information on operational risks.

4.6.18 We propose to adopt a simple approach initially, for example, by defining capital requirements based on premiums, new business and claims. Certain jurisdictions adopt a simple formula in calculating the operational risk capital requirement by applying the risk charge to the average of gross premiums or policy liabilities over a period of a few years. Since operational risk tends to increase significantly during times of change, another simple refinement we may consider is basing the operational risk capital requirement on a percentage of change in premium, new business volume or claims volume in excess of a threshold (e.g. 20%). We propose that the operational risk should be addressed within the capital requirement.

Question 7

Do you agree that we should adopt a simple approach in defining capital requirements for operational risks based on premiums, new business and claims and be considered in the QIS? If not, why?

Liquidity risk and other non-quantifiable risks

4.6.19 Certain risks, for example legal risk, liquidity risk, strategic risk and reputational risk, are not necessarily mitigatable by holding additional capital. Where this is the case, we propose that these should be addressed through strong risk management processes rather than through inclusion in the quantitative capital requirement.

4.6.20 Insurers need to maintain sufficient levels of liquidity to settle their liabilities to policyholders as they fall due. Liquidity risk is therefore the potential that the insurer is unable to meet its obligations as they fall due as a consequence of a timing mismatch.

4.6.21 Liquidity risk is generally considered to be lower for insurers relative to banks, as insurers generally hold "long" liquidity position, whereas their liabilities are not highly correlated to market stresses. As a result, most insurance supervisors focus on asset-liability matching principles and general risk management requirements as a means to address potential liquidity issues rather than requiring capital to be held. This has been reinforced by increased demands from supervisors to stress test applied to investment portfolios and to apply reverse stress tests to better assess liquidity positions of insurers, particularly in regard to the risk of a sudden withdrawal of policyholders with guaranteed surrender values.

4.6.22 We propose that liquidity risk should be dealt with through directions on the liquidity and quality of assets that insurers may hold and through ALM.

Question 8

Do you agree that legal risk, liquidity risk, strategic risk and reputational risk should be addressed through risk management processes rather than by holding additional capital? If not, why?

Question 9

Do you agree that liquidity risk should be dealt with through enhanced supervisory oversight of ALM rather than by prescribing minimum liquidity risk standards? If not, why?

4.7 Risk-factor based approach vs stress-test based approach

4.7.1 An RBC framework must determine capital requirements that are sensitive to the risks of an insurer. A standardized approach can achieve this in two basic ways: either by specifying a set of capital charges to be applied to key risk drivers (a risk-factor based approach) or by specifying a set of stresses and modelling the impact on assets and liabilities (a stress-test based approach). The risk-factor based approach is simpler and consistent with that adopted in Singapore, Australia (for general insurance only) and the United States. A stress-test based approach is used in the European Solvency II

regime, for long-term insurance in Australia and the United Kingdom Individual Capital Assessment regime.

4.7.2 Under the risk-factor based approach, the IA will define risk drivers that reflect the characteristics of each material risk and an insurer's exposure to that risk. For example, the risk driver for mortality risk may be the sum at risk, and for motor insurance may be the total premiums written. The IA will also develop risk charges, calibrated to the target confidence level of the framework.

4.7.3 Therefore, an insurer should measure its own exposure to each of the selected risk drivers and multiply them by the associated risk charges set by the IA. The risk capital will then vary depending on the extent of the insurer's exposure to that risk and any risk mitigation techniques in place. The total capital requirement for the insurer would then be the aggregate of these products. The risk charges defined should correspond to the target confidence level of the framework.

4.7.4 A stress-test based approach requires the IA to define standardized stress tests for each material risk calibrated to the target confidence level. An insurer then models each stress, effectively determining the impact on its future cash flows, in order to calculate the overall impact on its balance sheet. The shortfall in available capital in specified stress scenarios indicates the required risk capital. As mentioned above, the total capital requirement would be the sum of these elements. This is a more advanced approach, requiring greater sophistication of modelling capability and greater development time, but providing a capital requirement more reflective of the insurer's risks.

4.7.5 The advantages of a risk-factor based approach are that it will allow insurers the opportunity to learn to operate within a more risk-sensitive regime and begins to incentivize insurers to adopt certain risk mitigation techniques, such as the purchase of reinsurance and the reduction of more risky asset exposures. However there is less incentive to enhance ERM techniques unless supervisors are empowered to use capital add-ons to strengthen capital requirements for insurers with less sophisticated ERM and governance frameworks (see Chapter 5).

4.7.6 We propose to adopt the stress-test based approach for (i) underwriting and market risks for insurers carrying on long-term business; and (ii) market risks for insurers carrying on general business.

4.7.7 We also propose to use the risk-factor based approach for other risks , in view of its simplicity.

4.7.8 In order to define the rules and guidance to implement the proposed approach, it would be necessary to develop positions on :

- Calibration of a risk-factor based approach: This would be needed in order to determine risk charge at the target level of confidence. This is a significant exercise, but requires the more fundamental principles described in this paper to be agreed first. To calibrate, it is necessary to develop a probability distribution for each risk and determine the stress at the desired confidence level. This is dependent on judgement as well as mathematical analysis of historical data, given the lack of probability distribution for many risks. To determine the risk charges, it would also be necessary to develop an understanding of the loss function for each risk, i.e. to measure the impact on a typical balance sheet at the desired confidence level. Independent of the general design features, any approach can be invalidated by a bad parameter choice in respect of the risk factors, so that either insurers with inadequate capital are not identified because the capital requirements are generally too low, or all insurers are burdened with excessive capital cost, because the risk factors are too conservative. The choice and level of parameters is an issue of paramount importance for developing an RBC model, but is beyond the scope of this consultation; and

- Supervisory adjustment: The proposed framework should enable the IA to increase an insurer's capital requirements where the risk-factor based approach does not adequately reflect its exposure to risk, for example in the case of a specialist insurer or a company with an unusual investment strategy or other unique features. For this reason, risk-factor based models are generally defined as giving rise to a minimum level of PCR, which can be supplemented by the IA through the use of capital add-ons.

Question 10

Do you agree that a stress-test based approach should be adopted for underwriting and market risks for insurers carrying on long-term business and market risk for insurers carrying on general business? Do you agree that a risk-factor based approach should be adopted for other risks? If not, why?

4.8 Aggregation of capital requirements

4.8.1 The section above outlines the determination of the capital requirement for each category of risk an insurer is exposed to. The overall risk faced by an insurer is not necessarily the sum of each individual risk but there may be dependence and interrelationships between risks, as described by ICP 17.7.2. It is generally recognized that there is at least some correlation between the risks faced by an insurer, but not all risks would be expected to be faced by an insurer at the same time. While aggregation of all capital requirements may result in a reduction in the overall capital requirements due to diversification effects, it may also increase the total capital requirements due to concentration of risk, particularly in stressed conditions.

4.8.2 We would further examine in Phase II whether dependencies and interrelationship between risks should be allowed and, if so, the approach to be taken.

III Capital resources

4.9 In line with the ICPs, we have split our proposals on capital resources into three steps :

- Identification of capital resources potentially available for solvency purposes (discussed in 4.10);
- Criteria for the assessment of the quality and suitability of capital resources (discussed in 4.11); and
- Determination of capital resources to meet regulatory capital requirements (i.e. use of a tiering or other approaches to determine a final amount of an insurer's capital resources) (discussed in 4.12).

4.10 Identification of capital resources for solvency purposes

4.10.1 In defining capital resources, we have considered making a number of adjustments to accounting measures of capital, for example :

- Perpetual subordinated debt, although usually classified as a liability for accounting purposes, could be classified as a capital resource for solvency

purposes because of its availability to act as a buffer to reduce the loss to policyholders through subordination in the event of insolvency. More generally, subordinated debt instruments may be treated as capital resources for solvency purposes if they satisfy criteria established by the supervisor.

- Certain contingent elements, which are not considered as assets under relevant accounting standards, may be counted as capital resources if the likelihood of payment if needed is sufficiently high according to criteria set by the supervisor. These may include letters of credit, members' calls by a mutual insurer or the unpaid element of partly paid capital, etc.

4.10.2 We propose to address these contingent elements of capital resources in Phase II after a formal industry QIS has been carried out. However, it is likely that such items would be permitted only with the approval of the IA.

4.11 Quality and suitability of capital resources

4.11.1 The current approach in Hong Kong is to measure available capital in terms of the total of admissible assets less liabilities. This basis has served a useful and simple approach to determining the amount of available capital.

4.11.2 ICP 17 introduces four considerations in assessing the ability of capital to absorb losses :

- Subordination: the extent to which and in what circumstances the capital element is subordinated to the rights of policyholders in an insolvency or winding-up.

- Availability: the extent to which the capital element is fully paid and available to absorb losses (e.g. paid for "in kind" rather than in cash).

- Permanence: the period for which the capital element is available (e.g. consideration of capital redemption dates).

- Absence from mandatory servicing requirements or encumbrances: the extent to which the capital element is conserved until needed or free from mandatory servicing costs (e.g. payment of interest, shareholder dividends, payments, which may reduce capital resources).

4.11.3 We propose that the assessment of capital resources should give due attention

to the quality and suitability of capital, such as their ability to absorb losses on both going-concern and wind-up basis.

4.12 Determination of capital resources to meet regulatory capital requirements

4.12.1 To take into account the quality of capital instruments a "tiering" approach is now commonly adopted in many jurisdictions. Under a "tiering" approach, the composition of capital resources is based on the categorization of elements of capital according to quality criteria set by the supervisor.

4.12.2 For example, under a three-tier system :

- Highest quality capital – permanent capital that is fully available to cover losses of the insurer at all times on a going-concern and a wind-up basis (i.e. equity and retained earnings).

- Medium quality capital – capital that lacks some of the characteristics of highest quality capital, but which provides a degree of loss absorbency during ongoing operations and is subordinated to the rights and reasonable expectation of policyholders (e.g. some forms of subordinated debt).

- Lowest quality capital – capital that provides loss absorbency in insolvency or winding-up only.

4.12.3 Minimum or upper levels of required capital should comprise various tiers and combinations. The levels may be expressed as :

- A percentage of required capital (e.g. minimum x% of required capital of higher quality, maximum of y% of lower quality capital); or

- Limits on composition (e.g. certain asset class may form a maximum z% of capital).

4.12.4 The separation of capital resources into tiers assumes that all elements of capital can be clearly identified as belonging to one of the specified tiers, and that items belonging to a particular tier are all of the same quality. At the same time, this approach provides insurers with greater financial flexibility.

4.12.5 As an alternative, a continuum-based approach recognizes the differential

quality of capital elements. Under this approach, the elements of capital are not categorized, but rather ranked, relative to other elements of capital on the basis of identified quality characteristics. The minimum acceptable level of quality is defined so that elements sitting above this level in the list are accepted as capital resources for solvency purposes. Consideration is also given to the quality of capital elements to ensure there is an appropriate balance of going-concern and wind-up capital.

4.12.6 A third option is one similar to the current Hong Kong regime, where only equity capital is ordinarily permissible.

4.12.7 We propose to permit a broader range of instruments as capital. Capital quality and asset admissibility rules, including those in relation to subordinated debt, will be included within the definition of capital resources.

4.12.8 We propose that the determination of capital resources should be based on a tiering approach, which categorizes capital resources into different classes of quality ("tiers") and applies certain limits/restrictions with respect to these tiers. Capital elements are typically categorized into two or three tiers.

Question 11

Do you agree to tier capital resources based on quality? What other approaches should we consider to quantitatively assess quality and suitability of capital?

IV Valuation

4.13 Measurement and valuation bases

4.13.1 While the IAIS ICPs mark an important milestone in the harmonization of insurance supervision, there remain key differences between their requirements and those of generally accepted accounting practices.

4.13.2 An important consideration is whether the measurement and valuation bases adopted for determining capital adequacy should be based on those used in general purpose financial statements (with adjustments as needed) or whether specific rules (or principles) should be prescribed. The IAIS considers it most desirable that the methodologies for calculating items in general purpose financial statements are used for, or are substantially consistent with,

the methodologies used for regulatory reporting purposes, with as few changes as possible to satisfy regulatory requirements. This is likely to reduce costs for authorized insurers and thereby policyholders.

4.13.3 A key feature of *ICP 14 Valuation* is the need for the valuation of assets and liabilities for solvency purposes to use a total balance sheet approach to solvency assessment and the interplay between available capital resources and required regulatory capital. At the same time, it is recognized that there may be differences between accounting and regulatory standards regarding the valuation of assets and liabilities for general purpose financial reporting.

4.13.4 Starting from general purpose financial statements and applying any changes considered appropriate for capital adequacy purposes achieves the greatest consistency with general purpose accounting standards (currently HKFRS is substantially aligned with IFRS and future IFRS changes are expected to be adopted by the Hong Kong Institute of Certified Public Accountants into HKFRS). The key challenge with this approach is that changes in IFRS/HKFRS will affect the calculation of capital adequacy which may have unforeseen consequences. This is particularly acute as there are major changes in IFRS in the pipeline, in particular, *IFRS 4 Insurance Contracts* Phase I provides limited guidance on insurance contract valuation, and Phase II is still developing (standard due to be finalized in 2015, implementation unlikely before 2018 at the earliest) and *IFRS 9 Financial Instruments,* is due for implementation from 1 January 2018, with various other changes in the pipeline (revenue, leases) which could have a significant impact for the measurement of capital.

4.13.5 One of the key issues here may be the planned time horizon for the implementation of the proposed RBC framework as well as the implementation of IFRS 4 Phase II. A key consideration is to avoid creating subtle differences in regulatory and accounting requirements – like the definition of contract boundary, which will be discussed in 4.14 and 4.19, to avoid maintaining multiple sets of records and to avoid multiple rounds of systems changes.

4.14 Recognition and de-recognition

4.14.1 We propose that recognition and de-recognition of insurance contracts' assets and liabilities should follow the principles adopted in the HKFRS financial statements. This will ensure consistency across the market.

4.14.2 We propose that the recognition of insurance contracts on bound or inception date should follow the practice used in the general purpose HKFRS financial statements of insurers.

Question 12

Do you agree that recognition of insurance contracts should align with general purpose financial statements under HKFRS or IFRS? If not, why?

4.15 Consistency of valuation of assets and liabilities

4.15.1 Solvency assessment based on consistent valuation of assets and liabilities is a pre-requisite for obtaining meaningful insight into the asset-liability positions of an insurer, consistent with the total balance sheet approach mentioned in 4.2. It should be noted that consistency in the valuation of assets and liabilities for solvency purposes does not necessarily mean that a single valuation basis is used for all assets and liabilities, but there should be consistency between individual liability(ies) and the corresponding asset(s).

4.15.2 There are currently no prescribed rules for consistent asset and liability valuation bases, and in practice the valuations are not consistent for certain classes of business. For example :

- The liability valuation for traditional long-term business contains various sources of implicit margins which are not required for the valuation of assets.

- Discounting for the time value of money is prohibited for general business, which introduces inconsistency with asset valuations (market values with haircuts), especially for long-tailed business.

4.15.3 Mandating a consistent approach for the valuation of assets and liabilities may necessitate insurers to make adjustments to the values adopted in their general purpose financial statements because there is no requirement for such consistency in HKFRS. Indeed the current proposals for IFRS 4 Phase II require assets and liabilities to be valued and recognized independent of each other – this is an example where we consider adjustments to general purpose financial statements are warranted for capital adequacy purposes.

4.15.4 Achieving a consistent basis of economic valuation for assets and

liabilities will help to reduce or eliminate, where possible, accounting mismatches in the absence of underlying economic mismatches. This will produce a more accurate picture of an insurer's solvency position and thereby enhance the overall protection of policyholders. Additionally, minimizing the differences from HKFRS, would reduce the administrative burden on companies caused by dual reporting.

4.15.5 We propose that the valuation of assets and liabilities be undertaken on consistent bases. Undertaking valuation on consistent bases means that differences in values of assets and liabilities can be explained in terms of the differences in the nature of the cash flows including their timing, amount and inherent uncertainty, rather than differences in methodology or assumptions.

4.15.6 We propose that adjustments be made to the value of assets and liabilities in the general purpose financial statements where this is required to place the valuation of assets and liabilities on an internally consistent basis for capital adequacy purposes.

Question 13

Do you agree to undertake valuation of assets and liabilities on an internally consistent basis and that the valuation of assets and liabilities to support the determination of capital should be derived from adjustments to the general purpose financial statements based on HKFRS or IFRS? Do you foresee any difficulties with this approach?

4.16 Requirement for an economic valuation basis

4.16.1 The current Hong Kong insurance liability valuation basis is not an economic valuation (an economic valuation is one which reflects the risk adjusted present value of the underlying cash flows being valued). Examples where the approach is not an economic valuation, or inconsistently applied across insurers or lines of business, are as follows :

- Long-term insurance: *Insurance Companies (Determination of Long Term Liabilities) Regulation* emphasizes the principle of prudence but without specifying the level of prudence to be applied (e.g. in respect of mortality assumptions and miscellaneous reserve requirements). In practice, levels of prudence vary between (and possibly within) insurers. The release of such implicit margins could be allowed for partially through the MOCE (discussed in 4.19), and partially in the MCR and

PCR requirement.

- General insurance: *Guidance Note 9 on Actuarial Review of Insurance Liabilities in respect of Employees' Compensation and Motor Insurance Businesses* (GN 9) requires a risk margin for motor and employees' compensation businesses. Similar margins are allowable but are not mandatory for other lines of business. Whilst there is no specific requirement regarding the confidence level of the risk margin or the method to be adopted, market practice is to apply a risk margin at a 75% level of confidence for motor and employees' compensation businesses. For other classes, different levels of prudence are applied in practice and the level of prudence is implicit rather than explicit. Similarly for mortgage guarantee business, the "Contingency Reserve" requirement (as stipulated in *Guidance Note 6 on Reserving for Mortgage Guarantee Business* (GN6)) is essentially a risk margin and adds additional prudence to the reserves for this line of business.

- Discounting of insurance liabilities is prohibited for general insurance, which provides a further implicit margin, and the level of prudence varies depending on the liability duration and is not explicit.

- Retirement benefits: *Guidance Note 7 on the Reserve Provision for Class G of Long-Term Business* (GN 7) requires Class G investment guarantees be provided at a 99% level of confidence. On top of that, additional implicit margins are applied through the use of prudent assumptions (with a range of margins suggested) and discount rates.

4.16.2 Moving to an economic valuation for all classes of business would be fully ICP-compliant. Adjustments may be needed to reflect assets and liabilities implicit in an economic valuation that are not reflected in HKFRS balance sheet.

4.16.3 We consider keeping the GN 7 valuation basis for investment guarantee is essential given the mandatory and long-term nature of this class of business which is consistent with additional requirements for policyholder protection.

4.16.4 We propose that the use of economic valuation should apply to all classes of business except Class G of long-term business. For Class G business, the valuation basis should remain the same as the prevailing GN 7 requirement.

Question 14

Do you agree to use economic valuation for all classes of business except Class G of long-term business? Are there other classes of business which should adopt an alternative approach? Why?

4.17 Market consistent approach vs amortized cost approach

4.17.1 ICP 14 allows two different approaches to economic valuation, namely, market consistent and amortized cost based valuations.

4.17.2 Market consistent valuation is based upon principles, methodologies and parameters that the financial markets would expect to use. It may be determined using different techniques such as observing market prices, replicating portfolios and using discounted cash flow models. For valuation of long term liabilities, the discounted cash flow methodology is most commonly used, as market prices of liabilities are not commonly available, with the exception of investment-linked liabilities. The discount rate used under this approach is typically the current market risk-free rate. Due to the potential volatility that could arise under this approach, especially during anomalous market conditions, a "market-referenced" discount rate that makes reference to both the current and historical yields may be more appropriate.

4.17.3 Amortized cost valuation determines the value as the present value of future cash flows discounted at an appropriate risk-adjusted interest rate. Amortized cost valuations are subject to an adequacy test at least annually. The discount rate used in valuing assets under this approach equates the present value of expected contractual cash flows with the amount paid to acquire the asset. When valuing both assets and liabilities, the discount rate used may be based on the expected yield, after making allowance for default, of the supporting asset portfolio. Other combinations of discount rate and risk adjustment are possible.

4.17.4 The primary difference between the two approaches is therefore the choice of discount rate.

4.17.5 Both valuation approaches are currently commonly used, though those jurisdictions with more recently updated frameworks have shown a trend towards market consistent approaches. In particular, Australia, Singapore, European Union and Switzerland apply a market consistent valuation approach. Bermuda, Canada, Japan and the United States use a combination

of market consistent and amortized cost valuation approaches. *IFRS 9 Financial Instruments* will principally require a market consistent approach, but permit amortized cost for certain assets held to collect contractual cash flows.

Ease of implementation

4.17.6 There is still a high degree of variation in the measurement techniques of insurance liabilities which strive to achieve market consistency. A market consistent approach, especially on the liability side, is technically more challenging since most insurance policies are not traded in a deep and liquid market.

4.17.7 Most insurers in Hong Kong, especially general insurers and the smaller long-term insurers, currently only perform amortized cost liability valuations and may not have sufficient technical knowledge to perform a market consistent valuation. Development of appropriate and comprehensive guidance and an appropriate period of transition will be essential for the successful implementation of a market consistent valuation approach. Where discounting does not have a material impact, for example on liabilities of less than one year, it may not be required.

4.17.8 This has proved challenging in other jurisdictions, particularly where a market consistent approach can produce onerous requirements for some products, particularly spread-based products. However, the transition to an economic valuation in certain regimes can lead to lower reserves as implicit margins are released.

Volatility

4.17.9 Adopting a market consistent approach may cause greater volatility in capital adequacy as compared to the use of an amortized cost approach. As a mark-to-market approach uses market values on the valuation date, it is highly dependent on the market position on a single day, which may not be representative of the markets over even a relatively short time period of a month or months. During abnormal markets, this may require long-term insurers in particular to hold high reserves if interest rates drop to uncharacteristically low levels, or may lead them to reduce capital if interest rates rise or spreads compress.

4.17.10 An amortized cost approach uses the expected yield, which includes a long

term best estimate assumption of the expected yield to maturity. When setting the discount rate for amortized cost, it is important to ensure sufficient adjustment for risk is made, as otherwise investing in riskier assets may reduce the liabilities inappropriately. Discount rates may also become inappropriate if interest rates move significantly over time.

4.17.11 In making recommendations for the valuation basis to be adopted, it is important to estimate when new requirements are likely to take effect. Significant changes to the accounting for technical provisions for general purpose financial statements are expected to be required when the planned IFRS 4 Phase II is implemented in IFRS and HKFRS.

4.17.12 Whether market consistent or amortized cost approach is adopted, the approach needs to be consistently applied to assets and liabilities for each particular class of business for the sake of the consistency requirement.

4.17.13 Given that the ICP allows supervisors to choose the method(s) that fit their jurisdictions, we have considered the following options in terms of economic valuation -

- To allow each individual insurer to select their approach.
- To use a combination of market consistent and amortized cost valuations.
- To use market consistent valuations for both assets and liabilities.

4.17.14 Allowing each individual insurer to select its approach would reduce consistency and comparability across insurers, while the other alternatives would enhance comparability.

4.17.15 We propose that insurers be required to use either : (a) a market consistent valuation approach which should apply to all classes of business except for Class G (see 4.16) and minimum cash surrender (see 4.18.5 and 4.20.2); or (b) a combination of both market consistent and amortized cost valuation approaches, depending on the class of business.

4.17.16 The second of these two options will allow a measure of flexibility as IFRS 4 Phase II develops and IFRS 9 is implemented, allowing a greater level of consistency between the basis adopted for general purpose financial statements and the measurement of capital.

Question 15

Do you agree that a market consistent approach should be used for all classes of business (option (a)) or that a combination of market consistent and amortized cost approaches should be used depending on the class of business (option (b))? Why? If you prefer option (b), which classes of business should market consistent or amortized cost approach be applied to?

Discount rate

4.17.17 One of the important issues for long-term insurance industry on the use of a market consistent approach is the potential for volatility that will arise, particularly the potential for pro-cyclicality. To mitigate the volatility, supervisory action may be taken in anomalous markets. In these circumstances, ICP 14.5.8 sets out three broad options regarding the discount rate :

- The supervisor may take action to mandate the rate used in specific circumstances;

- The definition of the discount rate may incorporate an element of amortized cost or automatically enable a degree of smoothing to reduce the degree of volatility in liability valuations in specific circumstances; or

- A practical alternative may be the use of a "market-referenced" discount rate. This could be defined so as to ensure the valuation of liabilities retains some consistency with asset valuations, but reduces the level of volatility and dependence on the market position on a single day. An example would be applying a prescribed long term risk-free interest rate beyond a certain duration where market rates do not currently exist or building in to the definition of the risk-free yield curve a degree of smoothing against historical rates particularly at long duration.

4.17.18 We propose that the application of a market consistent approach should adopt one or both of the following techniques to avoid undue pro-cyclicality :

(a) The discount rate is a market-referenced rate, defined with reference both to current yields and historical yields.

(b) The IA retains an ability to apply alternative valuation techniques during anomalous market conditions, for example, permitting or requiring the

use of historical yields when markets are inactive or distressed. Such alternative valuation techniques should be defined in advance to manage industry understanding and expectations.

Question 16

Do you agree with the two techniques set out in our proposal? Are there other techniques that we should consider?

4.18 Valuation of technical provisions

4.18.1 Technical provisions are liabilities that represent the economic value of an insurer fulfilling its insurance obligations to policyholders and other beneficiaries arising over the lifetime of the insurer's portfolio of insurance policies.

4.18.2 We propose to adopt the valuation approach for technical provisions used in general purpose financial statements so as to avoid unnecessary cost and duplication. There is significant interdependency between our proposals in respect of the valuation of technical provisions for solvency purposes and the progress of the IFRS 4 Phase II. There remains considerable uncertainty as to when the IASB will finalize the requirements of the new insurance contract accounting standard, what the requirements will be and when adoption will be required by insurers in preparing general purpose financial statements under HKFRS. The IASB has indicated that they plan to issue the new standard in 2015 with an effective date of approximately three years after the standard is issued.

4.18.3 Reinsurance assets (or negative reinsurance reserve) are subject to impairment testing, which depends on the reinsurer's credit standing.

4.18.4 Under the *Insurance Companies (Determination of Long Term Liabilities) Regulation*, the cash or surrender value of a policy acts as a minimum value for the reserve that may be held.

4.18.5 Given the actual and perceived policyholder protection from such an approach, we consider it necessary for a cash value floor to be maintained, which is the minimum surrender value under the *Insurance Companies (Determination of Long Term Liabilities) Regulation*.

4.18.6 As a regional comparison, the Singaporean, Malaysian and Australian

regimes all require capital charges for the surrender or cash value.

4.18.7 ICP 14.6 states that "the value of technical provisions and other liabilities does not reflect the insurer's own credit standing". As a result, the value of technical provisions and other liabilities will not reflect the insurer's own credit standing. However the credit standing of a reinsurer should be taken into account when considering the solvency of the insurer. The same principle should apply to the technical provisions of a reinsurer i.e. the credit standing related to the retrocession of the reinsurer's business.

4.19 Current estimates (CE), the MOCE and allowance for the time value of money

4.19.1 This set of proposals addresses the three building blocks of technical provisions, namely CE, MOCE and the time value of money, and applies to both market consistent and amortized cost valuation approaches. These valuation aspects are generally too granular to be addressed at the policy framework level. We will therefore explore them in detail in Phase II. Nevertheless, some fundamental concepts are outlined below.

Contract boundary

4.19.2 The CE should reflect all future cash flows under an existing insurance contract to the extent that they are integral to the fulfilment of the obligations under that contract. This encompasses all cash flows, including non-guaranteed or discretionary cash flows such as bonus and dividends of participating contracts.

4.19.3 Cash flows are within the boundary of an insurance contract when an insurer can compel the policyholder to pay the premiums or has a substantive obligation to provide the policyholder with coverage or other services. A substantive obligation to provide coverage or other services ends when :

(a) the insurer has the right or the practical ability to reassess the risks of the particular policyholder and, as a result, can set a price or level of benefits that fully reflects those risks; or

(b) both of the following criteria are satisfied;

(i) the insurer has the right or the practical ability to reassess the risk of the portfolio of insurance contracts that contains the contract

and, as a result, can set a price or level of benefits that fully reflects the risk of that portfolio; and

(ii) the pricing of the premiums for coverage up to the date when the risks are reassessed does not take into account the risks that relate to future periods.

CE

4.19.4 The ICPs provide key considerations and best practice for setting unbiased current assumptions, for the calculation of CE (ICP 14.8.11 to ICP 14.8.17). These are relatively consistent with generally accepted actuarial practice, requiring regular experience analysis, assumptions specific to a portfolio and the use of data observable at the time of valuation, where applicable (e.g. economic assumptions).

4.19.5 Best estimate assumptions are used in determining the CE in all regimes where RBC has been adopted, with margins or provisions for adverse deviation captured as MOCE.

MOCE

4.19.6 The MOCE reflects the uncertainty in the calculation of the CE. This therefore captures some risk relative to the portfolio. The CE plus MOCE can be considered as the amount that a third-party would require to take a portfolio of liabilities on to their books in an arm's length transaction.

4.19.7 It may therefore not be necessary, in practice, to determine the CE and the MOCE separately. For example, in principle a reliable market consistent valuation made by reference to a sufficiently deep and liquid market may be expected to include a MOCE.

4.19.8 More usually, incorporating an explicit MOCE calculation will be required because insurance liabilities are not traded. Achieving a practical approach for the calculation of the MOCE can be challenging. ICP 14.9 sets out the key considerations in the selection of MOCE methods and risks to be covered, including allowance for diversification.

4.19.9 Due to the diverse nature of insurance businesses, and the range of risk margin methodologies available that can be applied to generate such a risk margin, we do not consider it appropriate to specify a particular approach.

However, insurers should be able to justify why a particular methodology has been applied and why the assumptions underlying the selected methodology are appropriate for the particular line of business or risk profile.

Allowance for time value of money

4.19.10 The criteria for the determination of appropriate interest rates to be used in the discounting of technical provisions are described in ICP 14.10, for example, to reflect the economics (nature, structure, term) of the insurance obligations and the extent to which insurance benefits (e.g. dividends) are dependent on underlying assets.

Dependence on principles of policy framework for formulation

4.19.11 As highlighted above, these aspects will require the formulation of the framework prior to their consideration. Therefore we will explore these aspects in Phase II.

4.19.12 The IA will keep in view the development of IFRS 4 Phase II, and will adjust relevant proposals to bring them in line with IFRS 4 Phase II development while ensuring that they are ICP-compliant.

4.19.13 We propose that the valuation of technical provisions should exceed the CE by a margin (i.e. MOCE), and should allow for the time value of money. The CE reflects the expected present value of all relevant future cash flows that arise in fulfilling insurance obligations, using unbiased, current assumptions. The MOCE reflects the inherent uncertainty related to all relevant future cash flows that arise in fulfilling insurance obligations over the full time horizon thereof.

4.19.14 We propose that the MOCE should be set by applying a risk margin at a target level of adequacy to be defined in Phase II.

Question 17

Do you agree that technical provisions should include a risk margin and allow for the time value of money? What aspects of the valuation of technical provisions should Phase II focus on? What other approaches should be considered? Why?

4.20 Allowance for embedded options and guarantees

4.20.1 ICP 14.11 requires that the determination of the CE and MOCE should make explicit allowance for any options of the policyholder or insurer, and for guarantees embedded in the insurance contract, such as guaranteed minimum benefits and interest rate guarantees.

4.20.2 The common guaranteed options made available to policyholders are the option to lapse and, for some long-term products, the option to receive payment of a surrender value. To comply with the ICP, explicit allowance for lapses and surrenders should be incorporated in the projections of future cash flows that are used to determine technical provisions. However, technical provisions are required to be subject to a surrender value floor equal to the total surrender values payable if all policies were to surrender immediately. Such an approach will not be an economic valuation as the effect of surrenders should already be allowed for in the technical provisions by incorporating assumptions about the future rate of surrender and associated risks. However, in the determination of the overall financial requirements for solvency assessment purposes, a form of surrender value minimum may be considered appropriate, to provide additional protection in the event of a high level of surrenders. This should be reflected in the proposed RBC requirements, as appropriate, and is outlined in 4.18.

4.20.3 In implementing these proposals, the method used to value embedded options and guarantees should be appropriate to the nature, scale and complexity of risk and may include stochastic simulation or simplified methods as appropriate. This should be further explored in Phase II.

4.20.4 We propose that the valuation of technical provisions should make appropriate explicit allowance for embedded options and guarantees and allowance for cash value floor.

4.20.5 We propose that the basis of allowing for options and guarantees should be specified after the principles of the proposed framework have been developed.

Question 18

Do you agree to require explicit allowance for options and guarantees? If not, what alternative approaches would be appropriate to reflect the value of options and guarantees?

Question 19

Do you agree to require a cash value floor in the valuation of technical provisions? At what level should the floor be set? Are there alternative means of providing the same level of protection which you consider more appropriate?

CHAPTER 5 PILLAR 2: QUALITATIVE ASPECTS

5.1 An integral part of an RBC framework is the qualitative aspect, i.e. to encourage increased standards of corporate governance and ERM, the primary purpose of which is to encourage insurers to manage risks appropriately.

5.2 One fundamental objective of having an RBC framework is to incentivize insurers to better manage their risks and strengthen their allocation of capital. The combined effect of quantitative and qualitative requirements is that the quantitative measures act as an incentive to encourage better risk management by insurers so that capital requirements are truly risk-sensitive and insurers are rewarded for better risk management. Enhanced corporate governance and ERM will also help insurers to enhance understanding and control of their businesses, reduce volatility of earnings, support delivery of strategic objectives, and assist in supporting a higher credit rating.

5.3 Corporate governance and board responsibilities

5.3.1 *Guidance Note 10 on the Corporate Governance of Authorized Insurers* (GN 10) contains qualitative requirements relating to corporate governance, internal controls and the requirements of an insurer's Board and senior management. An RBC framework will elaborate more detailed requirements than those set out in GN 10 to achieve full compliance with *ICP 8 Risk Management and Internal Controls*.

5.3.2 Globally, financial supervisors generally set out basic requirements with regard to internal controls. This involves :

- Controls that are in place to deal with the day-to-day business, which should be built into systems and processes. Adequate managerial and supervisory controls should be in place to ensure compliance and to highlight control breakdown, inadequacy of process and unexpected events.

- Committees and control functions that are in place to provide an oversight of the effective operation of the internal control framework.

- Independent assurance over the aforesaid systems through the internal audit process.

- Various governance committees of the Board, such as the audit committee, risk committee, remuneration committee and other board and executive committees.

- Clear lines of responsibility, delegated authorities and accountability for reporting are fundamental to a sound risk management framework.

5.3.3 A key consideration is the risk function's mandate as well as the extent to which effective internal controls are embedded throughout the organization and operate effectively. This scrutiny typically focuses on accountability for the effectiveness of controls, the oversight function performed, as well as the overall control by the Board.

5.3.4 *ICP 16 Enterprise Risk Management for Solvency Purposes* makes several references to the responsibilities of an insurer's Board and senior management in the context of ERM and other risk management activities, including :

- The Board and senior management's responsibility for the ORSA.

- The Board and senior management's awareness of the insurer's risk profile and how it is evolving.

- The Board and senior management's responsibility for the use of models, and in particular the risk that is generated by the use of models.

- Effective communication between the Board and senior management and other parts of the organization.

- Where an insurer adopts the risk management policy of its parent insurance group, the Board and senior management of the insurer should make sure that this policy covers all the risks that are relevant and material to the insurer, and that the policy is clearly defined and understood.

- The Board and senior management's responsibility to make sure that the group risk environment is clearly defined and understood.

5.4 ERM

5.4.1 ERM makes sound business sense and helps to protect policyholders. The

RBC framework should include ERM requirements.

5.4.2 We propose that all insurers should put in place an effective ERM framework that provides for the identification and quantification of risks. As a minimum requirement, this framework should include processes and reporting procedures necessary to identify, measure, monitor, manage and report the risks to which they are or may be exposed, and their interdependencies.

5.4.3 Documentation should be an important part of the ERM framework. An insurer should describe its policies for managing the risks to which it is exposed, including but not limited to policies addressing the following :

- Processes and methods for monitoring risk.
- Policies towards risk retention.
- Risk management strategies including reinsurance and the use of derivatives.
- Diversification.
- ALM.
- The relationship between pricing, product development and investment management.
- Risk appetite and tolerance framework.
- Investment policy.
- Underwriting risk.
- Responsiveness of the ERM framework to changes in an insurer's risk profile, including how the insurer responds to internal and external events, mechanisms to incorporate new risks and new information on a regular basis, and changing interests and reasonable expectations of policyholders and other stakeholders.

5.4.4 Another important feature of the ERM framework should be the setting up of a "feedback loop" through which effects of decisions made by the Board and senior management are monitored and reported in a timely manner. The use of such management information will enable the insurer to actively monitor and manage its risk exposures.

5.4.5 The ERM framework should cover at least the following risks :

- Underwriting risk.
- Market risk.
- Credit risk.
- Operational risk.

- Liquidity risk.

5.4.6 We would encourage the use of more sophisticated risk management techniques within the ERM framework through regulatory guidance. Where models are used by an insurer in the measurement or assessment of risks, the insurer should acknowledge the associated model risk. Such models may be developed internally by the insurer or externally, for example, purchased from an external model provider.

5.4.7 Where a risk is not readily quantifiable, an insurer should make a qualitative assessment on that risk. Such an assessment should be sufficiently detailed to be useful for application in the insurer's ERM processes and be understood by the Board and senior management.

5.4.8 An explicit part of ICP 16 is the requirement for a defined risk tolerance statement to be embedded within the insurer's risk management policies and procedures where the insurer should set the level of risks it is able to be tolerated.

5.4.9 To comply with this ICP requirement, we propose that an insurer should incorporate the following risk tolerance features within its ERM framework :

- Establish and maintain a risk tolerance statement.

- Define and establish tolerance limits within the business to support the operational management of actual risk exposures in accordance with, or as appropriate alongside, the risk tolerance statement.

- Describe how its risk tolerance framework links with corporate objectives, strategy and current/future circumstances.

5.4.10 We propose that a formal ALM policy should be incorporated within the ERM framework. ALM policies are discussed in 5.6.

5.5 Requirements regarding asset portfolio

5.5.1 *ICP 15 Investment* requires insurance supervisors to establish requirements for the investment activities of insurers in order to address the investment and asset management risks faced by insurers.

5.5.2 The asset profile of a typical insurer in Hong Kong includes varying degrees

of exposure to cash, equities, bonds, property and derivative holdings. Each asset class and sub-categories within each asset class are subject to varying levels of volatility in terms of price movements and counterparty risk. Risk management practices for managing assets may differ significantly from one insurer to another.

5.5.3 To illustrate the wide scope of investment risks facing an insurer and therefore the factors that the RBC framework should address, we propose that insurers should consider the following (non-exhaustive) list :

- Asset exposure risk associated with investment of assets to fulfil regulatory capital and other technical requirements.

- The interplay and interdependence between an insurer's assets and liabilities introduces risks in investment strategy and asset-liability matching processes.

- Risks associated with the use of derivatives. Some derivatives may be used for speculative or hedging purposes and may be subject to wide variations in value and involve unlimited commitments.

- An insurer's low quality of risk management or corporate governance with regard to investment policies may generate unwarranted risks.

5.5.4 *Guidance Note 13 on Asset Management by Authorized Insurers* (GN 13) currently sets out principles regarding the management of investments. It also spells out the responsibilities of the Board and senior management for monitoring and controlling the asset management process, internal controls, and the role of audit.

Question 20

Do you agree that asset allocation should follow principle-based requirements rather than rule-based requirements? If not, why?

Investment policy

5.5.5 We propose to adopt the following key principles and factors in drawing up regulatory requirements for insurers' investment policies :

- Openness and transparency – requirements should be clear and

transparent in order to facilitate their effective operation.

- Consistency with non-insurance financial sectors – requirements should have regard to those applied in other non-insurance financial sectors, in order to prevent regulatory arbitrage, maintain a level playing field and enhance fairness.

5.5.6 Paragraph 12 of GN 13 describes the key elements of an investment policy. As compared with ICP 15, the three aspects of security, diversification and liquidity of investments are dealt with at a relatively general level. We propose an overhaul of GN 13 to expand it to address, in particular, the following issues :

- GN 13 should be expanded with reference to the capital quality aspects discussed in Chapter 4.

- From a security perspective, further guidance should be given in a number of areas such as safekeeping, custodianship and trusteeship of investments, the appropriate use of credit rating and complex investment arrangements. Assets should be held in appropriate locations to ensure that they are available to meet their liabilities.

- From a diversification perspective, appropriate requirements should be put in place for insurers to appreciate the possibility of an aggregation of exposures in an overall investment portfolio that may be relatively less important at an individual asset class or exposure level (e.g. asset exposures at the individual level may be acceptable; however when viewed from a portfolio perspective an undue concentration of risk may emerge).

- From a liquidity perspective, due regard should be given to the nature of potential legal and practical impediments that might occur in a winding-up event, as well as payments to policyholders or creditors to be made as they fall due.

5.5.7 In other jurisdictions, requirements regarding security, diversification and liquidity of investments are typically issued through guidance notes rather than legislation. For example, Australia has issued prudential practice guidance which sets out the principles of sound and prudent investment management and requires an insurer's risk management policy to address each of these issues. Some countries address them through a requirement that

insurers should invest only in assets that they can properly monitor, manage and control.

5.6 Requirements relating to appropriateness and matching

5.6.1 Paragraph 5 of GN 13 discusses ALM at a relatively general level, and includes requirements for the holding of assets that are appropriate for the nature, term and liquidity of an insurer's liabilities. One feature of the ALM process for insurers in Hong Kong is the consideration of currency risk management. This is particularly important for long-term insurers investing overseas in order to source assets with a term structure that is more closely aligned with their liabilities. We propose to specify this consideration formally as an ALM requirement.

5.6.2 *Actuarial Guidance Note 7 on Dynamic Solvency Testing* requires insurers to carry out DST, which partly addresses the extent to which assets are matched to an insurer's liabilities. Insurers familiar with DST will have a better understanding of the concepts underlying ALM, which should help them to address any new requirements.

5.6.3 Overall we propose that the following ALM issues under GN 13 should be addressed :

- Currency risks associated with overseas investments and investments denominated in a different currency from the currency of liability cash flow.

- The extent to which investment guarantees and embedded options are contained within an insurer's insurance policies, and whether those guarantees and options are appropriately matched.

- Where an insurer deliberately adopts a non-matched asset position (which may be appropriate for legitimate reasons), the risks associated with such an unmatched position should be captured in the regulatory capital assessment process.

- Where an insurer is unable to adopt a matched asset position (which may be unavoidable due to, for example, unavailability of certain assets), the risks associated with such an unmatched position should be captured in the regulatory capital assessment process.

5.6.4 We propose to adopt the prudent-person principle in drawing up new investment requirements, and to specify that insurers must invest in a manner that is appropriate to the nature of their liabilities. Investment strategies should formally take account of the extent to which cash flows from investments match liability cash flows in both timing and amount, and of how these will change in various conditions. In this regard, GN 13 should be extended to provide more explicit requirements and guidance on an insurer's ALM processes.

Question 21

Do you agree with the introduction of a prudent-person principle approach for investments? If not, why?

5.7 Requirements regarding risk assessability & specific financial instruments

5.7.1 ICP 15 provides that an insurer is permitted to invest only in assets of which it can properly manage and assess the associated risks. It further requires supervisors to establish quantitative and qualitative requirements for insurers, where appropriate, on the use of complex and less transparent classes of assets and investments in markets or instruments that are subject to less governance or regulation.

5.7.2 We propose that GN 13 should be expanded to cover new requirements as follows :

- A requirement for insurers to demonstrate to the IA that they are able to identify, measure, monitor and control investment risks.

- A requirement to assess the maximum loss possible in each investment transaction, as part of the risk management process (e.g. for derivatives).

- A requirement for insurers to look through and understand the structure of investments and underlying assets; where this is not possible (e.g. due to the complexity of the investment structure), a requirement to use appropriate tools to assess the risks associated with the investment.

- A requirement for insurers to assess the relevancy or otherwise of values of non-traded assets.

5.7.3 We further propose that GN 13 should be expanded to specify explicit requirements for insurers on the use of more complex and less transparent classes of assets, and investment in markets or instruments that are subject to less governance or regulation, including but not limited to :

- Off-balance sheet structures (e.g. special purpose entities).
- Investments in structured credit products (e.g. asset backed securities, credit linked notes, or insurance linked securities).
- Use of derivatives and similar contracts (e.g. hybrid instruments such as a bond whose maturity value is tied to an equity index).

5.7.4 In particular, for the above-mentioned investments, an insurer's investment strategy should clearly state the purpose of making such investments, how the risks of such investments are understood, measured and controlled, and the maximum loss of holding such investments.

5.7.5 We consider that an insurer's investment policy should be flexible to enable amendments to be made over time to take into account new categories of assets and changes in the risk profile of asset categories. To this end, we propose to require insurers to review and refresh the policy regularly at defined intervals.

5.7.6 We propose that insurers should be incentivized to invest in assets of which they can properly assess and manage the associated risks. Investments should be sufficiently transparent and be limited to those where the associated risks of the assets can be properly managed by an insurer (i.e. where an insurer can identify, measure, monitor control and report the associated risks and appropriately take them into account in its ORSA).

Question 22

Should enhancements to the existing regulations around asset allocation and management be made by amending GN 13 (which could be achieved ahead of the proposed implementation of the RBC framework)?

5.8 Requirement for an ORSA and adequacy of financial resources

5.8.1 ORSA is a strategic analysis process that links together the outputs of risk,

capital and strategic planning to determine the current and future capital requirements of an insurer, having regard to its business strategy and external environment.

5.8.2 ICP 16 stipulates that supervisors should require insurers to perform ORSA regularly for assessment of the adequacy of their risk management and current and likely future capital positions.

5.8.3 In particular, ICP 16.14 requires an insurer to determine the overall financial resources it needs to manage its business given its own risk tolerance and business plans, and to demonstrate that supervisory requirements are met.

5.8.4 ORSA should be an integral part of the business strategy of an insurer, and should be taken into account on an ongoing basis by the insurer in making strategic decisions. If an insurer has an internal economic capital model, the insurer should use it for performing ORSA as well as for demonstrating that regulatory capital requirements are met.

5.8.5 ORSA should include the following key features :

- Consideration of all material risks that may have an impact on an insurer's ability to meet its obligations to policyholders, including as a minimum, underwriting, credit, market, operational and liquidity risks, as well as any additional risks arising from the insurer being a member of a larger insurance group.

- Assessment of an insurer's risk profile and capital requirements with regard to longer-term business plans, business strategy and risk appetite/tolerance, distinguishing between current capital needs and future projected capital needs and financial position.

- Identification of the relationship between risk management and the level and quality of financial resources necessary to meet regulatory capital requirements and any additional capital needs.

- Assessment of the potential impact that non-core insurance activities and off-balance sheet items may have on the insurer's financial position.

- Appropriate consideration of the effectiveness of applicable controls to mitigate risks.

- Regularly assessment, at least annually, and additionally when there are significant changes to the risk profile of the insurer.

5.8.6 We propose that the rationale, calculations and action plans connected with the performance of ORSA should be formally documented in an ORSA report and that the report should be submitted to the IA annually for review.

5.8.7 The Board and senior management of an insurer should oversee the performance of ORSA. They should ensure the effectiveness and appropriateness of ORSA in assessing the adequacy of the insurer's risk management and solvency position. In particular, they should review the need for re-capitalization, having regard to the ability of the insurer's capital to absorb losses on a going-concern basis and the extent to which the capital instruments or structures that an insurer uses may facilitate or hinder future recapitalization.

5.8.8 With regard to continuity analysis, ORSA should include the following elements :

- Demonstrate an ability to manage risk and capital over the longer term, under a range of plausible adverse scenarios.

- Conduct stress and scenario testing, pertinent to the nature, scale and complexity of the insurer's business.

- Prepare contingency plans and procedures for use in a "going and gone concern" situation.

5.8.9 Contingency analysis should be performed with a time horizon that is appropriate and consistent with the insurer's business planning processes.

Question 23

Do you agree that all insurers should be required to do their ORSA having regard to their own business strategy and environment in addition to the PCR set by the IA? If not, why?

Question 24

Do you agree to enhance ERM and corporate governance standards by introducing an ORSA requirement, including stress and scenario testing and

continuity analysis? Should these standards be introduced ahead of new Pillar 1 requirements?

5.9 Proportionality

5.9.1 In view of the very diverse nature of the insurance industry in Hong Kong, we propose the adoption of the principle of proportionality, such that the new requirements are appropriate to the nature, scale and complexity of an insurer's business. We propose to achieve this by setting out general principles for the Pillar 2 corporate governance and ERM requirements and providing application guidance (outside the scope of the legislation) setting out how we expect to see them applied by smaller and less complex insurers.

Question 25

Do you agree to apply the principles of proportionality to the Pillar 2 requirements of the RBC regime? If not, why?

5.10 Role of supervision

5.10.1 In 5.8.6, we have proposed that insurers should submit their full ORSA documentation to the IA annually for review. The purpose of this requirement is to enable the IA to gain a full understanding of the insurer's assessment of its risk profile, capital position and risk management activities.

5.10.2 If the IA considers that the ORSA process or the underlying ERM framework of an insurer is weak, sub-standard or otherwise inadequate, the IA may apply capital add-ons to mitigate risks to policyholders. Such add-ons would be a component of the capital requirements under the RBC framework. This will discourage an insurer from not investing in building appropriate risk management capabilities and processes.

Question 26

Do you consider that the IA should have the power to apply capital add-ons in the event of inadequate corporate governance and/or ERM commensurate with the scale and complexity of the insurer?

CHAPTER 6 PILLAR 3: DISCLOSURE AND TRANSPARENCY

6.1 Disclosure is a general feature of modern systems of financial services supervision. In addition to disclosure to the supervisor, public disclosure plays a role in protecting policyholders by enabling the public to make a more informed choice in taking out insurance.

6.2 Disclosure may cover both quantitative aspects (e.g. how much capital an insurer holds, of what type, how this has varied over time and how this compares with the minimum required) and qualitative aspects (e.g. key features of systems of corporate governance and ERM).

6.3 At present, public disclosure in Hong Kong beyond general purpose financial statements is relatively limited. It is for consideration whether the mandatory regime should be expanded to cover timely disclosure of some other relevant information with a view to achieving a greater level of transparency to the public,

6.4 Under *ICP 20 Public Disclosure*, information to be disclosed to the public include, though not limited to, qualitative and quantitative information on the insurer's determination of technical provisions, capital adequacy, financial instruments invested in by class, financial positions, and associated risks.

6.5 While the insurance industry widely accepts enhanced disclosure to the supervisor, the industry has frequently cited challenges of both cost and "information overload" in responding to calls for greater public disclosure.

6.6 On balance, to satisfy public information needs, we propose that insurers should make public periodically reports on their capital resources and capital requirements.

6.7 We realize that insurers may be uncomfortable if they are required at the outset to disclose to the public sensitive firm-specific information concerning risk and capital. We believe that a phased-in approach to greater disclosure building on existing financial reporting requirements may be beneficial.

6.8 Phased implementation of disclosure requirements, possibly in alignment with the reporting requirements of IFRS 4 Phase II, might also mitigate the reporting burden.

6.9 We will examine the extent to which such additional disclosures should be

subject to external audit. Presently the assets and liabilities of an insurer are subject to audit, but the solvency margin is not as it is a simple calculation. Given the increased complexity of RBC calculations, we propose to consider in Phase II whether and what information should come under the scope of external audit. As a reference, under Singapore's RBC framework, information for public disclosure is subject to formal audit review and sign-off.

Question 27

Do you agree that insurers should, in addition to the statutory reporting to the IA, disclose to the public information about their risk assessments, capital resources and capital requirements in their published accounts and that enhanced disclosure requirements are addressed once proposals in respect of Pillar 1 and Pillar 2 are further evolved? If not, why?

CHAPTER 7 GROUP-WIDE SUPERVISION

7.1 Application of RBC capital requirement on insurers

7.1.1 Currently, the solvency margin requirement in Hong Kong applies to insurers' business on a company basis, whether it is a locally-incorporated insurer or a Hong Kong branch of an overseas insurer.

7.1.2 In many countries, e.g. Australia, Singapore and Canada, capital requirements are applied consistently to locally-incorporated insurers and branches of overseas insurers. Branches are required to file the same set of regulatory returns as locally-incorporated insurers and to maintain assets either locally or within that exceeds liabilities by a specified amount of capital.

7.1.3 We consider that policyholders of locally-incorporated insurers and branches of overseas insurers in Hong Kong should be afforded the same level of protection.

7.1.4 We propose that the same capital requirements should apply to all insurers, whether they operate as locally-incorporated insurers or Hong Kong branches of overseas insurers. Since branches generally do not have separately identifiable capital instruments, they will be subject to different rules governing capital resources that reflect the different nature of capital resources available to branches. The IA may also require capital add-ons for a branch if there are additional risks to its operations in Hong Kong.

7.1.5 In many jurisdictions, insurers are required to hold assets in excess of their liabilities at a local level and these assets may be ring-fenced from the insurer's offshore operations. For example, in Singapore, assets for local and offshore insurance businesses must be held in two separate funds, each with assets held in excess of liabilities. This mechanism ensures that local policyholders of overseas insurers are not disadvantaged when compared to the level of protection afforded to policyholders of locally-incorporated insurers.

7.1.6 We propose that insurers should maintain separate funds for their onshore and offshore general and long-term insurance businesses. Whether capital adequacy should be determined at a fund level or an entity level would be considered at Phase II.

Question 28

Do you agree to introduce requirements to set up on-shore and off-shore funds? If not, why?

7.2 Group-wide supervision requirement

7.2.1 The global financial crisis brought into light situations where supervisors had regulatory powers over solo legal entities, but did not have explicit powers on supervision of groups. As a result, supervisors were unable to prevent insurers from moving capital out of their jurisdiction to their parent group, and were also unable to require insurers to mobilize capital from their parent group in stress circumstances.

7.2.2 While ICPs apply generally to solo legal entities and groups, some ICPs introduce specific additional requirements for groups. For example, *ICP 17 Capital Adequacy* stipulates that when assessing adequacy of capital at group level, insurance supervisors should consider the degree of transferability and fungibility of capital around the group, the inherent investment risk at the insurance legal entity level, and the overall risk exposures at an aggregated level across the group. Insurance supervisors should also ensure that investments undertaken by certain legal entities do not weaken the group's financial position, and intra-group investments do not pose additional risks to policyholders.

7.2.3 We consider that insurers should maintain their investments, including those held at a group level, to ensure that they are sound, appropriate and able to be accessed when needed to support capital or liquidity requirements in stressed conditions. Such monitoring could be mandated through an ORSA conducted at group level.

7.2.4 We propose that the IA should supervise insurers operating in Hong Kong on both a solo entity and group entity basis.

7.2.5 ICP 23 deals specifically with the requirements of group-wide supervision. It sets out a definition for groups, principles for group-wide supervision, as well as application of the group-wide supervisory framework according to the nature, scale and complexity of the group.

7.2.6 We propose that group-wide supervision should be applied to all three Pillars of the proposed RBC framework :

- Quantitative aspects – through factors such as capital requirements and quality of capital considerations.

- Qualitative aspects – supervisory review mechanisms for risk management and governance, including a group ORSA for example, will ensure that group risks are understood and managed appropriately, including non-insurance elements of a group that might pose a risk to the insurance elements of the group.

- Reporting, disclosure and market discipline.

7.2.7 We propose that the group-wide supervision should address the following key issues :

- Hong Kong policyholders are adequately protected and not be placed at any disadvantage due to risks taken by any entities of the group.

- Adequate supervisory power and legal authority should be established.

- Coordination and cooperation with other relevant supervisors of a group on cross-border and/or cross-sector activities.

- Risks arising from a group's perspective – systemic aspects, off-balance sheet exposures, liquidity risks, diversification or concentration of risks, contagion and reputational risks.

- Additional requirements relating to assets managed at group or collective level over which the local entity may not have control; transferability of assets and fungibility of capital; and risk of aggregate asset or concentration risk of counterparty.

- Extension of market conduct supervision on a group-wide basis.

Question 29

Do you agree that group-wide supervision should be applied to each of the Pillars? If not, why?

7.3 Identification of insurance groups and subgroups

7.3.1 An insurance group exists when there are two or more entities, at least one of which has a significant influence over an insurer. A subgroup, by definition, refers to a division of a group.

7.3.2 ICP 23.2 elaborates on the identification of an insurance group for the purpose of group-wide supervision. Considerations should include :

- Operating and non-operating holding companies (NOHC) (including intermediate holding companies).
- Fellow or subsidiary insurers.
- Other regulated entities.
- Non-regulated entities (including parent companies, their subsidiary companies and companies substantially controlled or managed by entities within the group).
- Partly-owned entities (including associate and joint venture).
- Special purpose entities.

7.3.3 In determining whether the entities have significant influence over an insurer, considerations should be based on criteria such as direct or indirect participation; influence and/or other contractual obligations; interconnectedness; risk exposure; risk concentration; risk transfer; and intra-group transactions and exposures.

7.3.4 Many jurisdictions have introduced or are planning to put in place group-wide supervisory frameworks. Examples are Australia, Singapore, Canada and the European Union. Subgroup concepts also exist in these jurisdictions. For example, Singapore has proposed group-wide supervision on intermediate insurance groups operating from Singapore, whereas Canada supervises federally regulated financial institutions on a consolidated basis.

7.3.5 We propose that a supervisory regime for insurance groups and subgroups should be established.

7.3.6 We propose that an insurance group should be defined as (a) a holding

company which is itself an insurer incorporated in Hong Kong; or (b) an insurer is a member of a holding company incorporated in Hong Kong. In other words, an insurance group may consist of :

- NOHCs;
- subsidiaries and/or fellow subsidiaries carrying on insurance business in / from Hong Kong;
- other establishments (either in the form of subsidiaries, fellow subsidiaries and/or branch operations) carrying on insurance business outside Hong Kong;
- non-insurance regulated entities; or
- non-regulated entities.

7.3.7 We propose that an insurance subgroup, which should also be subject to group-wide supervision by the IA, should be defined as :

(a) an authorized insurer in Hong Kong, with its ultimate holding company being incorporated outside Hong Kong and is subject to group-wide supervision of a home supervisor, belongs to a subgroup with fellow subsidiaries of significant insurance entities with its aggregate premiums or assets attributable to Hong Kong insurance businesses exceeding a prescribed level (in absolute amounts or relative to the group or the Hong Kong insurance market) or other factors where the IA considers as appropriate e.g. substitutability of the insurance products, interconnectedness within the group;

(b) the insurance group, to which an insurance subgroup belongs, is not subject to group-wide supervision of a home supervisor; or

(c) the holding company is a financial conglomerate or non-financial conglomerate.

Question 30

Do you agree with the definitions of insurance groups and subgroups? Do you consider that they can be applied with sufficient clarity?

Question 31

Do you agree that whether supervision of subgroups should be based on size, specifically whether premiums or assets exceed a benchmark? If not, why?

7.4 Group-wide capital adequacy

7.4.1 The requirements outlined in Chapters 4 to 6 should also be applicable to group-wide supervision. A total balance sheet approach should be applied, attributing appropriate value, in base and stressed conditions, to the insurance group including subsidiaries and affiliates, insurance and non-insurance businesses. The same measurement and valuation basis that is applicable to solo entity should also be applied consistently to the group.

7.4.2 There are two broad sets of approach for assessing capital requirements for an insurance group: group level focus or legal entity focus.

7.4.3 Under the group level focus approach, the insurance group is considered as a single integrated entity for which a separate assessment is made for the group as a whole on a consistent basis. That is to say, a total balance sheet approach under the group level focus is based on the balance sheet of the insurance group. Adjustments could be made to reflect any constraints on the fungibility of capital, transferability of assets among group members, risks from non-insurance members of the insurance group, including cross-sector regulated entities and non-regulated entities. This approach facilitates the comparison of the capital strength across insurance groups.

7.4.4 Under the legal entity focus approach, the insurance group is considered as a set of interdependent legal entities. Capital adequacy of the parent and each of the insurance legal entities in the insurance group are assessed individually, taking into account the risks arising from relationships within the group, including those involving non-insurance members of the group. Methods used may vary, subject to a common basis for the solvency assessment of all the group entities and the associated communication and co-ordination needed among supervisors. For insurance legal entities that are members of a group and for insurance subgroups that are part of a wider insurance or non-insurance group, an additional assessment on any reasonably foreseeable and relevant material risks arising from being a part of the group should be taken into account in the capital adequacy assessment.

7.4.5 Under the group level focus approach, there are two different methods for calculating group capital requirements, namely, consolidation method and aggregation method.

7.4.6 Under the consolidation method, the insurance group's consolidated accounts will be used as a basis for capital assessment with adjustments on intra-group holdings. The method recognizes any benefits arising from diversification within the group.

7.4.7 Unlike consolidation method, the aggregation method needs summation of surpluses or deficits (i.e. the difference between capital resources and capital requirements) for each insurance legal entity in the group with relevant adjustments for intra-group holdings in order to measure an overall surplus or deficit at group level. Alternatively, the legal entity level capital requirements and legal entity level capital resources are added separately. Under the aggregation method, there should be consistent valuation across the group and the adjustment of intra-group transaction.

7.4.8 Overseas jurisdictions adopt different approaches for group-wide capital adequacy assessment. In practice, home supervisors adopt a single approach applied consistently to an insurance group. Application of other approaches requires approval of the home supervisor. The current or proposed regimes in Australia, Singapore and the European Union are more consistent with the consolidation method under the group level focus approach.

7.4.9 We propose that group-wide capital adequacy assessment should similarly be based on the group level focus approach using the consolidation method. Use of other approaches and methods is only allowed with the IA's approval on a case-by-case basis.

7.4.10 The solvency control level by PCR and MCR as described in Chapter 4 should also be applied consistently for insurance groups. We propose that solvency control levels by PCR and MCR should be established at group level, as well as at legal entity level and the PCR and MCR at the group level should also serve as the triggering points for supervisory actions.

Question 32

Do you agree that PCR and MCR at a group level should be established as the triggering points for different degree of supervisory intervention? If not, why?

Question 33

Do you agree that the group-wide capital requirement should be based on a group level focus approach (i.e. considered as a single integrated entity, rather than a set of interdependent legal entities) and use the consolidation method rather than the aggregation method? If not, why?

7.5 Group-wide risk management and governance

7.5.1 Similar to the capital requirement, the legal entity requirement under *ICP 7 Corporate Governance, ICP 8 Risk Management and Internal Controls* and *ICP 16 Enterprise Risk Management for Solvency Purposes* applies at the group level. Insurance groups or subgroups should be required to perform ORSA on a group basis. We propose that the ORSA at the entity level should follow those assessment policies adopted by the group concerned.

7.5.2 To be effective, the ORSA or ERM framework of an insurance group or subgroup should incorporate an assessment of risks arising from all entities within the group, including non-insurance entities (regulated or unregulated) and partly-owned entities. Any direct or indirect interrelationship among group members (e.g. through participation, leveraging, multiple gearing, guarantee, outsourcing arrangement, risk transfer, off-balance sheet exposure) may alter the risk impact on entities within the group.

Question 34

Do you think that the IA should require the group to carry out its ORSA at a group level and apply consistent policies for assessing their individual insurance entities?

7.6 Notification and reporting requirement of group events and intra-group transactions

7.6.1 To enable the IA to assess intra-group transactions and risk exposures within the group, we propose that all insurers should submit :

- Prior notification of material intra-group transactions as well as material events or transactions of the group (including non-regulated entities within the group), together with the expected impact of the transactions to the insurer.

- Regular reports on risk exposures within the group (including non-regulated entities within the group).

7.6.2 We propose that the threshold of notification or reporting requirement should be set at a specified percentage of the capital or total assets of an insurer.

7.6.3 An insurer should submit prior notification to the IA, inter alia, of the following types of intra-group transaction or event of the group :

Intra-group transactions

- Cross shareholdings.
- Loans.
- Guarantees, commitments, and other off-balance sheet exposure.
- Arrangements for provision of management or other services (e.g. investment management).
- Risk transfers and capital transfers in whatever forms (e.g. reinsurance).
- Custodian and nominees services.
- Purchases or sales of assets.

Events or transactions of the group

- Change of Board members or senior management at holding company level, or at group member level if the group member concerned can exercise significant influence on the insurer.
- Major acquisitions and disposals.
- Establishment of new operating entities.

Question 35

Do you agree that all authorized insurers should be required to submit to the IA (i) prior notification of material intra-group transactions as well as material events or transactions of the group, and (ii) regular reporting of risk exposures within the group?

Question 36

Do you agree with the minimum list of transactions or events requiring disclosure? If not, why?

7.7 Three-tier group-wide supervisory approach

7.7.1 A typical group structure may have subsidiaries carrying on businesses which are not under the IA's supervision, in the form of either regulated entities of other financial supervisors or non-regulated entities. Insurance entities within the group may be exposed to risks associated with the operation of such entities, their corporate governance, and their intra-group transactions.

7.7.2 To achieve effective group-wide supervision and adequate protection to policyholders, we propose to adopt a three-tier group-wide supervisory approach.

7.7.3 Under Tier 1 supervision, Hong Kong based insurance groups (see 7.3.6) and insurance subgroups will be required (i) to meet PCR at insurance group level (see 7.4 for group level focus approach); (ii) to put in place good corporate governance and ERM, including ORSA, to the satisfaction of the IA; and (iii) to report group events and intra-group transactions to the IA.

7.7.4 For the sake of clarity, a group structure will be subject to Tier 1 supervision if it is headed by either :

- an insurer incorporated in Hong Kong (Figure 1);
- an NOHC incorporated in Hong Kong, which has one or more insurance subsidiaries that are authorized in Hong Kong (Figure 2); or
- an insurance group which has an insurance subsidiary incorporated in Hong Kong but are not subject to group-wide supervision in any other jurisdiction.

Figure 1

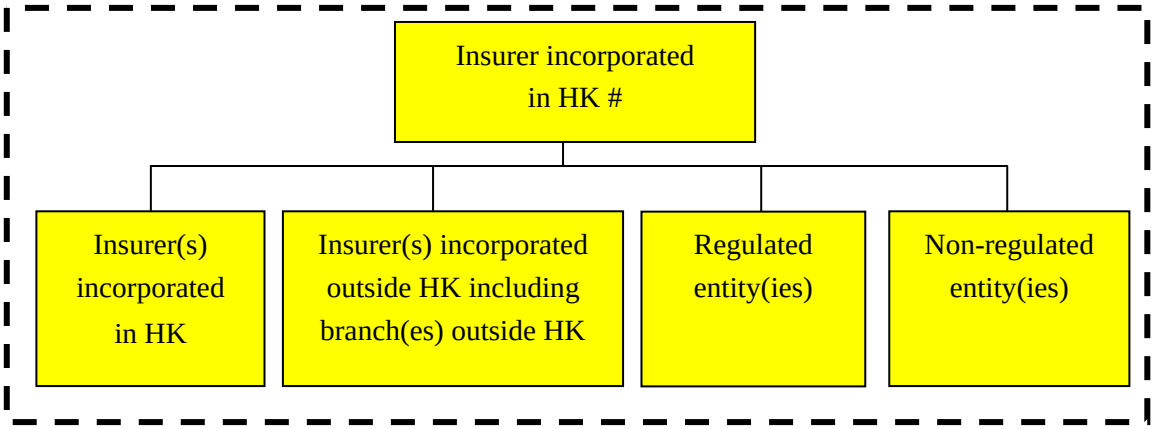
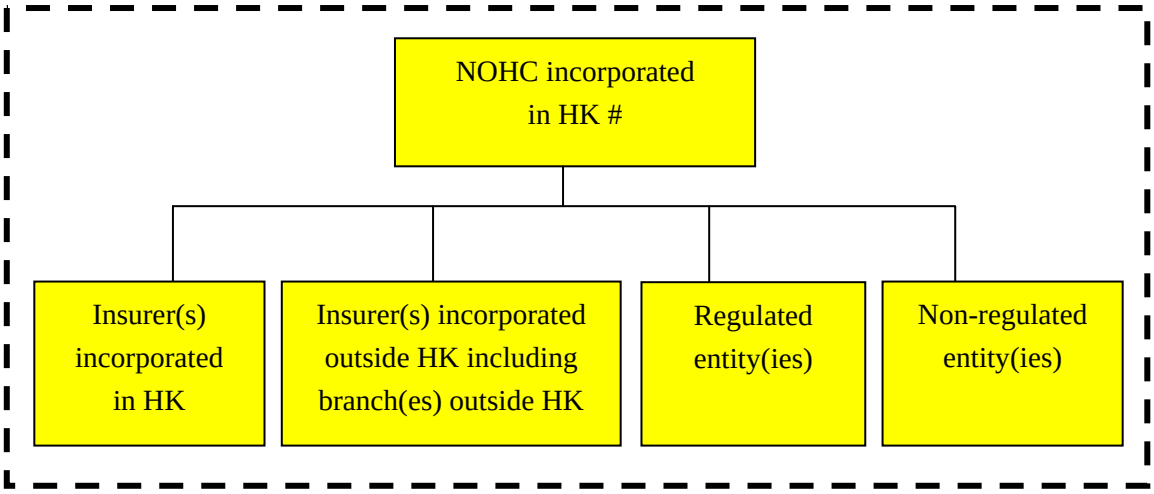


Figure 2

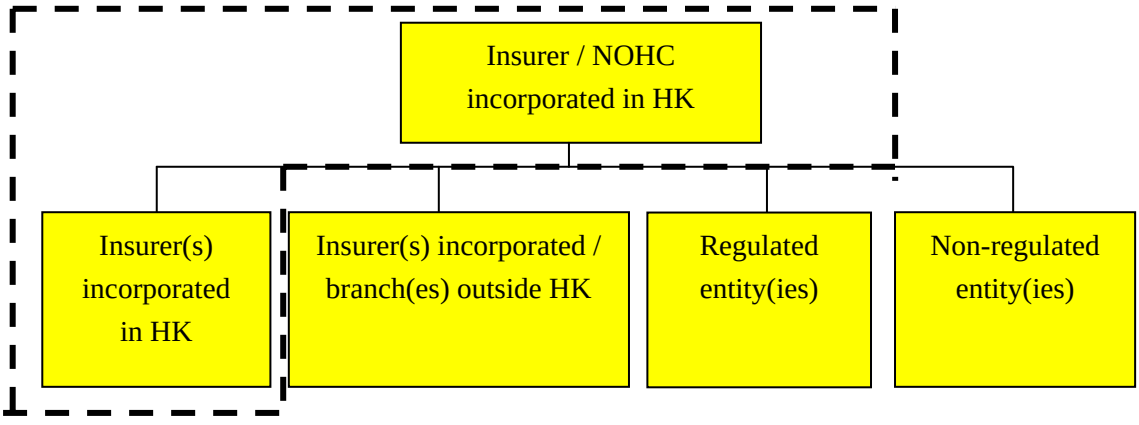


It represents any combination of possible extended structures for subsidiaries as shown above.

PCR prescribed by the IA
Corporate governance and ERM requirements

7.7.5 Under Tier 2 supervision, as illustrated in Figure 3 below, where an insurance group under Tier 1 supervision has one or more subsidiaries which are subject to capital requirements imposed by other supervisors, the insurance group may apply to the IA for approval to disaggregate those subsidiaries from the consolidated basis (see 7.4 for a description of the consolidation method). When giving such approval, the IA may impose capital add-ons on any of the disaggregated subsidiaries as it deems appropriate. However, the disaggregated subsidiaries will still be required (i) to put in place good corporate governance and ERM, including ORSA, to the IA's satisfaction; and (ii) to report group events and intra-group transactions to the IA.

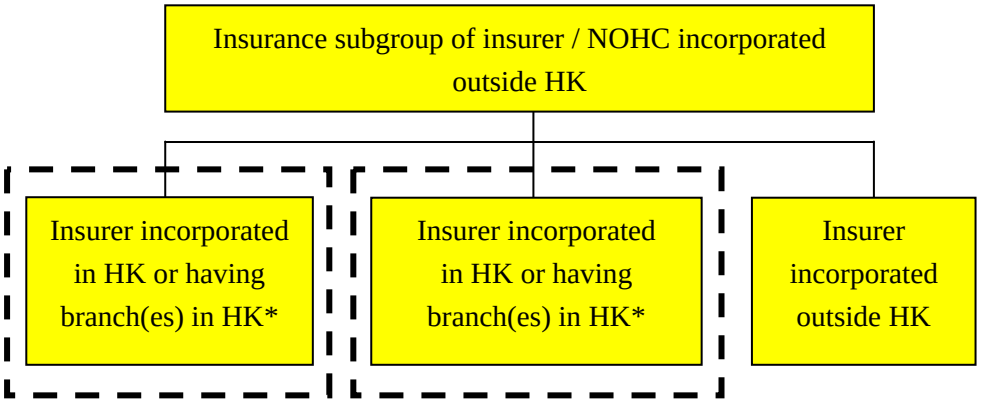
Figure 3 (derived from figures 1 and 2)



PCR by the IA
Corporate governance and ERM requirements

7.7.6 Tier 2 group-wide supervision will also apply to an insurance group incorporated outside Hong Kong which is under group-wide supervision of its home supervisor, if an insurer in Hong Kong is a subsidiary of one of its insurance subgroups and that subgroup's aggregate premiums or assets attributable to Hong Kong insurance businesses exceed a prescribed level (see 7.3.7(a)). This insurance group will be required, at the group level (i) to put in place good corporate governance and ERM, including ORSA, to the IA's satisfaction; and (ii) to report group events and intra-group transactions to the IA.

Figure 4



* Aggregate premiums or assets of all insurance entities within the subgroups attributable to Hong Kong insurance business exceeding a prescribed level

PCR by the IA

Corporate governance and ERM requirements

7.7.7 Insurers or insurance groups / subgroups under Tier 3 supervision are required to report intra-group transactions of all entities within the group, as well as material events or transactions of the group (see 7.6).

7.7.8 Some examples of insurance entities which are subject to Tier 3 supervision are set out below for illustration purpose :

- An NOHC incorporated outside Hong Kong having insurance subsidiaries in Hong Kong (Figure 6).

- The holding company of an insurer in Hong Kong which is a regulated entity of another financial supervisor (Figure 5).

Figure 5

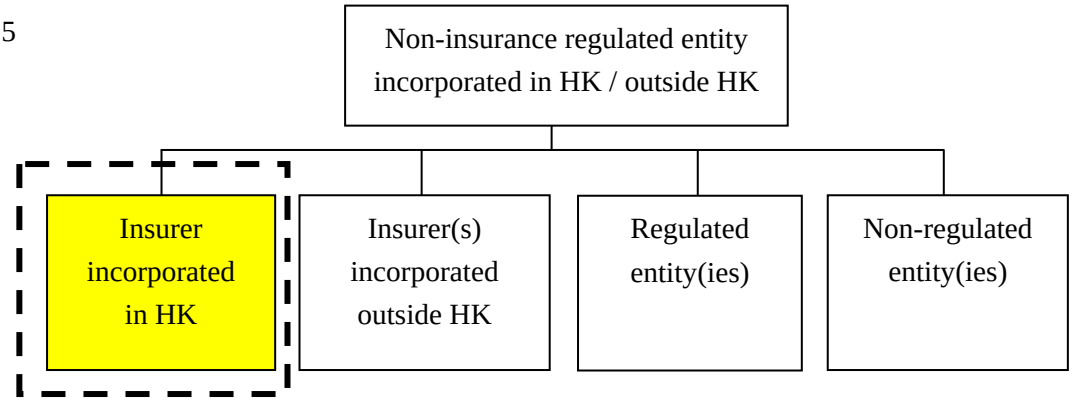
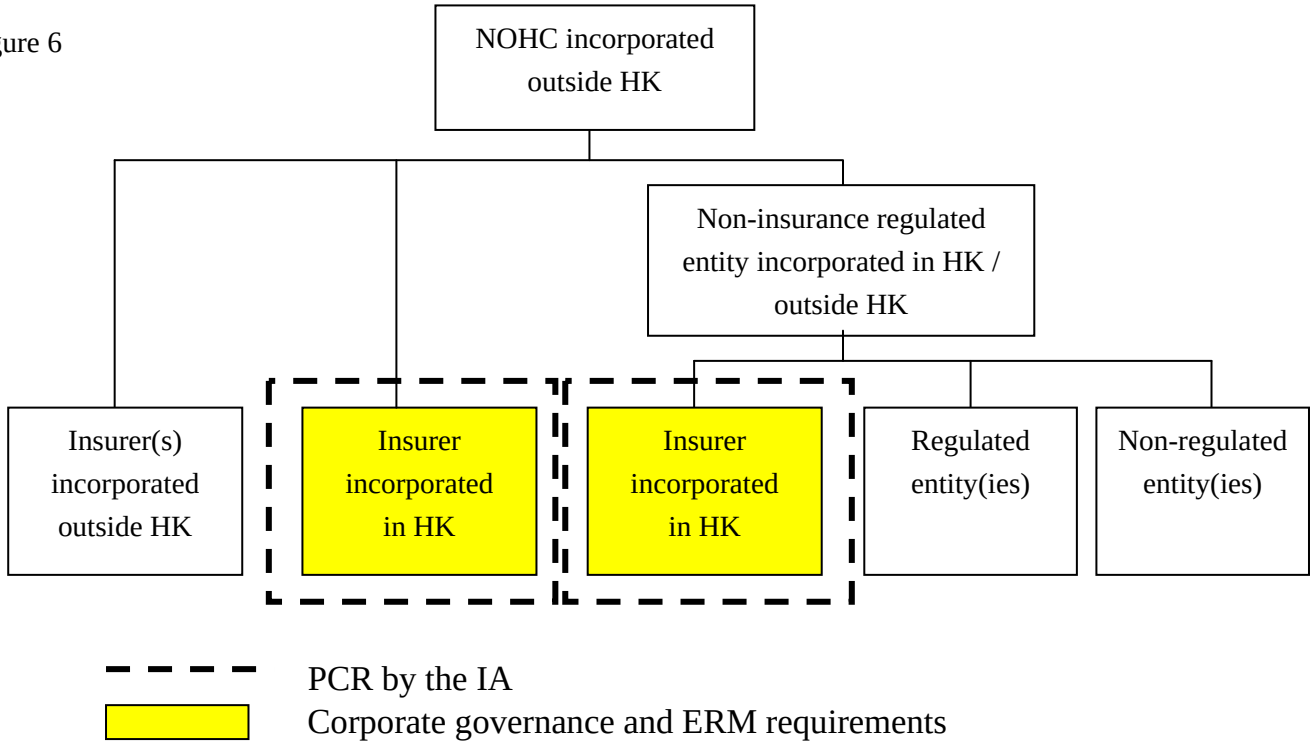


Figure 6



	Group-wide supervisory approach		
	Tier 1	Tier 2	Tier 3
Capital requirement prescribed by the IA at group level	✓		
Corporate governance and ERM (including ORSA) requirements	✓	✓	
Reporting requirement of group events and intra-group transactions	✓	✓	✓

	Group-wide supervisory approach		
	Tier 1	Tier 2	Tier 3
Applicable to	• Groups held by HK-based insurers or NOHC • Insurance subgroup not subject to home group-wide supervision	• Disaggregated subsidiaries from consolidated basis (subject to IA's approval) • Insurance subgroup subject to home group-wide supervision	All entities, including other regulated entities or non-regulated entities within the groups
Reference to	7.3.6 and 7.3.7(b)	7.3.6 and 7.3.7(a)	7.7.8

Question 37

Do you agree with the proposed approach to group-wide supervision? Are the three tiers sufficiently clearly defined and do they in practice merit different approaches?

7.8 Effective group-wide supervision

7.8.1 We propose that the IA should take into account the supervisory regime of home supervisors and consider the appropriateness of using group ORSA for a local insurance entity under Tier 3 supervision, if the group ORSA meets the requirements of local ORSA.

CONSULTATION QUESTIONS

Ref.	Consultation Questions
4.2	**Question 1** Do you agree that a total balance sheet approach should be adopted in the assessment of solvency, valuation of assets and liabilities and determination of capital resources? If not, why?
4.3	**Question 2** Do you agree that we should impose two different solvency control levels (PCR and MCR) explicitly? If not, why?
4.4.2 – 4.4.8	**Question 3** Do you agree that the PCR should be determined on a going-concern basis and allow for one year's forecast new business? Do you agree with aligning PCR with a minimum investment grade based on VaR calculated at a 99.5% confidence level over a one-year time horizon? Do you agree that the same target criteria should be applied to all classes of business? If you disagree, what alternatives would you suggest? Why?
4.4.9 – 4.4.13	**Question 4** Do you agree the MCR should be designed as a simpler calculation than the PCR? Do you agree that the level for MCR should be determined after the industry QIS has been carried out? If not, why?
4.5	**Question 5** Do you agree to adopt a standardized approach as a starting point to reflect the nature and materiality of risks and calibration of PCR and MCR for all insurers while retaining the flexibility to allow internal models? If not, why?
4.6.1 – 4.6.4	**Question 6** Do you agree with the broad categories of risk that we have initially identified as driving capital requirements, namely, underwriting risk, market risk, credit risk and operational risk? Do you agree that other risks should be better dealt with through enhanced ERM? If not, why?
4.6.17 – 4.6.18	**Question 7** Do you agree that we should adopt a simple approach in defining capital requirements for operational risks based on premiums, new business and claims and be considered in the QIS? If not, why?

4.6.19 – 4.6.22	**Question 8** Do you agree that legal risk, liquidity risk, strategic risk and reputational risk should be addressed through risk management processes rather than by holding additional capital? If not, why? **Question 9** Do you agree that liquidity risk should be dealt with through enhanced supervisory oversight of ALM rather than by prescribing minimum liquidity risk standards? If not, why?
4.7	**Question 10** Do you agree that a stress-test based approach should be adopted for underwriting and market risks for insurers carrying on long-term business and market risk for insurers carrying on general business? Do you agree that a risk-factor based approach should be adopted for other risks? If not, why?
4.12	**Question 11** Do you agree to tier capital resources based on quality? What other approaches should we consider to quantitatively assess quality and suitability of capital?
4.14	**Question 12** Do you agree that recognition of insurance contracts should align with general purpose financial statements under HKFRS or IFRS? If not, why?
4.15	**Question 13** Do you agree to undertake valuation of assets and liabilities on an internally consistent basis and that the valuation of assets and liabilities to support the determination of capital should be derived from adjustments to the general purpose financial statements based on HKFRS or IFRS? Do you foresee any difficulties with this approach?
4.16	**Question 14** Do you agree to use economic valuation for all classes of business except Class G of long-term business? Are there other classes of business which should adopt an alternative approach? Why?
4.17.1 – 4.17.16	**Question 15** Do you agree that market consistent approach should be used for all classes of business (option (a)) or that a combination of market consistent and amortized cost approaches should be used depending on the class of

	business (option (b))? Why? If you prefer option (b), which classes of business should market consistent or amortized cost approach be applied to?
4.17.17 – 4.17.18	**Question 16** Do you agree with the two techniques set out in our proposal? Are there other techniques that we should consider?
4.19	**Question 17** Do you agree that technical provisions should include a risk margin and allow for the time value of money? What aspects of the valuation of technical provisions should Phase II focus on? What other approaches should be considered? Why?
4.20	**Question 18** Do you agree to require explicit allowance for options and guarantees? If not, what alternative approaches would be appropriate to reflect the value of options and guarantees? **Question 19** Do you agree to require a cash value floor in the valuation of technical provisions? At what level should the floor be set? Are there alternative means of providing the same level of protection which you consider more appropriate?
5.5	**Question 20** Do you agree that asset allocation should follow principle-based requirements rather than rule-based requirements? If not, why?
5.6	**Question 21** Do you agree with the introduction of a prudent-person principle approach for investments? If not, why?
5.7	**Question 22** Should enhancements to the existing regulations around asset allocation and management be made by amending GN 13 (which could be achieved ahead of the proposed implementation of the RBC framework)?
5.8	**Question 23** Do you agree that all insurers should be required to do their ORSA having regard to their own business strategy and environment in addition to the PCR set by the IA? If not, why?

	Question 24 Do you agree to enhance ERM and corporate governance standards by introducing an ORSA requirement, including stress and scenario testing and continuity analysis? Should these standards be introduced ahead of new Pillar 1 requirements?
5.9	**Question 25** Do you agree to apply the principles of proportionality to the Pillar 2 requirements of the RBC regime? If not, why?
5.10	**Question 26** Do you consider that the IA should have the power to apply capital add-ons in the event of inadequate corporate governance and/or ERM commensurate with the scale and complexity of the insurer?
6.9	**Question 27** Do you agree that insurers should, in addition to the statutory reporting to the IA, disclose to the public information about their risk assessments, capital resources and capital requirements in their published accounts and that enhanced disclosure requirements are addressed once proposals in respect of Pillar 1 and Pillar 2 are further evolved? If not, why?
7.1	**Question 28** Do you agree to introduce requirements to set up on-shore and off-shore funds? If not, why?
7.2	**Question 29** Do you agree that group-wide supervision should be applied to each of the Pillars? If not, why?
7.3	**Question 30** Do you agree with the definitions of insurance groups and subgroups? Do you consider that they can be applied with sufficient clarity? **Question 31** Do you agree that whether supervision of subgroups should be based on size, specifically whether premiums or assets exceed a benchmark? If not, why?
7.4	**Question 32** Do you agree that PCR and MCR at a group level should be established as the triggering points for different degree of supervisory intervention? If

	not, why? **Question 33** Do you agree that the group-wide capital requirement should be based on a group level focus approach (i.e. considered as a single integrated entity, rather than a set of interdependent legal entities) and use the consolidation method rather than the aggregation method? If not, why?
7.5	**Question 34** Do you think that the IA should require the group to carry out its ORSA at a group level and apply consistent policies for assessing their individual insurance entities?
7.6	**Question 35** Do you agree that all authorized insurers should be required to submit to the IA (i) prior notification of material intra-group transactions as well as material events or transactions of the group, and (ii) regular reporting of risk exposures within the group? **Question 36** Do you agree with the minimum list of transactions or events requiring disclosure? If not, why?
7.7	**Question 37** Do you agree with the proposed approach to group-wide supervision? Are the three tiers sufficiently clearly defined and do they in practice merit different approaches?

GLOSSARY

*(sourced from the IAIS Glossary, except *)*

Asset-liability management	The management process of an insurer such that decisions and actions taken with respect to assets and liabilities are coordinated through the ongoing process of formulating, implementing, monitoring and revising strategies related to assets and liabilities to achieve an insurer's financial objectives, given its risk tolerances and other constraints.
Capital add-on	An additional capital requirement imposed by the supervisor to address, for example, any identified weaknesses in an internal model or other more tailored approach as a condition on its use or in the context of a review of the ongoing validity of an internal model for regulatory capital purposes.
Contagion	As part of a group or conglomerate, and aside from intragroup exposures of a financial nature, there may be a risk that the support of the insurer by internal or external parties may suffer if there is a concern about another part of the group of which it is a part.
Continuity analysis	An analysis of an insurer's ability to continue in business, and the risk management and financial resources required to do so over a longer time horizon than typically used to determine regulatory capital requirements.
Economic capital	The capital needed by the insurer to satisfy its risk tolerance and support its business plans and which is determined from an economic assessment of the insurer's risks, the relationship between them and the risk mitigation in place. An insurer's assessment of economic capital will therefore be different to their assessment of regulatory capital.
Enterprise Risk Management	The process and activities of identifying, assessing, measuring, monitoring, controlling and mitigating risks in respect of the insurer's enterprise as a whole.
Feedback loop	The process of assessing the effect, within the ERM framework, of changes in risk leading to changes in risk management policy, tolerance limits and risk mitigating actions.
Insurance legal	Denotes either a stand-alone insurer (incorporated entities or

entity	branches) or an insurer which is a member of an insurance group.
Insurance group	A group is considered to be an insurance group for the purpose of group-wide supervision if there are two or more entities of which at least one is an insurer and one has significant influence on the insurer. The significance of influence is determined based on criteria such as (direct or indirect) participation, influence and/or other contractual obligations; interconnectedness; risk exposure; risk concentration; risk transfer; and/or intra-group transactions and exposures.
Multiple gearing	Arises where the same capital is used simultaneously as a buffer against risk in two or more regulated entities.
Prudent-person principle *	The principle that a prudent man would be expected to act, with discretion and intelligence, to seek reasonable income and preserve capital.
Regulatory capital	Surplus of assets over liabilities, evaluated in accordance with regulation in a particular jurisdiction.
Risk appetite	The amount of risk an insurer is willing to accept in the aggregate, relative to financial capacity to assume losses, and to align with and support its strategic and financial objectives, and relates more to the risks the insurer wants to be exposed to in the running of their business.
Risk tolerance	Includes the active retention of risk that is appropriate for an insurer in the context of its strategy, financial strength, and the nature, scale and complexity of its business and risks. Risk tolerance is typically a percentage of the absolute risk bearing capacity for insurer. Risk tolerance reflects risk that the insurer would define as acceptable or is willing to bear.
Special purpose entity	A corporation, trust, or other entity organized by an insurer for a specific purpose, the activities of which are limited to those appropriate to accomplish the purpose of the SPE, and the structure of which is intended to isolate the insurer from the risks of the said activities.
Stochastic modelling	A methodology which aims at attributing a probability distribution to financial variables of interest. It sometimes uses closed-form solutions, often involves simulating large numbers of scenarios in order to reflect the distributions of the capital required by, and the different risk exposures of, the insurer.

Technical provisions	The amount that an insurer sets aside to fulfil its insurance obligations and settle all commitments to policyholders and other beneficiaries arising over the lifetime of the portfolio, including the expenses of administering the policies, reinsurance and of the capital required to cover the remaining risks.
Tolerance limits	The level of risk to which the insurer is prepared to be exposed. The risk measure might be a supervisory one or an internal one or a combination of both.

ABBREVIATIONS

ALM	Asset-liability management
CE	Current estimates
DST	Dynamic Solvency Testing
ERM	Enterprise risk management
HKFRS	Hong Kong Financial Reporting Standard
ICO	Insurance Companies Ordinance
IA	Insurance Authority
IAIS	International Association of Insurance Supervisors
IASB	The International Accounting Standards Board
ICP	Insurance Core Principle
IFRS	International Financial Reporting Standard
MCR	Minimum Capital Requirement
MOCE	Margin over the Current Estimate
NOHC	Non-operating holding company
OCI	Office of the Commissioner of Insurance
ORSA	Own Risk and Solvency Assessment
PCR	Prescribed Capital Requirement
QIS	Quantitative impact study
RBC	Risk-based capital
TVaR	Tail value-at-risk
VaR	Value-at-risk