

# Macprudential Risk: Annual Statutory Filings of P&C Commercial Insurers (Legal Entities)<sup>1</sup>

## HIGHLIGHTS

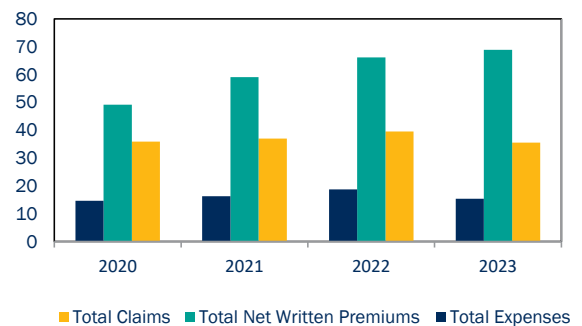
- Net Written Premiums (NWP) increased by 4.1% year-on-year (y/y) to \$68.9 billion. The combined ratio dropped by 18.7% to 76.1%, while total claims decreased by 10.1%
- Liquidity conditions improved during the year as the share of BBB-AAA-rated assets relative to claims increased by 41.5%

(In US\$ billions unless indicated otherwise)	2023	2022	2021	2020	2019	Y/Y change (%)
Net Written Premiums	68.9	66.1	59.1	49.2	45.9	4.1
Net Income	25.2	3.8	13.9	7.1	11.3	562.0
Total Claims	35.5	39.5	37.0	35.9	31.2	-10.1
Total Assets	315.2	283.4	283.5	281.3	244.3	11.2
Combined Ratio	76.1	93.6	96.6	106.2	101.0	-18.7
Current Assets/Current Liabilities (In per cent)	1,348.7	1,013.9	1,105.3	1,615.6	1,270.3	33.0
"BBB-AAA" Assets/Claims (In per cent)	412.4	291.4	331.4	334.9	348.8	41.5

Source: BMA staff calculations. Note: The y/y change denotes the change between the current and the last fiscal year (e.g., FY-2023 and FY-2022).

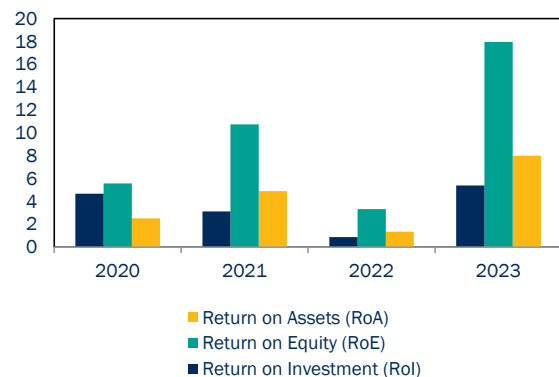
**Major Large Commercial (Re)insurers – Total Claims, Total Net Written Premiums and Total Expenses**

(In US\$ billions)



Source: BMA staff calculations

**Major Large Commercial (Re)insurers – Financial Ratios (In per cent)**



Source: BMA staff calculations

<sup>1</sup>The information presented in this report relates to the capital and solvency return filings of Bermuda legal entities registered as either Class 4 or Class 3B commercial (re)insurers under the supervision of the Bermuda Monetary Authority (Authority or BMA). The presented information is based on aggregated individual firm data. Class 3B companies are large commercial (re)insurers underwriting 50% or more unrelated business and unrelated net premiums over \$50 million. Class 4 (re)insurers are large commercial (re)insurers underwriting direct excess liability and/or property catastrophe reinsurance.

**Disclaimer:** This document is produced by the BMA's Financial Stability and Research Department. It reflects an interpretation and analysis of market views and developments by BMA staff. Market views presented may or may not reflect the consensus of all market participants.

Net Earned Premiums are not reported as such under IFRS 17 and have been replaced with Net Written Premium, where applicable.

Minor changes are expected to numbers from previous versions as some data has been restated. Prior years may not be directly comparable due to the entry and exit of firms from the sample. Numbers may not add up due to rounding.

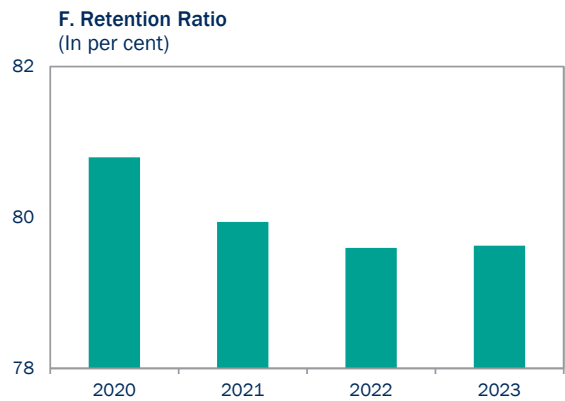
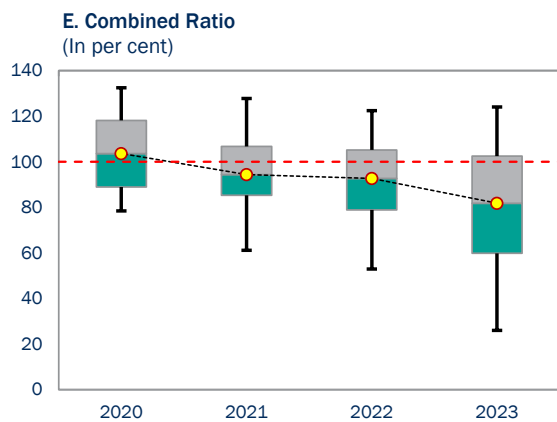
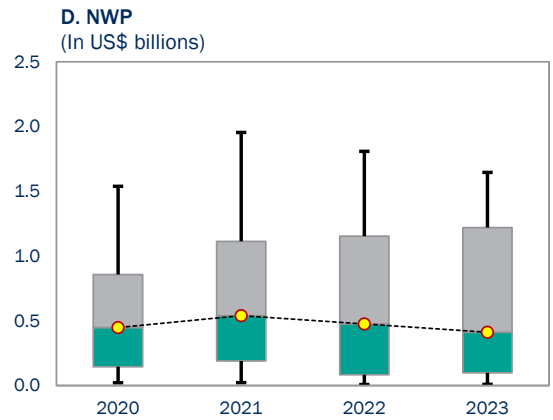
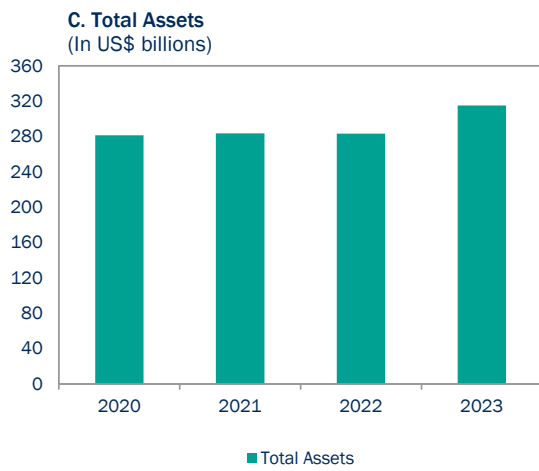
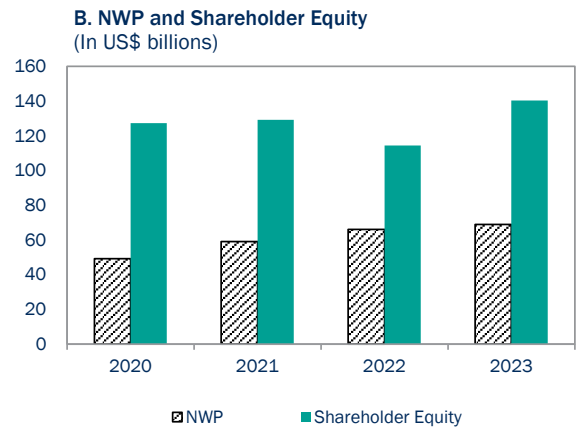
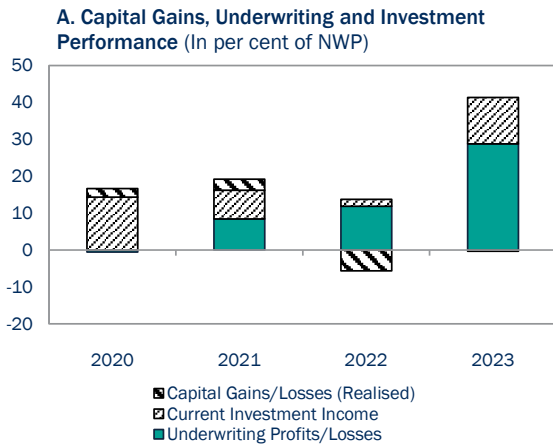
## GENERAL DEVELOPMENTS

In 2023, Bermuda's international (re)insurance sector saw a much-improved combined ratio and net income due to several factors such as continued price improvements, terms and conditions tightening, limit and aggregation management and favourable investment returns. In Bermuda, which is predominantly a reinsurance market, (re)insurers saw significant improvements to their profitability in 2023. This was largely driven by lower levels of high-severity catastrophes in 2023 despite catastrophe losses that were estimated to exceed US\$100 billion globally. The precise impact of climate change on the frequency and severity of catastrophic events is still uncertain, although data indicates that secondary perils, such as floods and wildfires, drove catastrophe losses in recent years. Bermuda (re)insurers benefited from increased retentions, restricted coverage, and restructured programmes to control premium budgets.

Bermuda (re) insurers' aggregate combined ratio dropped by a significant 18.7% to 76.1% y/y with total assets growing 11.2% to \$315 billion. The FY-2022 premium volume increased 4.1% to \$68.9 billion and net income jumped to \$25.2 billion driven, firstly by improved underwriting income and secondly by investment income.

**Notes:** *Due to new registrations and de-registrations of Class 3B and Class 4 (re)insurers, results may not be directly comparable y/y.*

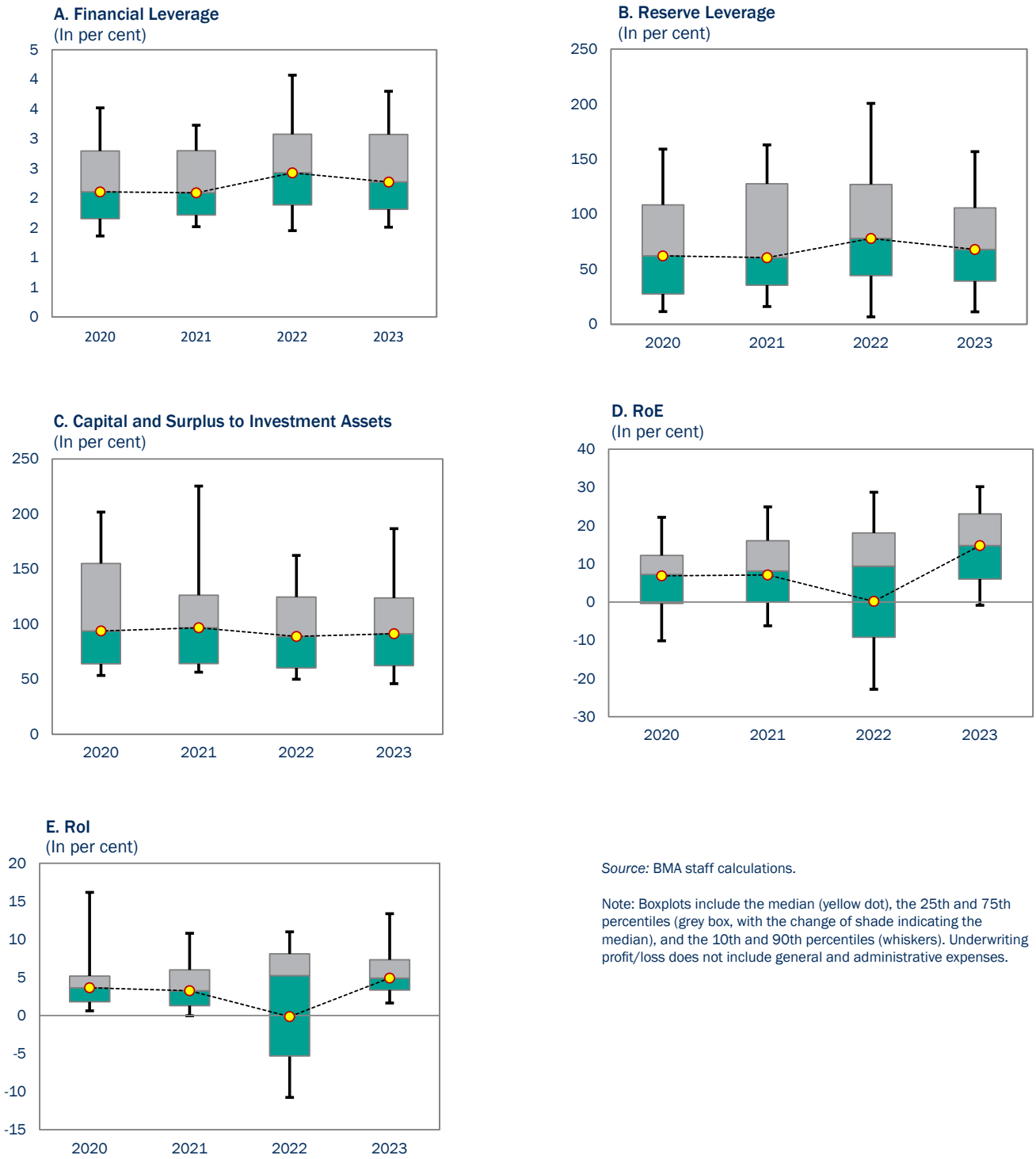
**Figure 1: Large Commercial (Re)insurers (Class 4 and Class 3B) in Bermuda—Performance Indicators**



Source: BMA staff calculations.

Note: Boxplots include the median (yellow dot), the 25th and 75th percentiles (grey box, with the change of shade indicating the median), and the 10th and 90th percentiles (whiskers). Underwriting profit/loss does not include general and administrative expenses.

**Figure 2: Large Commercial (Re)insurers (Class 4 and Class 3B) in Bermuda—Performance Indicators<sup>2</sup>**

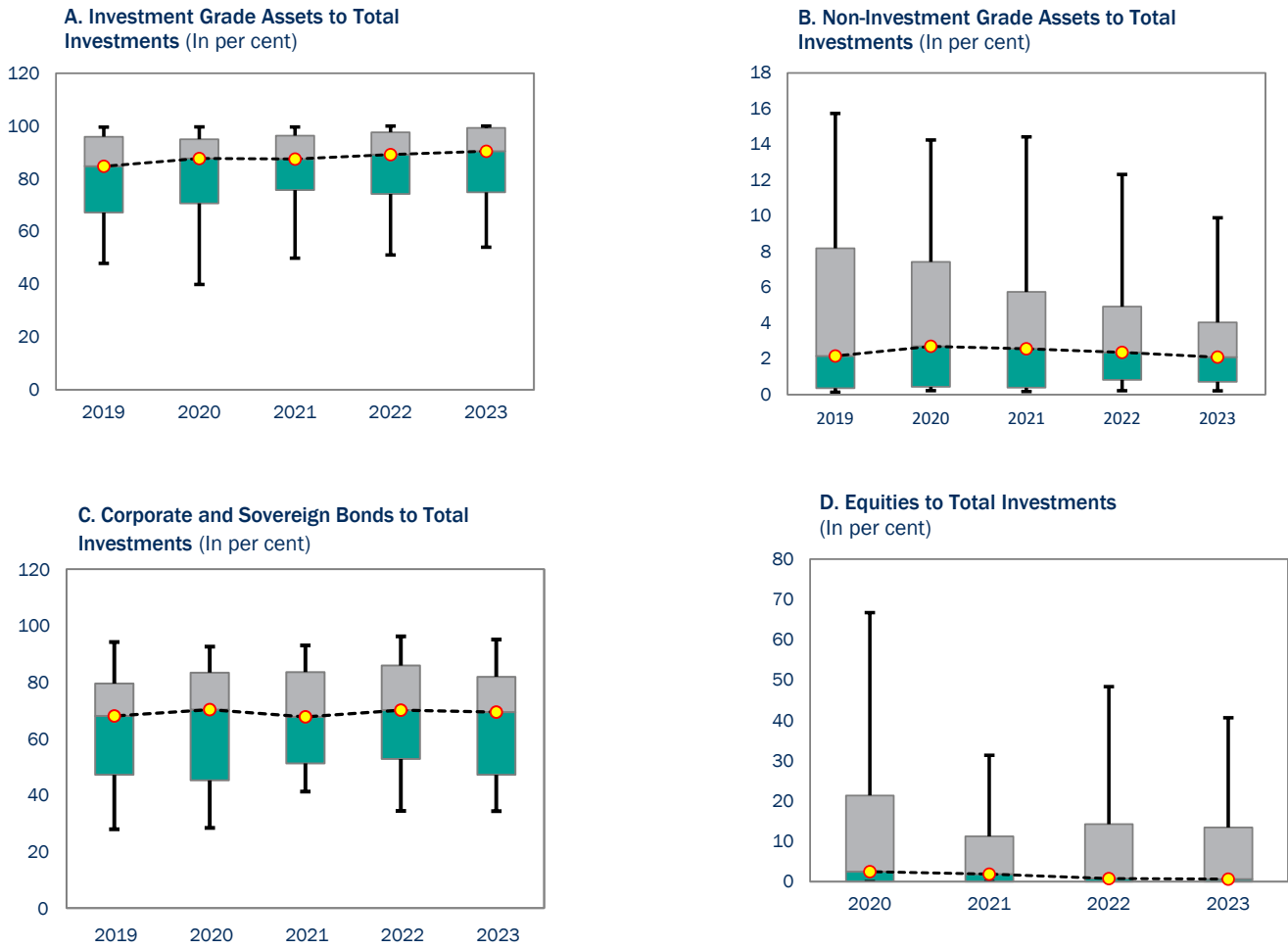


Source: BMA staff calculations.

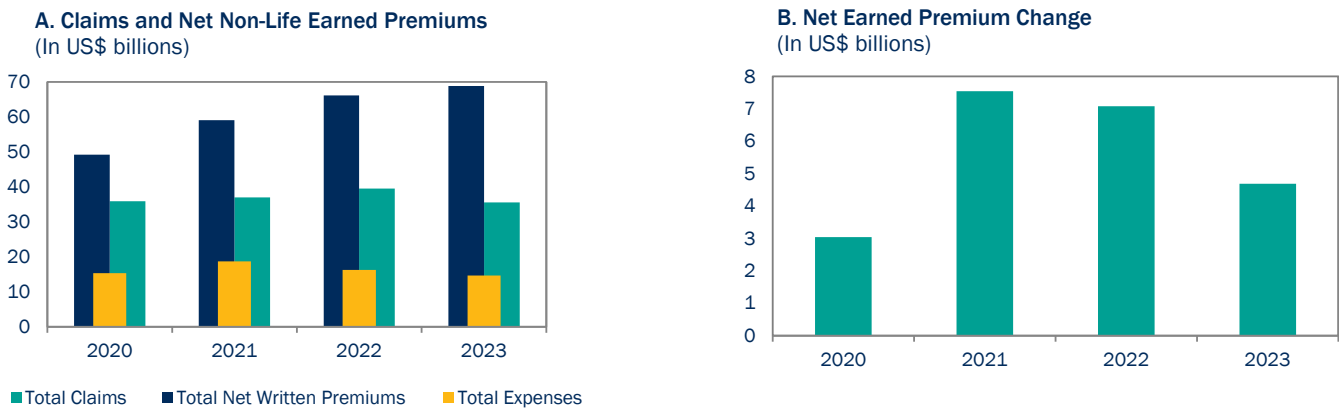
Note: Boxplots include the median (yellow dot), the 25th and 75th percentiles (grey box, with the change of shade indicating the median), and the 10th and 90th percentiles (whiskers). Underwriting profit/loss does not include general and administrative expenses.

<sup>2</sup> For the purpose of this report, capital and surplus to investment assets is calculated as (total assets-total liabilities)/investment assets. Investment assets is total of quoted, unquoted and non-rated investments, this excludes other assets such as 'investments in and advances to affiliates', 'policy loans' and 'funds held by ceding reinsurers'.

**Figure 3: Large Commercial (Re)insurers (Class 4 and Class 3B) in Bermuda—Asset Quality**



**Figure 4: Large Commercial (Re)insurers (Class 4 and Class 3B) in Bermuda—Claims Experience**



Source: BMA staff calculations. Note: Boxplots include the median (yellow dot), the 25th and 75th percentiles (grey box, with the change of shade indicating the median), and the 10th and 90th percentiles (whiskers).

## CAPITAL CONDITIONS

Bermuda (re)insurers strengthened their capital and surplus positions in FY-2023. Total Capital and surplus increased by 22.7%, and capital and surplus relative to total assets (Equity Ratio) increased by 10.3% y/y, to 44.5%. Reserves increased by 3.4% y/y and amounted to 36.8% of assets held by firms and 82.5% of capital and surplus (Reserve Leverage).

**Table I: Key Balance Sheet Indicators**

(In US\$ billions unless indicated otherwise)	2023	2022	2021	2020	2019	Y/Y change (%)
Capital and Surplus	140.4	114.4	129.2	127.3	106.3	22.7
Total Assets	315.2	283.4	283.5	281.3	244.3	11.2
Total Liabilities	174.8	169.0	154.3	154.1	138.0	3.4
NWP/Equity (In per cent)	49.1	57.8	45.7	38.7	43.2	-15.1
Reserve Leverage (In per cent)	82.5	97.9	79.4	81.8	85.1	-15.7

**Table II: Aggregate Capital Structure**

(In US\$ billions unless indicated otherwise)	2023	2022	2021	2020	2019	Y/Y change (%)
Capital and Surplus	140.4	114.4	129.2	127.3	106.3	22.7
Insurance Reserves	115.8	112.0	102.6	104.1	90.5	3.4
Financial Leverage (In per cent)	224.5	247.7	219.4	221.1	229.8	-9.3
Equity Ratio <sup>3</sup> (In per cent)	44.5	40.4	45.6	45.2	43.5	10.3
Reserve Ratio (In per cent)	36.8	39.5	36.2	37.0	37.0	-7.0

Between FY-2023 and FY-2022, assets relative to capital and surplus (Financial Leverage) decreased by 9.3% y/y to 224.5%. This reflected a proportionately larger increase in capital and surplus when compared to the increase in total assets.

**Table III: Key Income Statement Indicators**

(In US\$ billions unless indicated otherwise)	2023	2022	2021	2020	2019	Y/Y change (%)
Net Written Premiums	68.9	66.1	59.1	49.2	45.9	4.1
Total Expenses	15.4	18.7	16.3	14.7	13.8	-17.8
Total Claims	35.5	39.5	37.0	35.9	31.2	-10.1
Investment Income	8.7	1.2	4.6	7.1	6.4	604.4
Underwriting Income	19.8	7.9	5.0	-0.3	0.6	151.8
Net Income	25.2	3.8	13.9	7.1	11.3	562.0

Operational performance indicators show total claims and total expenses decreased by 10.1% and 17.8% y/y, respectively, which contributed to a lower combined ratio of 76.1% (Table VI).

## PROFITABILITY AND FINANCIAL INDICATORS

**Table IV: Summary Profitability Indicators**

(In US\$ billions unless indicated otherwise)	2023	2022	2021	2020	2019	Y/Y change (%)
Loss Ratio	53.1	63.5	67.1	75.4	70.1	-16.4
Investment Income/Net Income	34.4	32.3	33.1	99.7	56.7	6.4
Investment Income/Reserves	7.5	1.1	4.5	6.8	7.1	580.9
Investment Income/Assets	2.7	0.4	1.6	2.5	2.6	533.4
Total Investments	160.4	139.0	146.8	151.0	126.1	15.4
Investment Income	8.7	1.2	4.6	7.1	6.4	604.4

Key income statement indicators (Table III) show net income increased in 2023 to US\$25.2 billion, up from US\$3.8 billion in 2022. This was driven by significant increases in underwriting income (up 151.8% y/y) and investment income (up 604.4% y/y).

<sup>3</sup> Equity Ratio=1/Financial Leverage. See Table II.

**Table V: Summary Financial Indicators**

(In per cent)	2023	2022	2021	2020	2019	Y/Y change (%)
Return on Assets (RoA)	8.0	1.3	4.9	2.5	4.6	495.3
Return on Equity (RoE)	17.9	3.3	10.8	5.6	10.6	439.7
Return on Investment (RoI)	5.4	0.9	3.1	4.7	5.1	510.5

All key financial indicators improved materially in 2023 and exceeded returns in prior years. Sectoral RoA improved to 8%, RoE to 17.9% and RoI to 5.4%.

## ACTUARIAL INDICATORS

**Table VI: Actuarial Indicators**

(In per cent unless indicated otherwise)	2023	2022	2021	2020	2019	Y/Y change (%)
Loss Ratio	53.1	63.5	67.1	75.4	70.1	-16.4
Expense Ratio	23.0	30.0	29.5	30.8	31.0	-23.6
Combined Ratio	76.1	93.6	96.6	106.2	101.0	-18.7
Claims/Reserves	30.7	35.3	36.1	34.5	34.5	-13.1
Reinsurance Assets (In US\$ billions)	25.0	34.3	31.2	24.9	27.3	-27.3

The sector's combined ratio dropped to 76.1% for FY-2023. This was driven by a drop to 53.1% for the loss ratio and a drop to 23% for total expenses. Reinsurance assets decreased 27.3% y/y, to US\$25.0 billion.

## ASSET QUALITY AND LIQUIDITY INDICATORS

**Table VII: Asset Quality Indicators — Asset Classes**

(In per cent)	2023	2022	2021	2020	2019	Y/Y change (%)
Sovereigns/Total Investments	17.1	16.5	15.1	14.2	14.9	3.6
Corporate Bonds/Total Investments	48.3	46.2	48.6	50.9	51.1	4.5
RMBS/Total Investments	7.4	6.9	7.7	8.5	9.9	8.3
CMBS/Total Investments	10.3	11.3	9.4	8.4	8.9	-9.1
Bond Mutual Funds/Total Investments	1.1	1.2	1.2	1.2	1.3	-3.5
Equities/Total Investments	5.3	5.8	7.2	7.5	5.8	-7.6
Equity-type Investments/Total Investments	8.5	9.8	8.8	7.1	5.8	-13.0
Investments in Mortgage Loans/Total Investments	1.9	2.3	2.1	2.2	2.3	-20.3

Note: Equity-type investments refer to hedge funds, mutual funds and, in general, packaged-style investments. The majority of residential MBS are issued in the United States.

**Table VIII: Asset Quality Indicators – Rating Classes**

(In per cent)	2023	2022	2021	2020	2019	Y/Y change (%)
Investment Grade Investments/Total Investments	78.7	75.7	74.9	75.8	78.0	4.0
Non-Investment Grade Investments/Total Investments	4.3	4.9	5.9	5.8	6.2	-11.8
Unrated Investments/Total Investments	3.2	3.9	3.3	3.9	4.2	-18.1
Non-Fixed Income Investments/Total Investments	13.8	15.6	15.9	14.6	11.6	-11.0

**Table IX: Liquidity Indicators**

(In per cent)	2023	2022	2021	2020	2019	Y/Y change (%)
Cash Investments/Total Assets	19.1	17.9	17.1	16.2	10.8	-67.0
Cash Investments/Total Liabilities	34.4	30.0	31.4	29.6	19.2	-64.6
Cash Investments/Reserves	51.9	45.2	47.3	43.8	29.3	-64.6
Cash Investments/Claims	169.0	128.0	131.0	126.9	84.8	-59.2
BBB-AAA Assets/Total Assets	46.5	40.7	43.3	42.7	44.6	14.4
BBB-AAA Assets/Total Liabilities	83.8	68.2	79.5	78.0	79.0	22.9
BBB-AAA Assets/Insurance Reserves	126.5	102.9	119.6	115.5	120.4	23.0
BBB-AAA Assets/Claims	412.4	291.4	331.4	334.9	348.8	41.5
Current Assets/Current Liabilities	1,348.7	1,013.9	1,105.3	1,615.6	1,270.3	33.0

Note: AAA refers to the rating category of investment assets held by firms. Cash investments are: i) sovereign debt issued by a country in its own currency that is rated AA- or better, and ii) debt issued by government-owned and related entities that were explicitly guaranteed by that government, except for MBSS.

## GLOSSARY

**AAA-BBB** are the generic classifications of the highest to lowest rating assigned by a rating agency for an asset, security or entity that remains investment-grade.

**Actuarial indicator** is an indicator based on outcomes from the evolution of a portfolio of insured risks. Each actuarial indicator excludes any investment or financing activity.

**Capital gain** is the realised profit from the sale of a financial asset due to its appreciation.

**Capital structure** is the composition of liabilities that fund the operations and the assets of a (re)insurance company.

**Combined ratio** is the sum of the expense ratio and claims ratio.

**Earned premium** is the premium that is recorded as income in the income statement of a (re)insurer. It is usually calculated on a pro-rata basis.

**Expense ratio** is the ratio of expenses paid within a period over the NWP written within that period.

**Financial leverage** is based on the average total assets divided by the average total common equity, with the average taken between the beginning and ending balance.

**Gross premium** is the premium with loadings such as expenses, commissions and fees.

**Insurance-Linked Securities (ILS)** are financial instruments with payoffs that are contingent on the realisation of an insurable risk.

**Insurance reserves** are provisions held by the (re)insurer to meet future obligations that stem from underwriting activities.

**Loss ratio** is the ratio of claims incurred within a period over the NWP earned within that period.

**Net premium** is the premium left after the reinsurance premium has been paid.

**Reinsurance recoverables** are estimates of the expected payments made to the cedant by the reinsurer.

**Reserve leverage** is the ratio between premium reserve and shareholder equity (defined as share capital plus additional paid-in capital plus retained earnings).

**Return on Assets (RoA)** is calculated by dividing the net income by the value of total assets over the same period.

**Return on Equity (RoE)** is calculated by dividing net income by the value of shareholder equity over the same period.

**Return on Investment (RoI)** is calculated by dividing investment income by the value of investment assets over the same period.

**Seniority** (capital structure) is the specified way in which holders of financing instruments of a corporation incur its losses and distribute its assets and profits.

**Shareholder equity** is the difference between assets and liabilities, including subordinated debt.

**Subordinated debt** is debt with seniority that is junior to policyholder claims on a (re)insurer.

**Underwriting profit (loss)** is the profit (loss) attributed to the operations of a (re)insurer by excluding all other activities other than underwriting and claims processing.

**Written premium** is the premium that the (re)insurer collects from the policyholder but is not recorded as income in the profit and loss statement.