Risk management

"Our risk management strategies and processes continue to evolve with our business, and we work hard to ensure we have a strong risk culture throughout the organisation, supported by regular and robust internal training and awareness campaigns."

Hanna Kam
Group Chief Risk Officer

The Group's core business is to take risk where it is adequately rewarded to maximise returns to shareholders. The Group's success is dependent on how well we understand and manage our exposures to key risks.

Risk strategy
Our robust risk strategy positions us to capture the upside of the risks we pursue and effectively manage the downside of the risks to which we are exposed. It is based on three key principles:
- we maintain underwriting discipline;
- we seek balance and diversity through the underwriting cycle;
- we are transparent in our approach to risk, which allows us to continually improve awareness and hone our response.

Risk management framework
The Group takes an enterprise-wide approach to managing risk. The risk management framework provides a controlled system for identifying, measuring, managing, monitoring and reporting risk across the Group. It supports innovative and disciplined underwriting across many different classes of insurance by guiding our appetite and tolerance for risk.

Exposures are monitored and evaluated both within the business units and at Group level to assess the overall level of risk being taken and the mitigation approaches being used. We consider how different exposures and risk types interact, and whether these may result in correlations, concentrations or dependencies. The objective is to optimise risk-return decision-making while managing total exposure, and in doing so remain within the parameters set by the Board.

The risk management framework is underpinned by a system of internal control, which provides a proportionate and consistent system for designing, implementing, operating and assessing how we manage our key risks. This framework is regularly reviewed and enhanced to reflect evolving practice on risk management and governance. During 2022, we continued to further embed and strengthen our system of internal control.

Risk appetite
The risk appetite sets out the nature and degree of risk the Group is prepared to take to meet its strategic objectives and business plan. It forms the basis of our exposure management and is monitored throughout the year.

Our risk appetite is set out in risk appetite statements, which outline the level of risk we are willing to assume, both by type and at an aggregate level, and define our risk tolerances: the thresholds which would represent a 'red alert' for senior management and the Board.

Risk appetites, which are set for the Group as a whole and for each of our insurance carriers, are reviewed annually, enabling us to respond to internal and external factors such as the growth or shrinkage of an area of the business, or changes in the underwriting cycle that may have an impact on capacity and rates.

Risk management across the business
The Group coordinates risk management roles and responsibilities across three lines of defence. These are set out in the model on page 45. Risk is also overseen and managed by formal and informal committees and working groups across the first and second lines of defence. These focus on specific risks such as catastrophe, cyber, casualty,

Three lines of defence model

1st

Owns risk and controls
Responsible for ownership and management of risks on a day-to-day basis. Consists of everyone at every level in the organisation, as all have responsibility for risk management at an operational level.

2nd

Assesses, challenges and advises on risk objectively
Provides independent oversight, challenge and support to the first line of defence. Consists of the Group risk team and the compliance team.

3rd

Provides independent assurance of risk control
Provides independent assurance to the Board that risk control is being managed in line with approved policies, appetite, frameworks and processes, and helps verify that the system of internal control is effective. Consists of the internal audit function.

Risk management framework
Understanding and managing the significant exposures we face.

Hiscox Own Risk and Solvency Assessment (ORSA) framework
The Group's ORSA process is an evolution of its long-standing risk management and capital assessment processes.

sustainability, reserving, investments and credit, as well as emerging risks. The Group Risk and Capital Committee and the Group Underwriting Review Committee are sub-committees of the Risk Committee and make wider decisions on risk. More information on these Committees can be found on pages 63 to 65.

The Own Risk and Solvency Assessment (ORSA) process
The Group's ORSA process involves a self-assessment of the risk mitigation and capital resources needed to achieve the strategic objectives of the Group and relevant insurance carriers on a current and forward-looking basis, while remaining solvent, given their risk profiles. The annual process includes multi-disciplinary teams from across the business, such as capital, finance and business planning.

The role of the Board in risk management and key developments during 2022
The Board is at the heart of risk governance and is responsible for setting the Group's risk strategy and appetite, and for overseeing risk management (including the risk management framework). The Risk Committee of the Board advises on how best to manage the Group's risk profile by reviewing the effectiveness of risk management activities and monitoring the Group's risk exposures, to inform Board decisions.

The Risk Committee relies on frequent updates from within the business and from independent risk experts. At each of its meetings during the year, the Risk Committee reviews and discusses a risk dashboard and a critical risk tracker which monitors the most significant exposures to the business, including emerging risks and risks that have emerged but continue to evolve. The Risk Committee also engages in focused reviews on our key risks and monitors emerging risks throughout the year. In 2022, additional risks considered include associated risks with Cloud provider concentration, reversal of globalisation trends impacting the complexity and cost of regulatory compliance, and potential disruptions arising from infectious diseases outbreaks. An overview of the processes for identifying emerging risks through the Grey Swan Group is described on page 65. Stress tests and reverse stress tests (scenarios such as those shown on pages 46 to 47, which could potentially give rise to business failure as a result of either a lack of viability or capital depletion) are also performed and reported on to the Risk Committee.

The Risk Committee also provided input into a number of important risk management developments during 2022:
- a risk management maturity framework was introduced during the year to help set the organisation's maturity goals against six key dimensions of risk management, as well as monitor ongoing progress made against these goals. The maturity model has been introduced at both Group and business unit level;
- maintaining a strong risk culture across the organisation is recognised as a key component of effective risk management at

Hiscox. During the year, the Group risk team developed processes to more systematically assess risk culture across the Group considering aspects such as tone from the top, risk transparency, the organisation's use of lessons learned and its ability to identify and respond to uncertainty. As part of this work, an 18-month plan has also been developed to further enhance the organisation's risk culture which will continue to be monitored through the processes developed during the year. These processes now include a risk culture survey for all staff to be completed as part of annual risk management training which has been rolled out;

- there has been a strong focus during the year on performing targeted risk reviews at both Group and legal entity level (including those driven by regulatory developments). Particular emphasis has been placed on performing reviews to assess the risks for the organisation associated with inflation given the current macroeconomic conditions being observed.

The Risk Committee also supports the Board in its review of the effectiveness of the Group's risk management and internal control systems as part of its annual declaration of compliance with the Bermuda Monetary Authority's Group Supervision Rules and via the annual Group-wide risk and control self-assessment and associated second-line review.

The Board, through the Risk Committee, has conducted a robust assessment of the emerging and key risks facing the Company, including those that would threaten its business model, future performance, solvency or liquidity, and is satisfied that no material changes to the key risks are required.

The role of the Group risk team

The Group risk team is responsible for designing and overseeing the implementation and continual improvement of the risk management framework. The team is led by the Group Chief Risk Officer who reports to the Group Chief Executive Officer and the Risk Committee of the Board.

The team works with the first-line business units to understand how they manage risks and whether they need to make changes in their approach. It is also responsible for monitoring how the business goes about meeting regulatory expectations around enterprise risk management.

2022 has seen a continued focus on improving the efficiency of the risk management framework, mainly through the streamlining and automation of repeatable cycles. This creates further capacity for risk reviews and deep-dives and for more support to be available to change programmes across the Group, as well as ensuring appropriate support and challenge is provided to the first line of defence in assessing, understanding and responding to risks associated with the current geopolitical and economic environment.

Casualty extreme loss scenarios

As our casualty businesses continue to grow, we develop extreme loss scenarios to better understand and manage the associated risks. Losses in the region of $75-$825 million could be suffered in the following extreme scenarios:

Event		Estimated loss
Multi-year loss ratio deterioration	5% deterioration on three years' casualty premiums	$235m
Economic collapse	An event more extreme than witnessed since World War II*	$375m
Casualty reserve deterioration	Estimated 1:200 view of a casualty reserve deterioration on current reserves of c.$2bn	$825m
Pandemic	Global pandemic considering broader and alternative impacts than Covid-19	$100m
Cyber	A 1:200 cyber event, such as a major Cloud outage or mass ransomware attack. Includes 'silent cyber' exposures**	$350m
Marine scenarios	Range of events covering collision and sinking of vessels and any resultant pollution	up to $75m
Offshore platform	Total loss to a major offshore platform complex	up to $100m
Terrorism	Aircraft strike terror attack in a major city	up to $350m
Property catastrophe†	1-in-200 year catastrophe event from $280bn US windstorm	$500m

*Losses spread over multiple years.
**'Silent cyber' refers to losses incurred from non-cyber product lines from a cyber event.
†As a point of comparison.

More information on our approach to risk management can be found at hiscoxgroup.com/about-hiscox/risk-management.

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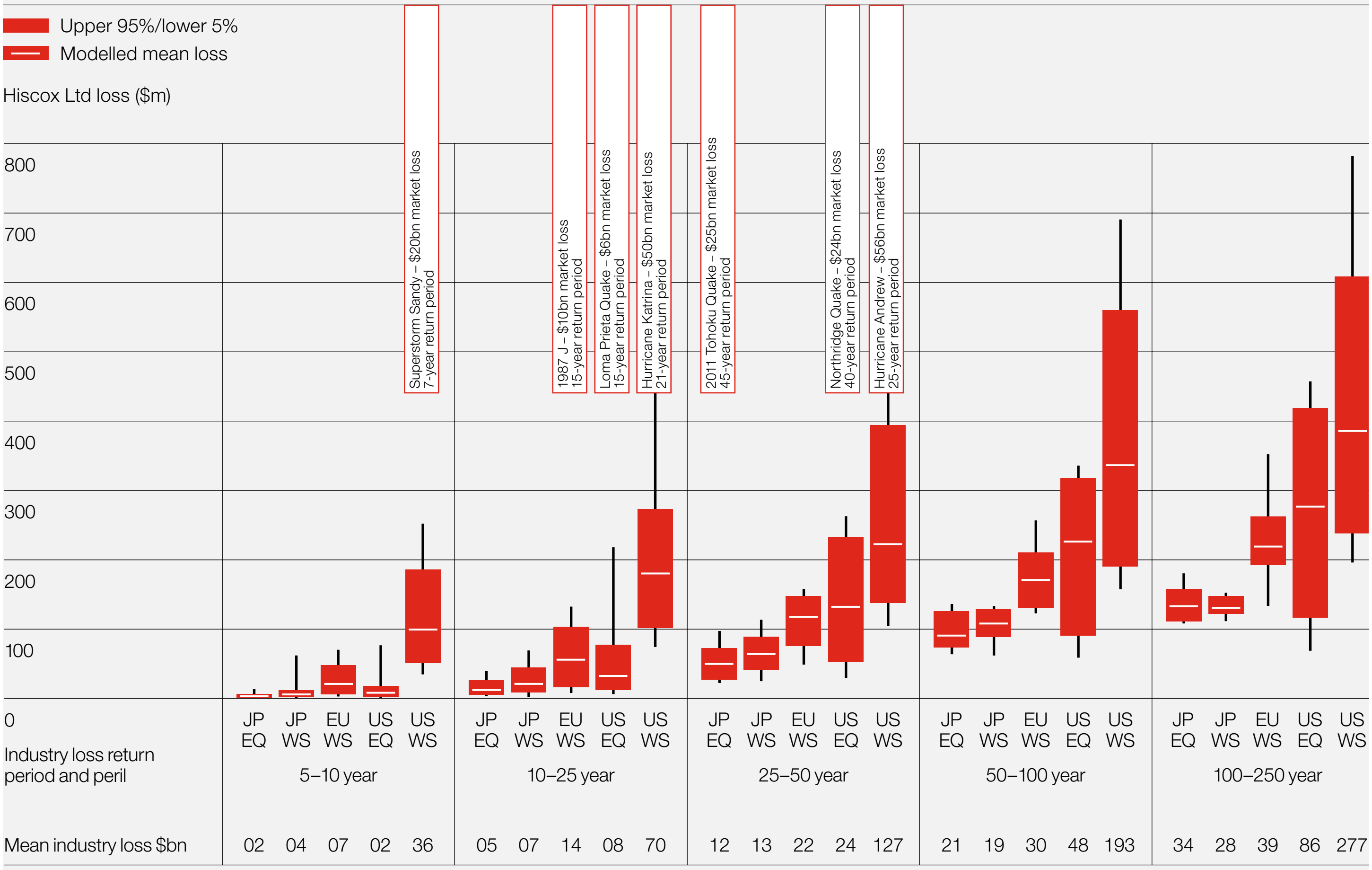
Read more about our key risks.

Property extreme loss scenarios

Boxplot and whisker diagram of modelled Hiscox Ltd net loss ($m) January 2023.

Stress tests and reverse stress tests are regularly performed and reported on to the Risk Committee of the Board. These include climate-related scenarios such as those shown in the chart below.



This chart shows a modelled range of net loss the Group might expect from any one catastrophe event. The white on the red bars depicts the modelled mean loss.

The return period is the frequency at which an industry insured loss of a certain amount or greater is likely to occur. For example, an event with a return period of 20 years would be expected to occur on average five times in 100 years.

JP EQ – Japanese earthquake, JP WS – Japanese windstorm, EU WS – European windstorm, US EQ – United States earthquake, US WS – United States windstorm.