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Validus Reinsurance (Switzerland) Ltd

Financial Condition Report 2022

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1. General Remarks

This report on the financial condition of Validus Reinsurance (Switzerland) Ltd (hereafter referred to as “the Company” or “VRS”) has been prepared to comply with art. 111a of the Swiss Insurance Supervision Ordinance effective 1 January 2016 and is not intended, nor necessarily suitable, for any other purpose. The content and structure of this report are in accordance with circular 2016/02 Public disclosure (the “Circular”) issued by the Swiss Financial Market Supervisory Authority (“FINMA”) and consider the specific situation, size and complexity of the Company. This report contains both qualitative and quantitative information.

Quantitative information is based on the Company’s 2022 audited financial statements (“statutory financial statements”) and the Company’s 2023 reporting on the Swiss Solvency Test (“SST”) as submitted to FINMA in April 2023, which is still subject to FINMA’s regulatory review. The information contained in this report is consistent with information reported to FINMA in accordance with art. 25 of the Insurance Supervision Act and art. 53 of the Insurance Supervision Ordinance. Appendix I contains the report of the statutory auditor to the General Meeting on the 2022 financial statements, including the statutory financial statements prepared in accordance with Swiss law. Appendix II contains further quantitative information as prescribed by FINMA, including the performance of the Company with line of business specific information, the solvency balance sheet as well as details on the Company’s risk bearing capital, target capital and resulting SST ratio.

This report has been prepared for the period from 1 January 2022 to 31 December 2022, with the exception of Section 9 – Solvency, which contains certain forward-looking information. Figures are presented in U.S. Dollars (“USD”), in line with the Company’s SST reporting and the statutory financial statements, which are also prepared in USD. Amounts are rounded to USD millions. Certain amounts may not sum to their total due to rounding.

The Company’s Board of Directors approved this report on 27 April 2023.

2. Management Summary

The year 2022 was characterised by financial market turmoil fuelled by the Ukraine/Russia conflict, significant inflation worldwide leading to rising interest rates as well as global economic losses from natural disasters representing the fourth costliest year in history in terms of insured losses.

Despite these developments, VRS had a strong year 2022 with an underwriting income of USD 62 million compared to an underwriting loss of USD 77 million in 2021, which was heavily affected by a number of significant natural catastrophe losses. This represents a combined ratio of 96% compared to 106% in the previous year. The loss ratio improved by 13 percentage points to 65% due to a more benign loss experience and the expense ratio increased by 2 percentage points to 30% mainly due to a change in business mix.

Overall, the Company recorded a net loss of USD 39 million in 2022 due to an investment loss of USD 102 million driven by unrealised losses on the fixed income securities portfolio. The net loss in 2022 compares to a net income of USD 91 million in 2021, which was mainly the result of a cash contribution recorded as other income.

From a business perspective, VRS continued to increase its premium volume in 2022 across key lines of business. The main drivers for growth were Casualty and, to a lesser extent, Specialty where the Company took advantage of the continuously positive rate environment. The increase in Casualty and Specialty was partially offset by a decrease in Agriculture, Property and Marine & Energy.

From a capital perspective, the Company maintained its strong capital position and exceeded its internal target solvency and capital requirements. The Company continues to be “A” rated by A.M. Best and “A+” by Standard & Poor’s. Shareholder’s equity decreased to USD 1.2 billion due to the 2022 net loss of USD 39 million. The Risk Bearing Capital as per the 2023 SST amounts to USD 1’585 million, the Target Capital to USD 540 million and the risk margin to USD 162 million, resulting in an SST ratio of 376%, which represents an increase of 107 percentage points from prior year. This increase is mainly due to increased interest rates with a resulting impact on discounting as well as due to a higher expected insurance result, partially offset by increases in Insurance and Credit Risk.

The carrying value of the Company’s investment portfolio grew from USD 2’047 million at the end of 2021 to USD 2’343 million at the end of 2022, mainly due to business growth. The investment loss of USD 102 million for 2022 was mainly the result of unrealised losses in the fixed income securities portfolio due to the increased interest rates and widened spreads.

This report provides hereafter a detailed review of VRS’ business activities including its lines of business and corporate strategy in Section 3. Section 4 summarises the performance of the Company during the financial year 2022 in context of the preceding financial year. Sections 5 and 6 of the report elaborate on the Company’s Corporate Governance and Risk Management framework as well as on its risk profile.

The quantitative information contained in the report and its appendix is complemented by Section 7, providing details on valuation methods used and differences between solvency and statutory views. Section 8 describes the Company’s capital management strategy and capital position, including the statutory shareholder’s equity of the Company as at 31 December 2022 and significant valuation differences between solvency and statutory views. The solvency information provided in Section 9 is based on information provided in the Company’s 2023 SST report as submitted to FINMA.

3. Business Activities

3.1. Shareholding, strategy, objectives and key business segments

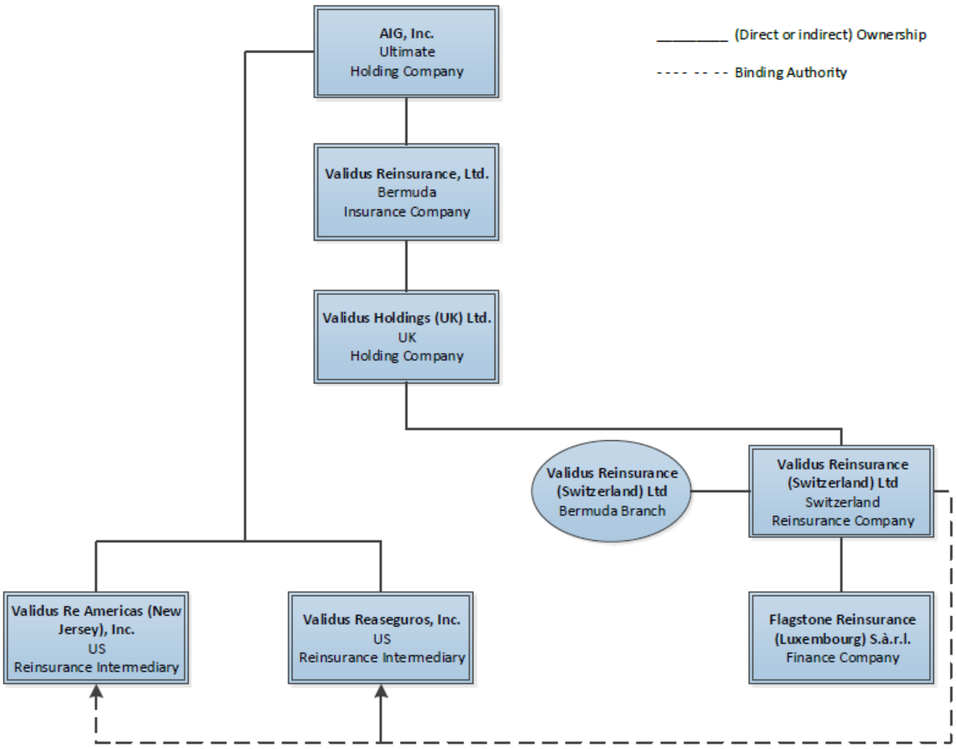
The Company is part of the American International Group ("AIG"), a leading global insurance organisation. Its top parent company American International Group, Inc. is listed on the New York Stock Exchange. VRS is a direct subsidiary of Validus Holdings (UK) Ltd, which is a wholly-owned subsidiary of Validus Reinsurance, Ltd., a Bermuda based reinsurance company. Together with Validus Reinsurance, Ltd., VRS forms part of Validus Re, a business unit that belongs to the AIG assumed reinsurance operations known as AIG Re.

The Company is located at Talstrasse 83, 8001 Zurich, Switzerland. It is licensed as a reinsurer by FINMA in Switzerland. The Company is also a licensed permit company through its Bermuda branch, registered as a Class 4 insurer under the Bermuda Insurance Act.

The Validus Re strategy is to be a leader in the global reinsurance markets. The principal objective is to use capital efficiently by underwriting a portfolio of reinsurance contracts that maximises the return on equity subject to prudent risk constraints on the amount of capital that it exposes to any single event. Validus Re manages underwriting risks through a variety of means, including contract terms, portfolio selection, diversification by lines of business and by geographies, retrocession purchasing, and by using proprietary and commercially available third-party vendor models. The Company's strategy is closely aligned with the Validus Re strategy and focuses on efficient capital use and the underwriting of reinsurance contracts with superior risk and return characteristics while ensuring risks and corresponding solvency requirements, are assessed appropriately.

The Company primarily writes Property, Marine & Energy, Agriculture, Casualty and Specialty reinsurance business from its Swiss head office and/or its Bermuda branch. In addition, VRS conducts an important part of its business activities through affiliated U.S. Managing General Agents ("MGAs") writing onto VRS paper. Specifically, these reinsurance intermediaries are Validus Re Americas (New Jersey), Inc. and Validus Reaseguros, Inc.

The following shows a simplified group structure chart:



3.2. Group structure and group transactions

The Company, together with its indirect parent company Validus Reinsurance, Ltd., is part of AIG Re, the reinsurance unit within AIG. AIG Re operates globally and is primarily focused on treaty reinsurance as well as the offering of Insurance-Linked Securities.

The operational setup involves affiliated MGAs as described under 3.1.

Since 2020, the Company provides a 75% whole account quota share protection to the Canadian Branch of Validus Reinsurance, Ltd.

Since 2022, the Company also entered into internal retrocession agreements with wholly owned subsidiaries of AIG. Effective 1 January 2023, internal retrocession covers are provided to the Company through an adverse development excess of loss cover (“ADC”), a 25% casualty quota share agreement and a natural perils aggregate excess of loss cover.

3.3. Major shareholders

The Company is a wholly owned subsidiary of Validus Holdings (UK) Ltd, which is an indirect wholly owned subsidiary of American International Group, Inc.

3.4. Major branches and subsidiaries

The Company notably operates through a Bermuda registered branch, which is a Class 4 insurer licensed by the Bermuda Monetary Authority.

The Company holds a 100% stake in Flagstone Reinsurance (Luxembourg) Sàrl (“FRL”), which is mainly engaged in intra-group finance activities.

3.5. External auditors

The Company’s external auditors pursuant to art. 28 of the Insurance Supervisory Act are PricewaterhouseCoopers AG, Birchstrasse 160, 8050 Zurich, Switzerland.

3.6. Extraordinary events

There were no extraordinary events with a material effect on the Company in 2022.

4. Performance

The following table provides a summary of the Company's financial results in 2022:

in USD millions	2022	2021
Gross premiums written	1'730	1'613
Net premiums written	1'637	1'559
Net premiums earned	1'412	1'303
Net claims incurred	(922)	(1'018)
Net acquisition costs	(397)	(328)
Administrative expenses	(32)	(34)
Underwriting result	**62**	**(77)**
Investment result	(102)	44
Others, net	1	124
Net (loss) / income for the year	**(39)**	**91**
Loss ratio	65%	78%
Expense ratio	30%	28%
Combined ratio	**96%**	**106%**

Overall, net loss for the year 2022 was USD 39 million compared to a net income of USD 91 million in 2021. Despite significant event loss activity in 2022 for the industry, the Company's event loss experience was significantly below prior year resulting in an underwriting income of USD 62 million at a combined ratio of 96%. The underwriting loss of USD 77 million in 2021 was primarily a result of an unprecedented loss activity. Unrealised losses on investments in 2022 led to an overall net loss for the Company, while 2021 saw other income in the form of a contribution from parent that resulted in a net income in 2021.

The Company's primary lines of business are Property, Marine & Energy, Agriculture, Casualty and Specialty. Premiums written by line of business for financial years 2022 and 2021, respectively, were as follows:

in USD millions	**2022**			**2021**		
	Gross	**Ceded**	**Net**	**Gross**	**Ceded**	**Net**
Property	281	(53)	228	296	(39)	257
Marine & Energy	89	(10)	79	101	(2)	99
Agriculture	257	(7)	250	478	(7)	470
Casualty	978	(12)	966	624	(0)	623
Specialty	126	(11)	115	115	(6)	109
Total	**1'730**	**(93)**	**1'637**	**1'613**	**(54)**	**1'559**

Premiums are written by underwriters in Switzerland and Bermuda, and through dedicated Managing General Agents in Miami and New Jersey. In 2022, the Company grew its premium volume in Casualty, and to a lesser extent, in Specialty, partially offset by a decline in Agriculture, Property and Marine & Energy.

Gross premiums written increased by USD 117 million or 7% to USD 1,730 million and premiums earned after retrocession increased by USD 110 million or 8% to USD 1,412 million. The increase in premiums written compared to 2021 primarily reflects the writing of additional business in Casualty where the Company mainly took advantage of a continuously sound rate environment and decreasing ceding commissions.

Following the significant loss experience in 2021 from droughts in Canada and Brazil as well as European floods, Hurricane Ida and Winter Storm Uri, the Company had a rather benign event loss experience in 2022 with the most significant event loss being Hurricane Ian. This resulted in a loss ratio of 65% (2021: 78%) and an underwriting income of USD 62 million (2021: underwriting loss of USD 77 million).

Claims after reinsurance recoveries were USD 922 million, a decrease of USD 96 million or 9% compared to last year. The decrease in claims from 2021 to 2022 is mainly a result of a lower event loss experience. The loss ratio improved 13 percentage points to 65% in 2022.

Net acquisition and administrative expenses increased by USD 66 million or 18% to USD 428 million primarily driven by the increased business volume. The expense ratio of the Company increased by 2 percentage points to 30% in 2022 mostly due to a change in business mix towards lines that generally have a higher acquisition cost ratio.

The combined ratio for the year was 96% compared to 106% in 2021 mainly due to the lower event loss activity and resulting improvement in loss ratio.

The total investment return in 2022 was a loss of USD 102 million compared to an income of USD 44 million in 2021. This is primarily the result of unrealised losses of USD 156 million due to the increasing interest rates' impact on the Company's fixed income securities portfolio. The investment result includes USD 21 million of income from subsidiary (USD 40 million in 2021). Excluding the income from subsidiary, the net investment income increased due to a growing investment portfolio resulting from growth in business volume as well as the increasing interest rates leading to a higher yield. Additionally, 2022 saw some realised losses of USD 6 million (2021: USD 7 million). The following shows a breakdown of income /loss by investment class (excluding asset management expenses):

2022 in USD millions	**Income**	**Realised gain/(loss)**	**Unrealised (loss)**	**Total**
Fixed income securities	42.1	(6.4)	(156.4)	**(120.7)**
Other investments	0.3	0.8	-	**1.0**
Cash and cash equivalents	0.6	()	()	**0.6**
Investment in subsidiary	20.6	-	-	**20.6**
Total	**63.6**	**(5.6)**	**(156.4)**	**(98.5)**

2021 in USD millions	**Income/(loss)**	**Realised gain/(loss)**	**Unrealised (loss)**	**Total**
Fixed income securities	25.9	3.5	(12.9)	**16.5**
Other investments	0.5	(10.2)	-	**(9.7)**
Cash and cash equivalents	(0.4)	-	-	**(0.4)**
Investment in subsidiary	40.8	-	-	**40.8**
Total	**66.8**	**(6.8)**	**(12.9)**	**47.1**

The Company did not record any gains or losses directly in equity.

Other income, net of USD 124 million in 2021 mainly consists of a cash contribution from the Company's indirect parent company of USD 125 million recorded as other income.

The information included in the tables above is consistent with information contained in Appendix II; Agriculture and Specialty lines as per the above table on gross, ceded and net premiums are included under "Miscellaneous" in Appendix II.

5. Corporate Governance and Risk Management

5.1. Corporate governance

5.1.1. Board of Directors

The Company's Board of Directors, which is entrusted with the supervision and the ultimate management of the Company as well as with the supervision and control of management, is currently composed of the following members:

- Peter Gujer is an independent, non-executive Board member and the Chairman of the Board of Directors;
- Christopher Schaper is the Vice-Chairman of the Board of Directors; he also serves as Chief Executive Officer of AIG Re and is a member of the AIG General Insurance Executive Leadership Team;
- Michael Carpenter is an independent and non-executive member of the Board of Directors;
- Simon Biggs is a member of the Board of Directors; he also serves as Global Head of Data, Digital and Technology of AIG Re;
- Alexander Nagler is a member of the Board of Directors; he also serves as Managing Director of the DACH region at AIG.

There were no changes to the Company's Board of Directors in 2022.

The Company's Board of Directors has established a combined Audit and Risk Committee and has delegated the preparation, implementation and supervision of the Board of Directors' resolutions with regard to audit and risk matters to this Committee. Michael Carpenter chairs the Committee, with Peter Gujer and Christopher Schaper being members of the Committee.

5.1.2. Executive Management

The Executive Management of the Company, which manages the operations and the overall business of the Company and controls all employees of VRS, is currently composed of the following individuals:

- Sven Wehmeyer as Chief Executive Officer;
- Patrick Boisvert as Chief Financial Officer;
- Stéphane Sauthier as Managing Director;
- Florian Lutz as Underwriting Director;
- Valentin Franke as Finance Director.

There were no changes in the Executive Management of the Company in 2022.

5.2. Risk management

The Company's Board of Directors is ultimately responsible for risk management matters and the organisation of the Company's internal control system ("ICS"). At the end of 2019, the Company's Board of Directors established a combined Audit and Risk Committee composed of three of its members and delegated the preparation, implementation and supervision of its resolutions with regard to audit and risk matters to this Committee. Management is responsible for ensuring that appropriate risk management structures and procedures, including the ICS, are implemented with the decision-making persons having the requisite seniority, knowledge and experience. Management also formulates the Company's risk appetite for approval by the Board of Directors. Management has established the Validus Re Risk Management Committee headed by the Company's Chief Risk Officer to ensure that proper standards for risk management are established in respect of all material risks faced by the Company. The Chief Risk Officer of VRS reports to the AIG Re Chief Risk Officer and has direct access to the VRS Board of Directors.

VRS has adopted the Validus Re Risk Management Framework, which fits within the Company's overall ICS structure. The framework outlines the risk management governance structure, key roles and responsibilities, various risk management tools, a risk classification system and procedures to identify, assess, control and monitor risks faced by the Company.

The framework is also designed to assist in setting strategic objectives in line with those of Validus Re and promote the use of qualitative and quantitative tools to evaluate the risk/reward trade-offs associated with key strategic decisions.

The Risk Management Framework also provides a risk classification scheme, which yields a consistent and common language for purposes of capturing all material risks and comparing them with each other and across other areas within Validus Re. Risk categories include Insurance Risk (Premium, Catastrophe and Reserving), Market Risk, Credit Risk and Operational Risks.

The Company performs a regular risk assessment process for the identification, assessment, control and monitoring of risks that considers the likelihood and impact of causes of risk, both before and after the existence of relevant controls. The approaches used to identify and update causes of risk include scenario building, incident and near miss reporting and market intelligence. Controls have been established to appropriately manage the likelihood and impact of risks, focused on those with the most significance and after considering the tolerance level established for each risk. New controls may also be designed as a result of the incident reporting process.

VRS also has in place policies, including underwriting, investment, and credit policies, to manage the assumption of risk. These policies provide for the Company's risk limits, tolerance levels and other guidelines, as well as the processes for ensuring compliance with the desired risk profile of the Company. The Company has at its disposal a variety of risk mitigation tools, including the purchase of retrocessional coverage, which it uses to ensure that its risk profile stays within prescribed limits and tolerance levels.

In order to manage the assumption of Insurance Risk, the Company has established risk limits through both qualitative and quantitative considerations, including market share, history of and expertise in a class of business or jurisdiction, transparency and symmetry of available information, reliability of pricing models and availability and cost of reinsurance. These limits are reviewed at least annually and aligned to the overall risk appetite approved by the Company's Board of Directors. Furthermore, an exposure management policy is in place to ensure appropriate and consistent risk assessment and aggregation of most exposures that accumulate across the Company.

In addition to the Risk Management function, VRS has a separate Compliance function that is responsible for ensuring compliance with regulatory requirements and other internal policies and procedures. The Compliance function reports breaches and issues directly to Management, and reports to the Board of Directors or its Audit and Risk Committee regularly. Compliance and Risk Management meet monthly, or more frequently if required, to discuss any potential issues surrounding risks, control performance and incident reporting.

The Internal Audit function is centralised at AIG Group level and includes VRS. Part of the Internal Audit function's role is to report to the Board of Directors or its Audit and Risk Committee at least annually on the implementation of the annual audit plan, which forms part of the Company's overall Risk Management Framework.

VRS has in place an ICS that is governed by its Internal Control Policy. The ICS of the Company is built on three lines of defence, with the control owners being the first Line of Defence, Compliance and Risk Management being the second Line of Defence, and Internal Audit being the third Line of Defence. The ICS includes control activities as described in relevant VRS Policies and Procedures, communication within the Company to all relevant functions, and monitoring and reporting on the Company's ICS to the relevant committees and Board of Directors.

There were no material changes to the Risk Management and Compliance functions or processes during the year under report.

6. Risk Profile

The main risks faced by VRS and some of the activities directly associated with controlling such risks are outlined below. Quantitative information in respect of the Company's risks as described below is provided as part of Section 9 on Solvency.

6.1. Insurance Risk

Insurance Risk is the risk of loss arising from inadequate pricing or of adverse change in the value of insurance liabilities due to inadequate provisioning assumptions. For VRS, the most significant Insurance Risk is Underwriting Risk, which is primarily driven by our exposures to natural catastrophe perils as well as to the casualty and agriculture underwriting classes. Other material risks include reserve risk, which is the risk that the Company underestimates its reserves for incurred losses, the risk of heightened claims due to emerging claims or coverage issues.

6.1.1 Underwriting Risk

To help mitigate Underwriting Risk, VRS has established a set of risk tolerances for significant risk classes. These are combined with available equity to determine absolute underwriting limits by product line and geographical area and reflect the maximum loss we are willing to incur per category. The scope of the geographical areas over which our limits are aggregated is based on the largest areas likely to be impacted by any one event. Aggregate limits in-force by peril and zone are updated and monitored quarterly, at a minimum, to ensure compliance with key underwriting risk limits and reported to the VRS Board of Directors.

Additionally, the underwriting process for all business is governed by the Validus Re Global Underwriting Guidelines as adopted by VRS. All transactions are entered into VCAPS (proprietary Validus Re integrated pricing and exposure management system), and underwriting authorization limits are automated within the system in accordance with the Validus Re Global Underwriting Guidelines (i.e. transactions can only be authorized within VCAPS according to the referral matrices in the guidelines).

Additional notable Underwriting Risk mitigation is currently delivered through proportional and non-proportional retrocession purchases.

6.1.2 Reserving Risk

Reserves are set at the actuarial best estimate, which is also the basis for the booked reserves. Given the uncertainty of Reserving Risk, our strategy is to book reserves that represent management's best estimate of the likely future claims payments. To that end, the reserve estimation process is subject to an extensive and rigorous process. This includes initial assessment by the reserving actuaries, followed by a Reserve Committee review with annual, independent actuarial reviews from both our independent Responsible Actuary, as well as an external consulting firm.

Additional notable Reserving Risk mitigation is currently delivered primarily through the ADC that the Company entered into.

6.2. Market and Liquidity Risk

Management and oversight procedures relating to the investments of the Company are outlined in the VRS Investment Guidelines and in the Investment Management Agreement between VRS and BlackRock Financial Management, Inc. The Investment Guidelines set out the risk appetite related to asset class, type of security, concentrations for issuers and industries and credit quality, the latter of which are designed to manage investment related Credit Risk. The Guidelines also outline duration restrictions for the fixed income portfolio to control liquidity risk. With respect to liquidity risk, the Company produces a Liquidity Report for the Management on an annual basis. The report notably discusses liquidity risk management, liquidity positions under normal and stressed circumstances, off balance sheet risks and results of the liquidity assessment.

6.3. Credit Risk

In order to control credit risk associated with counterparties for retrocession purchasing, VRS generally only enters into retrocession arrangements where the limits are either fully collateralized and the collateral is invested in cash, cash equivalents or other approved securities as specified in executed trust agreements, or are with counterparties that have been approved by the AIG Reinsurance Credit Department.

Where no collateral is provided, it is ultimately the responsibility of the Chief Executive Officer to set limits with regard to the amount of exposure the Company is willing to take with retrocessionaires. Decision is made on a case-by-case basis primarily based on specified criteria relevant for the selection of retrocessionaires as well as on the type of exposure. In general, VRS keeps exposure limits at a low level in relation to its financial capacity.

Recoverable exposure is monitored regularly by the finance and operations departments and settlements are requested on a regular basis and thus do not pose significant credit risk.

6.4. Operational Risk

Operational Risk is the risk of loss arising from inadequate or failed internal processes, personnel or systems, or from external events.

The processes for identifying, assessing, controlling and monitoring Operational Risks, as outlined in detail in the Risk Management Framework, are summarised below.

The identification process starts with an inventory of strategic and internal business processes. The Risk Management team works with managers of the respective functional or executive areas to document each business process, including its estimated reputational or financial impact, and creates a workflow diagram outlining major steps and interrelations involved in the process where possible. Risk Management selects processes for the risk identification stage based on the estimated financial and/or reputational impact. Risks and related causes are then identified through scenario building, internal incident and near-miss reports and external incident/market intelligence reports.

Business processes for which risks and related causes have been identified include Risk Management, Actuarial Pricing and Reserving, Research, Financial Reporting, Legal and Regulatory, Operations, Underwriting, Claims, Compliance, Human Resources, Information Technology and Executive.

Risks relating to fraud, the external business environment, including regulatory, rating agency and political conditions, and risks considered as emerging are also included in identifying Operational Risks.

The assessment process for these risks consists of scoring each identified cause of risk for its likelihood of occurrence and financial/reputational impact given occurrence. The risk management team works with risk owners to calibrate scoring to maintain consistency across functional areas and business processes. All scoring schemes, tolerance levels and scores assigned to risks are approved by the Validus Re Risk Management Committee.

A control framework is established to manage the impact of each cause of risk on the Company. Each cause is prioritised based on its impact and likelihood scoring relative to its tolerance or established limit. Control activities for causes given priority are developed by the Risk Management team in conjunction with risk owners and require approval by the Validus Re Risk Management Committee.

Risks, causes and controls are documented in the Risk and Control Register. This register includes information about the control owners, mechanisms, objectives and frequency of performance along with scoring for financial impact and likelihood. Risk controls are monitored by risk owners to ensure they are working as intended and the Risk and Control Register is reviewed annually by the Risk Management team for relevance and adequacy. Changes to the Risk and Control Register, as approved by the Validus Re Risk Management Committee, are presented to the VRS Board of Directors or its Audit and Risk Committee.

Incident and near miss reports, which are prepared by risk owners, are presented to the Validus Re Risk Management Committee, which then escalates significant incidents to the VRS Executive Management, the Audit and Risk Committee and Board of Directors as appropriate.

6.5. Top Operational Risks

Operational Risk is quantified using the Validus Capital Model ("VCM") to determine a distribution of outcomes via stochastic modelling.

Each cause of risk is scored for its likelihood of occurrence and financial impact given occurrence, both gross and net of controls assigned to each risk cause. Dependencies are established between causes of risk using normal correlation assumptions. Correlation coefficients are selected judgementally and are reviewed on an annual basis by the Risk Management team. Projected losses for each risk are assumed to follow a PERT distribution and the annual frequency is modelled using a Bernoulli distribution.

The table below provides an overview of all top Operational Risks and the mitigating measures based on the VRS current Risk and Control Register:

VRS Top Operational Risks

Business Area	Risk	Risk Cause	Tolerance Risk Level	Mitigating Measures
Actuarial	Mispriced accounts	Pricing with inaccurate actuarial models and parameters	High	- Perform Actual vs. Expected analysis to validate parameters - Pricing Peer Reviews - Profitability Study
Actuarial	Misestimation of event IBNR	Inaccurate loss estimates from broker/client	High	- Client loss estimates are benchmarked against modelled loss - Underwriters confirm that client's ground up estimates are consistent with market shares and are reasonable relative to peer group
Actuarial	Misestimation of non-event IBNR	Incorrect expected loss ratio assumptions	High	- Perform Actual vs. Expected analysis to validate parameters
Research	Mispriced submissions	Inaccurate Catastrophe Models	Very High	- Periodic independent verification and validation of the modelled output
Research	Mispriced submissions	Analysis based on inaccurate broker data	Medium	- Catastrophe Risk Analyst checks information for reasonableness and accuracy
Underwriting	Systemic grant of unintended coverage	Systemic exposure to unforeseen events	High	- Ad hoc studies performed to test clash scenarios - Risk appetite and tolerance is reviewed annually
Human Resources	Inability to attract and retain top talent	Delays in HR requisition processes	Medium	- Quarterly updates on open positions provided by HR to the Executive Committee - Pre-determined timeframes for completing the requisition process

6.6. Other material risks

There are no other material risks that the Company is aware of, which are not already included in the above.

6.7. Pledged assets

As at 31 December 2022, fixed income securities with an estimated fair value of USD 847.5 million were pledged as part of the Company's participation in a Multi-Beneficiary Reinsurance Trust during the normal course of business (2021: USD 456.5 million).

In addition, the Company has established private trusts with certain cedants. As at 31 December 2022, fixed income securities with an estimated fair value of USD 329.2 million were pledged in private trusts.

7. Valuation for solvency purposes

This section provides details on methods used for the valuation of the Company's assets and liabilities for solvency purposes as part of the SST calculation. It also provides details on methods used for valuation in the statutory financial statements and, where relevant, provides explanations of the differences between solvency and statutory views. In general, market-consistent values are used for SST purposes and further details are provided in Appendix II.

7.1. Valuation of assets

7.1.1. Value of investments by investment class

The following table summarises the investments by investment class held by the Company as at 31 December 2022 and 2021, respectively, including market-consistent values relevant for solvency purposes and book values as per the statutory financial statements. Book values are the lower of (amortised) cost or market values by individual security for the Company's fixed income securities and other investments. Book value of investments in subsidiaries is acquisition cost less necessary impairments.

	31 December 2022			31 December 2021			MV Change	
in USD millions	Market Value	Book Value	MV Allocation %	Market Value	Book Value	MV Allocation %	$	%
Fixed Income Securities								
Corporate	726.9	726.8	30.4%	547.8	541.1	26.0%	179.1	32.7%
Agency Mortgage Backed	192.0	192.0	8.0%	269.6	267.6	12.8%	(77.6)	-28.8%
Asset Backed	259.6	259.4	10.9%	268.3	267.9	12.7%	(8.6)	-3.2%
Mortgage Backed	223.4	223.4	9.4%	206.7	204.7	9.8%	16.8	8.1%
US Government	188.7	188.7	7.9%	38.8	38.4	1.8%	149.9	386.7%
Collateralized Mortgage Obligation	152.2	152.1	6.4%	139.3	139.0	6.6%	12.9	9.3%
Non-US Government	123.7	123.7	5.2%	120.2	119.8	5.7%	3.5	2.9%
Municipals	65.2	65.2	2.7%	56.5	56.4	2.7%	8.7	15.3%
Agency Collateralized Mortgage Obligation	6.3	6.3	0.3%	3.9	3.8	0.2%	2.5	64.0%
Agency	0.2	0.2	0.0%	0.2	0.2	0.0%	(0.0)	-4.9%
Subtotal	1'938.2	1'937.7	81.2%	1'651.1	1'639.1	78.3%	287.1	17.4%
Other Investments								
Investment Funds	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0%
AlphaCat funds	3.2	3.2	0.1%	5.1	5.1	0.2%	(1.9)	-37.2%
Subtotal	3.2	3.2	0.1%	5.1	5.1	0.2%	(1.9)	-37.2%
Investments in subsidiaries								
Subtotal	447.8	401.9	18.7%	452.7	401.9	21.5%	(4.9)	-1.1%
Total investments	**2'389.2**	**2'342.8**	**100.0%**	**2'108.9**	**2'046.1**	**100.0%**	**280.2**	**13.3%**

7.1.2. Basis and methods used for the valuation of investments

The amortised cost and market-consistent values of both fixed maturities and other investments are determined based on information provided by the Company's investment accountants and fund administrators. Amortised cost values are determined based on the scientific amortisation or constant yield method, whereas market-consistent values are generally based on observable market prices, or in the absence thereof, on model valuations. The Company does not adjust the market or amortised cost values as provided by the investment accountants and fund administrators.

7.1.3. Explanation of significant differences between the solvency and statutory valuation of investments

For SST purposes, the Company generally uses market-consistent values for fixed income securities and other investments. In the statutory financial statements, the Company uses the lower of (amortised) cost and market-consistent values per individual security to record its fixed income securities and other investment balances. As at 31 December 2022, this leads to a lower statutory valuation of USD 0.5 million (2021: USD 12.1 million) compared to the valuation used for solvency purposes.

The investment in subsidiary is recorded at USD 404.9 million (2021: USD 405.2 million) for solvency purposes, representing the market-consistent value less a deferred tax asset of USD 42.9 million (2021: USD 47.5 million) in line with SST requirements, whereas for statutory purposes the investment in subsidiary is recorded at acquisition cost value less any necessary impairments in line with Swiss law, which leads to a lower statutory valuation of USD 3 million. Note that in the market-consistent balance sheet 2022, a look-through is applied to the investment in subsidiary and the value of USD 404.9 million is split into a loan of USD 400 million, cash of USD 4.3 million and receivables of USD 0.6 million.

Refer to Appendix II for the market-consistent balance sheet used for SST purposes.

7.1.4. Other assets

Other assets as per Appendix II contain cash and cash equivalents, funds withheld, reinsurance recoverables, premium receivables and other receivables, all of which are recorded at nominal values for statutory purposes. For solvency purposes, reinsurance recoverables are discounted and there is a resulting valuation difference of USD 12 million for 2022.

7.2. Valuation of technical provisions

7.2.1. Gross and net value of technical provisions

The following table provides an overview of the Company's gross and net best estimate of reserves for losses and loss expenses on both an undiscounted and discounted basis as at 31 December 2022 and 2021 (in USD millions):

	31.12.2022	**31.12.2022**	**31.12.2021**	**31.12.2021**
	Undiscounted	**Discounted**	**Undiscounted**	**Discounted**
Gross reserves for losses and loss expenses	1'740.9	1'563.2	1'432.7	1'381.4
Ceded reserves for losses and loss expenses	(151.0)	(138.6)	(149.6)	(146.5)
Net loss reserves for losses and loss expenses	**1'589.9**	**1'424.6**	**1'283.1**	**1'234.9**

As at 31 December 2022, the reserves for losses and loss expenses ("loss reserves") based on the management's best estimate, net of retrocession, are USD 1'589.9 million on an undiscounted basis and USD 1'424.6 million on a discounted basis. Discounting is applied in line with FINMA requirements and prescribed yield curves.

The details of gross and ceded technical provisions as at 31 December 2022 and 2021, respectively, were as follows as per the Company's statutory financial statements (in USD millions):

2022	Gross	Ceded	Net Reserve
Unearned premium reserves	1'004.8	(12.6)	992.2
Reserves for losses and loss expenses	1'740.9	(151.0)	1'589.9
Total	**2'745.7**	**(163.6)**	**2'582.1**

2021	Gross	Ceded	Net Reserve
Unearned premium reserves	776.2	(8.9)	767.3
Reserves for losses and loss expenses	1'432.7	(149.6)	1'283.1
Total	**2'208.9**	**(158.5)**	**2'050.4**

7.2.1.1. Basis, methods and key assumptions used in the valuation of best estimate liabilities

The loss reserves include reserves for unpaid reported losses ("case reserves"), losses incurred but not reported ("IBNR"), and unallocated loss adjustment expenses. Case reserves are established by management based on reports from brokers, ceding companies and insureds and represents the estimated ultimate cost of events or conditions that have been reported to, or specifically identified by, the Company. IBNR reserves are established by management based on actuarially determined estimates of ultimate losses and loss expenses using the reported loss development, reported Bornhuetter-Ferguson or Initial Expected Loss methods. Inherent in the estimate of ultimate losses and loss expenses are expected trends in claim severity and frequency and other factors, which may vary significantly as claims are settled. Accordingly, ultimate losses and loss expenses may differ materially from the amounts recorded in the statutory financial statements of the Company. These estimates are reviewed regularly and, as experience develops and new information becomes known, the reserves are adjusted as necessary. Such adjustments, if any, will be recorded in earnings in the period in which they become known. Prior period development arises from changes to these estimates recognised in the current year that relate to reserves for losses and loss expenses established in previous calendar years.

Reserves for unearned premiums represent the portion of the premiums written applicable to the unexpired terms of the underlying contracts and policies in force.

7.2.2. Risk margin

7.2.2.1. Value of the risk margin and other effects on target capital

As at 31 December 2022, the risk margin, also referred to as the market value margin (MVM), is USD 162 million (2021: USD 153 million). For the computation of the Company's target capital including the risk margin and other effects on target capital as per the 2023 SST calculation, refer to Section 9.2 and Appendix II of this report.

7.2.2.2. Basis, methods and key assumptions used

The risk margin is calculated using the FINMA standard methodology with a special adjustment to appropriately reflect the risk of the adverse development cover. Under the standard methodology, the assumption for the calculation of the risk margin is that the business will enter into run-off and all business will gradually shift into pure reserve risk. It is then assumed that the reserves will carry a similar risk than the prior year risk calculated for the SST.

Under normal circumstances, this approach is considered to be appropriate. However, due to the adverse development cover this approach must be adjusted to consider the fact that the adverse development cover is not protecting against accident year 2023 and onward deteriorations. Therefore, the prior year risk will behave differently, i.e. in a similar way to the prior year risk gross of the adverse development cover.

For this reason, the calculation aims at estimating separately the risk margin components for the business covered by the adverse development cover and the business that will not be covered by the adverse development cover.

7.2.3. Explanation of significant differences between the solvency and statutory valuation

For statutory purposes, the value of reserves for losses and loss expenses is the undiscounted best estimate of USD 1’741 million, gross of retrocession. Reserves for unearned premiums gross of retrocession amount to USD 1’005 million, providing for a total gross best estimate liability of USD 2’746 million. Net of retrocession, statutory reserves for losses and loss expenses amount to USD 1’590 million and reserves for unearned premiums amount to USD 992 million.

For solvency purposes, the technical provisions consist of reserves for losses and loss expenses and an unexpired risk reserve (URR). The value of reserves for losses and loss expenses in the market-consistent balance sheet for solvency purposes is the discounted best estimate of USD 1’563 million, gross of retrocession, and USD 1’425 million, net of retrocession. The URR represents the market value of premium reserves, considering the present value of future cash flows related to the unearned premium reserve. For the calculation of the URR, the Company considers the expected future losses and expenses on the unearned portion of written premiums on a discounted basis, net of deferred acquisition costs. This results in a total of USD 488 million for 2022 (2021: USD 445 million).

The differences between the solvency and statutory valuation for technical provisions therefore mainly relate to the discounting of reserves for losses and loss expenses and the market valuation of premium reserves (URR) for solvency purposes.

Refer to Appendix II for the SST market-consistent balance sheet.

7.3. Valuation of other liabilities

7.3.1. Value of provisions for other liabilities

For solvency purposes, other liabilities according to the SST balance sheet included as Appendix II amount to USD 44 million as at 31 December 2022 (2021: USD 89 million). Other liabilities are recorded at nominal value, i.e. the net payable as at 31 December 2022. The position mainly comprises accrued expenses and accounts payable.

7.3.2. Basis, methods and key assumptions used in the valuation

As noted above, the other liabilities are recorded at nominal value, with no difference between solvency and statutory valuation.

8. Capital Management

8.1. Goals, strategy and time horizon for capital planning

The primary capital management objectives of the Company are as follows:

1. Ensure sufficient capital to meet and/or exceed all relevant solvency requirements;
2. Maintain some amount of excess capital over and above item 1; and
3. Return true excess capital above items 1 and 2 to the Company's shareholders.

The Company regularly assesses its overall capital and solvency position. When assessing the level of required shareholder's equity, the Company will also consider recent business development and strategic planning, current and future market conditions, uncertainty around loss reserves development and other relevant factors.

The time horizon management considers for capital planning is highly dependent on the Company's business plan and strategy, asset-liability-management considerations as well as general market trends and conditions. At a minimum, the Company considers a three-year planning horizon, which is linked to the Company's financial planning and Own Risk and Solvency Assessment; however, a longer-term view is considered as appropriate.

From a capital perspective, the Company maintained its strong capital position and exceeded its internal target solvency and capital guidelines in 2022. The Company continues to be "A" rated by A.M. Best and "A+" by Standard & Poor's.

8.2. Structure, level and quality of equity

The statutory shareholder's equity of the Company as at 31 December 2022 and 2021, respectively, is structured as follows:

Shareholder's equity (in USD millions)	**2022**	**2021**
Statutory share capital	71.6	71.6
Statutory capital reserves		
Legal reserves from capital contributions	35.8	35.8
Other reserves from capital contributions	889.1	889.1
Organisation fund from capital contributions	7.4	7.4
Accumulated income	193.2	232.2
Total	**1'197.1**	**1'236.1**

8.3. Description of material changes during the period

There were no changes in the shareholder's equity of the Company during 2022 other than in accumulated income due to the financial result of the year.

8.4. Explanation of discrepancies between solvency and statutory equity

The Risk Bearing Capital as at 31 December 2022, which represents the difference between market-consistent assets and liabilities used for solvency purposes (refer to Appendix II and Section 9 of this report for further details), amounts to USD 1’585 million. The difference of USD 388 million to the Company’s statutory shareholder’s equity of USD 1’197 million can be explained as follows:

in USD millions	2022	2021
Risk Bearing Capital	**1’585**	**1’401**
Adjustment for investments	(3)	(15)
Adjustment for reinsurance recoverables	12	-
Adjustments for technical provisions	(401)	(153)
Other adjustments for statutory purposes, net	4	3
Statutory shareholder’s equity	**1’197**	**1’236**

The adjustment for investments of USD 3 million consists of USD 0.5 million related to the valuation of the investments at the lower of amortised cost or market values and USD 3 million related to the different valuation of the investment in subsidiary.

The adjustment for reinsurance receivables of USD 12 million is due to discounting for solvency purposes. Due to the increased discount rates as well as the growing reinsurance receivable balances, the Company decided to discount reinsurance receivables in the 2023 SST.

The adjustment for technical provisions of USD 401 million relates to the adjustment of reserves for losses and loss expenses and reserves for unearned premiums from a statutory to a market-consistent valuation. This mainly relates to the discounting of reserves for losses and loss expenses as well as the adjustment of unearned premiums for future profits, discounting and netting of deferred acquisition costs.

Other adjustments, net of USD 4 million, contain a number of statutory adjustments as well as the discounting of premium receivable balances.

9. Solvency

9.1. Solvency model

In general, the Company used the Standard Model for Reinsurers ("StandRe"), as prescribed by FINMA, in order to perform the 2023 SST calculation. There were no changes to the SST methodology from prior year.

Specifically, Attritional Event Premium, Individual Events, Attritional Events Reserves and the Risk Margin are evaluated using StandRe as prescribed by FINMA, Market Risk is assessed using the Market Risk Model as prescribed by FINMA, and Standard Scenarios and adjustments for expected financial performance are evaluated using FINMA prescribed templates and methodologies.

The modelling of natural catastrophe perils is undertaken using the Company's internal model for Natural Catastrophe risks, as approved by FINMA.

For Credit Risk, the Company used the Credit Risk Model as prescribed by FINMA, which consists of the following two components:

- The Basel III Securitization Standard Approach (SEC-SA) used for VRS' non-agency securitizations portfolio. The use of this model, considered a company specific adjustment, was approved by FINMA.
- For all other assets in scope, the credit risk capital requirements are estimated using the Credit Risk Standard model "Merton".

9.2. Target Capital

For solvency purposes, the minimum Target Capital is determined by the SST calculation taking into account the expected shortfall at the 99% percentile of the overall distribution, expected insurance result, expected financial performance and risk margin.

Target Capital for the 2023 SST is determined to be USD 540 million (2022 SST: USD 617 million), a decrease of USD 77 million or 12% from last year's Target Capital requirement.

Insurance Risk increased by USD 136 million or 29% to USD 613 million. The increase is due to both an increase in Reserving (prior year) Risk and Underwriting (current year) Risk, following the growth in premium volume in recent years resulting in an increase of reserves as well as the expected growth in the portfolio for 2023.

Market Risk has decreased by USD 17 million or 11% from USD 151 million to USD 134 million mainly due to a decrease in interest rate risk and spread risk partially offset by lower diversification benefits, following some changes in the investment portfolio, notably with a lower duration and better credit quality.

Credit Risk increased by USD 36 million or 18% to USD 240 million following the overall growth in the portfolio driven by business growth as well as a slight shift in counterparties' credit ratings.

Following the overall increase in Insurance and Credit Risk, the overall diversification benefits increased by USD 35 million.

The impact of non-insurance scenarios remained stable at USD 4 million, a USD 1 million increase from prior year.

Based on budgeted growth in the portfolio in 2023 and an increase in the overall expected profitability following the reinsurance market hardening, the expected insurance result increased from USD 141 million in 2022 to USD 347 million in 2023, offsetting the increases in other Target Capital components. The expected financial result (which is based on risk-free rates) remained stable at USD 13 million.

Lastly, the Risk Margin increased by USD 9 million or 6% mainly due to the overall increase in prior year risks gross of the impact of the ADC.

Components of the Target Capital calculation are given below:

Target Capital Composition (in USD millions)	2023	2022	Variance
Insurance Risk	**613**	**477**	**136**
Underwriting Risk	478	406	73
Reserving Risk	285	152	133
Diversification	*(151)*	*(81)*	*(70)*
Market Risk	**134**	**151**	**86**
Interest Rate Risk	64	106	(42)
Spread Risk	143	171	(28)
Hedge Fund Risk	1	1	(1)
Diversification	*(74)*	*(127)*	*54*
Credit Risk	240	204	36
Diversification (Insurance, Market & Credit Risks)	*(253)*	*(218)*	*(35)*
Insurance, Market & Credit Risk	**733**	**614**	**120**
Scenarios	4	3	2
Expected Insurance Result	(347)	(141)	(206)
Expected Financial Result	(13)	(12)	(1)
Solvency Capital Requirements	**378**	**464**	**(85)**
Risk Margin	**162**	**153**	**9**
Target Capital	**540**	**617**	**(77)**

9.3. Risk Bearing Capital

For solvency purpose, the Risk Bearing Capital is the Company's total market-consistent value of assets less market-consistent liabilities. All of the Company's Risk Bearing Capital is considered core capital, with no supplementary capital in place.

In line with Appendix II, the total Risk Bearing Capital for VRS as per the 2023 SST as at 31 December 2022 is USD 1'585 million compared to USD 1'401 million in the 2022 SST. The breakdown of this figure is given below:

Risk Bearing Capital Composition (in USD millions)	2023 SST	2022 SST	Variance
Assets			
Investments	2'346	2'062	285
Cash and Cash Equivalents	255	301	(46)
Ceded Technical Provisions	139	146	(8)
Other assets	940	808	132
Total assets	**3'680**	**3'317**	**363**
Liabilities			
Gross Technical Provisions	2'051	1'827	224
Other liabilities	44	89	(45)
Total liabilities	**2'095**	**1'916**	**179**
Assets - Liabilities	**1'585**	**1'401**	**184**
Deductions	-	-	-
Risk Bearing Capital	**1'585**	**1'401**	**184**

Further details are provided in Section 7 of this report regarding valuation of all assets and liabilities.

9.4. SST Ratio

Based on the information above, the Company's SST ratio for 2023 amounts to 376% (2022 SST: 269%) in accordance with the FINMA Standard Model. It demonstrates that the Company remains in a strong solvency position. The increase of the 2023 SST ratio compared to prior year is predominantly driven by increased interest rates leading to a significant impact on discounting, which affected both the Risk Bearing Capital of the Company (leading to an increase due to the discounting impact on loss reserves) and the Target Capital (having a favourable impact on Market Risk, Reserve Risk and Expected Insurance Result). Additionally, the increase in expected insurance result and the existing ADC contributed to the increased SST ratio.

The solvency information contained in this section is consistent with the information provided to FINMA as part of the Company's 2023 SST reporting, which is subject to regulatory review by FINMA.

10. Appendix

In accordance with the Circular, the report of the statutory auditor to the General Meeting on the financial statements 2022 including the statutory financial statements 2022 (Appendix I), as well as the quantitative templates as required by FINMA (Appendix II), respectively, are attached to this report.

10.1. Appendix I – Audited statutory financial statements 2022

10.2. Appendix II – Quantitative templates

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