THE BANK OF GUYANA

OWN RISK AND SOLVENCY ASSESSMENT GUIDELINE ISSUED UNDER THE AUTHORITY OF PART 1, SECTION 7(D) OF THE INSURANCE ACT 2016 (ACT NO. 17 OF 2016)

July 2019

OWN RISK AND SOLVENCY ASSESSMENT GUIDELINE

INSURANCE SUPERVISION DEPARTMENT – BANK OF GUYANA

1.0 Authorisation

IN EXERCISE of the powers conferred by section 7(d) of the Insurance Act 2016, the Bank of Guyana (herein referred to as the Bank) issues the Guideline set out here below, for observance by all registered insurers in respect of the Bank's expectations with respect to the Own Risk and Solvency Assessment (ORSA) of all registered insurers.

2.0 Introduction

2.1 This guideline outlines the Bank's expectations with respect to an insurer's own assessment of its risks, capital needs and solvency position, and for setting Internal Targets, based on an insurer's Own Risk and Solvency Assessment (ORSA).

2.2 The ORSA should serve as a tool to enhance an insurer's understanding of the interrelationships between its risk profile and capital needs. The ORSA should consider all reasonably foreseeable and relevant material risks, be forward-looking and be congruent with an insurer's business and strategic planning.

2.3 As the ORSA is a dynamic forward-looking process, stress and scenario testing should be an important component used in an insurer's determination of its own capital needs and as it sets and evaluates the adequacy of its Internal Targets and operating capital level throughout the business cycle.

2.4 The Bank, in its normal course of supervisory monitoring, may review the company's ORSA including related documentation and reports to the Board. The Bank will consider this information in its assessment of inherent risks and risk management practices. The Bank does not approve an insurer's ORSA.

3.0 Scope

3.1 The Bank expects the ORSA to be tailored to and cover the consolidated operations of an insurer. An insurer's capital assessment should consider the risks of its domestic and foreign operations as well as group risks. It should also consider the availability of capital and assets in each jurisdiction for on-going viability and for the protection of policyholders and creditors of each insurance entity.

3.2 The ORSA can be prepared either on an individual insurer basis or on a group basis (Group ORSA). Where the Group ORSA includes, in addition to the consolidated operations of an individual insurer, the operations of other related insurers or the operations of its parent or home office, it should give adequate consideration to the business and risk profile of the individual insurer and the particular circumstances of the relevant markets in which it operates (e.g. by using relevant subsets of group data and modified methodologies, tools and/or assumptions) to yield own capital needs and Internal Targets that are appropriate for the individual insurer. The components of the Group ORSA that are used in or otherwise support an individual insurer's ORSA should be consistent with the expectations of this guideline.

3.3 When an insurer's business and risk profiles or circumstances are not adequately reflected in a Group ORSA, or its own capital needs and Internal Targets are not adequately determined or supported using a Group ORSA, the Bank expects the insurer to have a separate ORSA that covers only the consolidated operations of the insurer and not the operations of its parent, home office or other related insurers.

4.0 ORSA and Enterprise Risk Management

4.1 In conducting its ORSA, an insurer should determine its own capital needs and establish its Internal Targets based on an internal assessment of all material risks, including the results of the enterprise risk management process. The existence of a robust enterprise risk management framework enhances the ability of an insurer to effectively reflect risks in its ORSA.

4.2 Enterprise risk management, along with related controls and governance mechanisms, and the ORSA should be well integrated so that the information, analysis and results from both processes are consistent. The same is true for other processes that either feed into the ORSA or are impacted by ORSA results.

5.0 Key Elements

The ORSA should contain, at a minimum, certain key elements and considerations, including:

- Comprehensive Identification and Assessment of Risks;
- Relating Risk to Capital;
- Board Oversight and Senior Management Responsibility;
- Monitoring and Reporting; and,
- Internal Controls and Objective Review.

There is no single correct approach to an ORSA, and one approach will not fit all insurers. Therefore, these key elements and considerations are broadly stated and it is understood that the manner with which some of these elements are integrated in an insurer's ORSA may vary by company.

5.1 Comprehensive Identification and Assessment of Risks

5.1.1 An insurer's ORSA should identify, define and assess the materiality of all known, reasonably foreseeable, emerging and other relevant risks that may have an impact on an insurer's ability to continue operations, in both normal and stressed situations. An insurer's identified risks are expected to evolve as its business activities and environment evolve.

5.1.2 The assessment should include all material risks, whether these are explicitly captured in the regulatory capital framework or not, as well as risks that are not easily quantifiable.

5.1.3 Some risks can be broken down into other more discrete risks and may take different forms depending on the nature of the business and activities of an insurer. The ORSA should give proper consideration to non-material risks that, when combined with other non-material risks, become material. For example, risk categorisation or break down should not produce a lower assessment of own capital needs that would otherwise result if related risks were combined or aggregated.

5.1.4 Insurers should document underlying assumptions, processes and key considerations with regard to the drivers, the assessment, measurement and mitigants in place for each risk. The appendix *Supplementary Risk Considerations* includes other risk identification and assessment considerations.

5.2 Relating Risk to Capital

5.2.1 As part of its ORSA, an insurer is expected to set Internal Targets. These should normally be determined without undue reliance on regulatory capital measures.

5.2.2 Before an insurer gives consideration to external constraints, Internal Targets should be, first and foremost, based on an insurer's assessment of its own capital needs. For example, Internal Targets should normally not be determined by simply adding a margin on the Supervisory Targets. However, as stress and scenario testing should be an integral part of an insurer's process for determining its Internal Targets, consideration of the results of these tests may cause an insurer to add explicit capital cushions/buffers to complement its initial assessment of own capital needs and set its Internal Targets so it can withstand a specified level of losses without falling below the Supervisory Targets.

5.2.3 Nature, Scale and Complexity

5.2.3.1 The ORSA is an internal assessment process, tailored to an insurer's own risk profile and appetite, and reflective of the nature, scale and complexity of the insurer.

5.2.3.2 Insurers are expected to use more sophisticated methods to estimate the amount of own capital needed for material complex risks they take on or are exposed to. For less material and less complex risks, or for those that are not readily quantifiable, insurers may opt for simpler quantitative analysis (e.g. generally accepted prudent factors or extremely severe but plausible deterministic stress scenarios) combined with well documented qualitative considerations, and incorporate these amounts into their overall assessment of capital adequacy.

5.2.4 Determining Own Capital Needs

5.2.4.1 In conducting an ORSA, insurers should determine whether or not, for each risk, an explicit amount (quantity) of capital should be held and how the results for each risk should be aggregated. In doing so, insurers' capital assessments will reflect their own choice of data sets, distributions, measures, confidence levels, time horizons, valuation approaches, financial tools and methodologies, appropriate to their own unique profile.

5.2.4.2 The approaches and tools used should be calibrated to determine the total amount of capital needed to cover extremely severe losses. Aggregated, these losses should represent the insurer's total quantity of capital that it needs to absorb the losses and be left with an equal amount of assets and liabilities.

5.2.4.3 Insurers are expected to consider publications and professional and other research materials dealing with quantification of risks and risk mitigants such as:

- Regulators, consulting firms, professional and other associations, academia, credit rating agencies and other purveyors of research, data, models and publications relating to the measurement of risks and risk mitigants;
- Empirical data, evidence and studies of the different and varying manifestations of historical and potential new risks in different markets for similar and dissimilar business activities and products;
- Developments in the insurance, financial and other markets and their potential impact on the continued appropriateness of current measurement tools, data and assumptions used by the insurer;
- Benchmarking exercises with respect to risk measurement and mitigation tools and their results, whether in the insurance sector or in other sectors where similar risks exist.

5.2.4.4 When giving consideration to various methodologies, tools or resulting factors, insurers should consider, among other things, that these may be calibrated using a confidence level/time horizon that is different from what the insurer desires, calibrated at an unspecified confidence level/time horizon or designed for a different purpose (e.g. scenario and stress testing can be used to gain a better understanding of risks and identify potential management actions that an insurer can take or its ability to continue to meet regulatory requirements during a stressful event). In these cases, the insurer should make adjustments to the methodology, tool or resulting factor so that the ORSA results are appropriate for determining its own capital needs.

5.2.4.5 When discrete methods (e.g. sensitivity testing, statistical analysis) are used for determining own capital needs with respect to individual risks, the assessment may not identify or measure dependencies or inter-relationships that cause some risks to be greater in the presence of other stresses to other risks. To complement the assessment of individual risks, other tools (e.g. stochastic models or multi-dimensional deterministic scenarios of extremely severe but plausible past, potential or theoretical events) may be used to uncover potential impacts that are due to concentrations, dependencies and interactions between risks. The appendix *Supplementary Risk Considerations* includes other considerations for relating risks to own capital needs.

5.2.5 Setting Internal Targets

5.2.5.1 Once an insurer has determined its own capital needs, these initial results should be assessed to determine if they are appropriate in relation to external or third party capital expectations[1], including the Bank's expectation that Internal Targets exceed Supervisory Targets.

5.2.5.2 Therefore, in addition to the process described above to determine an insurer's own capital needs, an insurer should also consider the impact of a range or series of adverse scenarios (e.g. an economic downturn) of varying nature or severity and its ability to avoid supervisory interventions (i.e. not fall below its Supervisory Targets) or continue as a going concern. The results of stress testing per the Bank's Guideline on Stress Testing, along with other single and combined forward-looking stress and reverse stress tests, can be directly incorporated, referenced or otherwise used in the ORSA for setting an insurer's Internal Targets.

5.2.5.3 While all insurers are expected to determine an Internal Target of total capital, life insurers are expected to also determine an Internal Target of core capital which should include only very high quality capital elements. Core capital should serve to reduce the likelihood of insolvency, both in normal times and during periods when the insurer is

[1] For example: securities, insurance or other regulators, credit rating agencies, etc.

under stress. When setting a core capital Internal Target, a life insurer should consider its target capital composition/mix and its assessment of the characteristics and quality of capital resources.

5.2.5.4 With respect to Guyanese branches of foreign insurers, the determination and assessment of the composition of the margin of assets over liabilities may not include all of the same considerations that are relevant for determining and assessing the quality of capital instruments needed or issued by insurers if the branch does not raise capital within Guyana. However, the ORSA should include many of the same considerations with respect to the quality of the assets vested with a corporate trustee in Guyana, not affiliated with the insurer, and authorised by the Bank to perform trust functions.

5.2.5.5 The process, tools and/or adjustments described herein should also be used to determine an appropriate normal operating level or operating range of capitalization above Internal Targets (e.g. consider a series of varying adverse scenarios and, at a certain operating capital level, assess the insurer's ability to continue normal operations and not fall below its Internal Targets). At this stage, consideration should be given to the impact of future planned, foreseen and likely potential changes to the insurer's risk profile due to changes in its operations, its business strategy or its operating environment.

5.2.6 Integration with Other Business Processes

5.2.6.1 The ORSA is a forward-looking process. It should be consistent with an insurer's strategic and business planning and should contemplate the potential adverse capital impacts over an insurer's planning horizon (e.g. 3 to 5 years). An insurer's ORSA process should be consistent with and linked to the enterprise risk management and other management processes. For example, quantifiable estimates of risks that are used for ORSA purposes should be consistent with or feed into the decision making process and, where appropriate, have other business uses.

5.2.6.2 An insurer should assess the adequacy of its capital resources for enabling it to continue its operations in the normal course, under varying degrees of stress and under a wind-up scenario. The assessment of adequacy of available capital should consider the capital needed to support both its current and longer term business strategies and development plans. Based on current and planned changes in its risk and business profile, an insurer should evaluate whether long-run Internal Targets are consistent with short-run goals, and adjust its operating capital levels as appropriate; recognizing that accommodating additional capital needs or additional risk mitigants can require significant lead time.

5.2.6.3 In this context, an insurer should relate its own capital needs to, for example, potential changes in risks, anticipated growth, acquisitions and divestments, potential

group needs and limits on fungibility/transfer of capital, plans to access external sources of capital and the level of capital desired to enable the insurer to take identified potential countervailing actions against a stress event at an acceptable cost.

5.2.6.4 All material risks, including those that are difficult to quantify in the ORSA, should be subject to internal controls. An insurer should identify relevant countervailing measures and actions that could be taken to improve its solvency position, should it be negatively impacted by economic downturns or other stress events. These may include, for example, raising additional capital, slowing or ceasing new business, entering into reinsurance arrangements, implementing changes to product pricing and/or changes to business mix.

5.3 Board Oversight and Senior Management Responsibility

5.3.1 The Board is responsible for overseeing the ORSA. While it may delegate the associated tasks to Senior Management for designing and implementing the process, it should review the reasonableness and appropriateness of the results in the context of the Board-approved stated risk appetite and risk limits.

5.3.2 The insurer's Board should review and discuss the ORSA as well as any changes to the ORSA. The Board should understand the decisions, plans and policies being undertaken by Senior Management with respect to the ORSA and its potential impacts on the insurer. It should probe, question and seek assurances from Senior Management that these are consistent with the Board's own decisions and Board-approved business and risk strategy of the insurer, and that the corresponding internal controls are sound and being implemented in an effective manner.

5.3.3 A sound risk management and oversight process should assist an insurer in performing an effective assessment of its own capital needs, in determining its Internal Targets and in assessing the adequacy of its current and likely future solvency position. In this context, the Board's review of its approved stated risk appetite and risk limits along with management's establishment of appropriate policies, procedures, systems, controls and personnel for identifying, analysing, assessing, monitoring and measuring its risk exposures[2] can improve the quality and effectiveness of the ORSA.

5.3.4 Similarly, Senior Management should have a good understanding of the nature and significance of the risk exposures of the insurer, the related risk mitigants, risk management tools/techniques and oversight processes and how these relate to adequate levels of capital. Senior Management should review the appropriateness of the formality and sophistication of the methods used to quantify risks and risk mitigants as well as the

[2] For further guidance and considerations with respect to the role of the Board, insurers may also conduct the Bank's guideline: Corporate Governance.

risk management and reporting processes vis-à-vis Board-approved risk appetite and limits, the nature of the risks, and the general risk profile and business plans of the insurer.

5.3.5 The ORSA should assist the Board and Senior Management in their risk assessment, risk management and planning by exploring and assessing potential threats to an insurer's capital and solvency positions. For example, the results of stress scenario tests should be used to identify actions that could be taken either to lessen the likelihood of such threats occurring or to mitigate the impact of an adverse scenario, should one actually occur.

5.4 Monitoring and Reporting

5.4.1 The ORSA should be performed on a regular basis so that it continues to provide relevant information for an insurer's management processes. It should be clearly and formally documented in a report to the Board at least annually and more often if circumstances warrant, for example when there are changes to the insurer's risk profile or risk appetite.

5.4.2 The ORSA report to the Board should contain sufficient information about the process, underlying principles, methodologies, key assumptions, key sensitivity information and overall results relative to the risk appetite, strategic and operational plans and capital management framework of the insurer. The report should enable members of the Board to assess the appropriateness of the ORSA, including the overall results and the quality/composition of its capital, and confirm the insurer's Internal Targets.

5.4.3 An insurer's Senior Management and Board should receive regular and timely reports on the insurer's risks and capital. These reports should allow Senior Management to:

- Evaluate the level and trend of material risks and their potential effect on capital;
- Evaluate the sensitivity and reasonableness of assumptions used in the risk and capital assessment and measurement process;
- Determine that the insurer holds sufficient capital in relation to established capital adequacy targets and goals (both internal and regulatory/external);
- Evaluate the adequacy of capital using stresses and scenarios;
- Assess future capital needs (e.g. dividend plans, issuance/retirement of capital instruments and capital fungibility constraints) and make any adjustments to the insurer's strategic, capital and other plans, as necessary.

The monitoring and reporting process should take into account the current and forecasted business environments and should, consistent with the risk and capital adequacy assessment, be adjusted when appropriate so that capital remains adequate during periods when the insurer is under stress and through entire business cycles.

5.5 Internal Controls and Objective Review

5.5.1 An insurer's internal control structure is essential to the quality of its ORSA. An insurer's Board reviews management's method for monitoring and reporting on compliance with internal policies as well as management's system for assessing risks and for relating risks to the insurer's own capital needs. The Board should satisfy itself that its system of internal controls continues to be adequate for well-ordered and prudent conduct of business, including the quality of its ORSA process.

5.5.2 An insurer should conduct regular reviews of its ORSA process for integrity, accuracy, and reasonableness. Areas that should be reviewed, among others, include:

- Comprehensiveness and appropriateness of an insurer's assessment process, given the insurer's nature, scale and complexity, the soundness of the controls underpinning it, and the Bank's expectations with respect to the ORSA process;
- Governance mechanisms related to the assessment and review by the insurer of group processes used in its operations, where the insurer uses a group ORSA;
- Process for identification of risks, large exposures, risk concentrations, dependencies and interactions;
- Appropriateness of the methodologies, distributions and measures and accuracy and completeness of financial and quantitative data inputs;
- Reasonableness and validity of the ORSA results, including the embedded assumptions and inputs from stress tests, scenarios, models and other methodologies and tools used in the assessment process;
- Reasonableness of the individual risk and other components and overall ORSA results;
- Consistency of the ORSA results with an insurer's risk limits and risk appetite;
- Appropriateness of the documentation that supports the ORSA and the contents of the
- ORSA report to the Board;
- Effectiveness of information systems that support the ORSA;
- Consistency and linkages of the ORSA process and results with the risk management, strategic, business and capital planning processes.

5.5.3 The ORSA, including the ORSA report to the Board, should be subject to periodic objective reviews. The objective review may be conducted by an internal or external auditor, by a skilled and experienced internal or external resource or by a skilled and experienced individual, who reports directly to or is a member of the Board.

5.5.4 An objective reviewer should not be responsible for nor have been actively involved in the part of the ORSA that it reviews. For example, where the internal auditor is not otherwise involved in the process, the ORSA may be included in the internal audit plan so that it is covered within the audit cycle[3].

6.0 Interaction of the ORSA with the Supervisory Review

6.1 The Bank assesses capital adequacy at multiple levels. An insurer should have sufficient capital to meet Minimum and Supervisory Target regulatory capital, as well as sufficient capital to support its risk profile, (i.e. Inherent and Net Risks of its significant activities and Overall Net Risk [ONR]).

6.2 The Bank may review the ORSA and, upon request, the ORSA report to the Board (and/or other supporting documentation) in its assessment of the risk profile of an insurer to determine whether the ORSA is consistent with the Bank's own understanding and assessment of the insurer's risk appetite and risk profile.

6.3 The depth and frequency of supervisory review of an insurer's ORSA will be proportional to the nature, scale and complexity of its activities, and the risks assumed by an insurer as assessed through the Bank's Supervisory Framework.

6.4 The supervisory review of the ORSA is not intended to prescribe how an insurer should perform, use or report on its ORSA. Rather, the review allows for dialogue on the Bank's assessment of inherent risk, capital and Composite Risk Rating (CRR), and of an insurer's ORSA including:

- The approach/methodology, assumptions, data and other considerations (e.g. level of confidence and rationale) supporting internal estimates of risks that are also explicitly captured in the regulatory capital guidelines;
- Risks not fully captured (e.g. concentration, contagion and aggregation of risks) and/or
  not explicitly captured (e.g. reputation and strategic risk) by regulatory capital guidelines;
- External factors, where not already considered in the previous points, including stress testing, impact of economic cycles and other external risks;

[3] The Bank may request that a report by an objective reviewer be prepared and made available at a specific date so that it can be included in a planned review of an insurer's ORSA.

- The level and quality of the insurer's capital, and the quality of the assessment by the insurer using a range of stress scenarios included or referenced in the ORSA;
- Limitations of the insurer's ORSA and how these are communicated to the Board;
- Other regulatory requirements and expectations or market considerations; and,
- Identification of best practices and potential gaps arising from a cross-sector review of ORSA.

6.5 In addition to quantitative efforts, the Bank understands and expects that expert judgement will be necessary to operationalize an insurer's assessment and measurement of risks and to integrate those results into the overall assessment of own capital needs and the determination of Internal Targets. The ORSA is a process and a tool that the Bank expects will be used to support insurers risk and capital assessment, on-going management, governance and other decision making activities; therefore, both the quantitative and the qualitative aspects of the ORSA are equally important.

7.0 Effective Date

The effective date for this guideline is 22 July 2019.

Appendix – Supplementary Risk Considerations

The risk considerations contained within this appendix do not constitute an exhaustive list of exposures and factors that insurers should consider for purposes of the ORSA and for establishing Internal Targets. Rather, they provide some examples that may be relevant for a particular insurer and that may be used when exploring and assessing risks in the context of the ORSA.

Comprehensive Identification and Assessment of Risks

Emerging/Evolving risks

Certain risks may be identified based on possible new developments or emerging trends in the internal or external environment. While some may have been reviewed and found to be non- material, others may not have yet been defined or evaluated. Also, risks that were once considered immaterial may become material as the insurer's environment changes.

The ORSA should consider how risks may evolve and what measurement and management techniques are required for monitoring purposes.

Risk transfer/Mitigation activities

Insurers should be cognizant of any risks that may exist within certain risk transfer or risk mitigation activities (such as reinsurance, hedging or securitization transactions), and how these would behave under stress conditions. Resulting new or additional risks such as credit/counterparty and operational risk should be taken into consideration.

Cross border activities

Insurers that operate in multiple jurisdictions or otherwise engage in cross border investments and transactions with foreign counterparties may be subject to increased risk including: country risk, concentration risk, foreign currency risk (market risk) as well as regulatory, legal, compliance and operational risks. Laws and regulators' actions in foreign jurisdictions could make it much more difficult to realize on assets and security in the event of a default.

An insurer's ORSA should consider these types of activities and assess the controls, capital or assets needed in support of the regulatory, legal and compliance risks associated with concentrations in cross border activities. If an insurer has operations in foreign jurisdictions where restrictions on fungibility or access to capital apply (or could apply), where there is potential ring-fencing of funds, or where minimum/target regulatory capital requirements exceed levels in Guyana, this should also be clearly identified and

taken into account in setting both group-wide capital needs and Internal Targets for individual insurers.

Relating Risk to Capital (Determining Own Capital Needs)

This guideline does not provide a list of available approaches, methodologies or tools. As a result ORSA practices across insurers are likely to vary. For example, some insurers may:

- consider that their assessment of a material complex risk or set of risks would be best performed through the use of sophisticated internal models;
- determine that developing complex internal models for a material complex risk, although desirable, is not feasible and, as a result, select somewhat simpler, less refined approaches and compensate with more prudent assumptions that nonetheless yield reasonable estimates of own capital needs;
- expend considerable effort to develop an advanced methodology to assess a specific complex risk which they believe will give them a competitive advantage in the market and allow for improved capital allocation;
- choose to rely heavily on qualitative considerations, including expert judgement, for risks that are difficult to quantify and for which measurement results vary significantly depending on the approach and method used;
- develop complex methodologies to aggregate results and estimate the capital needs for concentrations, dependencies and risk interactions along with prudent benefits of diversification;
- choose a simple aggregation approach producing cruder results that achieve little or no diversification benefits.

Aggregation/Diversification Adjustment

Where risk aggregation/diversification adjustment benefits are applied in an insurer's ORSA, they should be validated and calibrated by the insurer on a regular basis. Insurers should be prudent in their assessment of aggregation/diversification benefits and should consider whether such benefits exist in periods of stress. When giving consideration to the benefits of diversification, equal consideration should be given to the potential concentrations, dependencies and interactions of risks that may cause the total impact to be greater than the sum of the impact of the risks considered individually.

Concentrations, Dependencies and Interactions of Risks

Situations in which risk concentrations, dependencies and interactions can arise include, among others, exposures to:

- one or many severe or extremely severe events/scenarios and their knock-on effects;
- a series of many small events/scenarios or individual claims and their knock-on effects;
- a common cause across many underwriting years (e.g. asbestos, pollution, etc.);
- one or very few reinsurers or other counterparties, or connections between counterparties;
- one or very few products/lines of business or sources of business/assets;
- geographical regions.

Risk concentrations, dependencies and interactions can arise through a combination of exposures across these and other broad categories. An insurer should have an understanding of its insurance, market, credit and other risk concentrations, dependencies and interactions resulting from exposures within and across its different business lines.