

Public Disclosures

Financial Condition Report for the period
01 January 2018 to 31 December 2018

4/30/2019

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1. Introduction

1.1 Objective

According to the FINMA's Circular Letter 2016/02 on the 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 to the insurance groups and conglomerates (insurance groups) as defined in Article 2 para. 1 let. d and Articles 65 and 73 ISA which are subject to group and/or conglomerate supervision.

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.

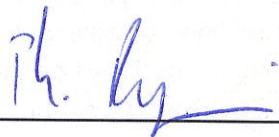
1.2 Scope

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 15 March 2016) (ISA)
- The Swiss Insurance Supervision Ordinance of 9 November 2005 (status 1 January 2016) (ISO)
- The Swiss Insurance Supervision Ordinance of 9 November 2005 (status 15 March 2016) (ISO-FINMA)
- The Swiss Code of Obligations of 30 March 1911 (status 1 July 2016) (SCO)
- The Finma circular 2016/02 "Disclosure – insurers"
- The annual Risk Assessment
- The annual SST report as at 01 January 2019
- The annual audited report as at 31 December 2018
- The Governance Manual
- The Internal Control System

2. Report submitted to FINMA approved by the Company

Zürich, Switzerland on 30 April 2019:



Philippe Regazzoni
CEO



Michal Suchan
CFO

3. Management Summary

3.1 Strategy and 2018 results

TTFC, a fully owned subsidiary of The Toa Reinsurance Company Ltd. (Toa Re), is currently a reinsurance vehicle of Toa Re providing reinsurance protection for all lines of business, but also since 2018 has been activated to provide reinsurance protection to third parties in the EMEA region as approved by the TTFC board and allowed by TTFC's insurance license.

The key objectives of TTFC are:

- Underwrite diversified reinsurance risks with EMEA domiciled insurance companies (third party business / TPB);
- Underwrite shares on the Toa Re retrocession programs (Intra-Group Retrocession / IGR);
- Maintain strong capitalization and very good control of risk profile.

After deduction of the direct corporate taxes of CHF 102'866, the Company's annual result is a loss of CHF 59'409'320, compared to a gain of CHF 19'460'625 in 2017. The resulting loss for the financial year 2018 is mainly due to the losses on the IGR portfolio from the extreme Nat Cat events in Japan, namely typhoons Jebi and Trami.

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 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 three members, one of which is independent.

TTFC's Risk Management System includes the definition of the risk management strategy, risk appetite framework and various risk management procedures (identified as key risks for TTFC). 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
- Market Risk
- Credit Risk
- Operational Risk
- Liquidity Risk

- Strategic Risk

The Company assesses the risks on an annual basis.

3.3 Solvency and capital

The Company's SST ratio as at 1 January 2019 was 259%.

In 2018 TTFC paid a dividend to its shareholder of CHF 1'900'000 with regards to financial year 2017.

There was no dividend paid in 2019 with regards to financial year 2018.

No other capital action is anticipated for this timeframe.

4. Business Operations

4.1 Strategy and objectives

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

- Optimize value to the group by underwriting diversified third party business (TPB) and providing reinsurance coverage for Toa Re (IGR),
- Benefit from a central risk mutualisation tool, taking advantage of non-correlated risks: Controlling cash flow, reducing cash outflow, optimize capital preservation in asset management.

Within its mission the Company also follows KPI's such as combined ratio and investment performance ratios, Profitability ratios and Leverage ratios.

4.2 Key Business Segments

The Toa Re 21st Century Reinsurance Company Limited domiciled in Zürich, is a fully owned subsidiary of Toa Re, Tokyo Japan, a professional Japanese reinsurance company. Toa Re was established in 1940 and writes a diverse range of life and non-life reinsurance risks.

TTFC was set up in 2002 and currently provides reinsurance for Toa Re including its overseas branches and subsidiaries. In 2018 Toa Re has decided to activate TTFC to underwrite third party business as well.

Historically underwriting risk was driven by exposure to Japanese Natural Catastrophe events, such as Windstorm or Flood.

4.3 Shareholder

TTFC is fully owned by Toa Re, Tokyo, 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 reinsurance programs.

In 2018 TTFC has transitioned the management of the company to the newly appointed Management Board and begun the process of building up internal operations and insourcing key processes which have been outsourced to Aon Insurance Managers (Switzerland) AG with active support from Toa Re.

4.5 External auditors

The Company's appointed external auditors are PricewaterhouseCoopers AG (PWC) in Zurich.

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 PWC 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.

As at end of January 2017 the Company changed the domicile from Chur to Zürich after having received FINMA's approval.

The Management positions of the company have been filled by TTFC employees in 2018.

Name	Residence	Nationality	Position
Philippe Regazzoni	Switzerland	Swiss	CEO (01.01.2018 – continuing)
Michal Suchan	Switzerland	Swiss	CFO (01.01.2018 – continuing)
Christian Vogel	Switzerland	Swiss	CUO (01.07.2018 – continuing)
Yoshimitsu Mizui	Switzerland	Japanese	Head of Strategy and Reinsurance (05.07.2018 – continuing)

5. Business performance /corporate results

5.1 Underwriting result

For the Financial Year 2018, the net underwriting result is made up of the following:

In CHF

YTD	31.12.2018	31.12.2017
Net earned premiums	38,406,416	43,139,293
Net paid losses	-16,664,538	-21,149,018
Net outstanding loss reserves movement	-75,784,746	11,292,420
Equalisation reserves movement	6,992,604	-3,624,969
Underwriting acquisition and other expenses	-12,159,207	-11,038,839
Net Underwriting Result	-59,209,471	18,618,886

The financial year 2018 resulted in a loss for TTFC. The typhoon losses in Japan led to a significant increase in the loss reserves, creating an unfavorable underwriting result. The reinsurance business underwritten for group risks remains unchanged; however, there were various changes in the limits of liability of the individual lines of business. These however were quite immaterial. In August 2018, TTFC underwrote its first third party risks.

Compared to the financial year 2017, the Net Premium Income was CHF 4'732'877 lower.

In financial year 2018 claims developed negatively, as mentioned above, which resulted in CHF 59'241'002 net underwriting loss.

5.2 Financial result

For the Financial Year 2018, the net financial result is made up of the following:

In CHF

YTD	31.12.2018	31.12.2017
Receivables from derivative financial instruments	1,630,941	4,769,845
Other investment income	4,217,003	9,192,724
Liabilities from derivative financial instruments	-2,087,447	0
Other investment expenses	-3,693,322	-8,140,007
Exchange gains and losses	-132,627	-2,890,121
Provisions for unrealised gains	0	132,844
Net Financial Result	-65,452	3,065,284

Overall investment income has remained stable. Due to favorable market developments for the portfolio of TTFC, the Company has recorded a loss on the FX-forward contracts.

5.3 Other expenses and income

General administrative expenses amount to CHF 1'429'206 (compared to CHF 892'487 in 2017) The increase was due to the activation of the company, which led to office and employee costs, whereas prior year include only third party administrative fees.

There have not been any profits and losses directly recognized in the equity.

After deduction of the direct corporate taxes of CHF 102'866, the Company's annual result is a loss of CHF 59'409'320, compared to CHF 19'460'625 in 2017.

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 TTFC is comprised as follows:

Name	Residence	Nationality	Position
Toshiyuki Sugawara	Japan	Japan	President
David Ryser	Switzerland	Swiss	Member (independent)
Markus Mende	Switzerland	German	Member

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 Operations and Governance Manual.

The CEO and CFO compose the management of TTFC (the “Management Board”).

The Management Board of TTFC is comprised of the following:

Name	Residence	Nationality	Position
Philippe Regazzoni	Switzerland	Swiss	CEO (01.01.2018 – continuing)
Michal Suchan	Switzerland	Swiss	CFO (01.01.2018 – continuing)
Christian Vogel	Switzerland	Swiss	CUO (01.07.2018 – continuing)
Yoshimitsu Mizui	Switzerland	Japanese	Head of Strategy and Reinsurance (05.07.2018 – continuing)

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 (identified as key risks for TTFC).

6.2.1 Risk management

The overriding goal of TTFC 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 risk exposure;
- ensure the risk management framework implementation in day-to-day business processes;
- 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 control and monitoring mechanisms are:

- Insurance Risk
- Market Risk
- Credit Risk
- Operational Risk
- Liquidity Risk
- Strategic Risk

The Risk Appetite and Risk Tolerance set out the target and deviation amount of risks that TTFC is prepared to accept in order to achieve its Strategic Objectives.

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

	Steps	Process
1	Risk Appetite	Clear and pragmatic indication of the maximum global level of risk TTFC is willing to accept in the pursuit of its <i>Strategic Objectives</i> . It is expressed by a ratio, a maximum loss amount or any other relevant element.
2	Appetite per risk category	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.
3	Metrics	List of metrics that will be used to monitor each Risk Appetite as defined under Step 2.
4	Limits	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.
5	Tolerance per limit	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 (in particular 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, a risk identification and assessment is performed during the annual Risk Assessment. This results in an annual update of a Risk Register which 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 Toa Re would necessitate revisiting the annual Risk Assessment if considered as 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 seven 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 in order 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 complementary to the Risk Management policy. The ORSA policy 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 under consideration.

6.2.2 Risk Management Function

The Risk Management Function 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 monthly management calls and at the board meetings in form of written reports, excel tables or summaries. Risk Management is also represented at the regular management meetings.

Since early 2019 the responsibility for the Risk Management Function has been moved to the TTFC Management Board which is in line with FINMA's requirements and has been approved by the regulator. The operational execution of the task of the Risk Management Function remains however outsourced to Aon Insurance Managers (Switzerland) AG.

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 one specific internal audit project, which is chosen by the Board of TTFC after proposal by the Management of TTFC. Similar to 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

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 Compliance Report to the Board of Directors of TTFC. Compliance is also represented at the regular management meetings.

Since early 2019 the responsibility for the compliance function has been moved to the TTFC Management Board which is in line with FINMA's requirements and has been approved by the regulator. The operational execution of the task of the compliance function remains however outsourced to Aon Insurance Managers (Switzerland) AG.

6.3 Key changes in the risk management

Compared to 2017 there were no changes to the risk management system.

6.4 Description of the internal controls

The Internal Control System 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.

In order to achieve the aforementioned objectives, the Internal Control framework of the Company is structured around five complementary components.

Component	Contents
1) Control environment	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 manual.
2) Risk assessment	Procedures and policies are detailed and formalized in order to disclose the way of identifying, managing, controlling, mitigating and reporting issues relating to each risk category.
3) Reporting channels	Clear and structured reporting processes are in place enabling the Board of Directors to have access to relevant, complete,

	reliable, correct and timely communication related to internal as well as external events.
4) Monitoring process	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.
5) Control activities	The Company developed a comprehensive set of preventive, detective or corrective control actions embedded in its daily operations, as formalized hereafter.

7. Risk profile

TTFC's risk profile contains the following risks:

- Insurance risk
- Market risk
- Credit risk
- Operational risk
- Liquidity Risk
- Strategic Risk

All SST relevant risks (insurance risk, market risk and credit 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, in order 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 is based on the assumption 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 2019.

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 is quantified annually for the Swiss Solvency Test. The risk is split into several sub-risks which are the following:

- Reserve risk
- Underwriting risk, split into:
 - Premium risk
 - Natural catastrophe risk

Reserve risk is the risk that losses relating to claims incurred prior to the valuation date (existing claims) vary from those assumed when the obligations were estimated.

Underwriting risk is the risk that ultimate losses incurred during the SST period (or post the valuation date) of new claims vary from those expected and, as a result, the earned premium will not be sufficient to cover the claims.

The overall risk driver in the SST is NatCat risk.

7.1.2 Market risk

For the quantification of market risk, TTFC follows the Delta-Normal Market Risk standard model methodology.

TTFC's market risk exposure is limited to interest rates, spreads and FX risk only. All other risks (equities, real estate, hedge funds, private equity, etc.) are nil.

7.1.3 Credit risk

For the quantification of credit risk, TTFC follows the Credit Risk standard model.

The main contributors to credit risk are the following asset positions:

- Corporate bonds
- Cash at bank
- Debtors
- Public entity bonds

7.1.4 Operational risk

The exposure of TTFC to operational risks is considered under the Swiss Quality Assessment. 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. The Company will use benchmark data in the future assessments of operational risks in order to have a holistic comprehensive view of all risk impacts.

7.1.5 Liquidity risk

The impact of catastrophic losses on liquidity is assessed via analyzing deterministic scenarios which are deemed most relevant for liquidity risk purposes. The current liquidity risk is assessed as low, due to a very liquid bond portfolio held by TTFC.

7.2 Concentration of risks

There is some concentration risk within TTFC's asset portfolio due to large CHF interest rate risk from the large portion of bonds in CHF (ca. 84% of the total bond portfolio).

Accumulation risk arises due to TTFC's high exposure to NatCat losses in Japan, as well as the exposure to single large losses which impact multiple property treaties (due to, for example, a large fire or explosion). TTFC also underwrites other programs in order to improve its risk diversification.

7.3 Summary of risk mitigating processes

Risks are primarily actively mitigated through

- Diversification of exposures (both in respect of risks arising from the underwriting as well as the investment side); and
- Adequate reinsurance structures:

- The underwriting risk is capped by applying per claim limits as well as annual aggregate limits for the main lines of business.
- In case of losses subject to the excess of loss reinsurance contracts can receive additional premiums, so-called reinstatement premiums.

Furthermore, the company purchases retrocession for peak insurance risks.

Besides, the company mitigates FX risk through FX forward positions against the CHF.

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.

The above mentioned process is supported by the IT-platform "Governance, Risk and Compliance (GRC)", where all the Risk Management policies are stored and the underlying processes and controls are recorded. Each and every key process is linked to a specific control with a specific control assessment date. On the due date of the control, the control owner will receive an email from the platform and will need to perform the assessment online. No control can be overridden.

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 that 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:

Assets	Statutory BS		SST BS	
	2019	2018	2019	2018
Government and central bank bonds	22.0	26.5	23.1	27.6
<i>of w hich Swiss cantons and municipalities</i>	16.0	N/A	16.7	N/A
<i>of w hich other public-sector entities</i>	6.0	N/A	6.4	N/A
Corporate bonds	239.6	311.8	244.2	301.6
<i>of w hich banks and securities dealers</i>	140.3	N/A	143.6	N/A
Mortgage bonds / Covered bonds*	35.6	-	36.4	18.3
Currency-risk-related instruments	0.0	1.2	0.5	1.2
Bank credit balance	112.8	63.8	112.8	63.8
Other property and equipment	0.1	-	0.1	-
Share of technical provisions from reinsurance	-	0.3	-	0.1
Receivables vis-à-vis insurance companies	19.2	20.2	19.2	20.2
<i>receivables vis-à-vis insurance companies: ceded reinsurance</i>	-	0.7	-	0.7
<i>receivables vis-à-vis insurance companies: reinsurance assumed</i>	19.2	19.5	19.2	19.5
Deferred Acquisition costs	5.5	5.9	-	-
Other receivables	4.48	0.27	0.01	0.27
Accrued interest and rent**	1.4	2.2	-	2.2
Total Assets	440.7	432.2	436.2	435.4

* 2018 Statutory value of Mortgage bonds is included in Corporate bonds

** Accrued interest and rent for 2019 only contains accrued interest, this is assumed to be part of the MV of bonds, hence it is set to 0 in the SST BS

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.

Equalisation reserves comprise of a large proportion of the statutory liabilities of TTFC. The equalisation reserves are valued as "zero" because there are no underlying obligations as at the valuation date. This means that, in accordance with SST principles, equalisation reserves are considered as risk bearing capital as at the valuation date.

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

Best estimate of insurance liabilities	Statutory BS		SST BS	
	2019	2018	2019	2018
Active reinsurance: Non-life insurance business	118.6	44.0	113.2	33.4
<i>Claims Reserves (gross)</i>	98.7	23.3	98.8	23.7
<i>Unearned Premium Reserve</i>	19.9	20.7	14.4	9.7
Fluctuation reserves and other statutory reserves (non-life): gross	13.0	20.0	-	-
Total	131.5	64.0	113.2	33.4

8.3 Summary of valuation methods

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

A / L	Asset / Liability class	Valuation methodology
A	Investments	Mark to market
A	Debtors	Mark to model (book value)
A	Cash at bank	Mark to model (book value)
A	Other assets	Mark to model (discounted cash flow value)
A	FX forwards	Mark to market
A	Prepayments and accrued income	Mark to model (discounted cash flow value)
L	Insurance liabilities	Mark to model (discounted cash flow value)
L	Equalisation reserves	Nil
L	No claims bonus	Mark to model (discounted cash flow value)
L	Provisions for taxation	Nil
L	Creditors	Mark to model
	Creditors arising out of reinsurance operations	(discounted cash flow value)
	Other creditors	(book value)
L	Accruals and deferred income	Mark to model (book value)

8.4 Market Value Margin (Risk Margin)

The Market Value Margin is calculated using the “Cost of Capital” approximation based on the previous SST Standard model approach according to the transitioning options granted based on figure 211 as per FINMA circular 2017/3.

It considers the regulatory capital that would be required to cover the following risks in case of a portfolio transfer:

- Reserve Risk
- Underwriting Risk
- Credit Risk from retrocession

The calculation of the MVM for the SST 2019 is performed by using the new 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.

9. Capital management

9.1 Capital planning

The Company's SST ratio as at 1 January 2019 was 259%.

In 2018 TTFC paid a dividend to its shareholder of CHF 1'900'000 with regards to financial year 2017.

There was no dividend paid in 2019 with regards to financial year 2018.

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:

<i>In CHF</i>		
YTD	31.12.2018	31.12.2017
Share capital	243,000,000	243,000,000
Organisation fund	2,000,000	2,000,000
Legal retained earnings	38,650,228	34,758,103
Voluntary retained earnings	15,507,141	80,708,587
<i>Result carried forward</i>	74,916,462	61,247,961
<i>Result for the period</i>	-59,409,320	19,460,625
Total shareholders' equity	299,157,369	360,466,690

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 form of contingent capital.

9.3 Difference between accounting equity and market consistent equity

The difference between the value of accounting equity and market consistent equity arises due to Equalization reserves which is considered as a component of market consistent equity, but not considered from a statutory perspective. TTFC's Equalization reserves were CHF 12,975,695 as at 31 December 2018.

10. Solvency

10.1 Model for Solvency calculations

In accordance with the FINMA letter dated 29 October 2019, the 2019 SST calculation is based on a Partial Internal Model, with FINMA Standard Models for all risk except Natural Catastrophe (“NatCat”) which is covered by an Internal Model. Specifically, the Standard Model for reinsurance (“StandRe”) is used to model Insurance Risk. In 2019 FINMA has released new standard models/guidance for Market Risk, Expected Financial Result, Insurance/Market Risk aggregation, and the Risk Margin, resulting in changes to these models.

The target capital can be split into the following:

- Non-life Insurance risk
- Market risk
- Aggregation of Non-life insurance risk, market risk and scenarios
- Expected financial result
- Expected insurance result
- Credit risk
- Market value margin

10.2 Target Capital

The target capital as at 1 January 2019 is decomposed as follows:

In mCHF

Risk model	SST 2019	SST 2018
<i>Underwriting risk</i>	99.4	88.3
<i>Reserve risk</i>	28.0	27.3
Insurance Risk	99.9	90.4
Market risk	25.4	25.2
Credit risk	10.9	12.3
Risk Margin	4.7	5.4
Diversification and other items	-17.1	-22.5
SST Target Capital	123.8	110.8

For the SST 2019, the total required equity capital (Target Capital) amounts to CHF 123.8m, whereas for the SST 2018 it was CHF 110.8m.

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

- Insurance Risk: The increase from the Previous SST is due to an increase in the Underwriting Risk, which is largely caused by the new TP business. In addition, TTFC has not renewed a retro program which provided some benefit on the Japanese Nat Cat risk. Despite the significant increase in reserves due to Jebi and Trami, Reserve Risk has only slightly increased since last year as it is expected that the reserves for these two large events will not add a significant additional amount of uncertainty.
- Market Risk: the TC has remained stable despite the change in model. Due to the similar result to last year and the similar asset mix, we have not investigated the impact of the change in model on the results.

- Credit Risk: There is a decrease in Credit Risk due to a shift from BBB rated bonds to A and above rated bonds.
- Risk Margin (“Market Value Margin” or “MVM”): The MVM decrease is driven by the use of the new FINMA Standard Model for Risk Margin.

10.3 Risk bearing capital

The following table shows the composition of the Risk Bearing Capital for the SST 2019 and comparison to previous year:

No.	Component	SST 2019	SST 2018	Relative Difference
1	Market-consistent value of the assets	436.2	435.4	0.2%
2	Market-consistent value of the liabilities	127.8	46.6	63.5%
2a	<i>Best Estimate of the insurance liabilities</i>	113.2	33.4	70.5%
2b	<i>MVM</i>	4.7	5.4	-17.0%
2c	<i>Market-consistent value of other liabilities</i>	9.9	7.8	21.8%
3= 1-2+ 2b	Core capital including deductions	313.1	394.2	-25.9%
4	Deductions	-	-	
5= 3-4	Core capital excluding deductions	313.1	394.2	-25.9%
6	Supplementary capital	-	-	
7=5+6	RBC	313.1	394.2	-25.9%

The RBC is CHF 313.1m CHF as at 1 January 2019, which represents a decrease of 25.9% compared to the SST 2018.

The driver for the RBC capital decrease is the underwriting loss made in 2018 due to the two extreme NatCat events Jebi and Trami. Whilst the level of assets has remained stable, the market consistent value of the Best Estimate of insurance liabilities grew considerably by CHF 80.0m due to the two events as limited payments have yet been made for these losses.

10.4 Overall solvency position

Based on the methods, assumptions and limitations used for the SST 2019 of TTFC, the TC amounts to CHF 123.8m and the RBC amounts to CHF 313.1m as at 1 January 2019. This leads to an excess of RBC over TC of CHF 189.3m and a SST ratio of 259%.

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 2019.

11. Enclosures

- Annual audited report as at 31 December 2018
- 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 α 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

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

HKD	Hong-Kong Dollar
IBNR	Incurred But Not Reported
ISA	Insurance Supervision Act ("Versicherungsaufsichtsgesetz")
ISO	Insurance Supervision Ordinance ("Aufsichtsverordnung")
JPY	Japanese Yen
K-S	Kolmogorov-Smirnov
LOB	line of business
LOD	losses occurring during
m	millions
MAR	Moveable All Risks
MDB	Multilateral Development Bank
Motor PD XL Retro	Motor Physical Damage XL treaty
MVM	Market value margin
NatCat	Natural Catastrophe
OEP	Occurrence Exceedance Probability
OSLR	Outstanding Loss Reserve
PA & Life XL	Personal Accident XL treaty
PIM	partial internal model
PML	Probable Maximum Loss
PY	Previous year
QS	Quota Share
RBC	Risk-Bearing Capital
SASTI	Small Amount and Short-Term Insurance
SCR	One-year capital requirement
SST	Swiss Solvency Test
TC	Target Capital
Toa Re	Toa Reinsurance Company Ltd
TTFC	The Toa 21st Century Reinsurance Company Limited
TTY	Treaty
UK	United Kingdom
EU	European Union
UPR	Unearned Premium Reserve, Provision for unearned premium
URR	Unexpired Risk Reserve, Best estimate of UPR for claims and expenses
USD	United States Dollar

UWY	Underwriting Year
VaR	Value at Risk
W/F	Wind / Flood
W/F XL Retro 21C	Wind / Flood XL Retrocession 21C treaty
XL	Excess of Loss