



**Toa 21<sup>st</sup> Century Reinsurance Company Ltd**

# Public Disclosure

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Financial Condition Report for the period  
01 January 2022 to 31 December 2022

4/25/2023

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# 1. Introduction

## 1.1 Objective

According to FINMA's Circular 2016/02 on Public Disclosures, all insurance companies as defined in Article 2 para. 1 lets. a and b of the Insurance Supervision Act (ISA; SR 961.01) and all insurance groups and conglomerates as defined in Article 2 para. 1 let. d and Articles 65 and 73 ISA are obliged to publish a Public Disclosure Report.

The Toa 21st Century Reinsurance Company Ltd. ("TTFC" or "the Company"), being a C1 licensed reinsurance company, must adhere to this circular.

The financial condition report (FCR) is formulated in such a way as to be comprehensible to the policyholders and the entitled beneficiaries. The FCR is based on the audited annual report as specified in the Accounting Standards Ordinance (RSO; SR 221.432).

The Company must ensure that the published information is consistent with the information prepared for reporting to FINMA in accordance with Article 25 ISA and Article 53 ISO.

## 1.2 Scope

The following directives, laws, regulations and/or internal manuals and reports have been used as the basis for this FCR:

- The Swiss Insurance Supervision Act of 17 December 2004 (status 1 January 2023) (ISA)
- The Swiss Insurance Supervision Ordinance of 9 November 2005 (status 23 January 2023) (ISO)
- The Swiss Insurance Supervision Ordinance of 9 November 2005 (status 15 December 2015) (ISO-FINMA)
- The Swiss Code of Obligations of 30 March 1911 (status 1 January 2021) (SCO)
- The Finma Circular 2016/02 "Disclosure – insurers"
- The Annual Risk Assessment
- The Annual SST Report as at 01 January 2023
- The Annual Audited Financial Report as at 31 December 2022
- The Risk Policy
- The Internal Control System

## 2. Report submitted to FINMA approved by the Company

Zürich, Switzerland on 25 April 2023:

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Alexandre Puydebois  
CRO

Michal Suchan  
CFO

## 3. Management summary

### 3.1 Strategy and 2022 results

The Toa 21st Century Reinsurance Company Limited, domiciled in Zürich, Switzerland, is a wholly owned reinsurance subsidiary of Toa Reinsurance Company Ltd. (hereafter referred as Toa Re). Toa Re is a professional Japanese reinsurance company, established in 1940, and writes a diverse range of life and non-life reinsurance risks.

TTFC was set up on 23rd January 2002 and historically provided reinsurance for its parent Toa Re including overseas branches and subsidiaries. In 2018, Toa Re decided to activate TTFC to underwrite third-party business (TPB) as well, with an initial focus on non-life business. As of 2021, TTFC also underwrites life business. For more details on TTFC's strategy, please refer to Section 4.1.

After deduction of the direct corporate taxes of CHF 585'238, the Company's annual result is a loss of CHF 16'110'176, compared to a loss of CHF 41'338'453 in 2021. The resulting losses for financial year 2022 were due to a negative investment result and unrealized foreign exchange losses related to the increase in interest rates and strengthening of the Swiss franc, respectively. The underwriting result was positive despite the severe hailstorm and draught events in France and the winter storm Eunice that affected the business. The losses for the financial year 2021 were driven by extreme natural catastrophe events in Europe.

### 3.2 Governance and risk management

The Board of Directors is the ultimate governing body of TTFC; however, the Company's Management Board is responsible for the day-to-day administration. The duties of the Management Board are:

- Administration
- Investments
- Finance and Accounting
- Underwriting and Claims Management

The Board of Directors attends to all matters which are not reserved for the Annual General Meeting or the Management Board of TTFC by law, the Articles of Association, or the Board Regulations of TTFC. The Board consists of five members, two of which are independent.

TTFC's Risk Management System includes the definition of the risk management strategy, risk appetite framework and various risk management procedures. Key procedures are the Swiss Solvency Test ("SST"), the annual Risk Assessment and the Own Risk and Solvency Assessment ("ORSA").

TTFC's Risk profile contains the following key risks:

- Insurance risk (underwriting risk and reserving risk)
- Market risk
- Credit risk
- Operational risk
- Compliance risk
- Strategic risk

- Liquidity and concentration risk
- IT and cyber risk

The Company assesses the risks on an annual basis or more frequently when appropriate.

### **3.3 Solvency and capital**

There was neither a dividend paid in 2022 with regards to financial year 2021 nor in 2023 with regards to financial year 2022. No capital action is anticipated for 2023.

The Company's SST ratio as at 1 January 2023 equals 320%.

## **4. Business operations**

### **4.1 Strategy and objectives**

At the core of the Company's strategy there are the following objectives:

- To optimise value to the group and clients by writing life and non-life TPB in Europe, Middle East and Africa region (EMEA) and selected speciality business with worldwide focus. The business unit providing reinsurance to third-party is labelled and marketed as Toa Re Europe (TRE).
- To act as group risk carrier for peak risk and for regulatory and solvency reasons, i.e. write Internal Group Reinsurance (IGR) business, front business for Toa Re Japan or provide structured life reinsurance solutions to group clients.

### **4.2 Key business segments**

TTFC was set up in 2002 with the intention to provide reinsurance for Toa Re including its overseas branches and subsidiaries. In 2018, TRE begun to underwrite non-life TPB and in 2021 it started to also write life TPB.

The underwriting risk was historically driven by exposure to Japanese natural catastrophe events. Since 2018, the main exposure has progressively changed to European natural catastrophe events.

### **4.3 Shareholder**

TTFC is fully owned by Toa Re, Tokyo, Japan. The address of Toa Re is as follows:

The Toa Reinsurance Co. LTD.  
6-5, Kanda-Surugadai 3-chome,  
Chiyoda-ku, Tokyo 101-8703, Japan

### **4.4 Key transactions with group and subsidiaries**

The Company became the reinsurance company of Toa Re in 2002. The Swiss Financial Market Supervisory Authority (FINMA) (formerly "The Federal Office of Private Insurance") approved the business plan and gave TTFC the license to write reinsurance in all lines of business. As of 2002, the Company started to actively write IGR business.

In 2018 TTFC transitioned the management of the company to the newly appointed Management Board and insourced key processes which had previously been outsourced externally with active support from Toa Re. TTFC has maintained the underwriting of IGR business.

### **4.5 External auditors**

The Company's appointed external auditors are Ernst & Young (EY) in Zürich.

The scope of the audit is the Financial Statement of the current financial year according to the Swiss Code of Obligations and the Swiss Insurance Act/Swiss Insurance Ordinance



requirements. Additionally, there could be other subjects to be audited if mandated by FINMA (regulatory supervisory audit), where EY would perform the audit on behalf of FINMA.

#### **4.6 Extraordinary events**

There have not been any extraordinary events affecting the operational business of TTFC.

## 5. Business performance / corporate results

### 5.1 Underwriting result

For the financial year 2022, the net underwriting result is made up of the following:

*In CHF*

<b>YTD</b>	<b>31.12.2022</b>	<b>31.12.2021</b>
Net earned premiums	201'556'615	175'293'395
Net paid losses	-97'139'506	-68'842'577
Net outstanding loss reserves movement	-52'403'802	-110'185'479
Equalisation reserves movement	0	0
Underwriting acquisition and other expenses	-48'483'726	-37'610'997
<b>Net Underwriting Result</b>	<b>3'529'581</b>	<b>-41'345'658</b>

The growing TPB led to an increase in premium compared to the prior financial year.

The financial year 2022 resulted in a profit for TTFC, which is attributable to the TPB and mainly related to favorable developments in prior year natural catastrophe reserves. The IGR business result was a small loss.

### 5.2 Financial result

For the financial year 2022, the net financial result is made up of the following:

*In CHF*

<b>YTD</b>	<b>31.12.2022</b>	<b>31.12.2021</b>
Net investment result	-7'242'330	589'238
Income from derivative financial instruments	15'881'741	0
Other investment income	14'918'062	4'389'107
Expenses from derivative financial instruments	-10'269'223	-250'578
Expenses from derivative related to insurance business	-590'604	-313'089
Other investment expenses	-27'182'306	-3'236'202
Other financial expenses	-11'812'189	-7'523
Exchange gains and losses	-12'444'209	-609'502
Gain on acquisition	0	0
Provisions for unrealised gains	632'020	601'979
<b>Net Financial Result</b>	<b>-19'054'519</b>	<b>581'715</b>

The financial result for 2022 was a loss driven by the rise in interest rates and the appreciation of the Swiss franc, which resulted in exchange losses. The financial result for 2021 was a small gain in line investment strategy of TTFC, which is to invest assets into investment-grade fixed income instruments.

The breakdown of the net investment result by investment class is as follows:

**Investment income**

	Earnings		Unrealized gains		Realized gains	
	2022	2021	2022	2021	2022	2021
Bonds	7'349'468	2'428'304	-	-19'292	1'888'754	881'968
Forward contracts	-	-	-	-	21'261'079	-
Funds	252'215	1'093'966	-	-	-	-
fx transactions	44'928	1'007	-	-	-	-
Other interest	3'359	3'154	-	-	-	-
					2022	2021
<b>Total Investment income</b>					<b>30'799'803</b>	<b>4'389'107</b>

**Investment expenses**

	Investment related costs		Unrealized losses		Realized losses	
	2022	2021	2022	2021	2022	2021
Bonds	-4'202'583	-944'288	-986'674	-62'789	-2'353'107	-25'264
Forward contracts	-3'052	-	-	-	-16'500'970	-250'578
Funds	-5'944'222	-13'475	-6'986'935	-1'541'398	-	-
fx transactions	-32'886	-3'912	-	-	-	-
Other interest	-434'846	-645'074	-	-	-	-
Other costs	-6'254	-	-	-	-	-
Derivatives related to insurance business	-590'604	-313'089	-	-	-	-
					2022	2021
<b>Total Investment expenses</b>					<b>-38'042'133</b>	<b>-3'799'869</b>

## 6. Corporate governance and risk management

### 6.1 Composition of the Board and Management

The Board of Directors (the “Board”) is the ultimate governing body of TTFC. The Board attends to all matters, which are not reserved for the Annual General Meeting or another governing body of TTFC by law, the Articles of Association or the Board Regulations of TTFC.

The Board of Directors collectively exercises the different tasks and functions / key responsibilities that are assigned to the Board by the Laws, the Articles of Association, or the Board Regulations of TTFC. The Board Regulations of TTFC set out the constitution of the Board of Directors, the powers and the duties of the Board of Directors, the delegation of the power, the information of Board Members and reporting, the meetings of the Board of Directors.

The Board of Directors of TTFC is comprised as follows:

Name	Residence	Nationality	Position
Kazuhito Oura	Japan	Japan	President
Koji Watanabe	Japan	Japan	Member
Yoshimitsu Mizui	Japan	Japan	Member
David Ryser	Switzerland	Switzerland	Member (external/independent)
Jean-Luc Bourgault	France	France	Member (external/independent)

Subject to law, the Articles of Association and the Board Resolutions, the Board of Directors delegates to the Management Board of TTFC the power to manage the Company’s entire Business such as set in the Organisational Regulations.

The Management Board of TTFC is comprised as follows:

Name	Residence	Nationality	Position
Philippe Regazzoni	Switzerland	Swiss	CEO
Michal Suchan	Switzerland	Swiss	CFO
Christian Vogel	Switzerland	Swiss	CUO
Alexandre Puydebois	Switzerland	Swiss	CRO
Yasushi Yamada	Switzerland	Japanese	Head of Strategy and Reinsurance
Timo Krause	Switzerland	Swiss	Head of Life & Health

## 6.2 Description of the risk management system

The Risk Management System of the Company includes the definition of the risk management strategy, risk appetite framework and various risk management procedures.

### 6.2.1 Risk management

The overriding goal of TTFC's risk management strategy is to control and to achieve as much as possible a reduction in the Company's risk exposure as a means of minimizing the impact of undesired and/or unexpected events. This aims to increase the likelihood of achieving TTFC's strategic and business objectives.

Consequently, the risk management objectives of TTFC are to:

- set out the level of risk acceptable by TTFC (risk appetite and risk tolerance);
- identify all kind of risks which represent a threat to the achievement of its strategic objectives;
- identify, define and regularly measure key risk indicators enabling an efficient monitoring of risks;
- define and take appropriate actions to reduce TTFC's risk exposure;
- ensure the risk management framework implementation in day-to-day business processes; and
- regularly review controls and mitigation actions to ensure that they remain relevant and effective.

The key risk categories for which TTFC has set up specific controls and monitoring mechanisms are:

- Insurance risk (underwriting risk and reserving risk)
- Market risk
- Credit risk
- Operational risk
- Compliance risk
- Strategic risk
- Liquidity and concentration risk
- IT and cyber risk

The Risk Appetite and Risk Tolerance set out the target and deviation number of risks that TTFC is prepared to accept to achieve its strategic objectives.

On a global basis and for the main risk categories as shown above, the level of risk acceptable by TTFC has been defined using the methodology detailed hereunder.

Steps		Process
<b>1</b>	<b>Risk Appetite</b>	Clear and pragmatic indication of the maximum global level of risk TTFC is willing to accept in the pursuit of its strategic objectives. It is expressed by a ratio, a maximum loss amount or any other relevant element.
<b>2</b>	<b>Appetite per risk category</b>	Clear and pragmatic expression of the Risk Appetite TTFC is willing to accept for each risk category. The individual set of appetites is in line with the Risk Appetite as defined in Step 1.
<b>3</b>	<b>Metrics</b>	List of metrics that will be used to monitor each Risk Appetite as defined under Step 2.
<b>4</b>	<b>Limits</b>	The defined and precise limits, checkpoints and/or early warning indicators applied on each metric enabling to run the day-to-day business operations by staying under the defined appetite(s) for each risk category.
<b>5</b>	<b>Tolerance per limit</b>	Definition of the maximum acceptable variation of each limit for each metric.

TTFC's Risk Management Procedures include the Swiss Solvency Test ("SST"), the annual Risk Assessment and the Own Risk and Solvency Assessment ("ORSA").

TTFC applies and maintains a capital and solvency model in compliance with regulatory requirements as per the SST specifications. It captures and quantifies a range of key risks TTFC is exposed to, including insurance, market, and credit risks. It provides a probabilistic measure of the overall solvency position of TTFC. It enables to assess the capital adequacy of TTFC.

Accordingly, business decisions impacting TTFC's risk and solvency profile (underwriting, asset management, dividend, and capital measures) are tested in advance against the impact on the capital and solvency model in accordance with the respective guidelines.

In addition, risk identification and assessment are performed during the annual Risk Assessment. This results in an annual update of a Risk Register, which also details those risks that are not quantitatively assessed as part of the annual SST. The Risk Register also contains an estimate of financial impact and likelihood for each of the identified risks. Together with the SST, the Risk Register thus provides a comprehensive view of TTFC's exposures.

The main trigger for risk identification and assessment will always be the annual Risk Assessment. However, events such as the acquisition or disposal of a business line within TTFC would necessitate revisiting the annual Risk Assessment if considered necessary. On each risk identification and assessment exercise, the corresponding control and monitoring, as well as the mitigation measures will also need to be reviewed accordingly.

The annual Risk Assessment covers all TTFC risk categories and is a holistic approach.

The purpose of the procedures is to ensure a common understanding and to specify risk definitions and related approaches to secure the robustness of TTFC's Risk Management policy, i.e.:

- **identify** risks that may impact TTFC's strategic and business objectives.
- **assess** the risk exposure level, defined as the product between the probability of the risk occurrence and the impact of the risk for TTFC and compare it to the Risk Appetite framework.
- **manage** risks by identifying the appropriate risk response with which to develop a plan to mitigate, transfer or resolve with actions assigned to owners.
- **implement** the actions defined in the response to the risk.
- **monitor** and update on progress of actions undertaken to mitigate the impact of risks and escalate through reporting.

The Own Risk and Solvency Assessment ("ORSA") policy is included within the Risk Policy. It formalizes and builds on the existing practices of periodically updating the Risk Register pursuant to the annual Risk Assessment approach and adhering with the existing FINMA requirements.

The ORSA policy contains procedures and methodologies which enable TTFC to adhere to the ORSA process as required under Art. 96a of the Swiss Insurance Supervision Ordinance (ISO) and Circular 2015/3 (ORSA) and updates thereof. The main purpose of the ORSA is to assess all the risks inherent to its business. The ORSA is a forward-looking assessment of solvency and capital adequacy that brings together the strategic objectives, Risk Appetite, and Risk Register, for the three years forward-looking horizon under consideration.

### 6.2.2 Risk management function

At TTFC, risk management is combined with compliance in a Risk Management and Compliance function. Risk management defines and documents the risk appetite framework and the policies and principles of risk management. It coordinates and leads the annual risk assessment and ORSA. The findings and report(s) are communicated at the management and board meetings. The Risk Management Function ensures that the Internal Control System is maintained and documented in an up-to-date manner and monitors execution of key controls. Risk management is also represented at regular management meetings.

Since 2021, the Risk Management and Compliance function is headed by the Chief Risk Officer, who is part of the Management Board. The operational risk management activities are supported by an external risk and compliance manager.

### 6.2.3 Internal audit function

Internal audit ensures that processes are in place (risk management, governance and controls) and that the activities of TTFC are aligned with the policies. As per the decision of the TTFC Board of Directors in 2017 the internal audit function remains outsourced to Mazars AG, Zürich.

Mazars AG is appointed to undertake annually specific internal audit projects, which are chosen by the Board of TTFC after proposal by the Management of TTFC. Like any other subsidiary of the Toa Re Group, TTFC may from time to time be inspected by the parent company, Toa Re.

## 6.2.4 Compliance function

At TTFC, the compliance function is integrated in a Risk Management and Compliance function. The compliance function monitors and ensures compliance of the activities of TTFC with laws and regulations. It performs an annual compliance review of all the governance and risks related policies and principles to ensure corporate compliance with all applicable regulations; it checks the adequacy of compliance business measures; it ensures the reliability of the transmitted information, and it ensures a regulatory monitoring process. The findings of the review are communicated in an annual Risk Management & Compliance Report to the Board of Directors of TTFC. Compliance is also represented at the regular management meetings.

Since 2021, the Risk Management and Compliance function is headed by the Chief Risk Officer, who is part of the Management Board. The operational compliance activities are supported by an external risk and compliance manager.

## 6.3 Key changes in the risk management

There were no major changes in 2022.

## 6.4 Description of the internal controls

The Internal Control System (ICS/IKS) embedded in the Company's operations is a mix of actions and processes undertaken by all stakeholders within the Company to provide reasonable assurance that the strategic objectives will be achieved.

The objectives of the Company's Internal Control System are therefore to ensure:

- an ordered execution of ethical, economical, efficient, and effective operations.
- accountability obligations are fulfilled.
- availability and reliability of financial and non-financial information.
- compliance with applicable laws, regulations, and administrative provisions.
- resources are protected against losses, misuses, and damages.

To achieve the objectives, the Internal Control framework of the Company is structured around five complementary components.

Component	Contents
1) <b>Control environment</b>	A strong "risk and control" culture is embedded within the Company's operations through the continuous oversight of the Board of Directors and the communication to all internal stakeholders of all governance and risk principles through the present policies.
2) <b>Risk assessment</b>	Procedures and policies are detailed and formalized to disclose the way of identifying, managing, controlling, mitigating, and reporting issues relating to each risk category.
3) <b>Reporting channels</b>	Clear and structured reporting processes are in place enabling the Board of Directors to have access to relevant, complete,



Component	Contents
	reliable, correct, and timely communication related to internal as well as external events.
<b>4) Monitoring process</b>	The appropriate escalation of significant issues to the Board of Directors, the ongoing involvement of all internal stakeholders as well as the Internal Audit process enables the Company to continuously monitor and adapt when necessary, its Internal Control System.
<b>5) Control activities</b>	The Company developed a comprehensive set of preventive, detective or corrective control actions embedded in its daily operations.

## 7. Risk profile

TTFC's risk profile contains the following risks:

- Insurance risk (underwriting risk and reserving risk)
- Market risk
- Credit risk
- Operational risk
- Compliance risk
- Strategic risk
- Liquidity and concentration risk
- IT and cyber risk

The SST relevant risks (insurance risk and market risk) are based on a one-year time horizon. This means that any deviance from expected is quantified over the period of one year. However, to fully run off all risks to which TTFC is exposed to, it is not sufficient to solely address one-year risk. The SST provides a framework via the so-called cost of capital method to quantify the overall risk. The idea is that the cost of capital provides the necessary interest for a potential investor to lend to the company the necessary risk capital for the proper run-off. TTFC estimates this capital cost via proxy methods which are in line with FINMA requirements and deemed feasible for SST submissions. As a result, TTFC quantifies the one-year risk capital and the cost of capital necessary to ensure a proper run-off of the net assets and liabilities. In the following subsections, the different one-year risk components are explained in further detail.

The valuation assumes that the company is following its own business plan, set up as at the valuation date, during the future period(s) except that no new business is underwritten following the one-year period after the SST valuation date of 1 January 2023.

A materiality concept is applied to the valuation (as described in Section 8) and the calculation of target capital such that the aggregated impact of simplifications and omissions does not lead to a relative change in the SST ratio by more than 10% and shall not lead to exceeding or falling short of regulatory intervention thresholds.

### 7.1 Key risks

#### 7.1.1 Insurance risk

Insurance risk corresponds to the risk that TTFC's actual insurance result will deviate substantially from the expected one over the period of one year. It includes premium and reserve risk. Please refer to the Section 10 on Solvency for quantitative information.

The overall main risk driver is natural catastrophe, mainly arising from European windstorm, earthquake and flood events potentially affecting the TPB, and to a lesser extent from Japanese earthquake events potentially affecting the IGR business. The exposure reduced in 2022 due to increased retrocession, a weakening of the Euro against the Swiss franc and a higher discounting effect.

In 2022, TTFC incurred significant losses from large European natural catastrophe events, namely the hailstorms and draught events in France as well as the winter storm Eunice. In 2021, the storms Bernd, Volker and Xero affected the portfolio.

### 7.1.2 Market risk

Market risk refers to investment risk including foreign exchange rate risk.

TTFC uses the market risk standard model to calculate market risk. Please refer to the Section 10 on Solvency for quantitative information. The market risk standard model covers foreign exchange rate risk, interest rate risk, spread risk, equity risk, real estate risk, hedge fund risk, private equity risk and participations.

TTFC's investments are limited to cash, direct bond holdings, fixed income funds, forward contracts (fx hedging) and insurance-linked securities (ILS). The driver for market risk is the bond portfolio. As of year-end 2022, TTFC investments amount to CHF 518m, cash & cash equivalents to CHF 87m. Investments classes, ratings in the investment portfolio follow the investment guidelines.

TTFC's market risk exposure is therefore limited to interest rates, spreads, and FX risk only. All other risks (equities, real estate, hedge funds, private equity, etc.) are nil. Compared to the previous year, market risk has slightly increased driven by the increased size of the investment portfolio.

### 7.1.3 Credit risk

TTFC uses the SST credit risk standard model to calculate credit risk. Please refer to Section 10 on Solvency for quantitative information. The credit risk model covers credit default and migration risk.

TTFC's credit risk is driven by the corporate bonds in the investment portfolio. The bond portfolio of TTFC has an average rating of A or higher. Other contributors to TTFC's credit risk are cash at bank, government bonds, retroceded technical provisions, receivables from reinsurance companies, deposits made under assumed reinsurance contracts and debtors.

TTFC's credit risk has slightly increased since last year. The main reason is the increased size of the investment portfolio.

### 7.1.4 Operational risk

Operational risk refers to the risk of loss arising from inadequate or failed processes and/or systems, from employees and/or from external events. TTFC's processes and resulting operational risks are monitored, assessed, controlled, and documented in TTFC's internal Control System and the Risk Registry.

Risk management practices are detailed in the Company's business plan and Internal Control System. There is no risk capital charge for operational risk within the SST model.

According to the Annual Risk Assessment 2022, fraud on financial transactions or a material error leading to financial impact has the largest inherent exposure for TTFC. However, strong mitigation measures are in place and no such incidents have been detected.

TTFC's operations have not been disrupted by the Covid-19 pandemic.

#### 7.1.5 Compliance risk

Compliance risk refers to the risk of Risk of civil, criminal, or regulatory sanctions resulting in a financial loss, loss of ability to conduct business, or loss of reputation, due to a failure to comply with laws, regulations, rules, organization standards, or the TTFC 'Code of Conduct'.

This risk category was added in 2022 to the existing risk register. Due to strong controls in place, the risk was assessed as low.

#### 7.1.6 Strategic risk

Strategic risk refers to the risk of the current and prospective impact on earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes. In the Annual Risk Assessment 2022, strategic risk has been upgraded from a low risk to a medium risk due to negative results following large losses in European Markets, adverse performance of invested assets and missed return on equity targets since 2019.

#### 7.1.7 Liquidity and concentration risk

According to the Annual Risk Assessment 2022, the current liquidity risk is assessed as low, unchanged from the year earlier, due to a very liquid bond portfolio held by TTFC.

#### 7.1.8 IT and cyber risk

Risks relating to information technology infrastructure and activities. The risks can be of the nature of data destruction, cyber extortion, theft of data, hacking and denial of service attacks; data can be accidentally lost or corrupted; hackers may demand a ransom payment to restore hacked data.

This risk category was added in 2020 to the existing risk register, as increasing cyber risk incidents represent a global trend. IT infrastructure, operation and maintenance are outsourced and a service-level-agreement (SLA) in place contains agreed security and control measures. No IT-Cyber incidents (IT security breaches or cyber-attacks) have been reported in 2022.

### 7.2 Concentration of risks

Accumulation risk arises mainly due to TTFC's high exposure to natural catastrophe losses in Europe and Japan, and to a lesser extent due to single large losses which impact multiple property treaties (following, for example, a large fire or explosion). TTFC however further improved its risk diversification with the growth of the TPB.

There is some accumulation risk present due to pandemic risk. While improved policy wordings largely exclude future losses in property treaties, TTFC has some exposure to pandemic risk arising from its life and investment portfolio. These exposures are however small.

Finally, there is some concentration risk within TTFC's underwriting portfolio due to the strong business development in the segments UK Motor and Engineering and within TTFC's asset portfolio due to spread risk from corporate bonds.

### 7.3 Summary of risk mitigating processes

Risks are actively mitigated through

- Diversification of exposures (both in respect of risks arising from the underwriting as well as the investment side)
- Adequate reinsurance structures:
  - The underwriting risk is capped by applying per claim limits as well as annual aggregate limits for the majority of assumed reinsurance contracts
  - In case of losses subject to the excess of loss reinsurance contracts, TTFC can receive additional premiums, so-called reinstatement premiums
- Adequate reinsurance policy wordings
- Retrocession covers not limited to, but including natural catastrophe risk
- Mitigation of FX and interest rate risk through asset-liability management

As the Company's risks are well diversified and the Internal Control System is robust the Company adheres to the following mitigating processes:

- Regular monitoring of major risks and tracking of action plan implementation,
- Regular, at least annual update of risk assessment.

To support the above-mentioned process, TTFC has in place an IT-platform digitizing Governance, Risk and Compliance procedures (Tool: "Swiss GRC"). Firstly, the tool acts as a central repository, where all the Risk Management policies are stored, and the underlying processes and controls are recorded. But more importantly the system links key processes to the identified risks and corresponding mitigating controls and assessment date. The underlying automated workflow ensures that risk (and control) owners receive an email asking them to perform the assessment online latest before the defined due date.

## 8. Valuation principles and methods

In accordance with SST principles, assets and liabilities are valued using market consistent values. Market consistent values are estimated by so called mark to market or mark to model approaches. As a rule, if an asset or a liability has an observable market price, mark to market is used; else mark to model is used.

Market-consistent valuation of assets using valuation models is designed in such a way that independent, knowledgeable and willing business partners would normally purchase or sell the assets at that price in an arm's length transaction. The market-consistent valuation of liabilities is based on the insurance company's financial expenditures to meet those liabilities.

Mark to market model is used when an asset or liability has a reliable market value such than an arm's length transactions between independent and knowledgeable business partners could take place or a sufficient number of securities dealers or brokers, as business partners, offer prices for a business transaction involving significant volumes. For mark to model, TTFC follows the principle of replication. This means that if a cash flow can be replicated with cash flows that have observable market prices, then the cash flow values are assumed equal.

Using replication as a basis, TTFC de-couples cash flows with non-observable prices into two components:

- Cash flows which are replicated and
- Cash flows which are not replicated (e.g. the residual between the original cash flow and the replicated one).

For cash flows which are replicated, the mark to model cash flows behaves exactly the same as the one with a price. This means that there is no inherent risk in the cash flow that its price is incorrect as both cash flows move in sync and are interchangeable. For the remaining part, this risk of cash flows not moving in sync is taken into consideration. The cash flow is modelled as a sum of its expected cash flow plus a risk margin which corresponds to a measure risk how much the actual cash flow can deviate from its expected counterpart.

The value of the expected cash flow is determined by two main valuation principles:

- Book value; and
- Discounted cash flow value.

### 8.1 Remarks regarding assets

Book values are used for cash at bank balances and small asset / liability classes which where the difference between market value and book value in comparison to the total risk bearing capital is insignificant. Note that TTFC takes into consideration the aggregate of all assets and liabilities valued at book value to ensure that the overall impact remains insignificant to the total.

The main valuation principle for the expected cash flow is the discounted cash flow value principle. Cash flows are estimated on an undiscounted basis and discounted using a feasible discount curve. In general, the discount curve equals to the risk-free discount curve from the SST as at valuation date.

The following table summarizes booked and market values of all assets as at the latest SST in mCHF:

Assets	Statutory BS		SST BS	
	2023	2022	2023	2022
<b>1.1 Investments</b>	517.5	470.5	493.3	473.4
<b>1.1.3 Fixed-income securities</b>	398.9	308.3	374.7	311.2
Government and central banks bonds	141.1	54.5	134.3	54.6
of which Swiss cantons and municipalities	11.8	9.0	-	-
of which other public-sector entities	1.4	1.0	-	-
Corporate bonds	249.8	230.3	233.1	232.6
of which banks and securities dealers	129.2	121.3	-	-
Mortgage bonds / Covered bonds	8.0	23.6	7.3	23.9
<b>1.1.7 Other investments</b>	118.6	162.2	118.6	162.2
Collective investment schemes	110.0	153.7	110.0	153.7
Investment funds: fixed income securities	75.2	-	75.2	-
Investment funds: money market	34.8	153.7	34.8	153.7
Structured products	8.6	8.5	8.6	8.5
Insurance linked securities (e.g. cat bonds)	8.6	8.5	8.6	8.5
<b>1.3 Receivables from derivative financial instruments</b>	0.7	-	0.7	-
Currency-risk-related instruments	0.7	-	0.7	-
<b>1.4 Deposits made under assumed reinsurance contracts</b>	9.1	12.3	9.1	12.3
<b>1.5 Cash and cash equivalents</b>	86.9	115.1	86.9	115.1
Bank credit balance	86.9	115.1	86.9	115.1
<b>1.6 Share of technical provisions from reinsurance</b>	45.6	57.2	42.2	57.3
Reinsurance: non-life insurance business	45.6	57.2	42.2	57.3
<b>1.7 Fixed assets</b>	0.2	0.2	0.2	0.2
Other fixed assets	0.2	0.2	0.2	0.2
<b>1.8 Deferred acquisition costs</b>	41.0	26.5	-	-
<b>1.10 Receivables from insurance business</b>	144.5	106.2	144.5	106.2
Receivables from insurance and reinsurance companies	144.5	106.2	144.5	106.2
Receivables from reinsurance companies: ceded	10.5	10.9	10.5	10.9
Receivables from reinsurance companies: assumed	134.0	95.3	134.0	95.3
<b>1.11 Other receivables</b>	1.5	2.3	0.8	0.9
<b>1.14 Accrued assets</b>	5.7	4.4	3.0	3.0
Pre-paid insurance benefits	3.0	3.0	3.0	3.0
Accrued interest and rent	2.8	1.4	-	-
<b>1.15 Total Assets</b>	852.9	794.8	780.7	768.4

## 8.2 Remarks regarding liabilities

In general, liabilities are valued using the discounted cash flow valuation principle. Best estimate cash flows are discounted using current information and generally accepted actuarial methods / models in line with the Company's Reserving Policy and the FINMA circulars 2017/3 (SST) and 2011/3 (technical reserves in reinsurance).

Model choices are subject to limitations and assumptions.

Based on the (actuarial) model chosen, estimation techniques are as well subject to further specific assumptions, judgment and limitations. All cash flows are modelled on an undiscounted basis gross and ceded.

The valuation is then based on a sum of best estimate discounted cash flows.

The following table summarizes booked and market values of liabilities as at the latest SST:

Liabilities	Statutory BS		SST BS	
	2023	2022	2023	2022
<b>2.1 Technical provisions: gross</b>	485.9	409.2	380.1	370.9
Reinsurance: non-life insurance business	485.9	409.2	380.1	370.9
<b>2.3 Non-technical provisions</b>	0.4	2.0	-	-
Other provisions	0.4	2.0	-	-
<b>2.5 Liabilities from derivative financial instruments</b>	0.9	-	0.9	-
Currency-risk-related instruments	0.9	-	0.9	-
<b>2.7 Liabilities from insurance business</b>	22.0	24.1	22.0	24.1
Other liabilities from insurance business	22.0	24.1	22.0	24.1
<b>2.8 Other liabilities</b>	0.6	0.4	0.5	0.2
Other liabilities	0.6	0.4	0.5	0.2
<b>2.9 Accrued liabilities</b>	1.3	1.2	1.2	0.8
Other accrued expenses and deferred income	1.3	1.2	1.2	0.8
<b>Total liabilities</b>	<b>511.1</b>	<b>436.9</b>	<b>404.7</b>	<b>396.0</b>

### 8.3 Summary of valuation methods

To summarize, TTFC applies the following assumptions and methodologies to derive the risk bearing capital:

A / L	Asset / Liability class	Valuation methodology
A	Investments	Mark to market
A	Deposits	Mark to model (book value)
A	Cash	Mark to model (book value)
A	Technical provisions from reinsurance	Mark to model (discounted cash flow value)
A	FX forwards	Mark to market
A	Corporate tax assets	Nil
A	Accrued interest	Nil
A	Deferred acquisition costs	Nil
A	Debtors	Mark to model (book value)
A	All other assets	Mark to model (book value)
L	Insurance liabilities	Mark to model (discounted cash flow value)
L	Equalisation reserves	Nil
L	FX forwards	Mark to market
L	Provisions for taxation	Nil
L	Unrealized forex gains	Nil
L	Deferred acquisition costs	Nil
L	Creditors	Mark to model (book value)
L	All other liabilities	Mark to model (book value)

### 8.4 Market value margin (risk margin)

The calculation of the market value margin is performed by using the standard approach in the StandRe template. Due to the short duration of the reserves, there is no need for the consideration of the non-hedgeable market risk and no adjustments were made to the calculation.

Compared to the previous year, the market value margin has increased due to the growth of the business.



## 9. Capital management

### 9.1 Capital planning

The Company's SST ratio as at 1 January 2023 was 320%.

There was neither a dividend paid in 2022 with regards to financial year 2021 nor in 2023 with regards to financial year 2022. No other capital action is anticipated for this timeframe.

Each year the capital structure of TTFC is reviewed in the ORSA process to check for adherence to the stated objectives. In the ORSA a time horizon of 3 business years is used.

### 9.2 Equity

TTFC's equity is composed primarily of share capital, reserves and retained earnings. Details are as follows.

*In CHF*

<b>YTD</b>	<b>31.12.2022</b>	<b>31.12.2021</b>
Share capital	243'000'000	243'000'000
Organisation fund	2'000'000	2'000'000
Reserves from capital contribution	150'000'000	150'000'000
Legal retained earnings	38'650'228	38'650'228
Voluntary retained earnings	-91'903'654	-75'793'478
<i>Result carried forward</i>	-75'793'478	-34'455'026
<i>Result for the period</i>	-16'110'176	-41'338'453
<b>Total shareholders' equity</b>	<b>341'746'574</b>	<b>357'856'749</b>

All the components of TTFC's equity either comprise of paid in capital or capital accumulated through profits. None of the components of equity are in the form of contingent capital.

### 9.3 Difference between accounting equity and market consistent equity

Differences between the value of accounting equity and market consistent equity arise due to differences in the valuation of assets and liabilities as outlined above.

## 10. Solvency

### 10.1 Model for Solvency calculations

In accordance with the FINMA letter dated 27 October 2022, the 2023 SST calculation is based on a Partial Internal Model, with FINMA Standard Models for all risks except natural catastrophe which is covered by an Internal Model. Specifically, the standard model for reinsurance ("StandRe") is used to model insurance risk.

The target capital can be split into the following:

- Insurance risk
- Market risk
- Credit risk
- Aggregation of insurance risk, market risk, credit risk and scenarios
- Expected financial result
- Expected insurance result
- Market value margin (risk margin)

### 10.2 Target capital

The target capital as at 1 January 2023 is decomposed as follows:

*In mCHF*

<b>Risk model</b>	<b>SST 2023</b>	<b>SST 2022</b>
<i>Underwriting risk</i>	<i>88.8</i>	<i>127.4</i>
<i>Reserve risk</i>	<i>75.4</i>	<i>77.3</i>
Insurance risk	113.3	150.1
Market risk	25.4	18.4
Credit risk	23.5	20.5
Risk margin	33.6	26.0
Diversification and other items	-55.1	-41.7
<b>SST Target Capital</b>	<b>140.6</b>	<b>173.2</b>

For the SST 2023, the total required equity capital (Target Capital) amounts to CHF 140.6m, whereas for the SST 2022 it was CHF 173.2m.

The main reasons for the change in each model component over the past year are as follows:

- **Insurance risk:** The reduction from the previous year is due to a re-underwriting of the portfolio resulting in lower natural catastrophe and large risk exposure, an increase in retrocession, and an increase in discounting benefit.
- **Market risk:** The increase in invested assets led to an increase in market risk.
- **Credit risk:** The increase in credit risk is mainly due to higher invested assets and insurance receivables.
- **Risk margin ("Market Value Margin" or "MVM"):** The MVM increase relates to the increase in long-tail reserves.
- **Other items:**

- **Expected result:** TTFC expects to produce a higher expected insurance result, which is due to the increased discounting benefit.
- **Scenarios:** TTFC models pandemic risk using the FINMA scenarios. The pandemic scenario considers the correlation between non-life underwriting risk, life underwriting risk and market risk. The impact of the pandemic scenario is small for SST 2022 and SST 2023.
- **Diversification:** The benefit of diversification increased compared to the previous year.

The insurance risk can be further broken down into the following components.

*In mCHF*

Risk model	SST 2023	SST 2022
Premium risk - attritional	29.5	54.5
Premium risk - large	34.4	81.8
Natural catastrophe risk	81.5	101.0
Diversification	-56.7	-109.9
<b>Underwriting risk</b>	<b>88.8</b>	<b>127.4</b>
Reserve risk	75.4	77.3
Diversification	-50.8	-54.6
<b>Insurance risk</b>	<b>113.3</b>	<b>150.1</b>

The main reasons for the change in each model component over the past year are as follows:

- **Premium risk - attritional risk:** The reduction compared to the previous SST is related to changes in risk composition, recalibration of volatility assumptions and higher discounting benefit.
- **Premium risk - large:** The reduction from the previous SST is related to the reduction in large risk exposures, higher discounting benefit and the modeling of flood risk in the natural catastrophe component. The latter implied removing flood from the component "Premium risk – large".
- **Natural catastrophe risk:** The decrease from the previous SST is due to an increase in retrocession, higher discounting benefits and the weakening of the Euro against the Swiss franc.
- **Reserve risk:** The reduction is related to the higher discounting benefit, which compensated the growth in reserves that resulted from the increase in TPB written over the last years.

The market risk can be further broken down into the following components.

Risk factor	Standalone Capital Requirements	
	2023	2022
Interest Rate Risk	14.7	8.6
Interest Rate CHF	6.7	9.2
Interest Rate EUR	5.2	3.2
Interest Rate GBP	5.6	0.7
Interest Rate JPY	1.3	6.7
Spread	24.5	14.1
Exchange Rate	8.2	12.7
Diversification	-22.0	-17.1
<b>Total</b>	<b>25.4</b>	<b>18.4</b>

The market risk standalone target capital has increased compared to last year by CHF 7.0m, mainly because of an increase in spread risk.

### 10.3 Risk bearing capital

The following table shows the composition of the risk bearing capital (RBC) for the SST 2023 and comparison to previous year:

Component	SST BS	
	2023	2022
Assets	780.7	768.4
Liabilities	404.7	396.0
<b>Difference</b>	<b>376.0</b>	<b>372.5</b>
Deductions	-	-
Supplementary/Additional Capital	-	-
<b>Equity/Risk Bearing Capital</b>	<b>376.0</b>	<b>372.5</b>

The RBC is CHF 376.0m as at 1 January 2023, compared to CHF 372.5m the year earlier. The increase is driven by the underwriting profit generated in the financial year 2022. The increase in interest rates did not materially affect the RBC, because a good asset-liability matching was in place.

### 10.4 Overall solvency position

Based on the methods, assumptions and limitations used for the SST 2023 of TTFC, the target capital (TC) amounts to CHF 140.6m and the RBC amounts to CHF 376.0m as at 1 January 2023. This leads to an SST ratio of 320%.

### 10.5 Confirmation

The Company confirms that the current information about solvency (risk bearing capital, target capital) is identical to the information submitted to FINMA and is still subject to a regulatory verification for the SST 2023.

## **11. Enclosures**

- Annual audited report as at 31 December 2022
- Quantitative information as per template FINMA Circular 2016/02 Appendix 1
- Abbreviations/Glossary

## Glossary

### **Aggregate Exceedance Probability (“AEP”) curve**

The AEP represents the probability of seeing total annual losses of a particular amount or greater.

See also OEP curve.

### **Attritional losses / frequency losses**

Claims with loss amounts below a certain threshold value, typically characterised by high frequencies and low severities.

### **Basis point (“bp”)**

In Finance, changes in interest rates are usually quoted in percentage points times 100 i.e. 1% is 100 bp's.

### **Best estimate (“BE”)**

Mathematically, the best estimate is defined as an estimator of the conditional expected value of the sum of future cash flows subject to the information level as at the valuation date.

A distinction is made between the nominal (or undiscounted) BE which is the one defined in TTFC's reserving policy for statutory accounting purposes and the discounted BE which is the one to be used for market-consistent valuation purposes.

### **Catastrophe risk (“Cat, NatCat”)**

The risk that a single event, or a series of events (natural hazards such as earthquake, flood, hail, storm, etc. as well as man-made disasters such as fire, nuclear fallout, etc.), of major magnitude, usually over a short period (often 72 hours) leads to a significant deviation in actual claims from the total expected claims.

### **Claims Development Result (“CDR”)**

This is the difference between the incoming reserves and the payments and outgoing reserves for the prior accident years.

### **Coefficient of Variation (“CoV”)**

The CoV denotes the standard deviation divided by the expected value (or average value).

### **Credit risk**

Credit risk is the risk that the RBC may change due to defaults and rating changes of the counterparties. In particular, credit risk is contained in bonds, loans, guarantees, mortgages, and outwards reinsurance policies and balances.

## **Equalisation Reserves**

Equalisation reserves are statutory reserves built because of uncertainties in the valuation of technical reserves for insurance liabilities. The uncertainties are due to process risk, the risk of deviation from the true values, as well as parameter risk and estimation risk, the risk from not knowing the true values and only using statistical estimators. It serves to damp fluctuations from adverse claims development results and fluctuations from the loss activity due to newly occurred claims relative.

## **Event Loss Table (“ELT”)**

An ELT is a collection of theoretical cat events (hurricanes, earthquakes etc.) along with the modelled losses estimated to occur from each event. This forms the raw data that is used to build up EP curves and calculate other measures of risk.

## **Exceedance Probability (“EP”) curve**

An EP curve communicates the probability of any given financial loss being exceeded. It can be used in one of two ways: provided with a financial loss the EP curve could be read to give you the probability of this loss (or a greater loss) occurring; or alternatively provided with a probability level the EP curve could be read to show you the financial loss level to which this corresponds.

It is important to note that this refers to a loss being exceeded, and not the exact loss itself. This approach is used for cat modelling, as it is beneficial to identify attachment or exhaustion probabilities, calculate expected losses within a given range, or to provide benchmarks for comparisons between risks or over time.

## **Expected result**

This is the expected profit (or loss) from the business over the next year from both insurance and investments.

## **Expected shortfall (“ES”)**

For a given level of  $1-\alpha$  (with  $\alpha$  small), it measures the average losses over the threshold defined (typically set as the Value at Risk for a percentile given), i.e. the conditional mean value, given that the loss exceeds the  $1-\alpha$  percentile. For the SST,  $\alpha = 1\%$ .

## **Hard market**

This is a term used in (re-)insurance to denote phase where insurers, reinsurers or retrocessionaires have better negotiation powers than insureds/primary insurers/reinsurers; hence prices or terms and conditions are improving (“hardening”) for the former.

## **Kolmogorov-Smirnov (“K-S”) test (one-sample version)**

A non-parametric goodness-of-fit test. The K-S statistic quantifies the distance between the empirical distribution function of the sample data and the cumulative distribution function of the reference distribution.

A rigorous application of the test requires that the data be independent of the distribution. In actuarial modelling applications, it is usually the case that the parameters have been estimated

from the data rather than pre-specified. In this case, the K-S test using the standard critical values is rather an approximation and more lenient (increasing the probability of a Type II error).

For standard statistical curve-fitting software, modified critical values calculated using Monte-Carlo techniques may be available for some distributions.

Goodness-of-fit tests would generally not be used in isolation, as they are unlikely to reject any distribution for small sample sizes (which is often the case for reinsurance claims data) and will reject all distributions when the sample size is very large.

### **Large losses**

Claims with loss amounts above a certain threshold value, typically characterised by low frequencies and high severities.

### **Losses occurring during**

This is the same as accident year coverage.

### **Market risk**

The market risk is the risk that the RBC may change due to changes of external economic factors or influences. These influences are called risk factors.

### **Market value margin (“MVM”)**

Expected cost of having to hold solvency capital for non-hedgeable risks during the lifetime of the insurance liabilities.

### **Occurrence Exceedance Probability (“OEP”) curve**

The OEP represents the probability of seeing the maximum single event within a defined period (typically one year) with a particular loss size or greater.

### **One-year capital requirement (“SCR”)**

The risk measure expected shortfall applied to the one-year change in risk bearing capital. The sum of the one-year capital requirement plus the market value margin equals the target capital.

### **Reinstatement**

The number of reinstatements is a different way to define the annual aggregate limit in excess of loss reinsurance. The annual aggregate limit is defined as follows:

$(1 + \text{the number of reinstatements}) \times \text{the per risk/per occurrence/per event limit}$

### **Reinstatement Premium**

In excess of loss reinsurance the reinsurer receives an additional premium depending on the terms and conditions. The additional premium is typically defined as a percentage of the exhaustion of the per risk/per occurrence/per event limit by the aggregate losses and a reinstatement premium percentage. The two factors are multiplied with the original premium of the contract.



There can be different reinstatement percentages per reinstatement.

### **Reserve Risk / Previous-Year Risk (“PY-Risk”)**

Risk that ultimate costs relating to incurred claims (existing claims) vary from those assumed when the obligations were estimated. Reserve risk originates from claim volumes being greater than expected or differences in timing of claims payments from expected.

### **Risk bearing capital (“RBC”)**

Capital which may be taken into account when determining the insurer’s available capital for SST purposes. Also referred as available capital.

### **Risk factors**

The underlying stochastic drivers of the variation in capital such as yield curves, exchange rates, market prices, claims frequencies, claims severities which determine the value of assets and liabilities and hence profit or loss and change in capital. Also referred as risk driver.

### **Risk-free interest rate**

The risk-free interest rate is the theoretical rate of return of an investment with no risk of financial loss

### **Risk-free yield curve**

Curve that shows the relation between the risk-free interest rate (or cost of borrowing) and the time to maturity, known as the “term”, of the debt for a given borrower in a given currency. The yield curves corresponding to the bonds issued by governments in their own currency are called the government bond yield curves and considered as risk-free in the context of the SST.

### **Soft market**

This is a term used in (re-)insurance to denote phase where insureds/primary insurers/reinsurers have better negotiation powers than insurers/reinsurers/retrocessionaires; hence prices or terms and conditions are deteriorating (“softening”) for the former.

### **Target capital (“TC”)**

The TC is the amount of capital to be held by an insurer to meet the quantitative requirements under the SST. It equals the sum of the one-year capital requirement plus the market value margin.

### **Trial**

One simulated amount out of many Monte-Carlo simulations or the output of an event-loss table is often called a trial. Also referred as a year, a run or a path.

### **Underwriting risk / premium risk / Current-Year (“CY-Risk”)**

Risk that costs relating to future claims vary from those assumed when the obligations were estimated. Its risk originates from claim sizes being greater than expected or differences in claims frequency from those expected. Underwriting risk is composed of frequency claims, large claims and catastrophe claims.

### **Value at Risk (“VaR”)**

The VaR is a percentile of a distribution and is used as a (non-coherent) risk measure. VaR measures a single point of a range of potential outcomes corresponding to a given confidence level or fixed position and can equivalently be expressed as a return period (how often one would expect to observe an outcome exceeding a certain size) or an exceedance frequency (inverse of the return period).

## Abbreviations

<b>AEP</b>	Aggregate Exceedance Probability
<b>AAL</b>	Annual Aggregate Limit
<b>AIM</b>	Aon Insurance Managers
<b>AGRC</b>	Aon Global Risk Consulting
<b>BE</b>	Best Estimate
<b>BEL</b>	Best Estimate Liability
<b>BE UL</b>	Best Estimate Ultimate Loss
<b>BF</b>	Bornhuetter-Ferguson
<b>bp</b>	Basis points
<b>Brexit</b>	Britain Exiting the EU
<b>CAR</b>	Construction All Risks
<b>Cat XL Retro 21C</b>	Cat XL Retrocession 21C treaty
<b>CCI</b>	Commercial Credit Insurance
<b>CDF</b>	Cumulative Distribution Function
<b>CDR</b>	Claims Development Result
<b>CNY</b>	Chinese Yuan Renminbi
<b>CoV</b>	Coefficient of Variation
<b>CPRT</b>	China Property Retrocession Treaty
<b>CY</b>	Current year
<b>DAC</b>	Deferred Acquisition Cost
<b>ECB</b>	European Central Bank
<b>ELT</b>	Event Loss Table
<b>EP</b>	Exceedance Probability
<b>EPI</b>	Estimated (annual written) Premium Income
<b>EPRT</b>	European Property Retrocession Treaty
<b>EQ</b>	Earthquake
<b>ES</b>	Expected shortfall
<b>EUR</b>	Euro
<b>FINMA</b>	Swiss Financial Market Authority
<b>FX</b>	Foreign Exchange
<b>GBP</b>	British Pounds

<b>HKD</b>	Hong-Kong Dollar
<b>IBNR</b>	Incurred But Not Reported
<b>IGR</b>	Internal Group Reinsurance
<b>ISA</b>	Insurance Supervision Act (“Versicherungsaufsichtsgesetz”)
<b>ISO</b>	Insurance Supervision Ordinance (“Aufsichtsverordnung”)
<b>JPY</b>	Japanese Yen
<b>K-S</b>	Kolmogorov-Smirnov
<b>LOB</b>	line of business
<b>LOD</b>	losses occurring during
<b>m</b>	millions
<b>MAR</b>	Moveable All Risks
<b>MDB</b>	Multilateral Development Bank
<b>Motor PD XL Retro</b>	Motor Physical Damage XL treaty
<b>MVM</b>	Market value margin
<b>NatCat</b>	Natural Catastrophe
<b>OEP</b>	Occurrence Exceedance Probability
<b>OSLR</b>	Outstanding Loss Reserve
<b>PA &amp; Life XL</b>	Personal Accident XL treaty
<b>PIM</b>	partial internal model
<b>PML</b>	Probable Maximum Loss
<b>PY</b>	Previous year
<b>QS</b>	Quota Share
<b>RBC</b>	Risk-Bearing Capital
<b>SASTI</b>	Small Amount and Short-Term Insurance
<b>SCR</b>	One-year capital requirement
<b>SST</b>	Swiss Solvency Test
<b>TC</b>	Target Capital
<b>Toa Re</b>	Toa Reinsurance Company Ltd
<b>TPB</b>	Third-Party Business
<b>TRE</b>	Toa Re Europe
<b>TTFC</b>	The Toa 21st Century Reinsurance Company Limited
<b>TTY</b>	Treaty
<b>UK</b>	United Kingdom
<b>EU</b>	European Union

<b>UPR</b>	Unearned Premium Reserve, Provision for unearned premium
<b>URR</b>	Unexpired Risk Reserve, Best estimate of UPR for claims and expenses
<b>USD</b>	United States Dollar
<b>UWY</b>	Underwriting Year
<b>VaR</b>	Value at Risk
<b>W/F</b>	Wind / Flood
<b>W/F XL Retro 21C</b>	Wind / Flood XL Retrocession 21C treaty
<b>XL</b>	Excess of Loss