RGA

RGA International Reinsurance Company dac
Singapore Branch

MAS Notice 124 Public Disclosures
for the year ended December 31, 2016

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Overview of this document

The Monetary Authority of Singapore ("MAS") requires certain disclosures to be made which enable market participants to assess information on a business' risk profile, performance, and capital and risk management procedures. This document is designed to provide these disclosures and applies to RGA International Reinsurance Company dac Singapore Branch, and to its ultimate parent company, Reinsurance Group of America, Incorporated.

a) Company profile

Reinsurance Group of America, Incorporated (RGA)

Reinsurance Group of America, Incorporated ("RGA") is an insurance holding company, the principal assets of which consist of several reinsurance operating companies and their branches, including RGA International Reinsurance Company dac.

RGA was formed on December 31, 1992, and has since grown to become a leading global provider of traditional and non-traditional life and health reinsurance with operations in the United States, Latin America, Canada, Europe, Africa, Asia, and Australia. Today, RGA serves clients in more than 80 countries from its operations in 26 countries.

A FORTUNE 500 company, RGA has been listed on the New York Stock Exchange since 1993 (NYSE: RGA). As of December 31, 2016, RGA had approximately $3.1 trillion of life reinsurance in force, consolidated assets of $53.1 billion, and total annual revenues of $11.5 billion.

RGA International Reinsurance Company dac (RGAI)

RGAI was established in Ireland in 2003 as a wholly owned subsidiary of RGA. It is regulated by the Central Bank of Ireland and operates throughout Europe through a branch network. In November 2015, RGAI established a branch office in Singapore, RGA International Reinsurance Company dac Singapore Branch.

In 2016, there was a change of immediate parent and RGAI is now a wholly owned subsidiary of RGA Americas Reinsurance Company, Ltd., a Bermudian reinsurance company which is 100% owned by RGA.

RGAI has received an 'AA-' issuer credit and financial strength rating from Standard and Poor's. More information is available on the company's website, www.rgare.com, or by clicking here.

RGA International Reinsurance Company dac Singapore Branch (RGA Singapore)

RGA Singapore offers insurers a comprehensive line of products and services, including individual life reinsurance, group life reinsurance, health reinsurance, living benefits reinsurance (critical illness, long-term care, and related risks), facultative and electronic underwriting, risk management, claims support, and product development. In addition, RGA pioneered the use of reinsurance as a financial management tool and offers financial solutions expertise to help clients manage risk and capital.

b) Corporate governance framework and management controls

RGA International Reinsurance Company dac

RGAI is committed to ensuring an effective system of governance is in place to provide for sound and prudent management of the business. The governance structure has been developed giving due regard to the nature, size, and complexity of the company and is in accordance with the European Solvency II Directive and the Central Bank of Ireland's Corporate Governance Requirements for Insurance Undertakings 2015.

The RGAI Board of Directors is responsible for the corporate governance framework and reporting to the ultimate parent, RGA. The Board has established appropriate corporate governance principles and policies, and ensures the company is managed in accordance with those principles and policies. Its Audit Committee, Risk Management and Compliance Committee, and Investment Committee are each chaired by an independent non-executive director. These committees receive regular updates from control function holders, including the Chief Risk Officer, Head of Actuarial Function, Compliance Officer, Head of Internal Audit, and Head of Finance.

The Managing Director of RGAI, based in Ireland, is responsible for the governance and operations of the company and reports directly to the Board on matters of corporate governance. Individual branch managers are responsible for the activities of their local teams, which typically consist of the client-facing business development and underwriting staff. Each branch has a clearly defined mandate and authorities delegated from the Board within which it operates.

RGAI's control framework is structured to ensure that risks are identified and appropriately managed and that internal controls are in place and operating effectively. The control function holders attend meetings of the committees as appropriate to report on their functional area:

- The Chief Risk Officer (CRO) is responsible of the implementation of RGAI's risk management framework. The CRO reports to the Managing Director and to the Risk Management and Compliance Committee on all matters of risk management.
- The Head of Actuarial Function (HoAF) is responsible for the coordination and monitoring of the evaluation of technical provisions, including methodology, assumptions, data, and reporting. The HoAF also supports the risk management function.
- The Compliance Officer is responsible for providing assurance that the compliance risks of RGAI are appropriately managed and identified.
- The Head of Internal Audit is responsible for auditing the risk management control and governance processes.
- The Head of Finance is responsible for monitoring the financial risks.

RGA Singapore

RGA Singapore is committed to ensuring an effective system of governance is in place for the branch and is aligned with that of RGAI. The governance structure for the branch has been developed giving due regard to the Monetary Authority of Singapore's requirements.

As Chief Executive, Andy Hui (effective from 1 May 2017) has responsibility for RGA Singapore, and reports to the Managing Director of RGAI. A local Finance Manager has responsibility for the RGA Singapore finance function. The Appointed Actuary function is outsourced to Willis Towers Watson, Singapore.

RGA Singapore is supported by RGAI and other RGA Group companies. These relationships are governed by services agreements under the responsibility of Andy Hui.

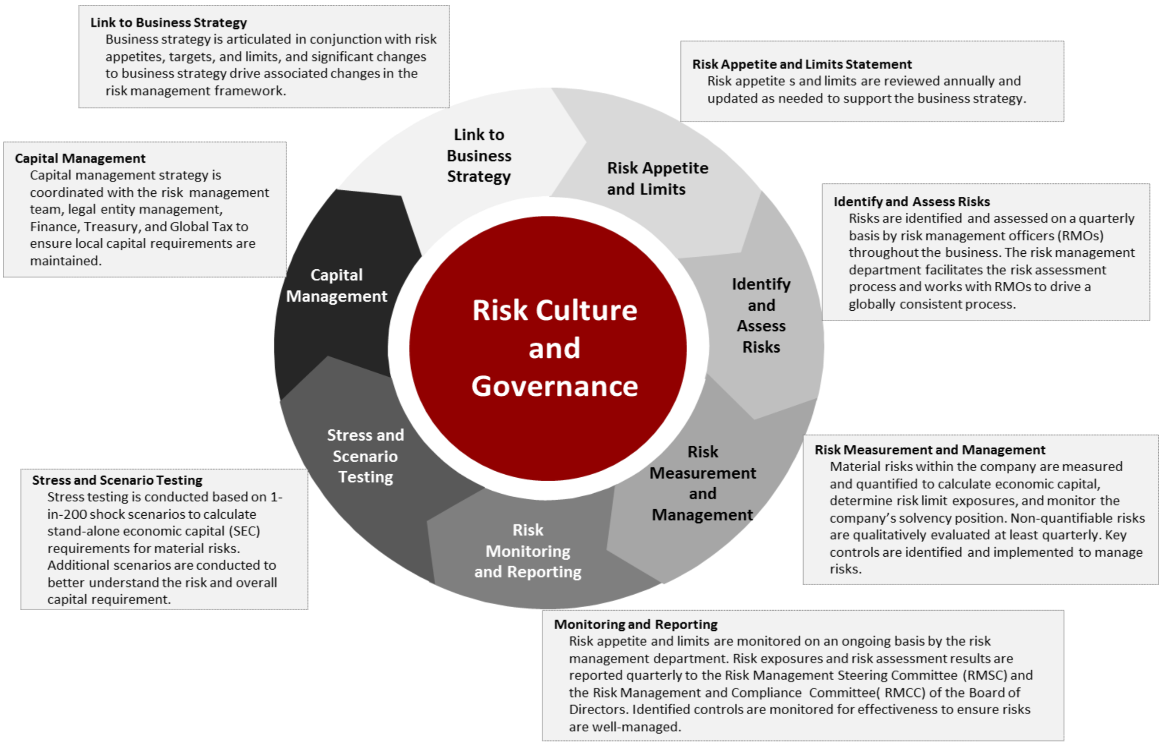
c) Risk management and asset-liability management

RGAI Risk Framework

RGAI's Enterprise Risk Management (ERM) objective is to consistently identify, measure, manage, monitor, and report on the material risks facing RGAI and to therefore increase protection for RGAI's clients, shareholders, employees, and other internal and external stakeholders.

Risk management is integrated within the company's overall business plan and strategy and is aligned to the company's risk appetite. Through the management of common risks across RGAI via the implementation of a robust risk assessment process, the company is able to improve capital deployment and resource allocation and reduce operational losses and surpluses. It also protects its reputation and brand through an enhanced understanding of risks while feeding into the decision-making process.

The goals are to have a robust risk governance framework with transparency of risks to senior management and the Board, to enable improvements in performance and the ability to establish competitive advantages while optimising the cost of risk management. The company closely follows the Enterprise Risk Management ("ERM") framework illustrated in the pin wheel below.



Risk Management Process

Risk culture and the ERM framework together play a prominent role in the effective management of risks assumed by RGAI. RGAI's risk culture is focused on prudent risk management and the application of established best practices.

Risk Identification – The ERM team partners with the local Risk Management Officers (RMOs) in each office to identify the risks and related exposures facing the organisation on an office-by-office basis.

Risk Measurement – After identifying the risks, the team performs assessments of all risks and the related exposures. Individual risks are not assessed in isolation, but in conjunction with other risks.

Risk assessments are critical to ensure that the total return is commensurate with the total risk assumed and that the risk is prioritized appropriately.

Risk Management – After risks are measured, a continuous risk management process prevails. This process includes the identification of key controls to mitigate the adverse effects from material risks. Mitigation plans are rigorously followed and deviations from plans are investigated. Risks are managed against the appetite and limit framework of the company.

Risk Monitoring – Risks are continually measured, monitored, and communicated to the appropriate areas.

Risk Reporting – On a quarterly basis, the ERM team reports to RGAI's Risk Management Steering Committee (RMSC).

It is the ERM team's role to review and challenge the risk ratings assessed by the business to provide confidence that all risks are identified and managed effectively. The risk management information presented to senior management and the Board is reviewed and enhanced periodically to ensure that the decision-makers are fully equipped to appraise the key risks facing RGAI. Risks are continuously brought to management's attention and addressed in a timely manner.

Risk Policy Framework

As part of the risk governance framework, RGAI maintains risk policies that are Board-approved and reviewed on an annual basis. All policies are aligned to RGAI's strategy and risk appetite and are in line with all relevant regulatory requirements. These policies include, but are not limited to: ERM strategy, risk appetite, credit risk, market risk, insurance risk, operational risk, asset-liability management, retrocessionnaire (reinsurance) policy, concentration risk, and ORSA (Own Risk and Solvency Assessment).

Roles and Responsibilities

- RGAI Board of Directors: Oversees the management of the company's ERM program and policies through the RGAI Board's Risk Management and Compliance Committee (RMCC). The Board and RMCC meet quarterly.
- Risk Management Steering Committee (RMSC): Supports the Chief Risk Officer (CRO) by understanding the risks undertaken by the company and overseeing the management of these risks. The RMSC meets quarterly to assess current and emerging risks and provides guidance for areas of focus.
- CRO (and team): Ensures that all risks facing the organization are prudently managed and that material risks are reported regularly to management. The CRO is responsible for embedding risk management into the organization by promoting risk awareness and a risk culture conducive to best-practice risk management in line with RGAI's risk philosophy.
- Management: Responsible for managing all risks taken by RGAI.
- Employees: Employee involvement is critical for interweaving risk management with daily activities, including the identification and escalation of emerging risks.
- Risk Management and Compliance Committee (RMCC): Responsible for establishing risk tolerances, targets, and limits consistent with RGAI's risk management philosophy, via recommendations made by the RMSC. In some cases, the RMCC may delegate authority to set risk limits to risk experts based on the materiality of the risk. The RMCC approves material risk targets and limits, including those not formally established by the RMCC. Any situation in which the role of the RMCC in establishing or approving risk targets is unclear is directed to the CRO.

Risk Categories

RGAI's risks are categorized as insurance, market, credit, and operational. This is in line with industry best practices and the way RGAI manages and quantifies risks and calculates economic capital. Risks are divided between core and ancillary risks. In the table below, core risks have been highlighted in blue. Core risks align with overall business strategy and vice versa.

Insurance – The risk of loss due to experience deviating adversely from expectations for mortality, morbidity and policyholder behaviour, or lost future profits due to client recapture.

Market – The risk that asset and liability values or revenues will be affected adversely by changes in market conditions such as market prices, exchange rates, interest rates, spreads, inflation levels, correlations, or other dependency measures, etc.

Credit – The risk of loss due to counterparty (financing provider, obligor, client, retrocessionaire, or partner) credit deterioration or unwillingness to meet its obligations. Credit risk has three forms: investments credit (asset default and credit migration), insurance counterparty, and financing counterparty.

Operational – The risk of loss due to inadequate or failed internal processes, people, or systems, or external events. These risks are sometimes residual risks after insurance, market, and credit risks have been identified.

<table>
<tr><td colspan="4">RISK CATEGORIES (core risks highlighted in blue)</td></tr>
<tr><td>Insurance</td><td>Mortality
• Misestimation
• Volatility
• Catastrophe
Morbidity
• Misestimation
• Volatility
Longevity
• Misestimation
• Volatility
Policyholder Behaviour
• Fund Allocation
• Lapse (Sensitive, Supported)
• Withdrawal
• Client Recapture</td><td rowspan="3">Operational</td><td rowspan="3">• Administration
• Claims
• Disruption of Operations
• Financial Reporting
• Investments
• Security
• Fraud
• Pricing
• Retrocession
• Underwriting
• Valuation
• Legal
• Compliance
• Regulatory change
• Sovereign
• Collateral
• Expense
• Financing
• Liquidity
• Tax
• Human Capital
• Ratings
• Reputation
• Strategy</td></tr>
<tr><td>Credit</td><td>Insurance Counterparty
• Credit Migration / Asset Default</td></tr>
<tr><td>Market</td><td>• Currency
• Equity
• Inflation
• Interest Rate</td></tr>
</table>

Asset-Liability Management (ALM)

Liability cash flows are generated on a best-estimate basis by currency, with corresponding scenario analysis if the liability has features or options that could materially change the liability cash flow profile. This best-estimate liability is compared to assets backing the liability in the same currency on multiple metrics. This comparison results in a target duration and range for the asset portfolio(s).

Portfolio duration is tracked relative to targets within RGAI's compliance system, which notifies portfolio management when portfolio duration falls outside the target range. The target duration and range are impacted by the amount of assets relative to the amount of liabilities, with any surplus assets having a broader acceptable duration range but shorter target duration than the liabilities, generally. The analysis of liquidity strain informs asset allocation. As the invested assets are entirely cash and public securities, liquidity is more than sufficient given existing liabilities.

The optimization process is primarily based on an economic best-estimate perspective. The impacts on a GAAP-accounting basis and the relevant statutory basis are evaluated in parallel to assure acceptable results from all perspectives.

d) Quantitative and qualitative information on reasonably foreseeable material insurance risk exposures

Information on these exposures can be found in the "Risks Related to Our Business" section starting on page 17 of the 2016 RGA Annual Report, available by clicking here.

e) Quantitative and qualitative information about technical provisions including future cash flows

Policy Liability

The primary liabilities of RGA Singapore consist of risk premium mortality and morbidity business, under which RGA Singapore is paid a series of premiums based on an increasing rate scale by policy year, which bears a reasonable relationship to the anticipated mortality pattern with a provision for profit.

The determination of policy liability is dependent on the assumptions made by RGA Singapore. Actual future experience may deviate from such estimates. RGA Singapore monitors the emerging experience by analyzing the loss experience from both internal claims reports and the external market data. Experience is closely reviewed on individual reinsurance contracts and ceding client company levels. Estimates are revised in light of emerging experience if appropriate.

Reserving Approach

The policy liability is calculated as the sum of the premium liability and the claims liability. Both liabilities are determined under the best-estimate basis with the provision made for any adverse deviation from the expected experience. The valuation of policy liability is carried out in compliance with the "Insurance Valuation and Capital Regulations 2004" issued by the Monetary Authority of Singapore ("MAS").

Premium Liability

In terms of long-term businesses, a gross premium valuation ("GPV") is utilized in accordance with the regulations, with a certain floor imposed at treaty level. The reserve is calculated as the present value of future expected outgo less future income, from the projection model over the outstanding duration of the treaties.

The predominant mortality rate assumption is based on a certain percentage of the Singapore S9702 table, and determined on a prudent basis with reference to past mortality analysis and the historical mortality claims experience.

The valuation interest rates are determined in accordance with MAS 319 “Notice on Valuation of Policy Liabilities of Life Business” issued on April 22, 2013. They are derived from the government bond yield as at the valuation date corresponding to the currency of the reinsurance treaties.

In terms of renewable treaties, the premium liability shall be the higher of the unearned premium reserve (“UPR”) and the unexpired risk reserve (“URR”):

- UPR is calculated as the annualized premium multiplied by the outstanding duration as at the valuation date for each treaty.
- URR is determined as a certain percentage of the unearned premium, with the consideration of expected future claims payment, expenses expected to be incurred in administering policies and setting relevant claims, and provision made for any adverse deviation from the expected experience.

Claims Liability

The claims liability is taken as an estimate for the incurred but not reported (IBNR) claims at the valuation date. It is based on expected mortality rates and the claim reporting lags between the insured and the ceding company, as well as the reinsurance statement lags between the ceding company and RGA Singapore.

f) Quantitative and qualitative information about capital adequacy

Capital Adequacy

At 2016 year-end, RGA Singapore was compliant with the MAS capital requirements, with a 339% capital-adequacy ratio.

Our statutory returns are published by the MAS on its Insurance Company Returns site, available by clicking here.

Capital Assessment

RGA Singapore monitors its regulatory solvency through the risk-based framework prescribed by MAS. The total risk requirements can be broken down into three components:

- C1: This component reflects the impact on policy liability calculation due to adverse deviation in insurance assumptions.
- C2: This component reflects market, credit and mismatching risk charges on both assets and liabilities.
- C3: This component covers concentration risk charges on assets. The limit on each asset category is set out by MAS and any asset amount exceeding the limit is to be set as risk charges.

Various risk charges from these components are considered in RGA Singapore’s regulatory capital model. The calculation is consistent with the MAS regulations.

g) Quantitative and qualitative information about its financial instruments and other investments

The primary investment objective is to ensure adequate funds to meet reinsurance obligations. This is done through prudent risk management, diversification and achieving long-term return targets.

RGAI strives to take risks which are well-understood and well-priced. To that end, portfolio size, duration, and liquidity requirements are informed by targets arising from a robust ALM process, which informs investment policy and guidelines, as well as RGAI's compliance system. Operating within these bounds, the investment team focuses primarily on credit risk, searching for opportunities in which solid fundamental credit analysis allows a determination of an excellent risk/reward profile. In addition, RGAI's investment policies state minimum rating requirements as well as prudent diversification among issuers and sectors. Capital for credit risk is held based on existing regulatory requirements as well as internal capital models. RGA Singapore's existing asset portfolio is rated AA on average based on S&P and/or Moody's ratings. RGA Singapore only invests in public fixed-income markets, where valuations are highly transparent.

h) Quantitative and qualitative information on financial performance

Information regarding the financial performance of RGA is available from the RGA website, www.rgare.com, in the "About RGA" and "Investor Relations" pages.

Information regarding the financial performance of RGA International Reinsurance Company dac Singapore Branch is available from MAS's Insurance Company Returns by clicking here, and ACRA's Bizfile by clicking here.