



**AXIS Specialty Limited (Singapore Branch)**

**Public Disclosures Under The Monetary Authority of  
Singapore Notice 124**

**For the year ended December 31, 2019**

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**1. DOCUMENT OVERVIEW**

The Monetary Authority of Singapore (“MAS”) requires licensed insurers to provide certain disclosures with respect to their business profile, corporate governance, risk exposure, risk management framework, performance and capital. This document provides these disclosures and applies to AXIS Specialty Limited - Singapore Branch.

**2. PROFILE**

AXIS Capital Holdings Limited (“AXIS Capital”) is a Bermuda-based holding company for the AXIS group of companies. AXIS Capital was incorporated on December 9, 2002, under the laws of Bermuda. Through its subsidiaries and branches with operations in Bermuda, the United States (“U.S.”), Europe, Singapore, Canada and the Middle East, AXIS Capital provides a broad range of specialty lines insurance and treaty reinsurance solutions on a worldwide basis under two distinct global underwriting platforms, AXIS Insurance and AXIS Re.

AXIS Capital is a hybrid specialty insurance and global reinsurance company that is a leader in many of the markets where it chooses to compete. We provide our clients and distribution partners with a broad range of risk transfer products and services, and meaningful capacity, backed by excellent financial strength. We manage our portfolio holistically, aiming to construct the optimum portfolio of risks, consistent with our risk appetite and the development of our franchise. We nurture an ethical, entrepreneurial and disciplined culture that promotes outstanding client service, intelligent risk taking and the achievement of superior risk-adjusted returns for our shareholders. We believe that the achievement of our objectives will position us as a global leader in specialty risks.

AXIS Specialty Limited (the “Company”) was incorporated on November 8, 2001 under the laws of Bermuda. Pursuant to an exchange offer consummated on December 31, 2002, the Company became a wholly owned subsidiary of AXIS Capital. On December 12, 2011, AXIS Capital assigned all of its shares of the Company to AXIS Specialty Holdings Bermuda Limited (“AXIS Specialty Holdings”). AXIS Specialty Holdings was incorporated under the laws of Bermuda on September 22, 2011 and is a wholly owned subsidiary of AXIS Capital.

The Company is licensed under the Bermuda Insurance Act 1978, amendments thereto and related regulations, to write general business as a Class 4 insurer and commenced operations on November 20, 2001, providing a broad range of insurance and reinsurance products on a worldwide basis.

The Company also provides reinsurance protection to other subsidiaries of AXIS Capital through quota share and stop loss agreements.

The Company formed a branch in Singapore (the “Branch”) on June 19, 2008 and obtained a license on August 12, 2008 to carry on general insurance business in Singapore.

The Branch has a general insurance license allowing it to write both direct insurance and reinsurance business. The Branch underwrites property, casualty and specialty risks in the Asia Pacific region. Property reinsurance is the dominant class of business underwritten.

For the direct insurance segment, the Branch writes a variety of casualty and specialty insurance products, namely terrorism, credit and political risk, professional indemnity, property and energy.

For the reinsurance segment, the Branch assumes mostly property lines of business on both an excess of loss and proportional basis.

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**3. CORPORATE GOVERNANCE FRAMEWORK AND RISK MANAGEMENT**

**a) AXIS Specialty Limited - Board of Directors:**

Role of Board, Management and Employees

The Company's business is conducted by its employees, managers and officers with guidance from business units and functions, and the oversight of the Board. The responsibilities of the Board are set forth in the Bye-Laws and the Board Standing Agenda Items. The responsibilities of management and employees are agreed with the individual's manager and, as applicable, as set forth in annual performance objectives. The AXIS Group operates under a shared services delivery model for many support functions. The services are provided and governed by a common group-wide framework applicable across all AXIS entities, including the Company.

Director Responsibilities

Each director shall exercise his or her business judgment to act in the manner that he or she reasonably believes to reflect the best interests of the Company and its shareholders. The directors may commit the Company in accordance with the Bye-Laws. The directors may by power of attorney appoint any company, firm or person(s) to be the attorneys of the Company for specified purposes. A director who exercises his or her authority shall in all circumstances act in accordance with his or her business authority or ensure involvement from executive management with appropriate skills, experience and knowledge.

All directors must comply with all of AXIS Capital's and the Company's policies including, but not limited to, the AXIS Capital Holdings Limited Code of Business Conduct, Insider Trading Policy and Corporate Disclosure Policy.

Board Committees

Committees may be established by the Board to facilitate and assist in the execution of the Board's responsibilities. The Board may establish and maintain committees as necessary and appropriate under the circumstances.

The Company's board of directors oversees the affairs of the Company, including those of the Branch.

**b) Fit and Proper Process for Assessing Board and Senior Executives:**

Board of Directors

The Board shall comprise individuals who meet Fit and Proper requirements and are selected by the shareholder(s) of the Company.

The Company's directors shall be persons who combine the highest standards of integrity and significant accomplishments in their chosen field of endeavor. Directors shall bring a diversity of experiences, skills and perspectives to the Board.

All Employees

All of the Company's employees, directors and officers are required to comply with the AXIS Capital Business Ethics Policies which include Code of Business Conduct, Whistleblower Policy and Insider Trading Policy. AXIS requires that all employees, directors and officers conduct business with integrity and comply with all applicable laws and regulations. The AXIS Business Ethics Policies set forth the standards of business conduct consistent with AXIS' core values of professionalism and integrity. To reinforce familiarity and understanding of the guiding principles of these policies, each year, all employees, officers and directors are required to acknowledge their acceptance and certify their compliance with each of the policies.

As part of the recruitment process, a candidate will be assessed to determine whether he or she is fit for the particular role; specifically with reference to competency and capability.

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AXIS will consider information about a person's competency and capability for a position, which includes the following:

- the activities and size of AXIS;
- the responsibilities of the position;
- the person's demonstrated capacity to successfully undertake the responsibilities of the position and the establishment/maintenance of an effective control regime;
- the person's knowledge of the business and responsibilities of the position; and
- any professional qualifications, formal and informal training.

Also, as part of the recruitment process, a candidate will be assessed to determine whether he or she meets AXIS's standards for probity; specifically with reference to honesty, integrity, fairness, ethical behaviour and financial soundness.

AXIS will consider a candidate's record as a good indicator of character, as well as other information indicative of honesty, integrity, fairness and ethical behaviour.

**c) Risk Management Process and Procedures to Effectively Identify, Measure, Manage and Report on Risk Exposures:**

AXIS has an established group-wide Enterprise Risk Management ("ERM") framework which provides a structured and consistent approach to ensuring that risks are appropriately identified, measured, monitored and controlled with clear ownership and appropriate levels of oversight across all AXIS entities, including the Company and the Branch.

The mission of the ERM framework is to promptly identify, measure, manage/control, report and monitor risks that affect the achievement of strategic, operational and financial objectives. The key objectives of the ERM framework are to:

- Protect the capital base and earnings by monitoring risks against the stated risk appetite and limits;
- Promote a sound risk management culture through disciplined and informed risk taking;
- Enhance value creation and contribute to an optimal risk-return profile by providing the basis for efficient capital deployment;
- Support the group-wide decision making process by providing reliable and timely risk information; and
- Safeguard our reputation.

Our ERM framework is constantly evolving and develops in response to changes in the Group's internal and external environment and associated risk landscape, and our drive to maintain an ERM framework which supports the business meaningfully in meeting its objectives. The Risk Management Function for the Company and the Branch is outsourced to Group Risk.

**Risk Governance**

At the heart of the AXIS ERM framework is a governance process with responsibilities for taking, managing, monitoring and reporting risks. Roles and responsibilities for risk management are articulated throughout the organization, from the Group Board of Directors and the Group Chief Executive Officer to business and functional areas, thus embedding risk management throughout the business.

Risk governance is executed through a three lines of defence model, with business units ("first line") responsible for the identification, assessment, management, mitigation and monitoring of risks on a day-to-day basis; the Risk function ("second line") providing oversight and guidance on risk management across the business by supporting and challenging the first line in their identification, assessment, management and mitigation of risk; and Internal Audit ("third line") providing independent assurance on the effectiveness of governance, risk management and internal controls (see below for further details on the Risk Management Organization").

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To support our governance process, we rely on our documented policies, procedures and reporting. Our Risk Policies are a formal set of documents we use to specify our approach and risk mitigation/control philosophy for managing individual and aggregate risks. We also have procedures to approve exceptions and procedures for referring risk issues to senior management and the Board of Directors. Our qualitative and quantitative risk reporting framework provides transparency and early warning indicators to senior management with regard to our overall risk profile, adherence to risk appetite and associated limits, and improvement actions both at an operating entity and Group level. Various governance and control bodies coordinate to help ensure that objectives are being achieved, risks are identified and appropriately managed, and internal controls are in place and operating effectively. As necessary, Company specific risk policies are also in place that supplement Group policy, consistent with local regulatory and compliance requirements.

The key elements of the governance framework, as it relates specifically to risk management, are described below.

#### Group Board of Directors' Level

The Risk Committee of the Board ("Risk Committee" or "Board Risk Committee") assists the Board of Directors in overseeing the integrity and effectiveness of our ERM framework, and ensuring that our risk assumption and risk mitigation activities are consistent with that framework. The Risk Committee reviews, approves and monitors our overall risk strategy, risk appetite and key risk limits and receives regular reports from the Group Risk function ("Group Risk") to ensure any significant risk issues are being addressed by management. The Risk Committee further reviews, with management and Internal Audit, the Group's general policies and procedures and satisfies itself that effective systems of risk management and controls are established and maintained. Among its other responsibilities, the Risk Committee also reviews and approves our annual Own Risk and Solvency Assessment ("ORSA") report, also referred to as the Group Solvency Self-Assessment ("GSSA") report. The Risk Committee assesses the independence and objectivity of our Group Risk function, approves its terms of reference and reviews its ongoing activities.

Following a recommendation by the Chief Executive Officer, the Risk Committee also conducts a review and provides a recommendation to the Board of Directors regarding the appointment and/or removal of the Chief Risk Officer. The Risk Committee meets with the Chief Risk Officer in separate executive session on a regular basis.

The Finance Committee of our Board oversees the Group's investment of funds and adequacy of financing facilities. This includes approval of the Group's strategic asset allocation plan. The Audit Committee of our Board, which is supported by our internal audit function, is responsible for overseeing internal controls and compliance procedures, and also reviews with management and the Chairman of the Risk Committee the Group's guidelines and policies regarding risk assessment and risk management

#### Company Board of Director Level

The Company's Board of Directors has ultimate oversight responsibility for the effectiveness of the ERM framework and ensuring that appropriate risk governance, monitoring and reporting exist for the Company. Among the primary responsibilities of the Board are to:

- Establish the Company's Solvency Standard and Risk Limits based on the recommendations of management, and monitor ongoing compliance. For any breaches, the Board is responsible for ensuring management action plans are adequate to address the situation;
- Approve 'framework' level risk policies, including the Risk Management Strategy document, and the Risk Policies;
- Ensure risk is being appropriately managed and reported in the Company, consistent with the Risk Policies as well as local legal and regulatory requirements;
- Review the Company's business plan, focusing in particular on risk aspects and implications for the Company's Solvency Standard and Risk Limits; and
- Review and approve the annual Own Risk and Solvency Assessment ("ORSA") report prepared for the Company.

#### Group Executive Level

The Group management Executive Committee formulates business objectives and risk strategy within the overall risk appetite set by the Group Board. It allocates capital resources and sets limits across the Group, with the objective of balancing return and risk. While the Group management Executive Committee is responsible overall for risk management, it has delegated some authority to the executive level Group Risk Management Committee ("RMC").

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The RMC is responsible for overseeing the integrity and effectiveness of the ERM framework across the Group and ensuring that the Group's risk assumption and risk mitigation activities are consistent with that framework, including a review of the annual business plan relative to our risk limits. In addition to the RMC, there is an established framework of separate yet complementary management committees and subcommittees, focusing on particular aspects of ERM (such as the Group and Legal Entity Capital Management Committees, Operational Risk Committee, Emerging Risks Working Group etc.).

#### Risk Management Organization

As a general principle, management in each of our business units is responsible in the first instance for both the risks and returns of its decisions. Management is the 'owner' of risk management processes and is responsible for managing our business within defined risk limits.

Our Chief Risk Officer leads our independent Group Risk function, and is responsible for oversight and implementation of the Company's ERM framework as well as providing guidance and support for risk management practices. Group Risk develops our risk management framework, including the methods and processes for identifying, measuring, managing and reporting risk, and oversees the adherence to this framework at the Group and operating entity level. This forms the basis for informing the Board of Directors of the Company's risk profile.

Internal Audit, an independent, objective function, reports to the Group Audit Committee of the Group Board on the effectiveness of our risk management framework. This includes assurance that key business risks have been adequately identified and managed appropriately and that our system of internal control is operating effectively. Internal Audit also provides independent assurance around the validation of our internal capital model and coordinates risk-based audits, compliance reviews, and other specific initiatives to evaluate and address risk within targeted areas of our business.

#### Risk Appetite and Limit Framework

Our integrated risk management framework considers material risks that arise from operating our business. Large risks that might accumulate and have the potential to produce substantial losses are subject to our group-wide risk appetite and limit framework. Our risk appetite, as authorized by our Board of Directors, represents the amount of risk that we are willing to accept within the constraints imposed by our capital resources as well as the expectations of our stakeholders as to the type of risk we hold within our business. At an annual aggregated level, we also monitor and manage the potential financial loss from the accumulation of risk exposure in any one year.

Specific risk limits are defined and translated into a consistent framework across our identified risk categories and across our operating entities and are intended to limit the impact of individual risk types or accumulations of risk. Individual limits are established through an iterative process to ensure that the overall framework complies with our group-wide requirements on capital adequacy and risk accumulation.

We monitor risk through, for example, risk dashboards and limit consumption reports. These are intended to allow us to detect potential deviations from our internal risk limits at an early stage. Risk dashboards are prepared by Group Risk and reviewed by the Company's Board of Directors throughout the year.

#### **d) Internal Controls:**

Internal control is defined as the processes, policies, guidelines, and standards of practice in place to mitigate and manage risk to acceptable levels.

AXIS uses a common group-wide framework applicable across all AXIS entities, including the Company.

The AXIS internal control framework is based on the framework developed by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in 1992, and updated in 2013.

The AXIS internal controls are documented and maintained in a central risk and control repository, and individual control owners certify each quarter to the adequate design and continued operating effectiveness of their respective controls.

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The internal control framework includes the following five interrelated components:

- *Control Environment:* The primary responsibility of AXIS Capital's Board of Directors is to provide effective governance over the Group's affairs for the benefit of its shareholders, and to help broaden the perspective of executive management. The Group Board has established the Group Audit Committee to facilitate and assist in the execution of its responsibilities. In terms of internal control oversight, it is the responsibility of the Group Audit Committee to review and periodically discuss with the Group Board the adequacy and effectiveness of the Group's internal control structure. There are several oversight committees such as the RMC which help set the management tone in terms of the control environment. AXIS operates with a three lines of defense model.
- *Risk Assessment:* The Internal Controls policy lists the risks ('Risk universe') to which the Group is exposed which the Risk Committee of the Group Board and RMC annually evaluate. Separate risk policies are defined for key risks within the universe which affirm AXIS's group-wide approach, appetite and risk mitigation/control philosophy for managing each risk. Risk assessments are regularly conducted by the business (overseen by Group Risk) across the risk universe for the group. The assessments take into consideration the control environment and the results of control activities as well as other factors e.g. external environment, management of the risk in relation to defined risk appetite and operational issues encountered in the management of the risk. The results of the assessments support upwards reporting and messaging to the AXIS Board.
- *Control Activities:* Each risk within the risk universe identifies an individual Risk Owner, normally a member of the AXIS Group Executive Committee, having appropriate experience and knowledge of the risk. The Risk Owner is responsible for designing and implementing an adequate and efficient control environment to manage their respective risks. Activities include, but are not limited to, reconciliation, documented roles and responsibilities, clear authority limits, peer reviews, appropriate segregation of duties and metrics reporting.
- *Information and Communication:* In terms of communication, AXIS has clear reporting and communication lines in place. Role profiles make clear each individual's role, their reporting lines and functional terms of reference set out responsibilities by function. Clear organizational and structure charts are also maintained. There is an escalation policy in place to ensure matters are reported upwards as required by employees. The AXIS Whistle blower Policy also provides various lines of communication for reporting violations and concerns.
- *Monitoring:* The effectiveness of the internal control framework is independently validated via regular internal audit reviews which are conducted on a rotational basis with findings reported to the Group Audit Committee. There are also Management Initiated Audits ("MIAs") done on claims and underwriting transactions which are reported to the Management Audit Committee. There are various monitoring activities performed by the second line of defense, Group Risk and Legal and Compliance.

The internal control framework is regularly reviewed and updated and annually assessed by the external auditors. The Internal Audit department also validates that the COSO 2013 framework is present and functioning as part of its annual internal audit plan.

#### **4. INSURANCE AND FINANCIAL RISK AND RISK MANAGEMENT**

##### **Insurance Risk**

Insurance risk is the inherent uncertainty as to the occurrence, amount and timing of insurance liabilities transferred to us through the underwriting process.

A key component of the Group's underwriting risk governance is our peer review processes which allow for a collaborative review of risk and pricing and ensures that underwriting is within established protocols and guidelines. Underwriting guidelines are in place to provide a framework for consistent pricing and risk analysis and ensuring alignment to the Group's risk appetite. Limits are set on underwriting capacity, and cascade authority to individuals based on their specific roles and expertise.

We also have significant audit coverage across our business units, including Management Initiated Audits ("MIAs"). MIAs are audits of underwriting and claims files performed by teams independent of those who originated the transactions, the purpose of which is to test the robustness of our underwriting, claims and operating processes and to recognize any early indicators of future trends in our operational risk environment.

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### **Reinsurance Purchasing**

Another key component of our mitigation of insurance risk is the purchase of reinsurance on both a treaty (covering a portfolio of risks) and facultative (single risk) basis, on both short and long tail lines of business.

For treaty reinsurance we purchase both proportional and non-proportional cover. Under proportional reinsurance, we cede an agreed proportion of the premiums and the losses and loss adjustment expenses on the policies we underwrite. We primarily use proportional reinsurance on our liability and professional lines portfolio, whereby we protect against higher loss frequency rather than specific events. We also execute proportional retrocession on our assumed property catastrophe reinsurance portfolio and casualty portfolio, which includes our cessions to Strategic Capital Partners. We also use non-proportional reinsurance, whereby losses up to a certain amount (i.e. our retention) are borne by us. Using non-proportional reinsurance we can limit our liability with a retention which reflects our willingness and ability to bear risk, and therefore in line with our risk appetite. We primarily purchase the following forms of non-proportional reinsurance:

- Excess of loss per risk: the reinsurer indemnifies us for loss amounts of all individual policies effected, defined in the treaty terms and conditions. Per risk treaties are an effective means of risk mitigation against large single losses (e.g. a large fire claim).
- Catastrophe excess of loss: provides aggregate loss cover for our insurance portfolio against the accumulation of losses incurred from a single event (e.g. windstorm).

AXIS has a centralized Risk Funding department which coordinates external treaty reinsurance purchasing across the Group and is overseen by the Reinsurance Purchasing Group ("RPG"), in conjunction with the Reinsurance Security Committee ("RSC"). The RPG, which includes among others, our Group Chief Executive Officer, Group Chief Financial Officer, Group Chief Risk Officer, Actuarial Officer and business unit leadership, approves each treaty placement, and aims to ensure that appropriate diversification exists within our counterparty panels. The RSC sets out the financial security requirements of our reinsurance counterparties and approves reinsurance counterparties, as needed.

Facultative reinsurance is case by case risk transfer which we may also use to complement treaty reinsurance by covering additional risks above and beyond what is already covered in treaties. Facultative reinsurance is monitored by the Risk Funding department.

### **Natural Peril Catastrophe Risk**

Natural catastrophes such as hurricanes and windstorms, earthquakes, storms, tornados and floods represent a challenge for risk management due to their accumulation potential and occurrence volatility. In managing natural catastrophe risk, our internal risk tolerance framework aims to limit both the loss of capital due to a single event and the loss of capital that would occur from multiple (but perhaps smaller events) in any year. Within this framework, we have an established risk tolerance for single event, single zone probable maximum loss ("PML") within defined zones and at various return periods.

Our PMLs take into account the fact that an event may trigger claims in a number of lines of business. Our PMLs include assumptions regarding the location, size and magnitude of an event, the frequency of events, the construction type and a property's susceptibility to damage, and the cost of rebuilding the property. Loss estimates for non-U.S. zones will be subject to foreign exchange rates, although we may mitigate this currency variability from a book value perspective.

We have developed our PML estimates using multiple commercially available vendor models, including AIR Worldwide ("AIR") and Risk Management Solutions ("RMS") (which we also use for pricing catastrophe risk). These models cover the major peril regions where we face potential exposure. We combine the outputs of catastrophe models with our estimate of non-modeled perils and other factors which we believe, from our experience, provides us with a more complete view of natural peril catastrophe risk.

Our PML estimates are based on assumptions that are inherently subject to significant uncertainties and contingencies. These uncertainties and contingencies can affect actual losses and could cause actual losses to differ materially from those expressed above. We aim to reduce the potential for model error in a number of ways, the most important of which is by ensuring that management's judgment supplements the model outputs. We also perform ongoing model validation both within our business units and at group level including through our catastrophe model validation unit. These validation procedures include sensitivity testing of models to understand their key variables and, where possible, back testing the model outputs to actual results.

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Our estimated net losses from peak zone catastrophes may change from period to period as a result of several factors, which include but are not limited to, updates to vendor catastrophe models, changes in our own modeling, changes in our underwriting portfolios, changes to our reinsurance purchasing strategy and changes in foreign exchange rates.

**Man-made Catastrophe Risk**

In line with our management of natural peril catastrophe exposures, we also take a similarly focused and analytical approach to our management of man-made catastrophes. Man-made catastrophes, which include such risks as train collisions, airplane crashes or terrorism, are harder to model in terms of assumptions regarding intensity and frequency. For these risks we couple the vendor models (where available) with our bespoke modeling and underwriting judgment and expertise. This allows us to take advantage of business opportunities relating to man-made catastrophe exposures particularly where we can measure and limit the risk sufficiently as well as obtain risk-adequate pricing.

As an example of our approach, our assessment of terrorism risk is based on a mixture of qualitative and quantitative data (e.g. for estimating property damage, business interruption, mortality and morbidity subsequent to an attack of a predefined magnitude), which we use to control, limit and manage our aggregate terrorism exposure. We use commercially available vendor modeling and bespoke modeling tools to measure accumulations around potential terrorism accumulation zones on a deterministic and probabilistic basis. We supplement the results of our modeling with underwriting judgment.

**Reserving Risk**

The estimation of reserves is subject to uncertainty due to the fact that the settlement of claims that have arisen before the balance sheet date is dependent on future events and developments. Unforeseen loss trends resulting from court rulings, changes in the law, medical and long-term care, and economic factors such as inflation can have an impact on the ultimate cost to settle our claim liabilities.

We calculate the reserves for losses and claims settlement costs in accordance with actuarial practice based on substantiated assumptions, methods and assessments. The assumptions are regularly reviewed and updated, and the application of our Group reserving policy and standards of practice ensures a reliable and consistent procedure. Our loss reserving process demands data quality and reliability and requires a quantitative and qualitative review of both our overall reserves and individual large claims. Within a structured control framework, claims information is communicated on a regular basis throughout our organization, including to senior management, to provide an increased awareness regarding the losses that have taken place throughout the insurance markets. The detailed and analytical reserving approach that follows is designed to absorb and understand the latest information on our reported and unreported claims, to recognize the resultant exposure as quickly as possible, and to make appropriate and realistic provisions in our financial statements. We have well established processes for determining carried reserves, which we ensure are applied consistently over time.

Reserving for long-tail lines of business represents a significant component of reserving risk. When loss trends prove to be higher than those underlying our reserving assumptions, the risk is greater because of a stacking-up effect: we carry reserves to cover claims arising from several years of underwriting activity and these reserves are likely to be adversely affected by unfavorable loss trends. We manage and mitigate reserving risk on long-tail business in a variety of ways. First, the long-tail business we write is part of a well-balanced and diversified global portfolio of business. We also purchase reinsurance on liability business to manage our net positions. Secondly, we follow a disciplined underwriting process that utilizes available information, including industry trends.

**Claims Handling Risk**

In accepting risk, we are committing to the payment of claims and therefore these risks must be understood and controlled. AXIS has claims teams located throughout its main business units. These claims teams include a diverse group of experienced

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professionals, including claims adjusters and attorneys. AXIS also uses approved external service providers, such as independent adjusters and appraisers, surveyors, accountants, investigators and specialist attorneys, as appropriate.

AXIS maintains claims handling guidelines and claims reporting control and escalation procedures in all of its claims units. Large claims matters are reviewed during weekly claims meetings. The minutes from each meeting are circulated to underwriters, senior management and others involved in the reserving process. To maintain communication between underwriting and claims teams, claims personnel regularly report at underwriting meetings and frequently attend client meetings.

AXIS fosters a strong culture of review among its claims teams. This includes MIAs, whereby senior claims handlers audit a sample of claim files. The process is designed to ensure consistency between the claims units and to develop Group-wide best practices.

When we receive notice of a claim, regardless of size, it is recorded within our underwriting and claims systems. To assist with the reporting of significant claims, we have also developed a standard format and procedure to produce “flash reports” for significant events and potential losses, regardless of whether we have exposure. Our process for flash reporting allows a direct notification to be communicated to underwriters and senior management worldwide. Similarly, for natural peril catastrophes, we have developed a catastrophe database, along with catastrophe coding in certain systems that allows for the gathering, blending and reporting of loss information as it develops from early modeled results to fully adjusted and paid losses.

### **Credit Risk**

Credit risk represents the risk of incurring financial loss due to the diminished creditworthiness (eroding credit rating and, ultimately, default) of our third party counterparties. We distinguish between various forms of credit exposure; the risk of issuer default from instruments in which we invest or trade, such as corporate bonds; counterparty exposure in a direct contractual relationship, such as reinsurance and retrocession; the credit risk related to our receivables, including those from brokers and other intermediaries; and the risk we assume through our (re)insurance contracts, such as our credit and political risk line of business.

#### **Credit Risk Aggregation**

We monitor and manage the aggregation of credit risk on a Group-wide basis allowing us to consider exposure management strategies for individual companies, countries, regions, sectors and any other relevant inter-dependencies. Our credit exposures are aggregated based on the origin of risk. As part of our credit aggregation framework, we assign aggregate credit limits by country and for any individual counterparty. These limits are based and adjusted on a variety of factors including the prevailing economic environment and the nature of the underlying credit exposures.

Our credit aggregation measurement and reporting process is facilitated by our credit risk exposure database, which contains relevant information on counterparty details and credit risk exposures. The database is accessible by management throughout the Group, thus providing transparency to allow for the implementation of active exposure management strategies. We also license third party tools to provide credit risk assessments. We monitor all our credit aggregations and, where appropriate, adjust our internal risk limits and/or have taken specific actions to reduce our risk exposures.

#### **Credit Risk relating to Investing Activities**

With our fixed maturity investment portfolio, we are exposed to potential losses arising from the diminished creditworthiness of issuers of bonds as well as third party counterparties such as custodians. We limit such credit risk through diversification, issuer exposure limitation graded by ratings and, with respect to custodians, through contractual and other legal remedies. Excluding U.S. Treasury and Agency securities, we limit our concentration of credit risk to any single corporate issuer to 2% or less of our investment grade fixed maturities portfolio for securities rated A- or above and 1% or less of our investment grade fixed maturities portfolio for securities rated below A-.

We also have credit risk relating to our cash and cash equivalents. In order to mitigate concentration and operational risks related to cash and cash equivalents, we limit the maximum amount of cash that can be deposited with a single counterparty and additionally limit acceptable counterparties based on current rating, outlook and other relevant factors.

#### **Credit Risk relating to Reinsurance Recoverable Assets**

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Within our reinsurance purchasing activities, we are exposed to the credit risk of a reinsurer failing to meet its obligations under our reinsurance contracts. To help mitigate this, all of our reinsurance purchasing is subject to financial security requirements specified by our RSC. The RSC maintains a list of approved reinsurers, performs credit risk assessments for potential new reinsurers, regularly monitors approved reinsurers with consideration for events which may have a material impact on their creditworthiness, recommends counterparty limits for different types of ceded business and monitors concentrations of credit risk. This assessment considers a wide range of individual attributes, including a review of the counterparty's financial strength, industry position and other qualitative factors. Generally, the RSC requires reinsurers who do not meet specified requirements to provide collateral.

We monitor counterparty credit quality and exposures, with special monitoring of those cases that merit close attention.

#### Credit Risk relating to Receivables

Our largest credit risk exposure to receivables is from brokers and other intermediaries; the risk arises where they collect premiums from customers to be paid to us or we pay claims to them for onward settlement. We have policies and standards in place to manage and monitor credit risk from intermediaries with a focus on day-to-day monitoring of the largest positions.

#### Credit Risk relating to Underwriting Portfolio

In our insurance segment, we provide credit insurance primarily for lenders (financial institutions) seeking to mitigate the risk of non-payment from their borrowers. This product has complemented our more traditional political risk insurance business. For the credit insurance contracts, it is necessary for the buyer of the insurance, most often a bank, to hold an insured asset, most often an underlying loan, in order to claim compensation under the insurance contract. The vast majority of the credit insurance provided is for single-name illiquid risks, primarily in the form of senior secured bank loans that can be individually analyzed and underwritten. As part of this underwriting process, an evaluation of credit-worthiness and reputation of the obligor is critical and forms the cornerstone of the underwriting process. We generally require that our clients retain a share of each transaction that we insure. A key element to our underwriting analysis is the assessment of recovery in the event of default and, accordingly, the strength of the collateral and the enforceability of rights to the collateral are paramount.

We avoid insurance for structured finance products defined by pools of risks and insurance for synthetic products that would expose us to mark-to-market losses. We also seek to avoid terms in our credit insurance contracts which introduce liquidity risk, most notably, in the form of a collateralization requirement upon a ratings downgrade. We also provide protection against sovereign default or sovereign actions that result in impairment of cross-border investments for banks and corporations. Our contracts generally include conditions precedent to our liability relating to the enforceability of the insured transaction and restricting amendments to the transaction documentation, obligations on the insured to prevent and minimize losses, subrogation rights (including rights to have the insured asset transferred to us) and waiting periods. Under most of our policies, a loss payment is made in the event the debtor failed to pay our client when payment is due subject to a waiting period of up to 180 days.

#### **Market Risk**

Market risk is the risk that our financial instruments may be negatively impacted by movements in financial market prices or rates such as equity prices, interest rates, credit spreads and foreign exchange rates. Fluctuations in market rates primarily affect our investment portfolio. Through asset and liability management, we aim to ensure that market risks influence the economic value of our investments and that of our loss reserves and other liabilities in the same way, thus mitigating the effect of market fluctuations. For example, we reflect important features of our liabilities, such as maturity patterns and currency structures, on the assets side of the balance sheet by acquiring investments with similar characteristics.

We supplement our asset-liability management with various internal policies and limits. As part of our strategic asset allocation process, different asset strategies are simulated and stressed in order to evaluate the 'optimal' portfolio (given return objectives and risk constraints) at both the group and operating entity level. In our investment department, we centralize the management of asset classes to control aggregation of risk, and provide a consistent approach to constructing portfolios as well as the selection process of external asset managers. We have limits on the concentration of investments by single issuers and certain asset classes, and we limit the level of illiquid investments. Further, our investment guidelines do not permit the use of leverage in any of our fixed maturity portfolios.

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We stress test our investment portfolios using historical and hypothetical scenarios to analyze the impact of unusual market conditions and to ensure potential investment losses remain within our risk appetite. At an annual Group aggregated level, we manage the total risk exposure to our investment portfolio so that the 'total return' investment loss in any one year is unlikely to exceed a defined percentage of our common equity at a defined return period.

We mitigate foreign currency risk by seeking to match our estimated (re)insurance liabilities payable in foreign currencies with assets, including cash and investments that are also denominated in such currencies. Where necessary, we use derivative financial instruments for economic hedging purposes. For example, in certain circumstances, we use forward contracts and currency options, to economically hedge portions of our un-matched foreign currency exposures.

The Branch's exposure to foreign currency risk arises primarily from insurance contract liabilities and insurance debtors denominated in currencies other than the Branch's functional currency. A key component of the Branch's mitigation of foreign currency risk is the whole account quota share reinsurance protection provided by the Home office as it follows the settlement currencies of the underlying reinsured policies. The Branch does not use derivative financial instruments to protect it against the volatility associated with foreign currency transactions, and other financial assets and liabilities created in the ordinary course of business.

### **Operational Risk**

Operational risk represents the risk of financial loss as a result of inadequate processes, system failures, human error or external events.

Group Risk is responsible for coordinating and overseeing a group-wide framework for operational risk management. As part of this, we maintain an operational loss-event database which helps us better monitor and analyze potential operational risk, identify any trends, and, where necessary, put in place improvement actions to avoid occurrence or recurrence of operational loss events. A group-wide Operational Risk Committee is also in place with oversight responsibility over the effectiveness of operational risk management practices throughout the Group.

We manage transaction type operational risks through the application of process controls throughout our business. In testing these controls, we supplement the work of our internal audit team with regular underwriting and claim MIAs (as discussed above).

We have specific processes and systems in place to focus on high priority operational matters such as information security, managing business continuity, and third party vendor risk:

- Major failures and disasters which could cause a severe disruption to working environments, facilities and personnel, represent a significant operational risk to us. Our Business Continuity Management framework strives to protect critical business functions from these effects to enable us to carry out our core tasks in time and at the quality required. During 2019, we continued to review our Business Continuity Planning procedures through cyclical planned tests.
- We have developed a number of Information Technology ("IT") platforms, applications and security controls to support our business activities worldwide. Dedicated security standards are in place for our IT systems to ensure the proper use, availability and protection of our information assets.
- Our use of third party vendors exposes us to a number of increased operational risks, including the risk of security breaches, fraud, non-compliance with laws and regulations or internal guidelines and inadequate service. We manage material third party vendor risk, by, among other things, performing a thorough risk assessment on potential large vendors, reviewing a vendor's financial stability, ability to provide ongoing service and business continuity planning.

### **Liquidity Risk**

Liquidity risk is the risk that we may not have sufficient financial resources to meet our obligations when they fall due, or would have to incur excessive costs to do so. As a (re)insurer, our core business generates liquidity primarily through premium, investment income and the maturity/sale of investments. Our exposure to liquidity risk stems mainly from the need to cover potential extreme

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loss events and regulatory constraints that limit the flow of funds within the Group. To manage these risks, we have a range of liquidity policies and measures in place:

- We maintain cash and cash equivalents and high quality, liquid investment portfolios to meet expected outflows, as well as those that could result from a range of potential stress events. We place internal limits on the maximum percentage of cash and investments which may be in an illiquid form as well as on the minimum percentage of our asset portfolio invested in unrestricted cash and liquid investment grade fixed income securities.
- There is a cash call cause in the whole account quota share reinsurance protection provided by the Head office for settlements above certain thresholds.
- We maintain committed borrowing facilities, as well as access to diverse funding sources to cover contingencies. Funding sources include asset sales, external debt issuances and lines of credit.

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## 5. INSURANCE PROVISIONS

The Branch annually prepares general purpose financial statements (“GPFS”) in accordance with Financial Reporting Standards in Singapore. The GPFS are publicly available from the Accounting and Corporate Regulatory Authority of Singapore.

The provision for outstanding claims represents an estimate of the unpaid portion of the ultimate liability for losses and loss expenses for (re)insured events that have occurred at or before the reporting date. The balance reflects both claims that have been reported (“case reserves”) and claims that have been incurred but not yet reported (“IBNR”). These amounts are reduced for estimated amounts of salvage and subrogation recoveries.

Reserves for losses and loss expenses are reviewed on a quarterly basis. Case reserves are primarily established based on amounts reported from insured and/or their brokers. Management estimates IBNR after reviewing detailed actuarial analyses and applying informed judgment regarding qualitative factors that may not be fully captured in the actuarial estimates. A variety of actuarial methods are utilised in this process, including the Expected Loss Ratio, Bornhuetter-Ferguson and Chain Ladder methods. The Branch’s estimate is highly dependent on management’s judgment as to which method(s) are most appropriate for a particular accident year and class of business. The Branch’s historical claims data is often supplemented with industry benchmarks when applying these methodologies.

Unearned premium reserves represent the portion of premiums written which relates to the unexpired risks under contracts in force. (Re)insurance premiums are earned evenly over the period during which the Branch is exposed to the underlying risk, which is generally one to two years with the exception of multi-year contracts.

The premiums paid to reinsurers (i.e. ceded premiums written) are expensed over the coverage period. Prepaid reinsurance premiums or reinsurers’ portion of the unearned premium reserves represent the portion of premiums ceded which relate to the unexpired term of the contracts in force.

For purposes of the Branch’s solvency assessment and regulatory filings its insurance liabilities are established in accordance with the Insurance valuation and capital regulations 2004 as prescribed by the Monetary Authority of Singapore (“MAS”) and are comprised of Premium Liabilities and Claims Liabilities.

MAS’ Insurance valuation and capital regulations 2004 define:

Premium Liabilities: as the higher of -

- (i) the unearned premium reserves of the fund calculated as the aggregate of unearned premium reserves for each policy; or
- (ii) the unexpired risk reserves, calculated as the sum of:
  - (a) the value of the expected future payments arising from future events insured under policies in force as at the valuation date, including any expense expected to be incurred in administering the policies and settling relevant claims; and
  - (b) any provision for any adverse deviation from the expected experience, calculated based on the 75 per cent level of sufficiency.

Claim Liabilities: an amount not less than the sum of:

- (i) the value of the expected future payments in relation to all claims incurred prior to the valuation date (other than payments which have fallen due for payment on or before the valuation date), whether or not they have been reported to the insurer, including any expense expected to be incurred in settling those claims; and
- (ii) any provision for any adverse deviation from the expected experience, calculated based on the 75 per cent level of sufficiency.

## 6. CAPITAL ADEQUACY

The primary objective of the Branch’s capital management strategy is to ensure the Branch’s ability to continue as a going concern and to maintain compliance with Fund Solvency and Capital Adequacy Requirements as prescribed by the Singapore Insurance Act.

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The Branch monitors its capital position and its compliance with these requirements on a regular basis. The Branch has complied with the above-mentioned solvency requirements during the financial year ended December 31, 2019. The Branch's capital consists of capital contributions from its head office, investment revaluation reserves and accumulated losses. The Branch's Capital Adequacy Ratio was 415% as at December 31, 2019.

The Singapore Branch operates under AXIS Specialty Limited, a company licensed as a Class 4 insurer under the Bermuda Insurance Act 1978, amendments thereto and Related Regulations (the "Act"). The Company is required to comply with various provisions of the Act regarding solvency and liquidity. Under the Act, the Company is required to maintain minimum statutory capital and surplus equal to the greater of a minimum solvency margin ("MSM") and an Enhanced Capital Requirement ("ECR"). The MSM is the greater of \$100 million, 50% of net written premiums, 15% of the net reserve for losses and loss adjustment expenses or 25% of the ECR. The ECR is calculated based on either an internally developed risk-based capital model or a standard risk-based capital model developed by the Bermuda Monetary Authority ("BMA"). In 2016, the BMA implemented an Economic Balance Sheet ("EBS") framework, which is used as the basis to determine the ECR. Actual and required minimum statutory capital and surplus at December 31, 2019 were as follows:

Required minimum statutory capital and surplus:	US\$ 1,502,153,000
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Actual statutory capital and surplus:	US\$ 3,288,752,000
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## **7. FINANCIAL INSTRUMENTS AND INVESTMENTS**

The Branch's investments are comprised of US dollar denominated highly rated fixed income securities with a short duration. These investments are managed in accordance with the Branch's Statement of Investment Policy and Objectives as approved by the Branch's Investment Committee and the Company's Board of Directors.

The Branch limits the concentration of investments by single issuers and certain asset classes, and limits the level of illiquid investments. Further, the Branch's investment guidelines do not permit the use of leverage in its fixed maturity portfolios.

## **8. FINANCIAL PERFORMANCE**

The Branch's annual financial statements prepared in accordance with Singapore Financial Reporting Standards ("SFRS"), are filed by the Branch with, and publicly available from, the Accounting and Corporate Regulatory Authority of Singapore.